



# COMMITTEE ADVISORY COMMITTEE

Meeting #7

# 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, introductions and housekeeping items.
- Project overview and upcoming milestones.
- Additional streetcar information.
- Review of bus option and comparison to streetcar options.
- Economic development analysis results.
- Community engagement report and plan.
- Next steps.

# Committee and Staff Introductions



# Housekeeping-Group Agreements

- Be open-minded.
- Listen actively/respectfully when others are speaking.
- Speak from your own experience instead of generalizing (Use "I" instead of "they," "we," and "you").
- Respectfully ask challenging questions and refrain from personal attacks.
- Be engaged and provide feedback.
- The goal is not to always agree — it is to gain a deeper understanding.
- Be aware of your facial expressions — they can be perceived as disrespectful as words.
- Do not dominate the discussion, allow others to be heard.
- "Step Up and Step Back!"

# Virtual Meeting Procedures

- Please mute your mic when not speaking.
- Please leave your video feed on if possible.
- If you wish to speak:
  - Please use the “raise hand” feature.
  - Unmute your mic.

# Project Overview/Upcoming Milestones

# Project Overview



# Project Phases

**WE ARE HERE**



**ENGINEERING &  
PRE-  
ENVIRONMENTAL**

**PROJECT  
DEVELOPMENT**

**ENGINEERING**

**CONSTRUCTION**

- > Refine LPA and assess alternatives
- > Analyze social, economic and environmental data
- > Advance engineering

- > Complete the Environmental Impact Statement
- > Advance engineering/design

- > Complete engineering/design

- > Full Funding Grant Agreement

# Upcoming Milestones

- **PAC decision:**
  - Determine which options should be presented to the public.
    - February 2024.
- **Public and stakeholder engagement.**
  - Spring and Summer 2024.
- **PAC decision:**
  - Select desired option and determine next steps.
    - Fall 2024.

# Additional Streetcar Information

# Supplemental Info Provided to PAC

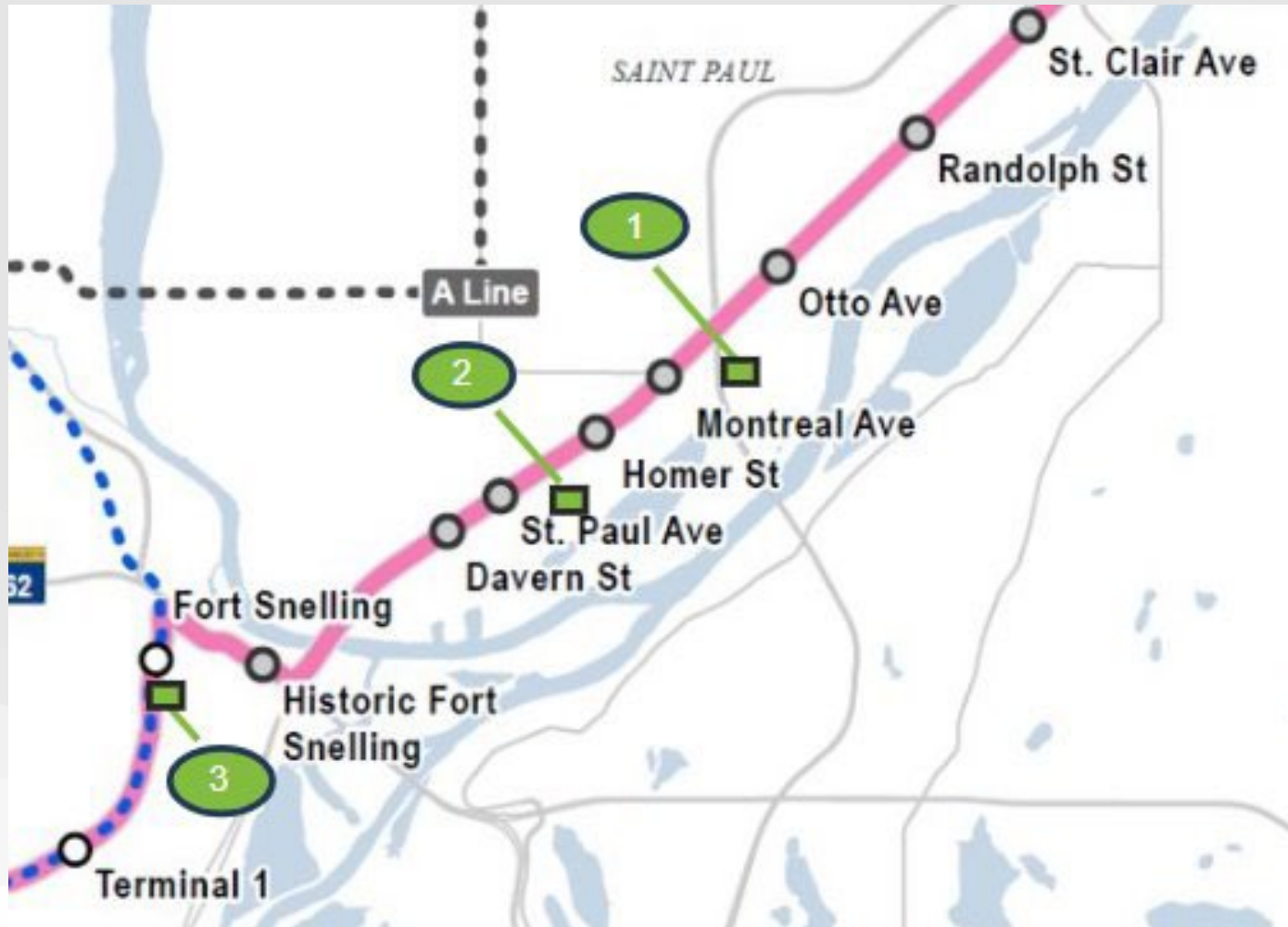
- Parking.
- Traffic.
- Construction Strategies for Businesses.
- Ridership by segment/station.



