



# POLICY ADVISORY COMMITTEE UPDATE

Meeting #8

# Land Acknowledgement

Every community owes its existence and vitality to generations from around the world who contributed their hopes, dreams, and energy to making the history that led to this moment. Some were brought here against their will, some were drawn to leave their distant homes in hope of a better life, and some have lived on this land since time immemorial. Truth and acknowledgment are critical to building mutual respect and connection across all barriers of heritage and difference.

We are standing on the ancestral lands of the Dakota People. We want to acknowledge the Ojibwe, the Ho Chunk and the other nations of people who also called this place home. We pay respects to their elders past and present. Please take a moment to consider the treaties made by the tribal nations that entitle non-Native people to live and work on traditional Native lands. Consider the many legacies of violence, displacement, migration, and settlement that bring us together here today. And please join us in uncovering such truths at any and all public events.

*The acknowledgment given in the USDAC Honor Native Land Guide - edited to reflect Minnesota tribes. In review with SIA and endorsed by Shannon Geshick, Executive Director Minnesota Indian Affairs Council.*

# Agenda

- Welcome and introductions.
- Project overview and upcoming milestones.
- Recap of streetcar options.
- Comparison of streetcar options.
  - Travel time, ridership, cost.
  - Mall of America to Highway 5 river crossing.
  - West 7<sup>th</sup> area and design differences.
  - Next steps.
- Community Advisory Committee Update.
- Next steps.
- Public comment.

# Project Overview/Upcoming Milestones

# Project Overview



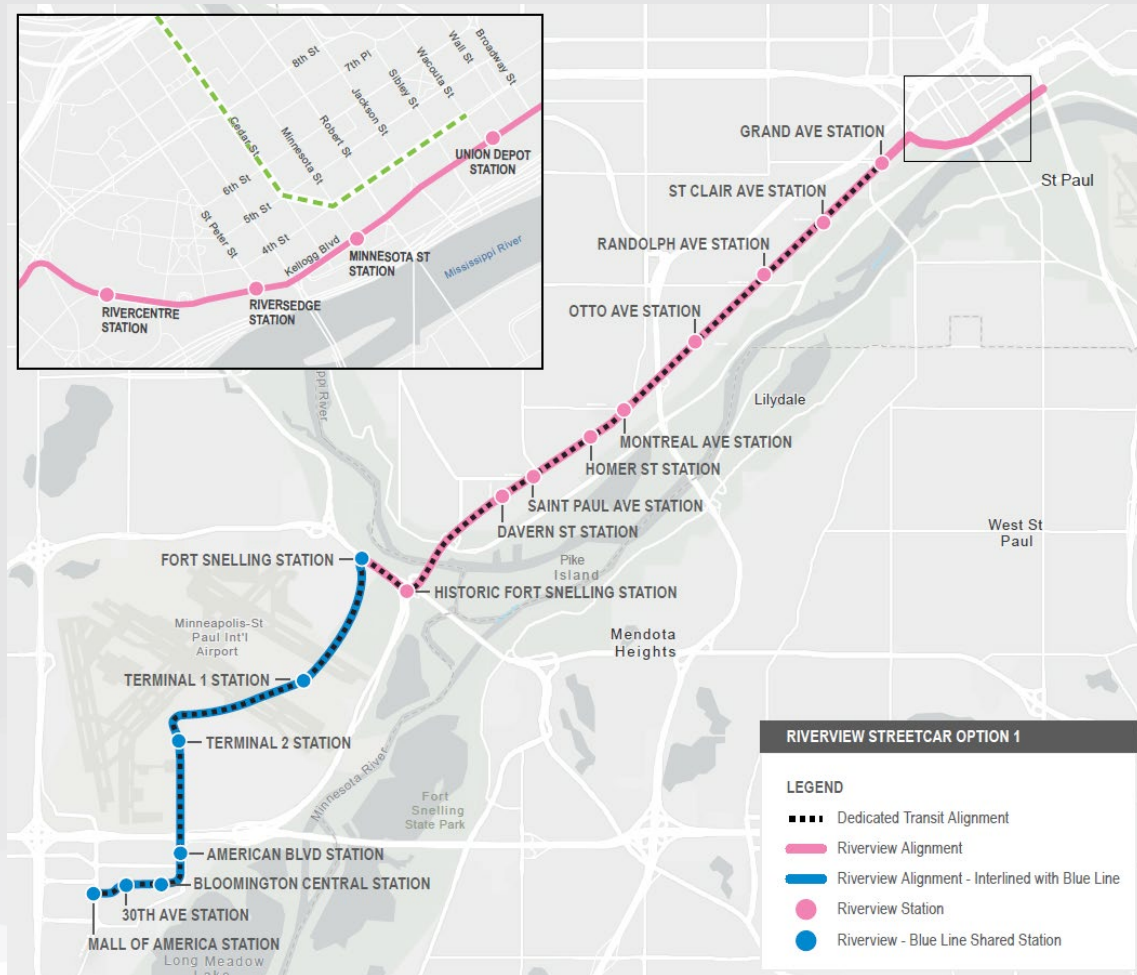
# Upcoming Milestones

- **PAC decision:** Determine which options should be presented to the public.
- Public and stakeholder engagement.
- **PAC decision:** Select desired option and determine next steps.

# Recap of Streetcar Options

# Streetcar Option 1

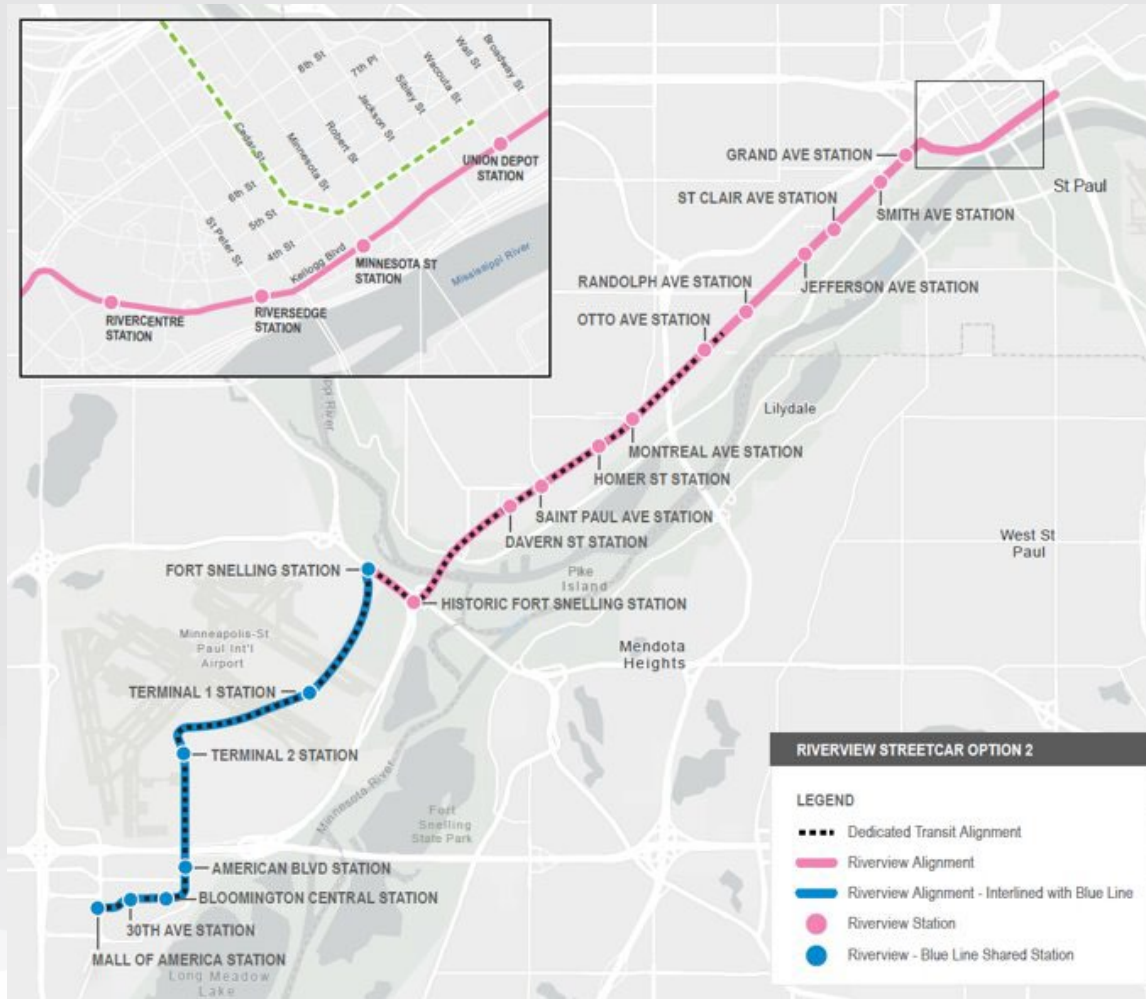
- Elevated MOA station at 82<sup>nd</sup> Street.
- New Hwy 5 bridge with pedestrian/bike deck.
- Dedicated transit lanes from MOA to Grand Avenue.
- Shared lanes Grand Avenue to Union Depot.
- 20 stations.





# Streetcar Option 2

- Elevated MOA station at 82<sup>nd</sup> Street.
- New Hwy 5 bridge with pedestrian/ bike deck.
- **Dedicated transit lanes from MOA to Otto Avenue.**
- **Shared lanes Otto Avenue to Union Depot.**
- **22 Stations (Smith and Jefferson added).**



# Travel Time, Ridership, Cost

# Travel Time Assumptions

- Travel times calculated at peak hour.
- Accounts for mixed traffic variability, station dwell time, acceleration/deceleration, and interlining delay.
- Delay for signalized intersections based on traffic volumes (low, medium, high).
- Speed limit of 25 mph along Kellogg Boulevard and 30 mph along West 7<sup>th</sup> Street.

# Travel Times

Segment	Streetcar Option 1	Streetcar Option 2
Westbound	0:44:02	0:45:33
Eastbound	0:43:22	0:44:49

# Ridership

- Based on 2019 data.
- Ridership will be updated in the future with new regional model.

**Total Project Trips**

Year	Streetcar Option 1	Streetcar Option 2
<b>2019</b>	7,300	7,300
<b>2040</b>	11,600	11,200

# Overall Cost Assumptions

- 2023 Base Year.
- 2033 Revenue Operations.
- Capital Cost (2033):
  - Streetcar Option 1: \$2.10B.
  - Streetcar Option 2: \$2.12B.
- Estimate includes:
  - Elevated station at MOA, new Highway 5 bridge, track work, OMF, roadway reconstruction, other bridge work, stations, utilities, systems, right-of-way, vehicles, 40% overall contingency.

# Streetcar – Operating Cost Assumptions

- Operating Schedule:

Day of Week	Start Time	End Time	Frequency (minutes)
Weekdays	3:00 a.m.	4:30 a.m.	30
	4:30 a.m.	10:30 p.m.	10
	10:30 p.m.	1:30 a.m.	30
Saturdays	3:00 a.m.	4:30 a.m.	30
	4:30 a.m.	10:30 p.m.	10
	10:30 p.m.	1:30 a.m.	30
Sundays	3:00 a.m.	4:30 a.m.	30
	4:30 a.m.	10:30 p.m.	10
	10:30 p.m.	1:30 a.m.	30

- Annual Operations and Maintenance Cost.
  - Streetcar Option 1: \$34M
  - Streetcar Option 2: \$34.5M

# Comparison by the Numbers

	Streetcar Option 1	Streetcar Option 2
Number of Stations	20	22
Dedicated lanes	~10.1 miles or 87%	~8.2 miles or 72%
Service Frequency	10 mins/30 mins <sup>1</sup>	10 mins/30 mins <sup>1</sup>
Travel Time (westbound)	44:02 min	45:33 min
Travel Time (eastbound)	43:22 min	44:49 min
2040 Ridership	11,600	11,200
Capital Cost (2033)	\$2.10 billion	\$2.12 billion
Operations and Maintenance Cost (2023)	\$34 million	\$34.5 million

<sup>1</sup> Every 10 minutes from 4:30 a.m. to 10:30 p.m.; every 30 minutes from 10:30 p.m. to 1:30 a.m. and from 3:00-4:30 a.m.