# Modern Streetcar Operation and Maintenance Facility (OMF) Options

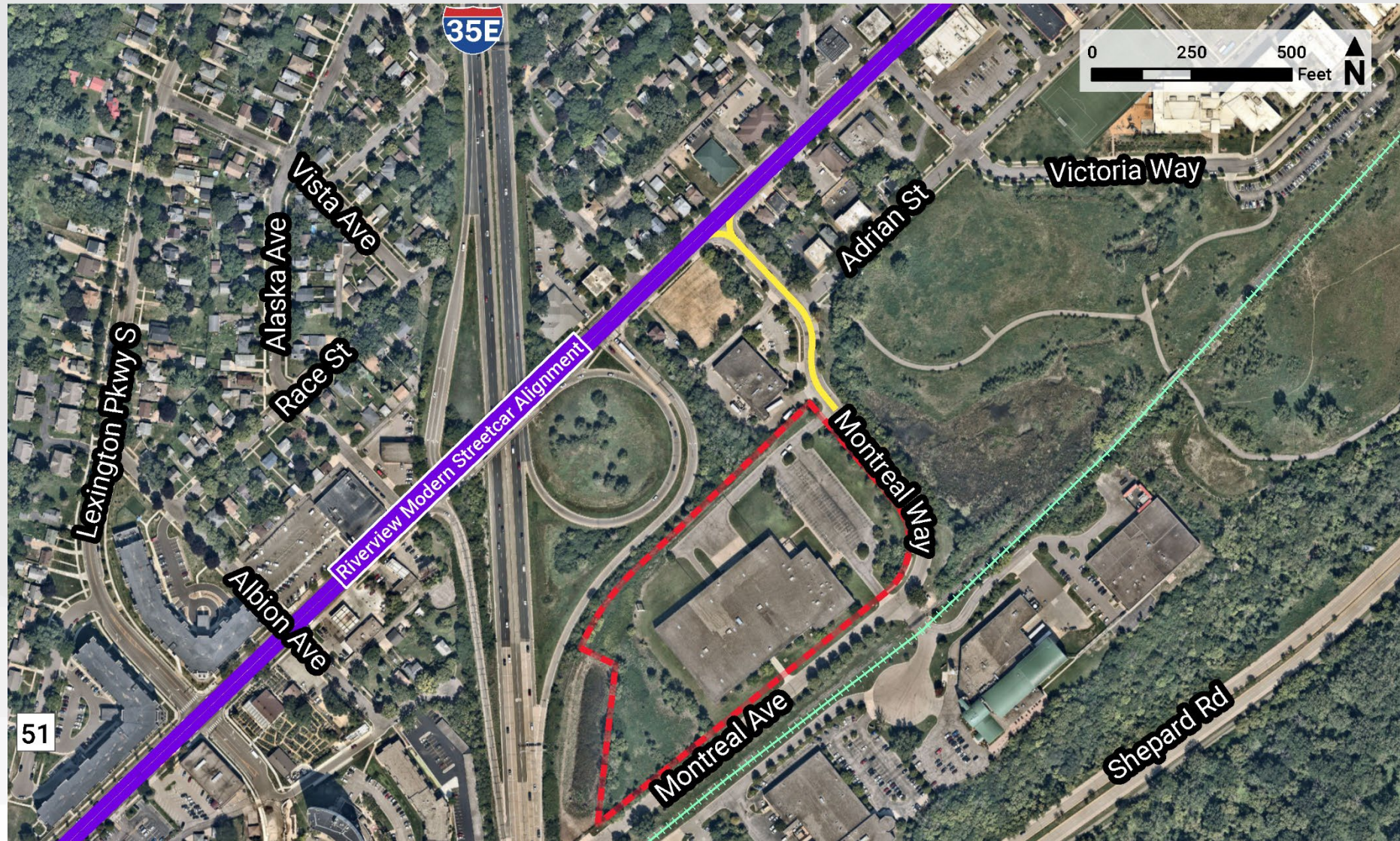
- Initial criteria:
  - Within ¼ mile of the streetcar alignment.
  - Compatible (non-residential) land use/zoning.
  - Minimum 5 acres in size.
- Working group formed and additional evaluation measures determined.
- Three potential candidate sites retained for evaluation in a future phase.

# OMF Sites (Streetcar Only)



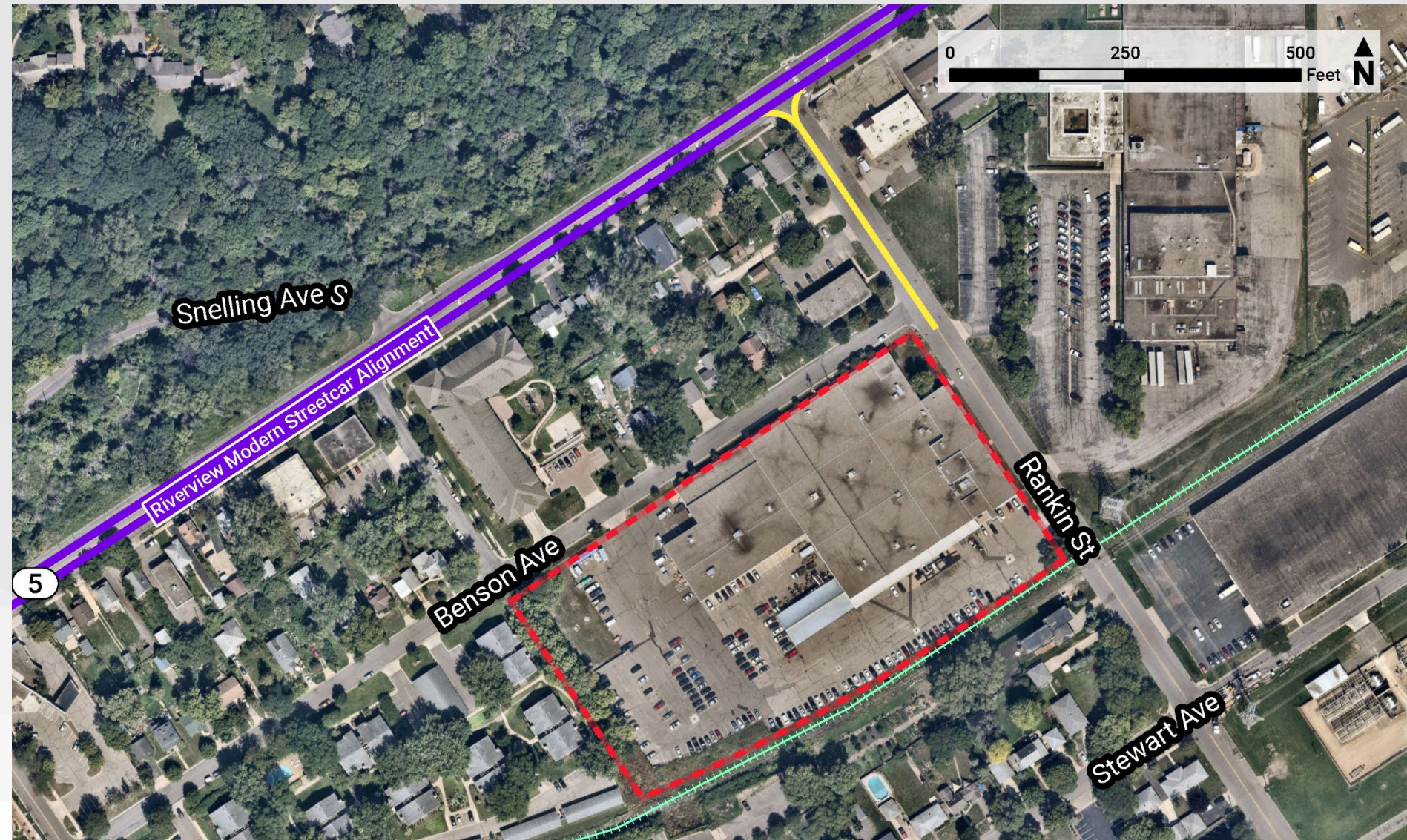


# OMF Site 1: Montreal Way/West 7th Street/I-35E



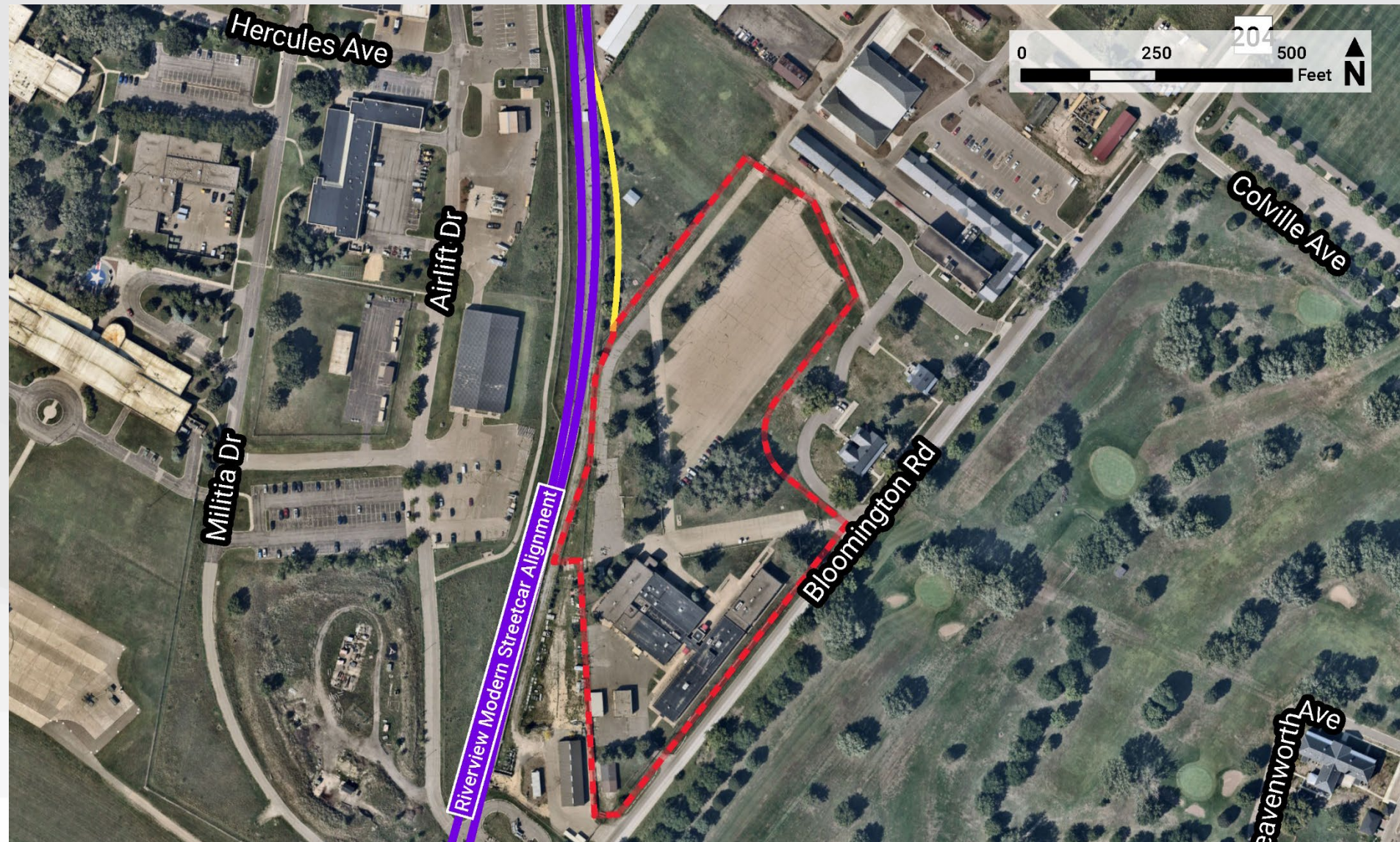


# OMF Site 2: Rankin Street/West 7th Street





# OMF Site 3: Bloomington Road/Airlift Drive



# Streetcar Animations

# Review of Bus Option

# ABRT – Issue Resolution Process

- Started with maximizing dedicated lanes.