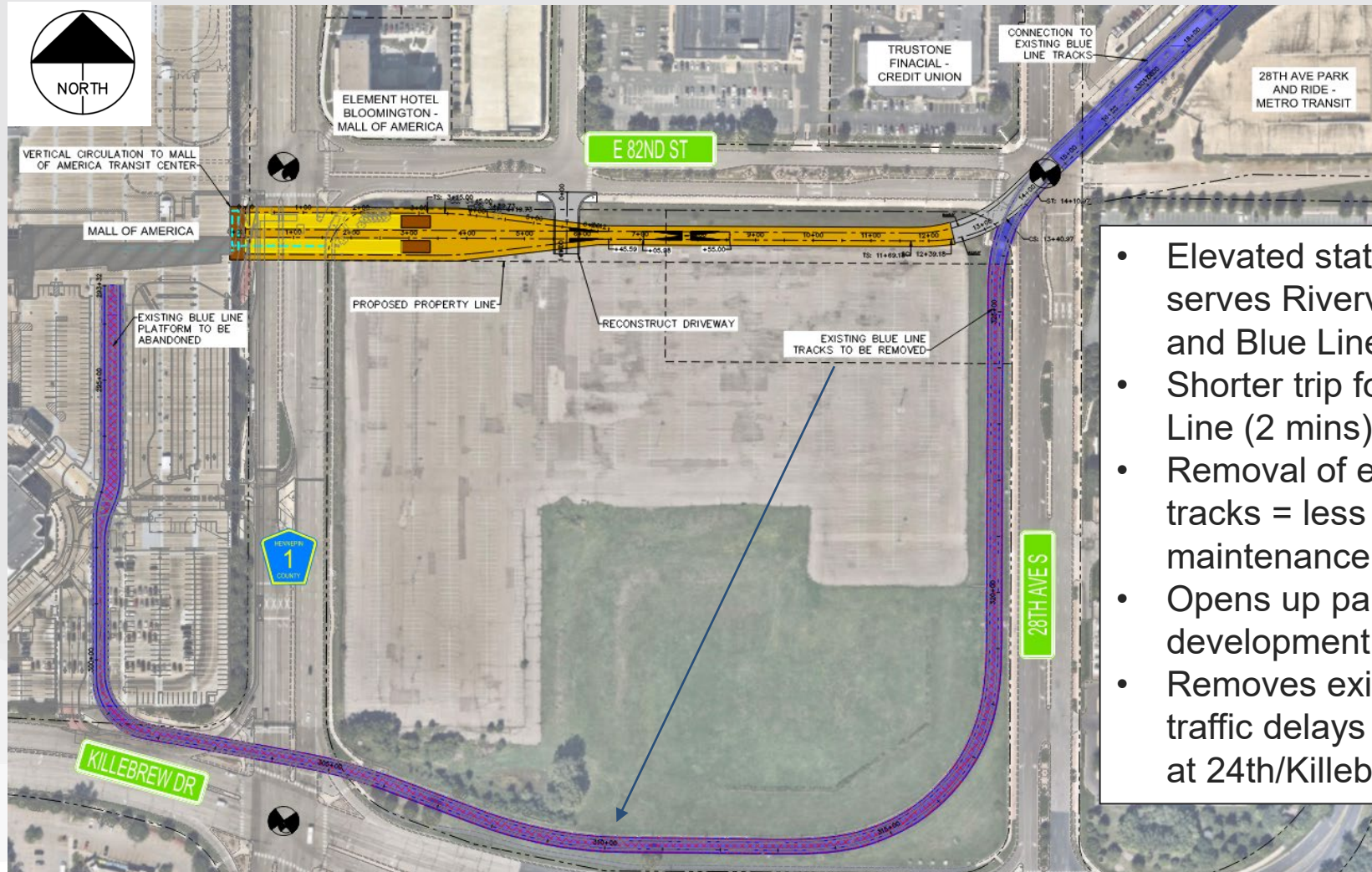


# Further Ways to Differentiate

- Risks to transit speed and reliability.
- Balance of parking, access, and mobility needs.
  - Pedestrian transit access and crossing of West 7th.
  - Opportunities behind the curb (pedestrians, trees, etc.)
  - Parking availability.
  - Business access.
  - Vehicle turning movements.

# Mall of America to Highway 5 River Crossing

# End of Line Station – Mall of America



- Elevated station serves Riverview and Blue Line.
- Shorter trip for Blue Line (2 mins).
- Removal of existing tracks = less track maintenance.
- Opens up parcel for development.
- Removes existing traffic delays at 24th/Killebrew.

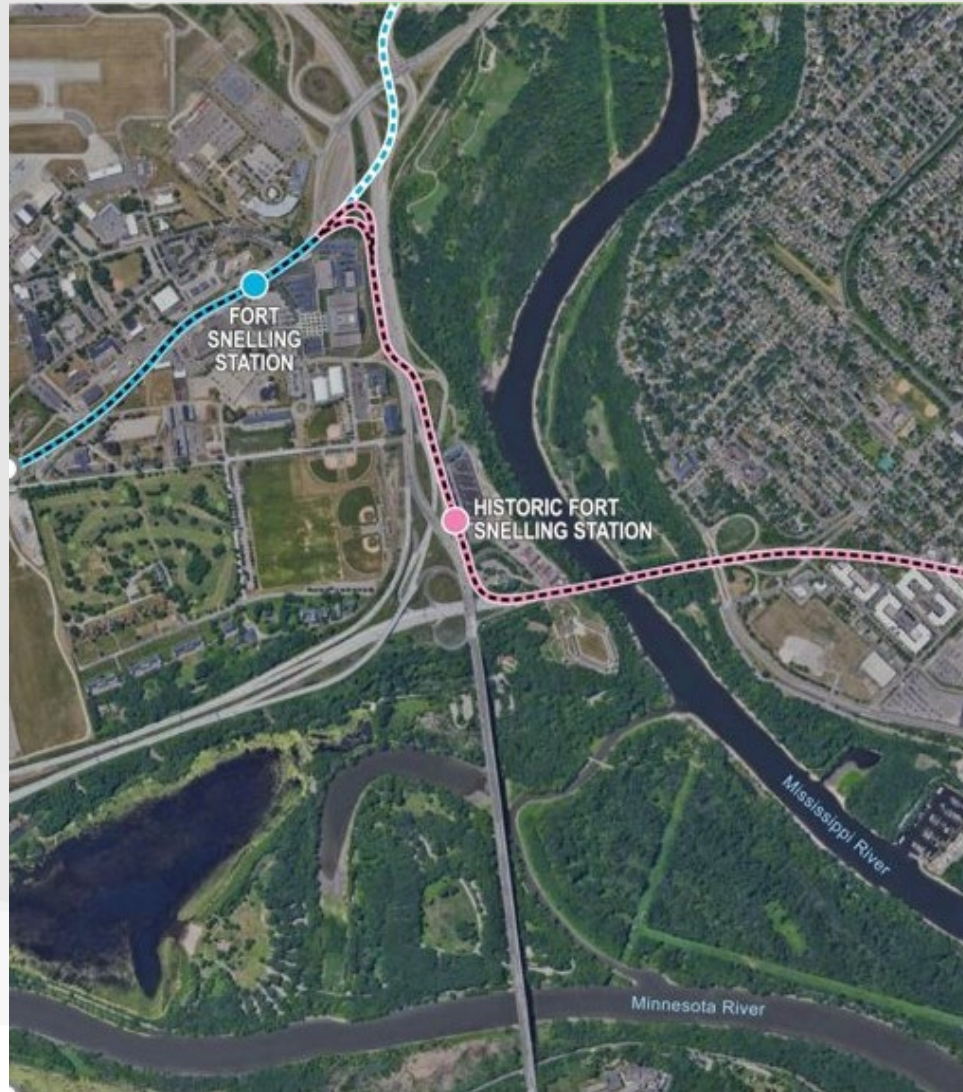
# Conceptual Elevated Station



# Conceptual Elevated Station



# Fort Snelling Area



# Blue Line Interlining from MOA to Fort Snelling Station

- Riverview accommodated with additional track and platform at existing Fort Snelling station.
- Interlining can occur with minimal disruption to the existing Blue Line service if:
  - Change in current operating rule to allow two trains in the tunnel at one time (Metro Transit and MAC).

# Ramp Removal: WB Highway 62 to SB Highway 5

- About 1,600-2,100 vehicles per day use ramp to access MSP Terminal 1.
- Ramp removal allows land connection to historic fort and improved bike/ped connections.