- Dedicated BRT did not advance because:
  - Limited opportunity for pedestrian public realm elements.
  - Parking impacts
  - Bus operations/doors.
  - Limited transit advantage due to lack of average day traffic congestion.
- Considered something different from center-running streetcar.

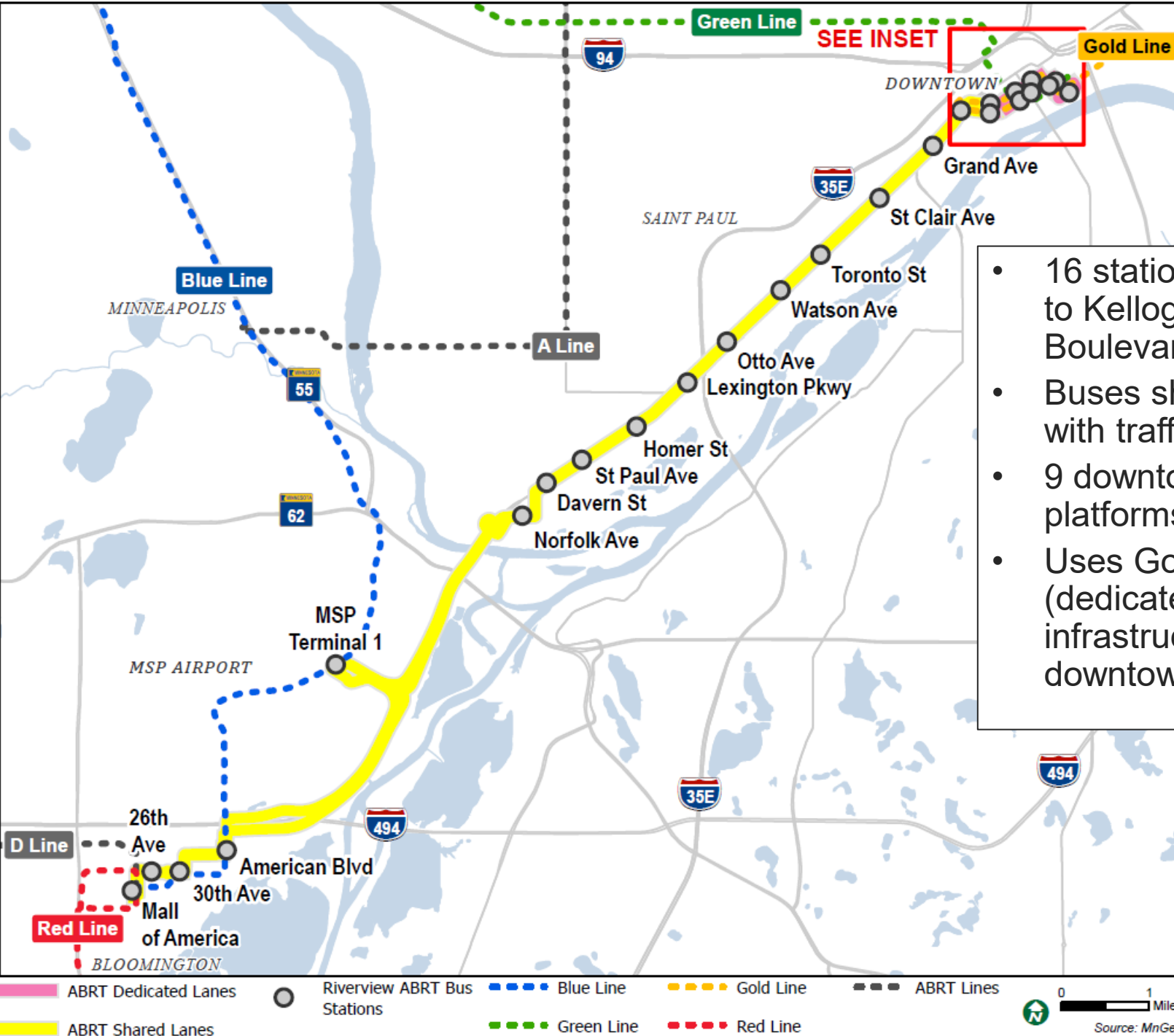


The photograph shows a bus stop shelter with the following labeled components:

- A**: A circular logo with the letter 'A' on the top left of the shelter's vertical post.
- B**: A circular logo with the letter 'B' on the top right of the shelter's vertical post.
- C**: A circular logo with the letter 'C' on the top left of the shelter's roof structure.
- D**: A circular logo with the letter 'D' on the top right of the shelter's roof structure.
- E**: A circular logo with the letter 'E' on the top left of the shelter's roof structure.
- F**: A circular logo with the letter 'F' on the top right of the shelter's roof structure.
- G**: A circular logo with the letter 'G' on the top left of the shelter's roof structure.
- H**: A circular logo with the letter 'H' on the top right of the shelter's roof structure.
- I**: A circular logo with the letter 'I' on the top left of the shelter's roof structure.
- J**: A circular logo with the letter 'J' on the top right of the shelter's roof structure.

- G** Platform edges are marked with a cast-iron textured **warning strip** to keep passengers safely away from the curb while the bus approaches. Many stations also feature **raised curbs** for easier boarding.
- H** **Platform areas** are distinguished by a dark gray concrete pattern.

- I** Some stations have pedestrian-scale **light fixtures** to provide a safe, well-lit environment. Fixtures will match existing lights in the surrounding area.
- J** Benches or seat walls at stations provide a place to sit.
- K** Stations have **bike parking**. (not shown)



- 16 stations – MOA to Kellogg Boulevard.
- Buses share lanes with traffic.
- 9 downtown platforms.
- Uses Gold Line (dedicated) infrastructure downtown.

# 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).
- Posted speed limit along corridor.

# Travel Times

Segment	ABRT	Route 54
Westbound	0:40:05	0:43:00
Eastbound	0:39:57	0:42:00

# Ridership – Total Project Trips

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

Year	ABRT	Route 54
2019	5,000	4,600
2040	8,000	

# Overall Cost Assumptions

- 2023 Base Year.
- 2033 Revenue Operations.
- Capital Cost (2030): \$121M
- Estimate includes:
  - ABRT-style stations, use of existing stations at MOA and Downtown, utilities, systems, right-of-way, vehicles, vehicle chargers, 40% overall contingency.



# ABRT – Operating Cost Assumptions

Day of Week	Start Time	End Time	Frequency (minutes)
<b>Weekdays</b>	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
<b>Saturdays</b>	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
<b>Sundays</b>	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 O&M Cost: \$16.8M



# ABRT / Route 54 Comparison

# Comparison by the Numbers

	Route 54	ABRT
Number of Stations / Stops	26 stops (MOA to Union Depot)	21 stations (14 new, 7 existing)
Service Frequency	15 mins/30 mins <sup>1</sup>	10 mins/30 mins <sup>2</sup>
Travel Time (westbound)	43:00 min	40:05 min
Travel Time (eastbound)	42:00 min	39:57 min
Dwell Time	N/A	7/14/21 sec dependent on station boardings <sup>3</sup>
Ridership	4,600 (2019)	5,000 (2019) 8,000 (2040)
Vehicle Type	Diesel	Electric <sup>4</sup>

<sup>1</sup> On West 7<sup>th</sup> Street to MOA, every 15 minutes from 6:00am to 7:00pm on weekdays; 9:00am to 6:00pm on Saturdays. Every 30 minutes not in the specified timeframes.

<sup>2</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.

<sup>3</sup> Station dwell times incorporated for modeling purposes. In practice, bus would operate similar to Route 54, not stopping unless passengers are waiting at a stop, or a rider requests a stop.

<sup>4</sup> Assuming the use of Electric buses for capital planning purposes only. Final decision on diesel versus electric to be made at a later phase of the project.