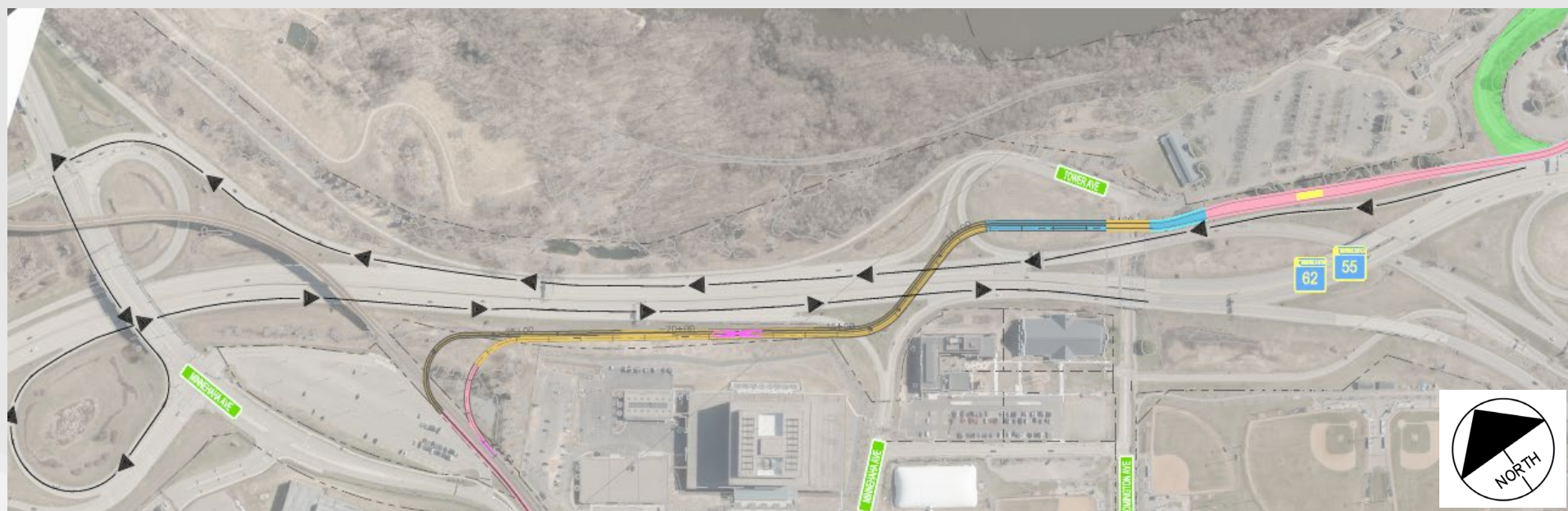




# Mitigation Considerations

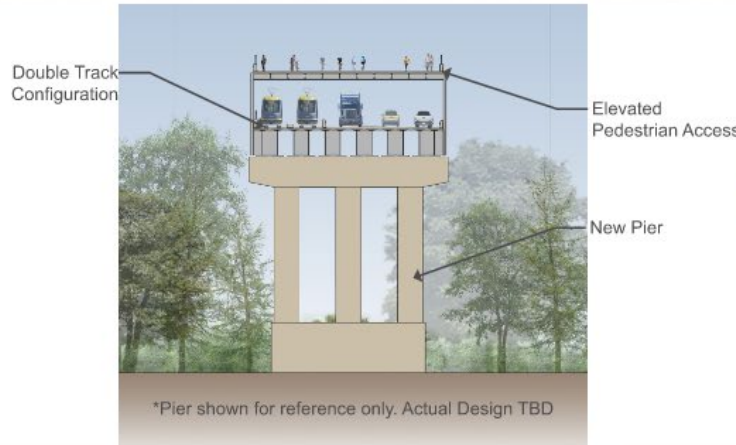
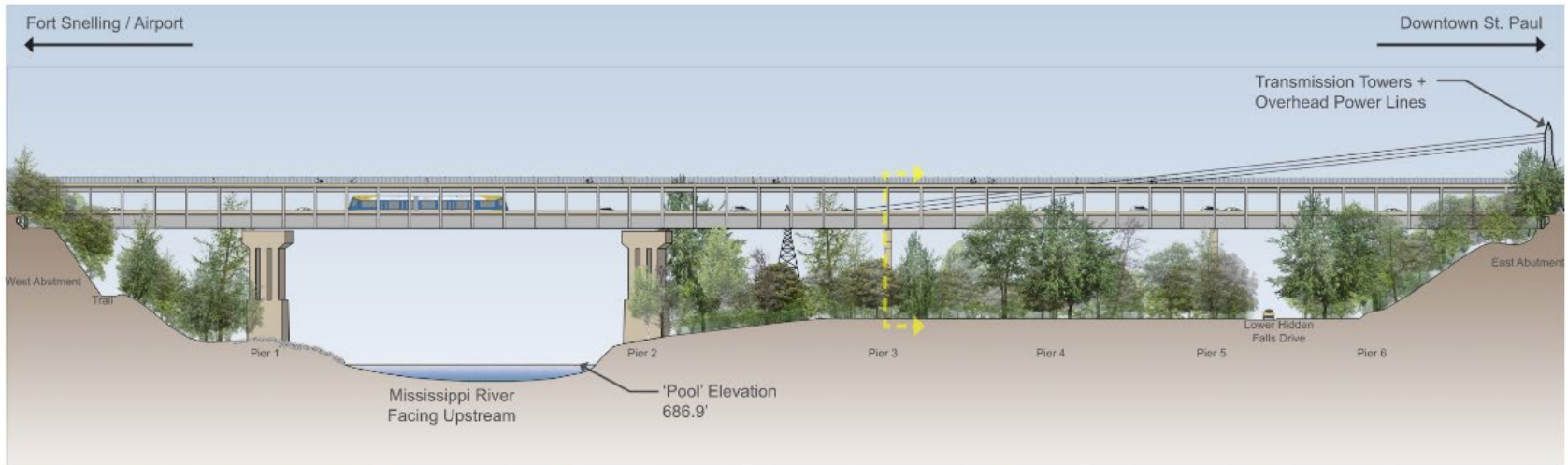
- Re-route to TH 55 and back minimizes bedrock, visual, and other environmental impacts.
- Full mitigation (new flyover ramp) has environmental concerns and high cost.
- Future work would investigate other potential mitigation including signing/detour or other improvement.
- Project will need regional operational modeling to further understand impacts (future phase).

# Mitigation Considerations



- ◀—◀ Routing westbound on Hwy 62 to Minnehaha Avenue,
- ▶—▶ then eastbound on Hwy 62 to southbound Hwy 5

# Highway 5 Bridge Concept



DRAFT - WORK IN PROCESS

## MISSISSIPPI RIVER BRIDGE CROSSING

CONCEPT 4 - DOUBLE DECK WITH CONTINUOUS STEEL BOX GIRDER

SEPTEMBER 26, 2022

RAMSEY COUNTY



# Bridge Concept

- New replacement bridge with options for cost-sharing.
- Improves bike/pedestrian access and addresses ADA deficiencies.
- Opportunity for tribal and community programming on upper deck.
- Keeps existing tunnel intact to avoid rock impacts, per tribal partners.
- Five lanes available across bridge, including two dedicated transit lanes.
  - Single-track options not preferred by Metro Transit due to speed/reliability concerns.

# Use of Lanes Across the TH 5 Bridge



2 lanes toward airport,  
1 lane toward Saint Paul

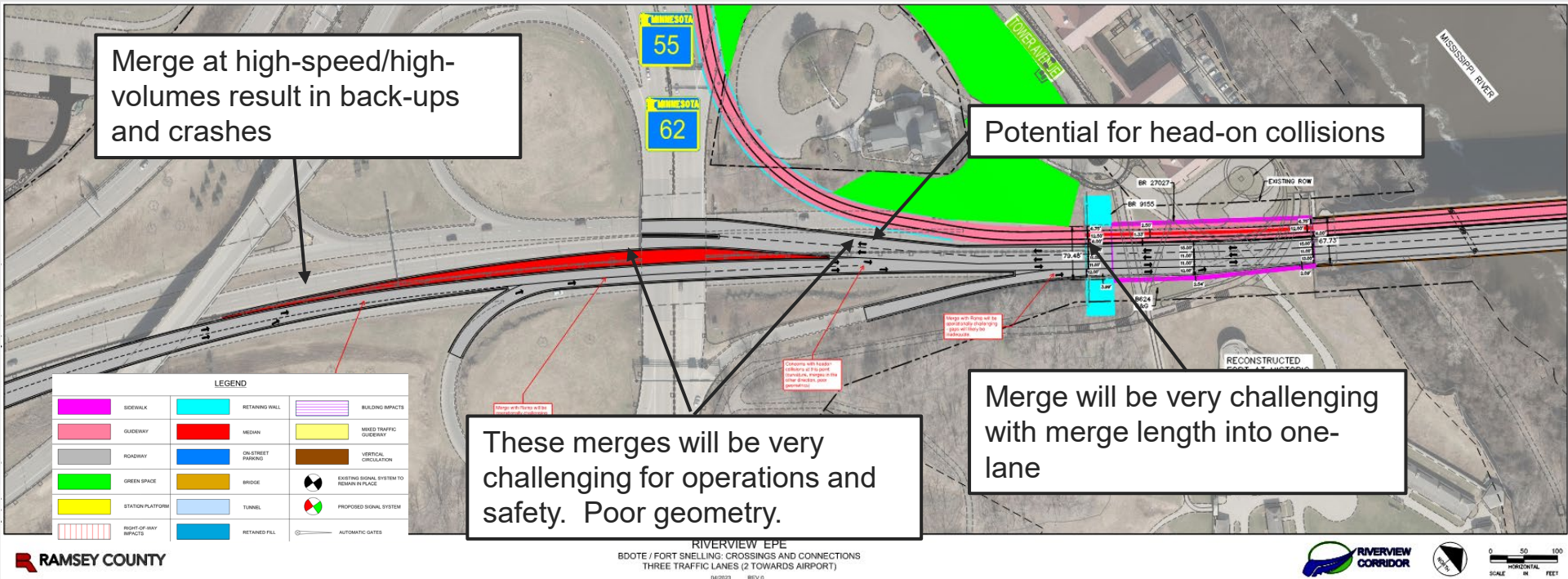
Not supported by MnDOT

2 lanes toward Saint Paul,  
1 lane toward airport

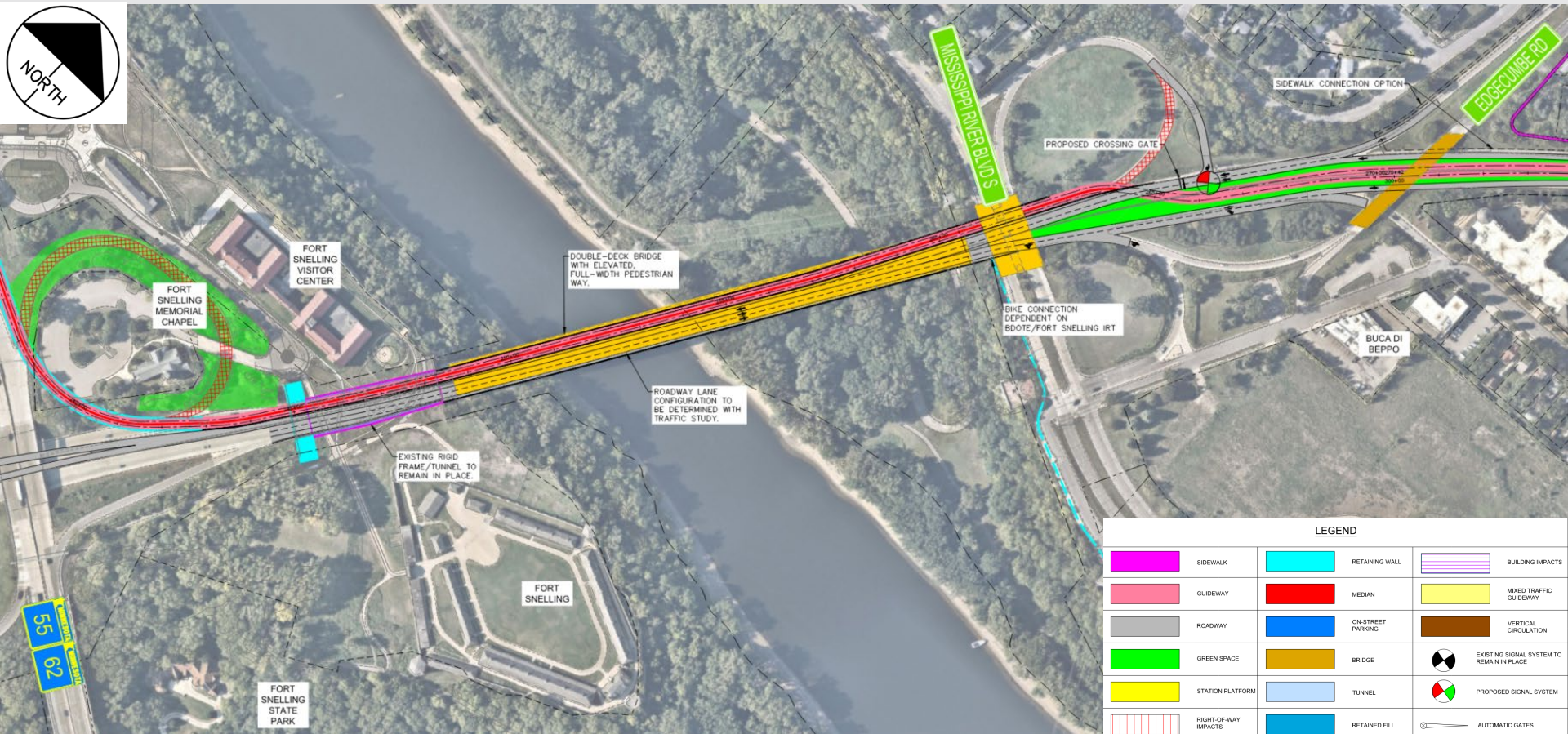
Not supported by MAC

- High-level traffic forecasts = minimal difference between options.
- Two lanes toward Saint Paul preferred due to safety issues with Option 1.

# Challenges with 1 Lane Toward Saint Paul



# TH 5 Bridge Transition Point



- 2 transit lanes on upstream side of bridge transitions to center-running on West 7<sup>th</sup>.
- Existing loop from Mississippi Boulevard reconfigured and joins at new signal.