# Mall of America to Highway 5 River Crossing

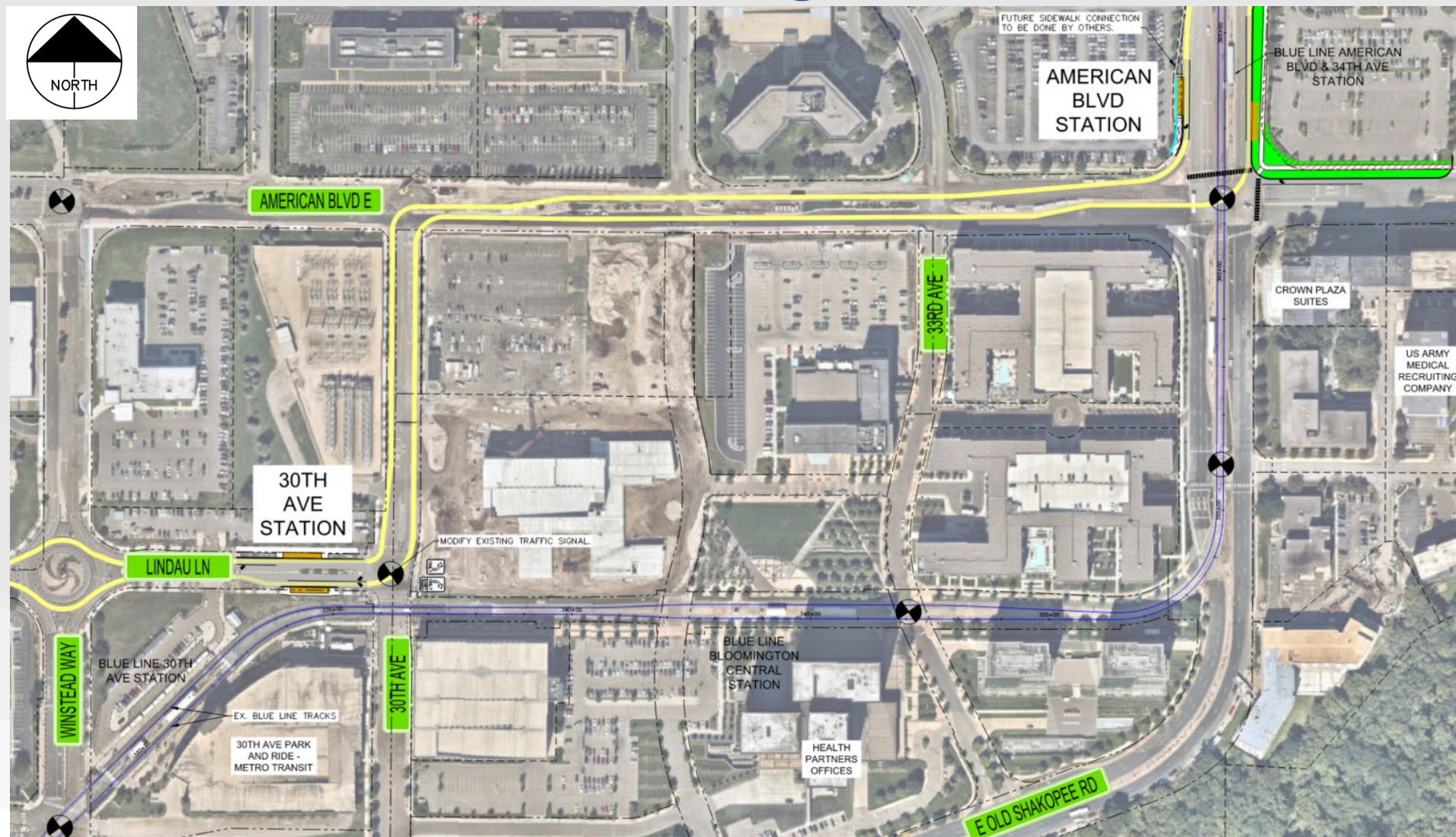
# End of Line Station – Mall of America



- Use of existing Mall of America Transit Station.
- Shared use lanes within Bloomington area.



# Bloomington





# MSP Terminal 1





# Fort Snelling Area / Highway 5 River Crossing



- No stations at Historic Fort Snelling or MSP Terminal 2.
- No river bridge improvements; no new pedestrian/bike connections.

# West 7<sup>th</sup> Street



# West 7th Street



- Curbside station platforms.
- Shared lanes with traffic.
- Existing lane configuration.
- Bump-outs at stations to decrease crossing distances.
- Median refuge between station platforms implemented where possible.



# Davern Street Station

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



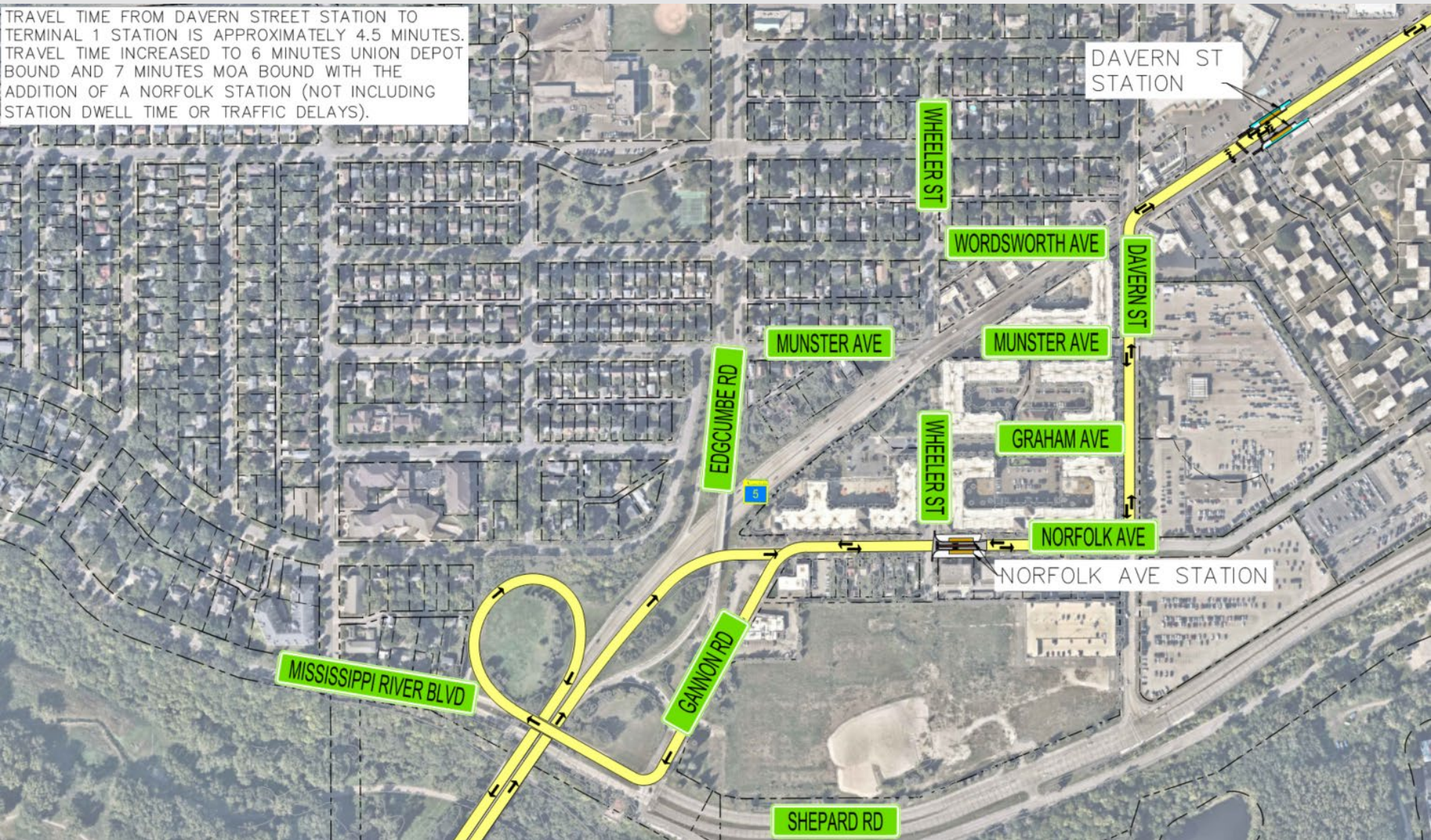


**Randolph Avenue Station**  
Looking east towards  
West 7<sup>th</sup> Street & Toronto Street



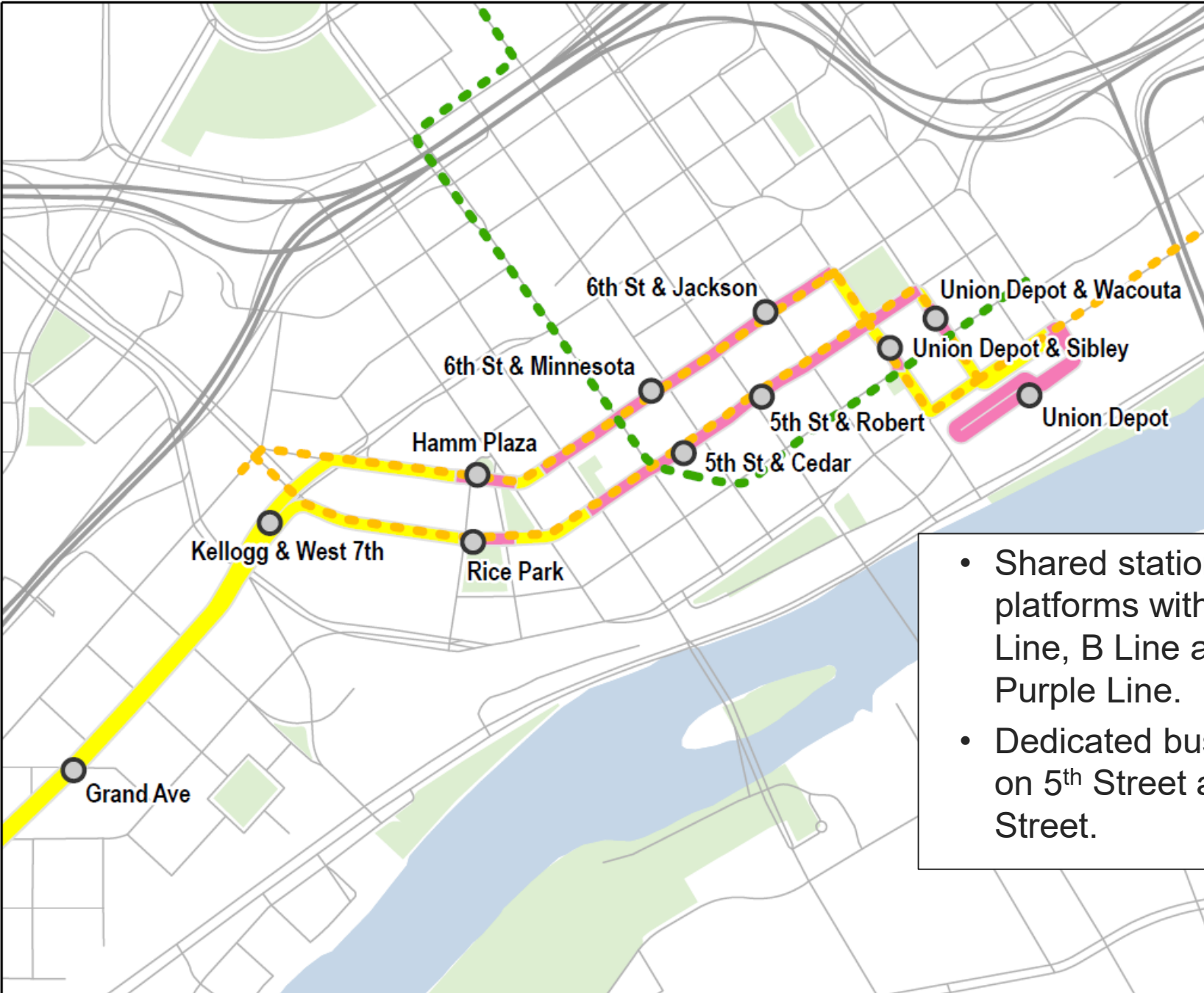
# ABRT: Norfolk Avenue Station

TRAVEL TIME FROM DAVERN STREET STATION TO  
TERMINAL 1 STATION IS APPROXIMATELY 4.5 MINUTES.  
TRAVEL TIME INCREASED TO 6 MINUTES UNION DEPOT  
BOUND AND 7 MINUTES MOA BOUND WITH THE  
ADDITION OF A NORFOLK STATION (NOT INCLUDING  
STATION DWELL TIME OR TRAFFIC DELAYS).