# Streetcar Options 1 & 2: Davern Street Station

Looking east towards West 7<sup>th</sup> Street and West Maynard Drive

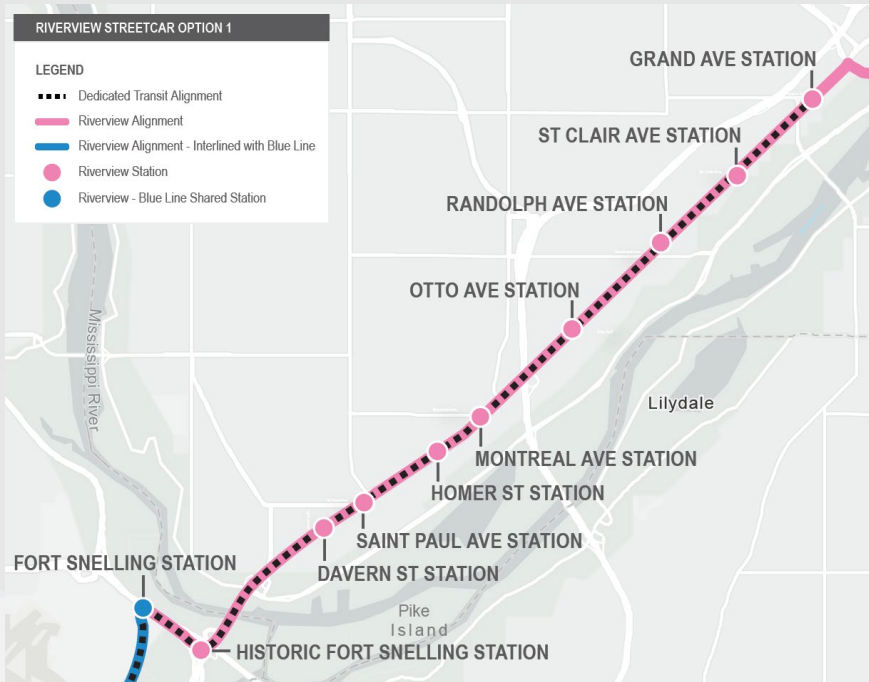




# West 7<sup>th</sup> Street (area with most differences between options)

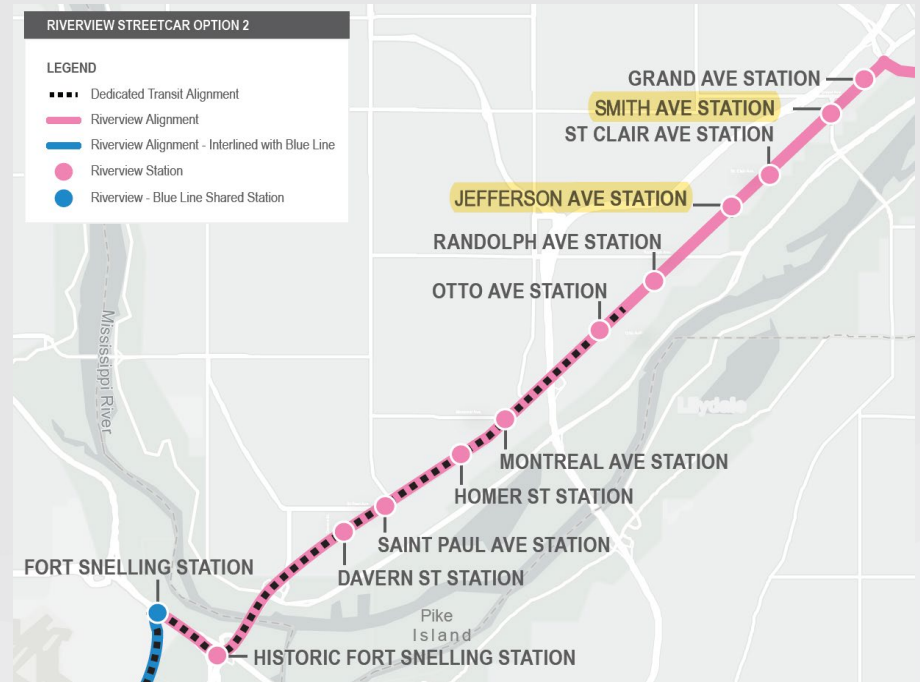
# Comparison of West 7<sup>th</sup> Alignments

## Streetcar Option 1



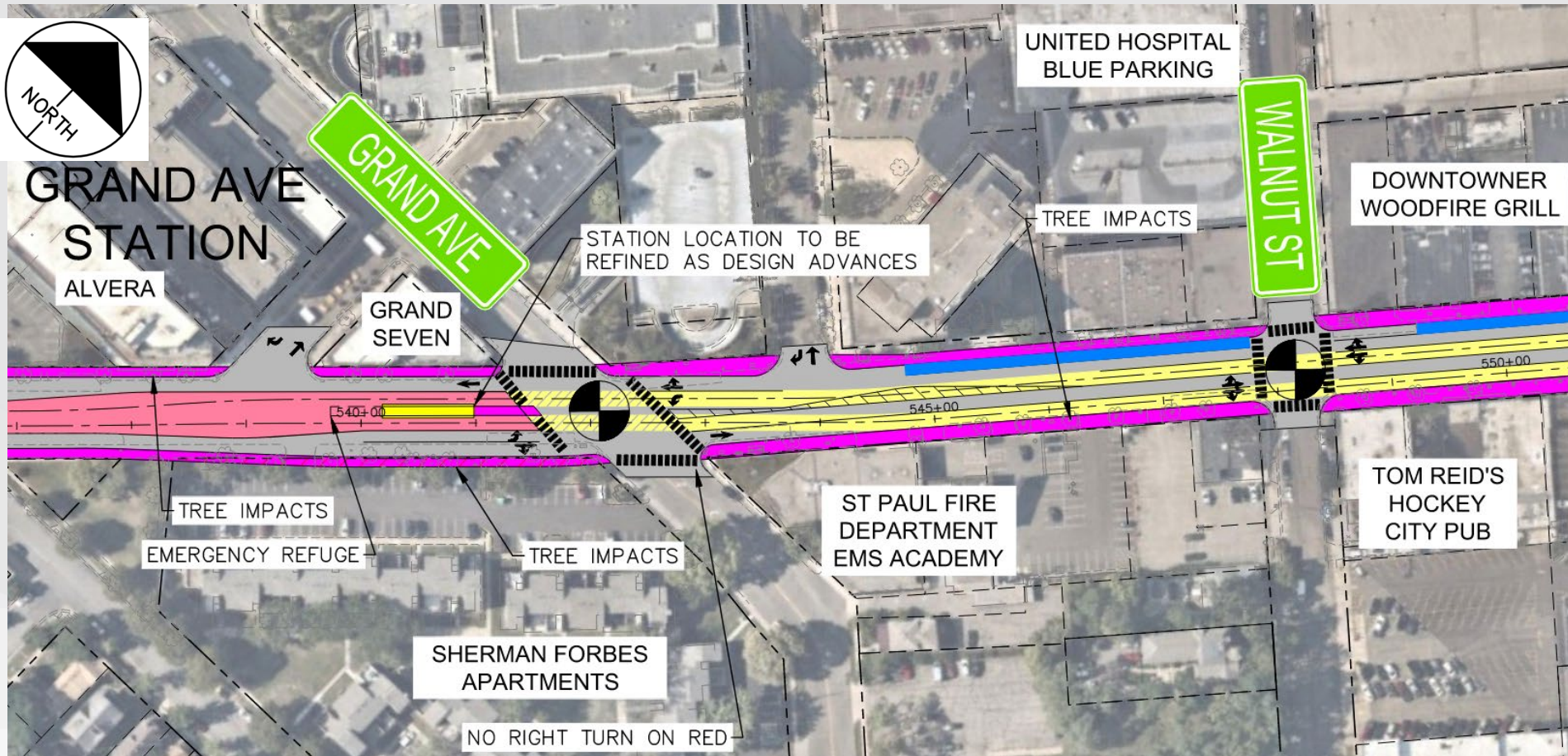
- All dedicated lanes to Grand.
- Center-running alignment.

## Streetcar Option 2



- Mixed traffic Victoria to Grand.
- Side-running alignment.
- 2 additional stations.

# Streetcar Option 1 Transition Point - Grand



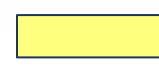
Existing signalized intersection



Proposed signalized intersection



Dedicated transit lanes



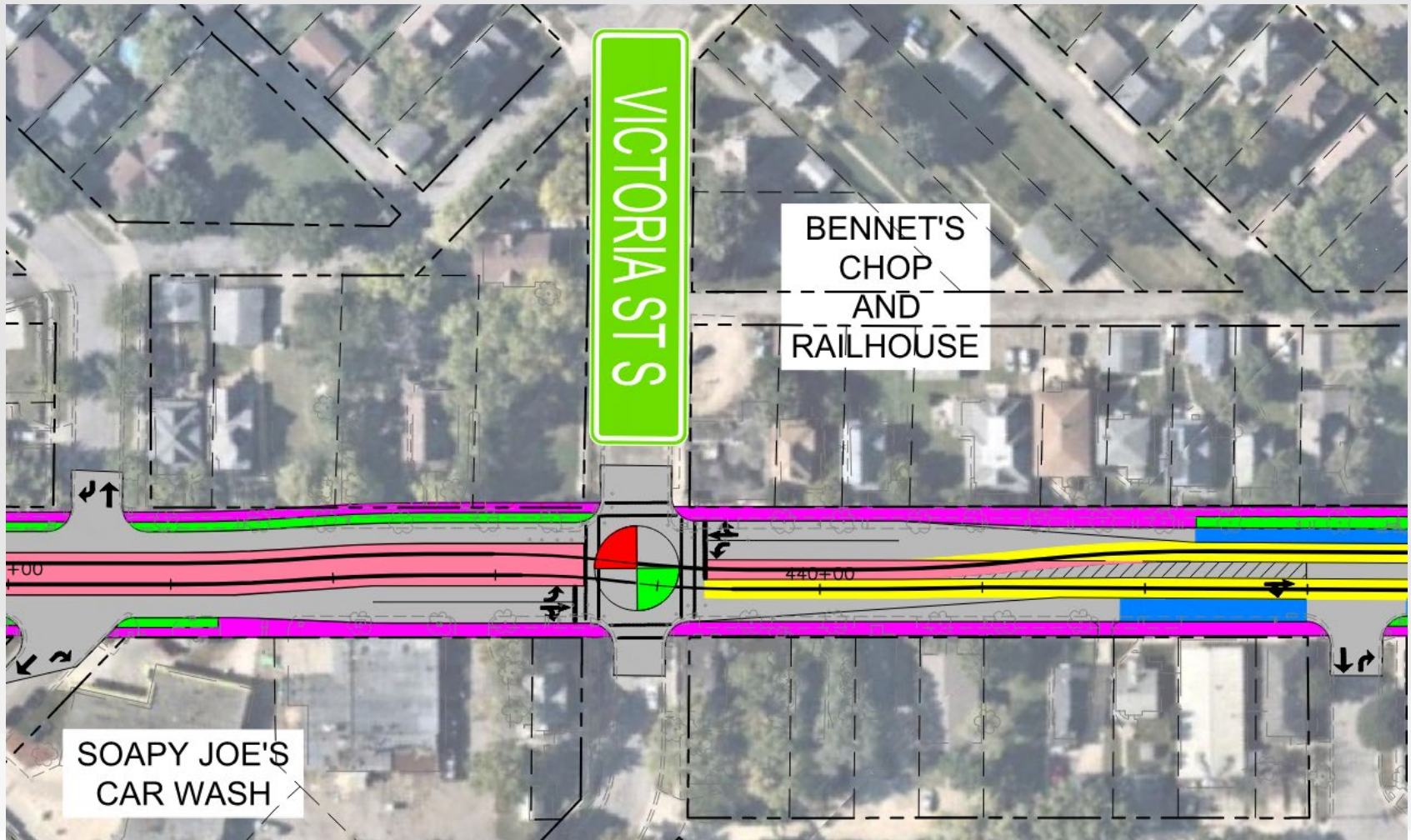
Mixed traffic lanes

# Streetcar Option 1: Grand Avenue Station

## Looking east towards West 7<sup>th</sup> Street & Grand Avenue



# Streetcar Option 2 Transition Point - Victoria



Existing signalized intersection



Proposed signalized intersection



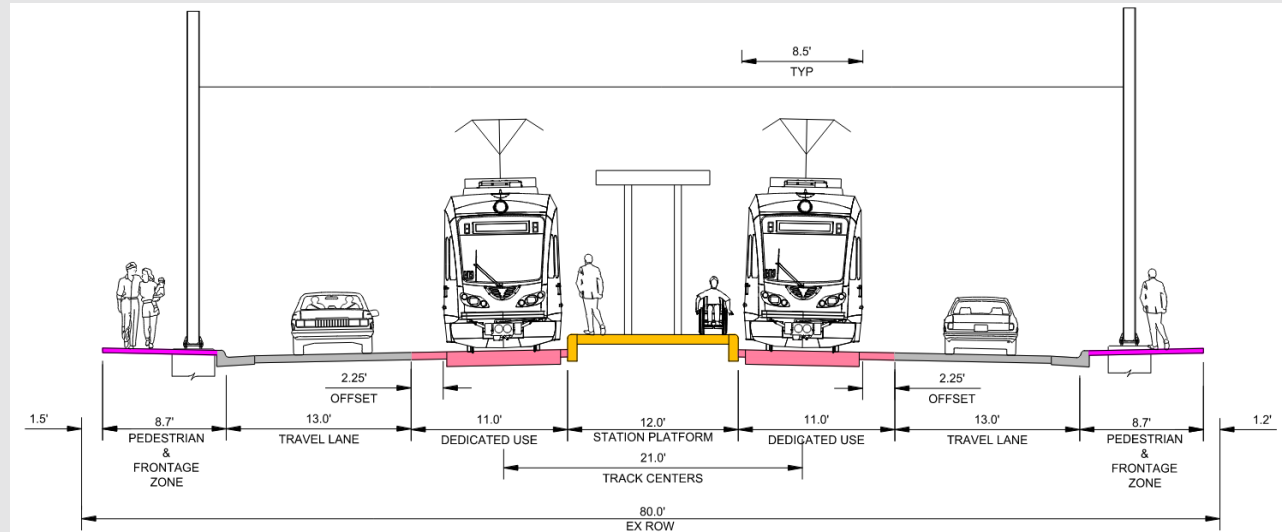
Dedicated transit lanes



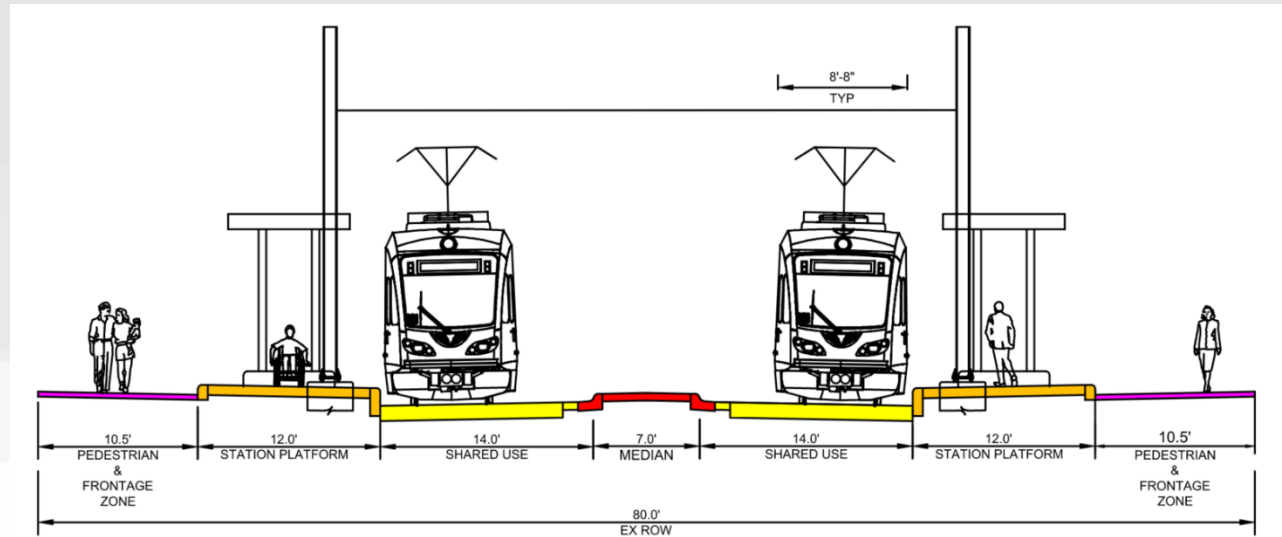
Mixed traffic lanes

# Typical Section at Station (Randolph)

## Streetcar Option 1



## Streetcar Option 2



**RANDOLPH AVE. STATION SECTION**

# Streetcar Option 1: Randolph Avenue Station

## Looking east towards West 7<sup>th</sup> Street & Toronto Street



# Streetcar Option 2: Jefferson Avenue Station

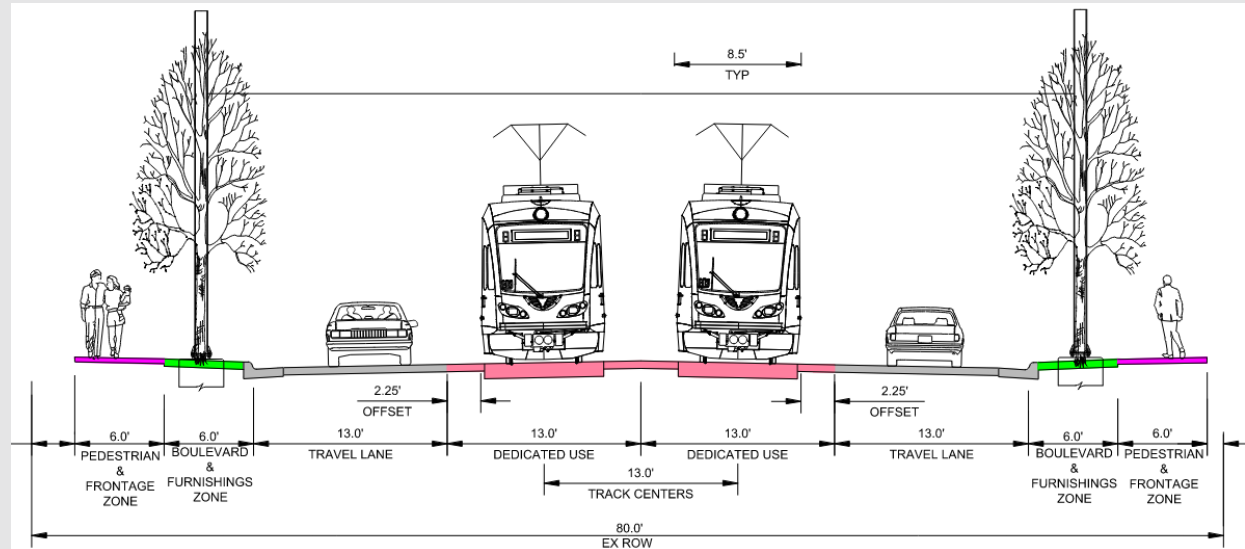
## Looking west towards station



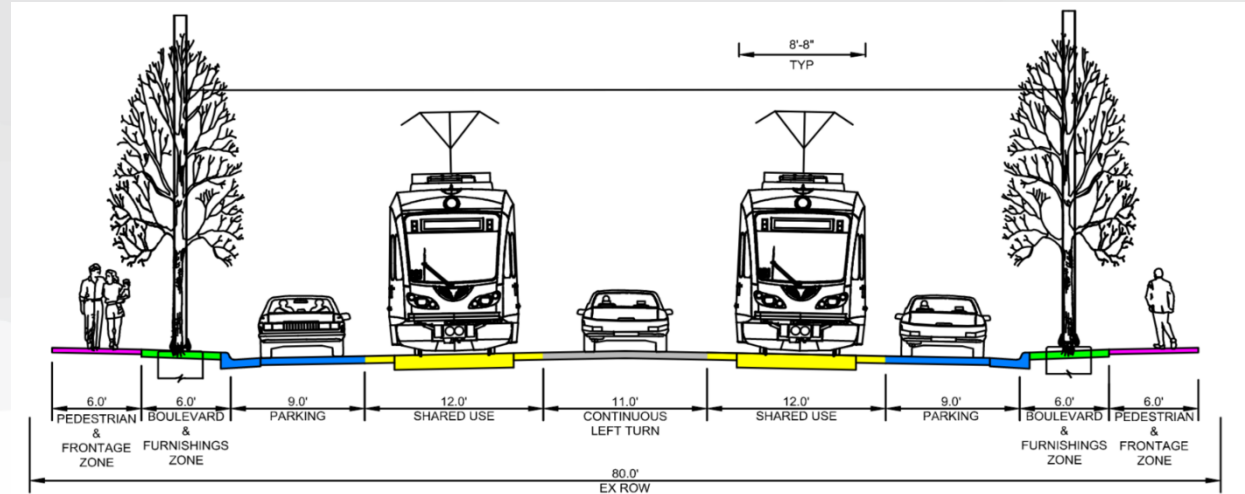


# Mid-Block Typical Section: Victoria to Forbes

## Streetcar Option 1:



## Streetcar Option 2:



VICTORIA TO FORBES SECTION

# Streetcar Option 2: Smith Avenue Station

## Looking east towards West 7<sup>th</sup> Street & Walnut Street



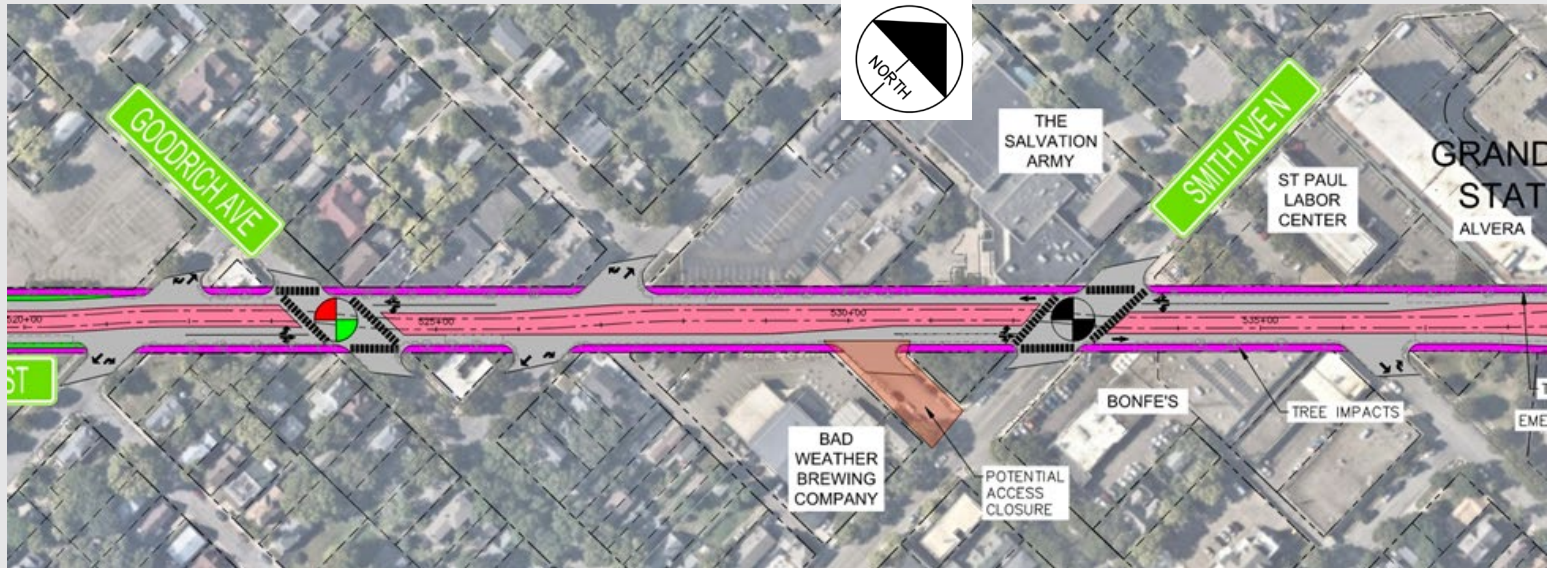
# Further Ways to Differentiate

- Risks to transit speed and reliability.
- Balance of parking, access, and mobility needs.
  - Pedestrian transit access and crossing of West 7th.
  - Opportunities behind the curb (pedestrians, trees, etc.)
  - Parking availability.
  - Business access.
  - Vehicle turning movements.

# Speed and Reliability

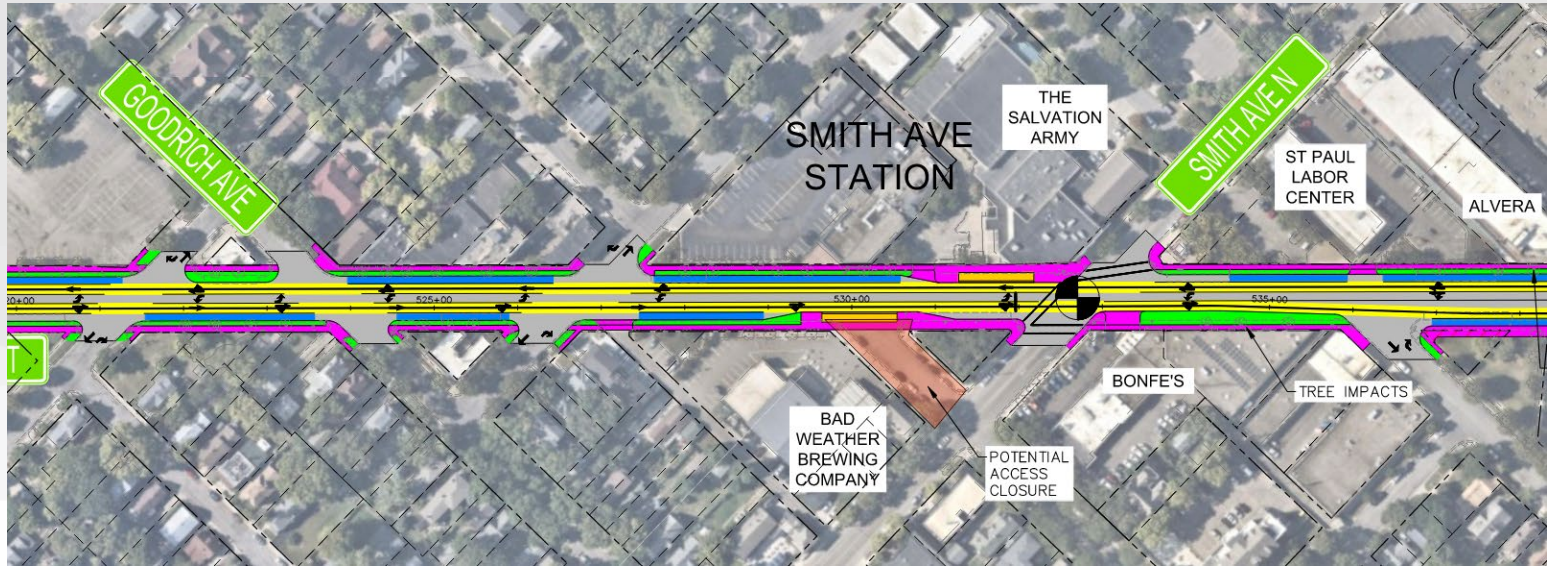
## Option 1:

- Less opportunity for vehicle hindrance



## Option 2:

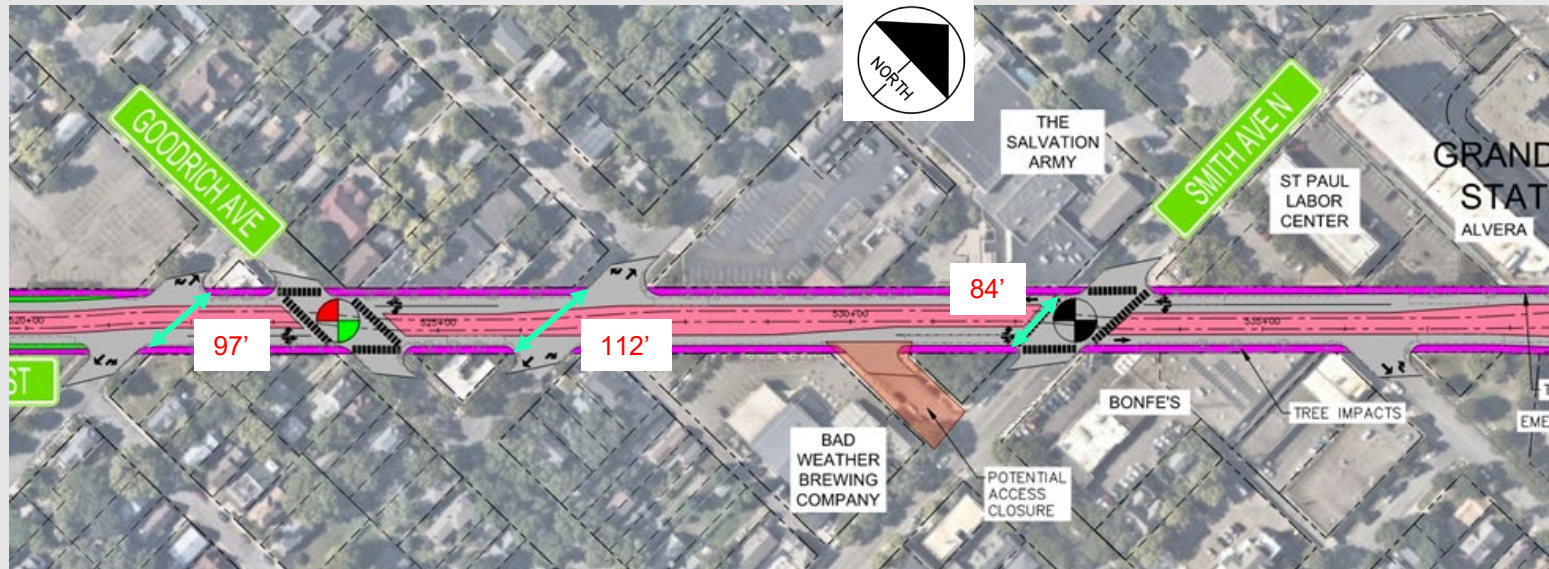
- Higher possibility of vehicle blocking track
- Sensitive to traffic congestion



# West 7<sup>th</sup> Crossing Distance

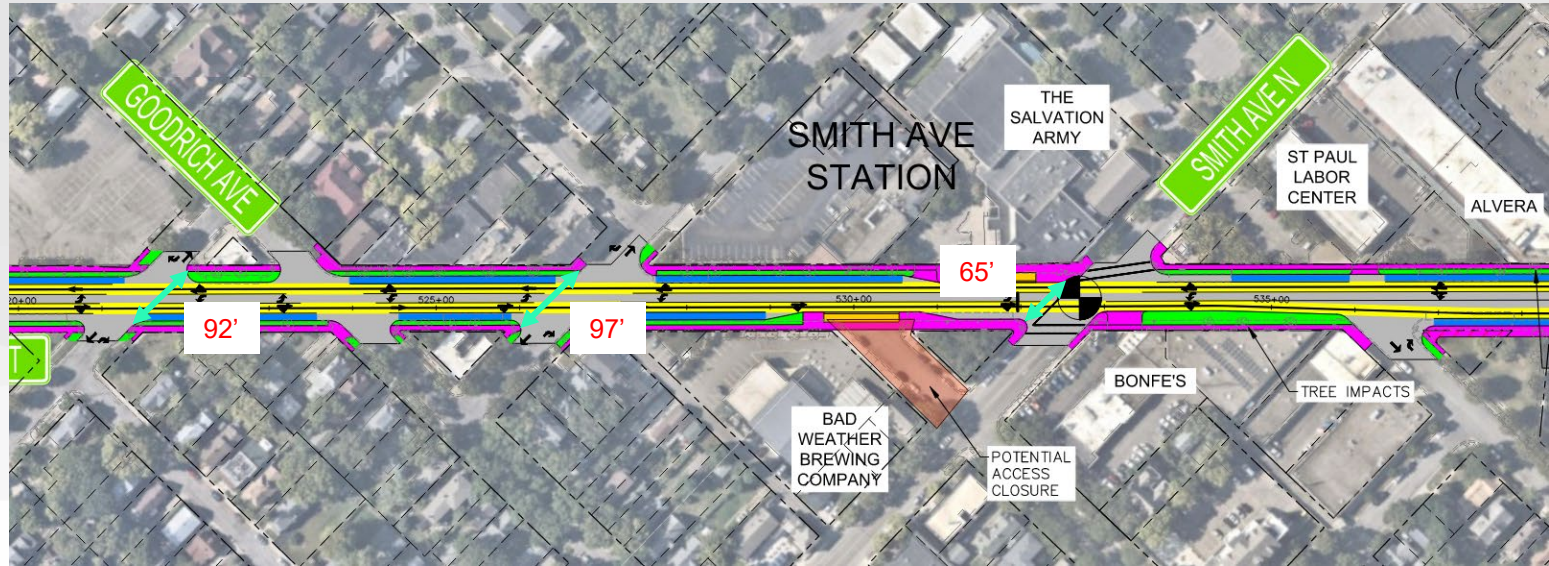
## Option 1:

- Longer Crossing Distances



## Option 2:

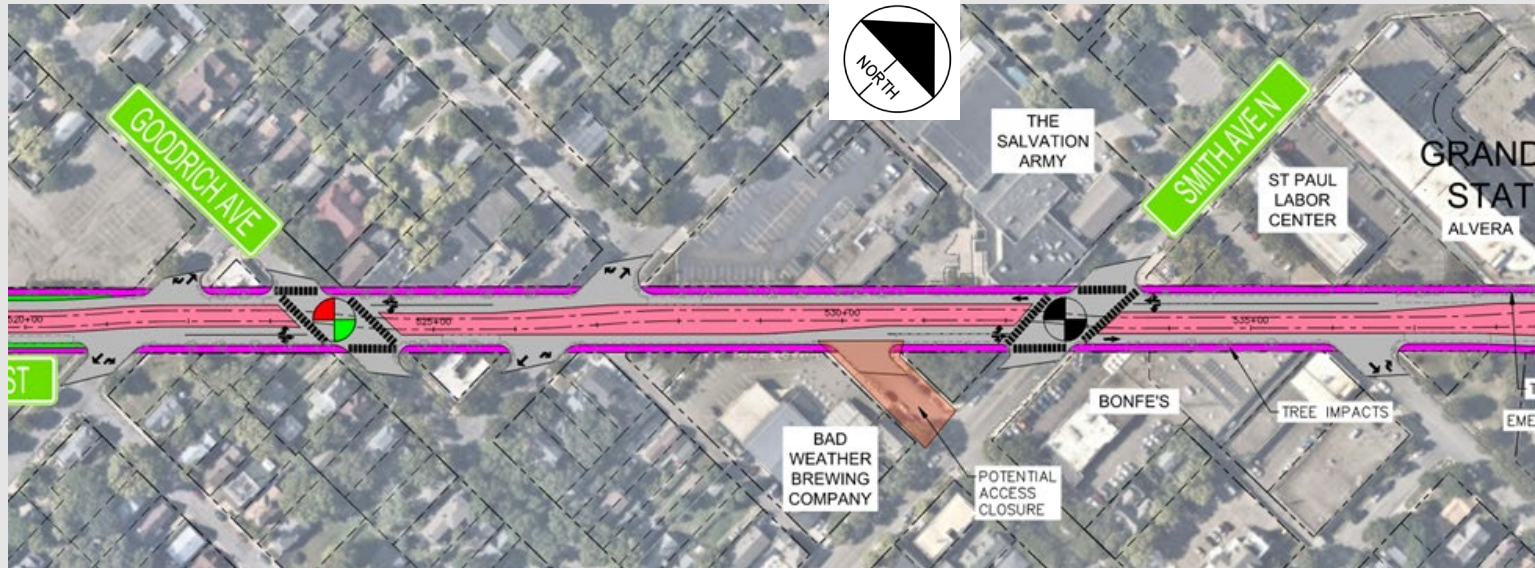
- Shorter Crossing Distances
- Opportunity for Curb Extensions



# Boulevard/Green Space

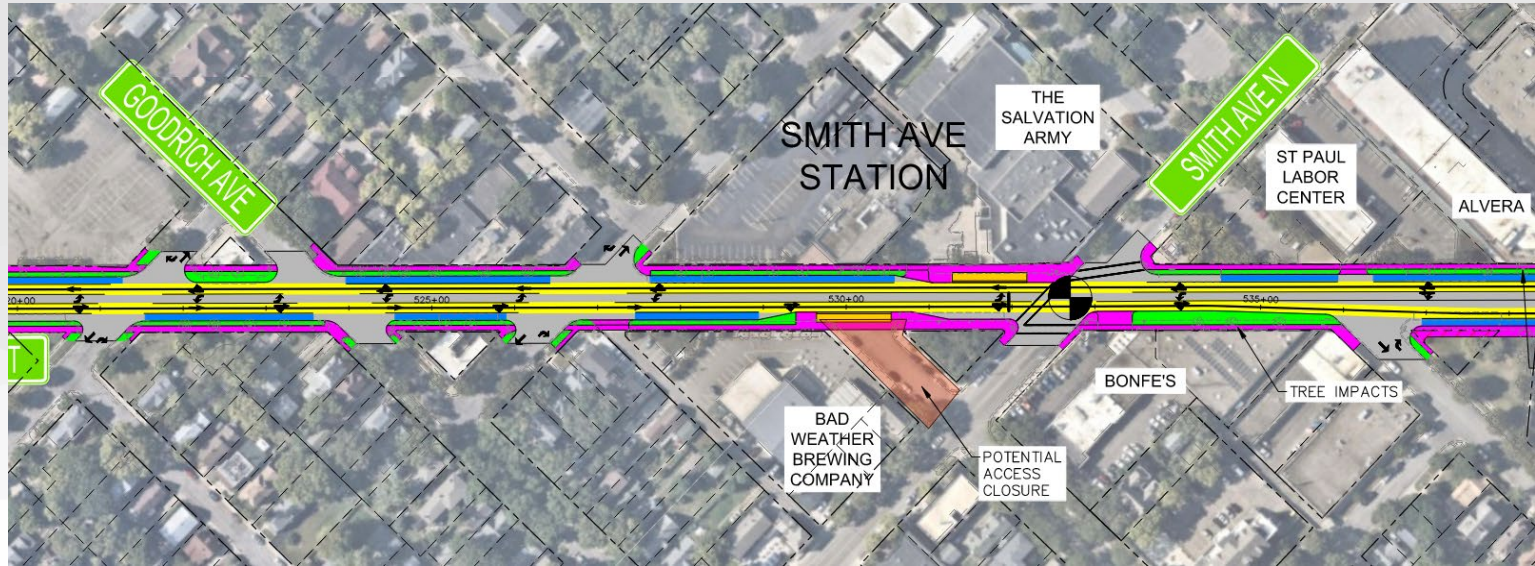
## Option 1:

- Little to no boulevard space available in station or turn lane areas



## Option 2:

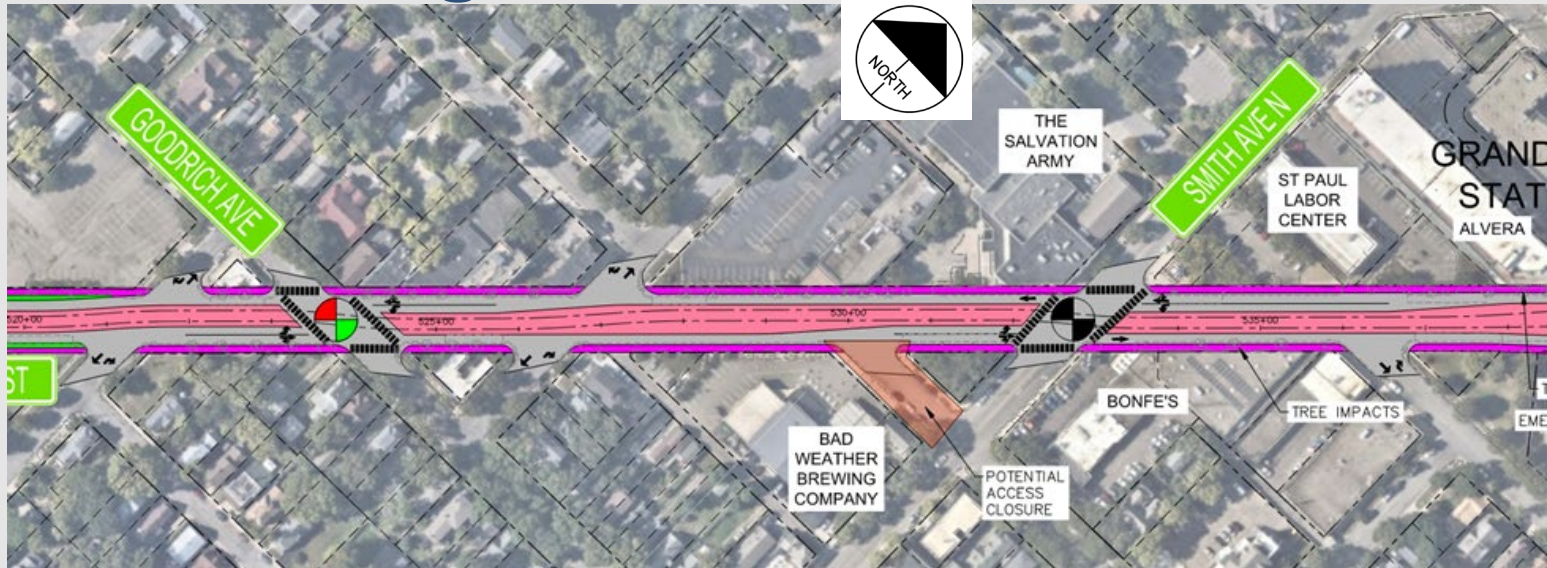
- Available boulevard space
- Space for landscaping/trees
- Snow storage
- Added barrier for pedestrians



# Parking Availability

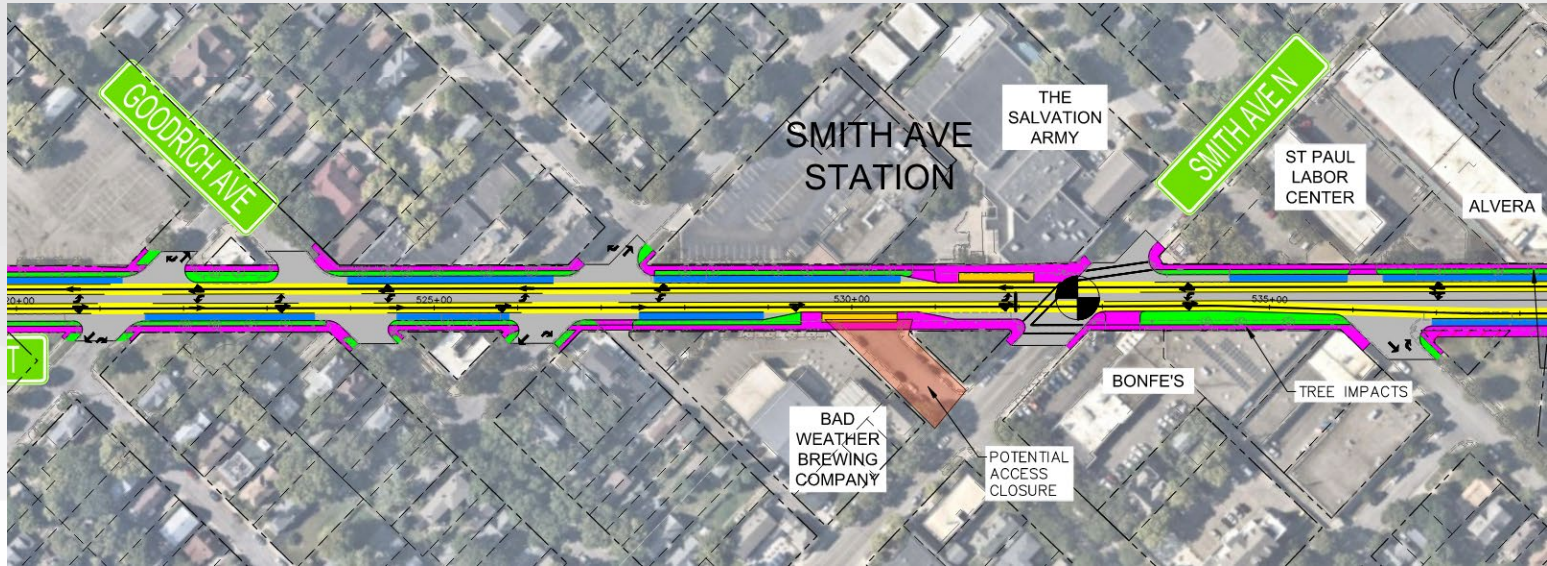
## Option 1:

- No Parking Options



## Option 2:

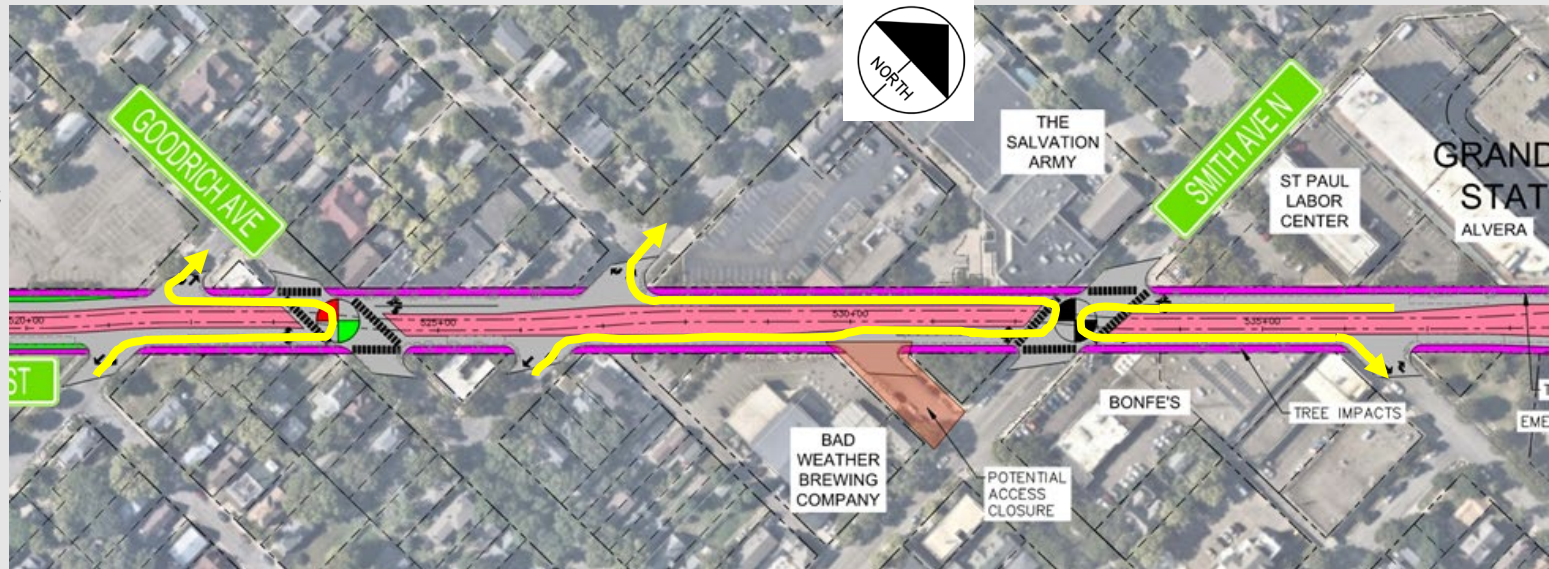
- Street Parking Available



# Access Comparison

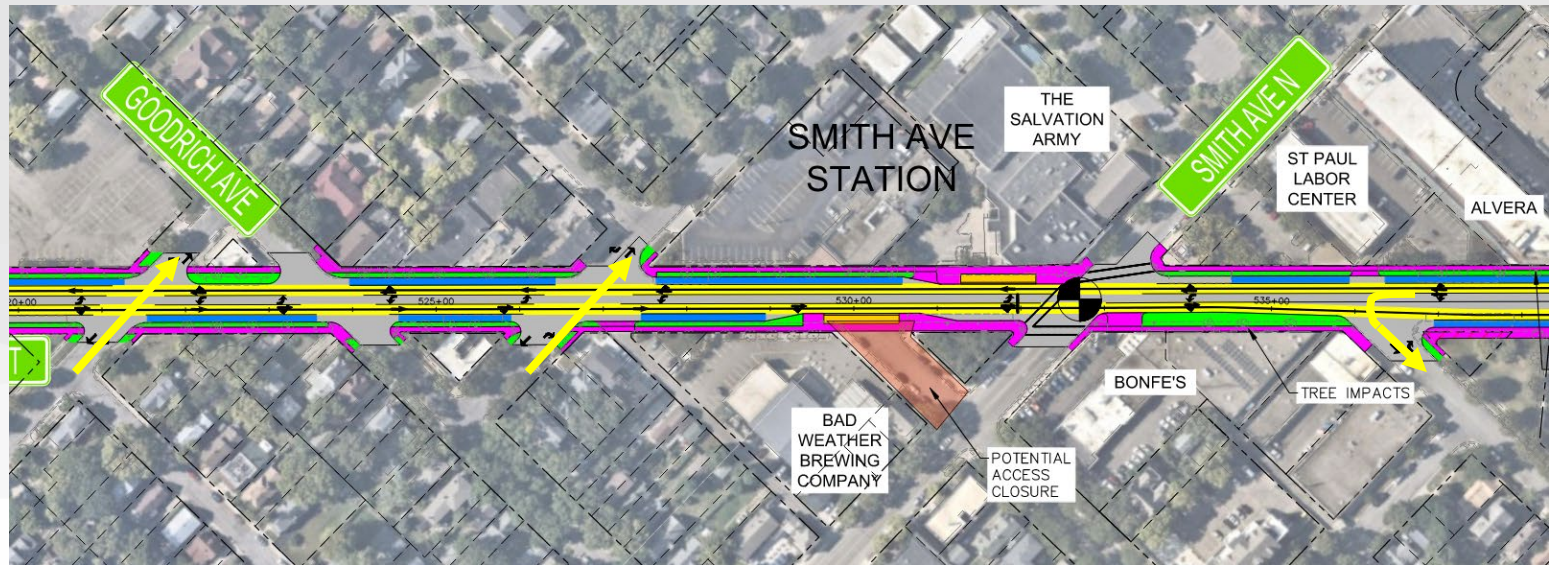
## Option 1:

- Limits Thru Traffic Across Corridor
- Limits Left Turns off Corridor
- Full Access at Traffic Signal Only



## Option 2:

- Allows Thru Traffic and Left Turns on Corridor



Existing signalized intersection

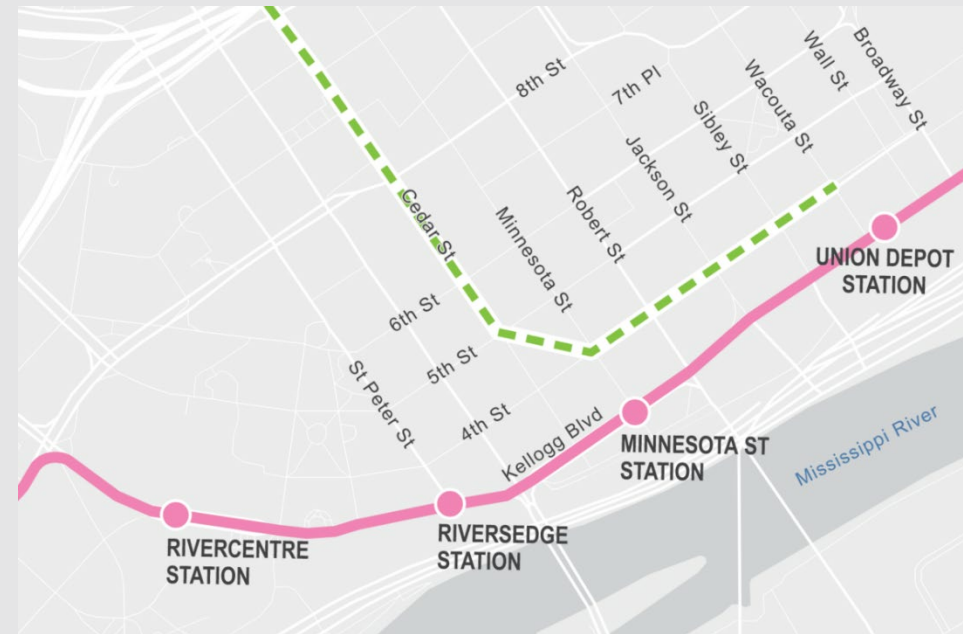
Proposed signalized intersection



# Downtown Saint Paul

# Downtown

- Mixed traffic operations.
  - Center-running (Option 1).
  - Side-running (Option 2).
- Serves Union Depot from Kellogg Boulevard.
- Capitol City Bikeway project, Kellogg bridge structures, and Riverview operations all affect each other.
- Connects West 7th Street to Lowertown.



# Center Running: Minnesota Street Station

Looking west towards Kellogg Boulevard & Minnesota Street

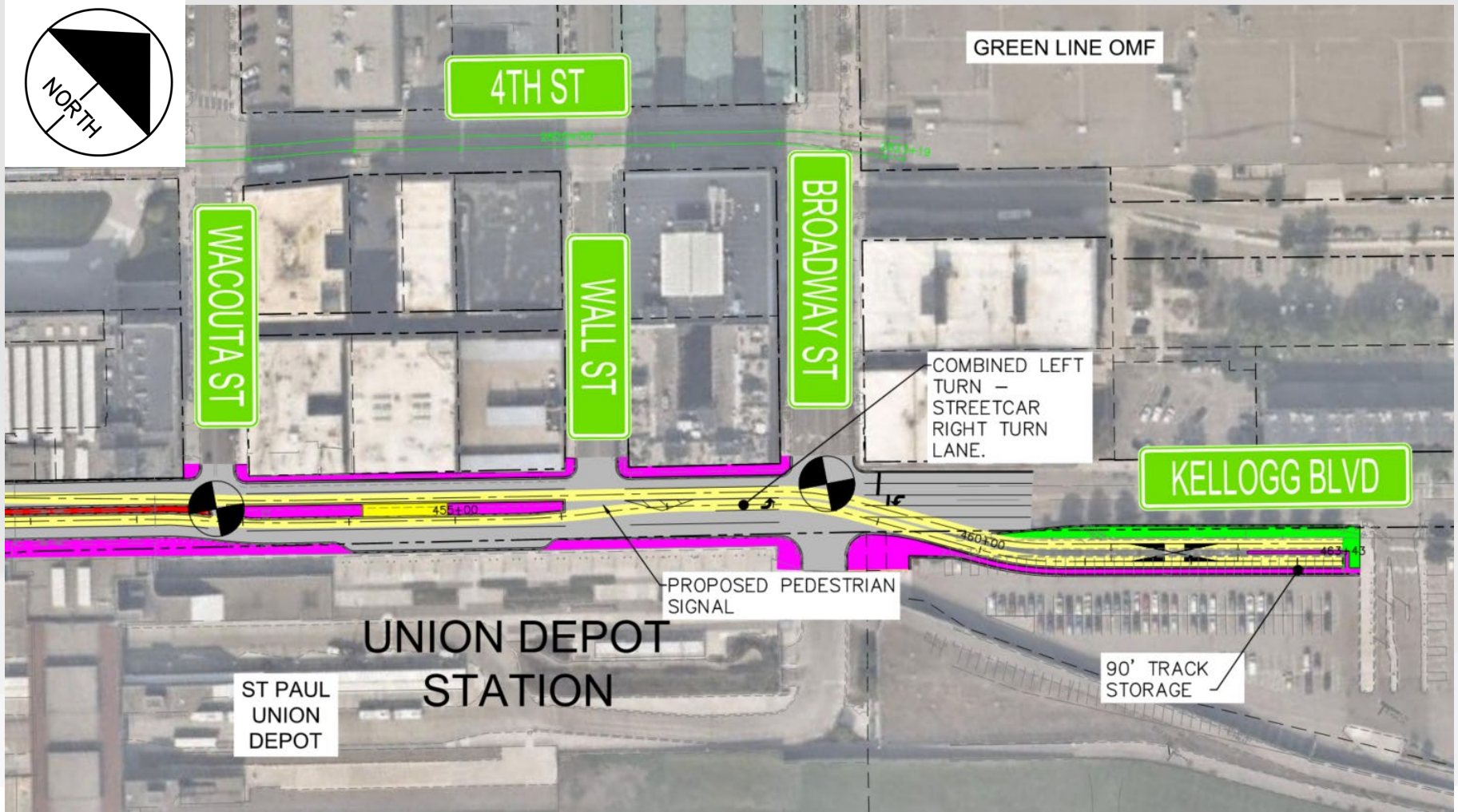


# Side Running: Minnesota Street Station

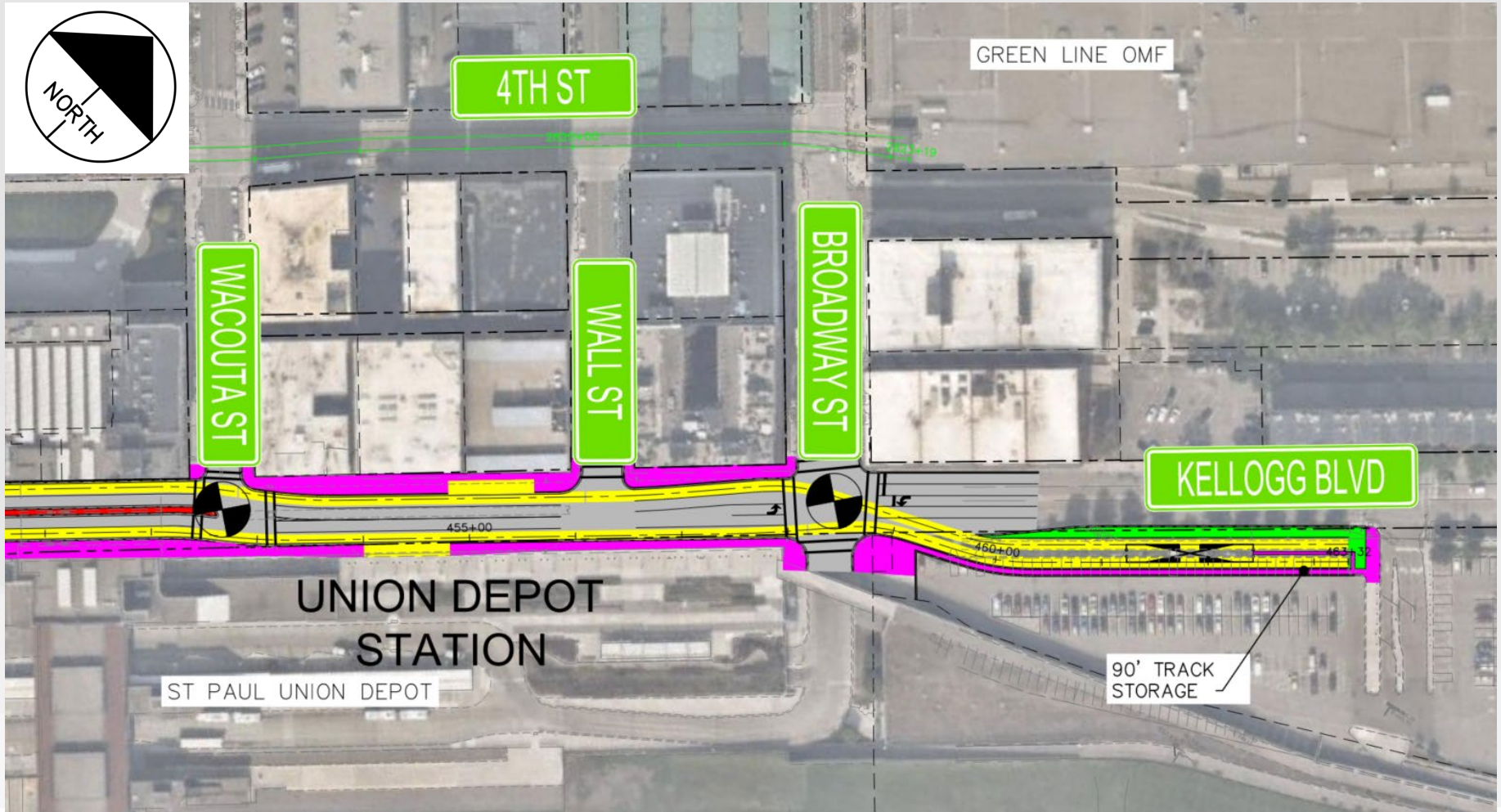
Looking west towards Kellogg Boulevard & Minnesota Street



# Option 1 (Center Running): Union Depot



# Option 2 (Side Running): Union Depot



# Comparison of Streetcar Options

# Comparison by the Numbers

	Streetcar Option 1	Streetcar Option 2
Number of Stations	20	22
Dedicated lanes	~10.1 miles or 87%	~8.2 miles or 72%
Service Frequency	10 mins/30 mins <sup>1</sup>	10 mins/30 mins <sup>1</sup>
Travel Time (westbound)	44:02 min	45:33 min
Travel Time (eastbound)	43:22 min	44:49 min
2040 Ridership	11,600	11,200
Capital Cost (2033)	\$2.10 billion	\$2.12 billion
Operations and Maintenance Cost (2023)	\$34 million	\$34.5 million

<sup>1</sup> Every 10 minutes from 4:30 a.m. to 10:30 p.m.; every 30 minutes from 10:30 p.m. to 1:30 a.m. and from 3:00-4:30 a.m.



# Summary of Differentiators

Streetcar Option 1	Streetcar Option 2
More dedicated lanes = more reliable transit service.	More shared use = more difficult to recover service/longer delays.
Longer pedestrian crossings, and only at signalized intersections.	Shorter pedestrian crossings due to bumpouts and medians.
Pedestrians cross traffic lane to access center platform.	Pedestrian access to transit from the curb.
Trees do not conflict with catenary wire but less space in boulevard for trees.	More potential for tree/catenary wire conflicts.
Left turns and through movements to the other side of West 7th allowed only at signalized intersections, forcing right-in/right-out access in other areas.	All traffic movements allowed at all intersections.
Challenging delivery/loading operations.	Challenging delivery/loading operations. Possibility of adding loading/unloading zones at expense of parking spaces.
Very limited space for on-street parking (about 35 spaces remain).	Much on-street parking can remain (about 400 spaces).

# Community Advisory Committee Update

# Next Steps

## Next Steps

- **February 2024** – PAC meeting (bus option, comparison of all options, economic analysis).
- **Spring/Summer 2024** – Public engagement.
- **Summer/Fall 2024** – PAC action on next steps.

# Public Comment

# Public Comment: Meeting Procedures

- Public questions and comments will be taken at the end of the meeting.
- If you wish to speak:
  - Please fill out a speaker card.
  - Your name will be called.
  - State your name and address for the record.
  - Up to three minutes for comments.

# Thank You for Attending

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