# Downtown Saint Paul





- Shared station platforms with Gold Line, B Line and Purple Line.
- Dedicated bus lanes on 5<sup>th</sup> Street and 6<sup>th</sup> Street.

ABRT Dedicated Lanes

Riverview ABRT Bus Station

Green Line

ABRT Shared Lanes

Gold Line



0 1,000  
US Feet  
Source: MnGeo

# Comparison of Options

# Comparison by the Numbers

	Streetcar Option 1	Streetcar Option 2	ABRT	Route 54
Number of Stations	20	22	21 (14 new)	26 stops (MOA to Union Depot)
Dedicated lanes	~10.1 miles or 87%	~8.2 miles or 72%	~0.52 miles or 4%	~0.52 miles or 4%
Service Frequency	10 mins/30 mins <sup>1</sup>	10 mins/30 mins <sup>1</sup>	10 mins/30 mins <sup>1</sup>	15 mins/30 mins <sup>2</sup>
Travel Time (westbound)	44:02 min	45:33 min	40:05 min	43:00 min
Travel Time (eastbound)	43:22 min	44:49 min	39:57 min	42:00 min
2040 Ridership	11,600	11,200	8,000	N/A
Capital Cost	\$2.10 billion (2033)	\$2.12 billion (2033)	\$121 million (2030)	
Operations and Maintenance Cost (2023)	\$34 million	\$34.5 million	\$16.8 million	



# Comparison to West 7th Streetcar Differentiators

Streetcar Option 1	Streetcar Option 2	ABRT
More dedicated lanes = more reliable transit service.	More shared use = more difficult to recover service/longer delays.	Primarily shared use lanes, not bound to track.
Longer overall pedestrian crossings but with media refuge. Crossing allowed only at signalized intersections.	Shorter pedestrian crossings due to bumpouts and medians. Crossing allowed at all intersections.	Shorter pedestrian crossings at station areas due to bumpouts and medians. Crossing allowed at all intersections.
Pedestrians cross traffic lane to access center platform.	Pedestrian access to transit from the curb.	Pedestrian access to transit from curb.
Trees do not conflict with catenary wire but less space in boulevard for trees.	More potential for tree/catenary wire conflicts.	No tree conflicts.

# Comparison to West 7th Streetcar Differentiators

Streetcar Option 1	Streetcar Option 2	ABRT
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.	All traffic movements allowed at all intersections.
Challenging delivery/loading operations.	Delivery/loading operations from center lane or side streets. Flexibility to add loading/unloading zones at expense of parking spaces if businesses prefer.	Delivery/loading similar to today, except limited at stations.
Very limited space for on-street parking (about 35 spaces remain, 605 lost).	Much on-street parking can remain (about 400 spaces remain, 240 lost).	On-street parking to remain except at station locations (about 570 remain, 70 lost).



# Bigger Picture Differences

	Streetcar	Arterial BRT
<b>Downtown</b>	Downtown alignment on Kellogg.	Downtown alignment 5th/6th.
	Requires modifications to Kellogg Boulevard (street and bridges).	No street modifications, uses existing BRT infrastructure.
<b>West 7th Street</b>	Street reconstruction in cost.	No street reconstruction in cost.
	Alignment stays on West 7th Street.	Direct service to Norfolk residential area.
<b>Bdote/Fort Snelling</b>	New Hwy 5 bridge required.	Existing Hwy 5 bridge remains.
	New ADA-accessible bike and pedestrian facility constructed with new bridge.	Current bike and pedestrian access/ADA issues remain.
	Station at Bdote/Historic Fort Snelling.	No station at Bdote/Historic Fort Snelling.

# Bigger Picture Differences

	Streetcar	Arterial BRT
<b>Airport/Mall of America</b>	Serves MSP Terminals 1 and 2.	Serves MSP Terminal 1.
	New elevated transit station on 82nd serves both Riverview and Blue Line. 2-minute travel time savings for Blue Line.	Serves MOA at existing transit facility. No change in Blue Line travel time.
	Alleviates existing delays and congestion at 24th Avenue intersection.	Difficult intersection operations at 24th Avenue remains.
	Transfer would take more time and requires vertical circulation. Less visibility.	More direct transfer for customers with mobility challenges.
<b>Overall</b>	\$2.10-2.12B capital costs (2033). \$34-\$34.5M O&M costs (2023). Higher replacement costs over time.	\$121M capital costs (2030). \$16.8M O&M costs (2023).

# Economic Development Analysis Update

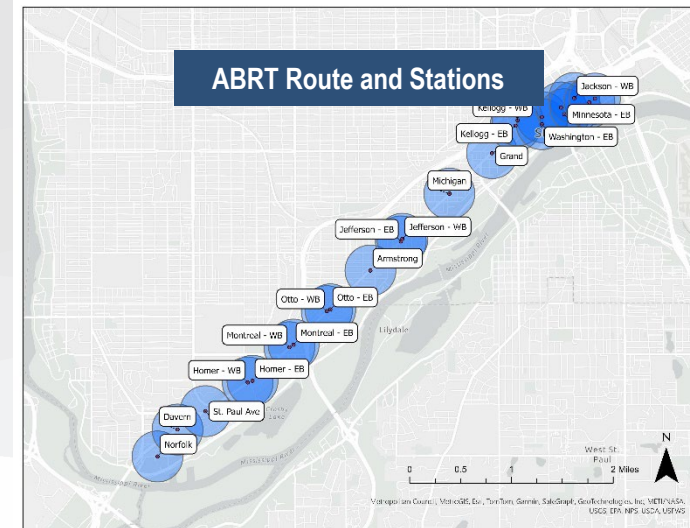
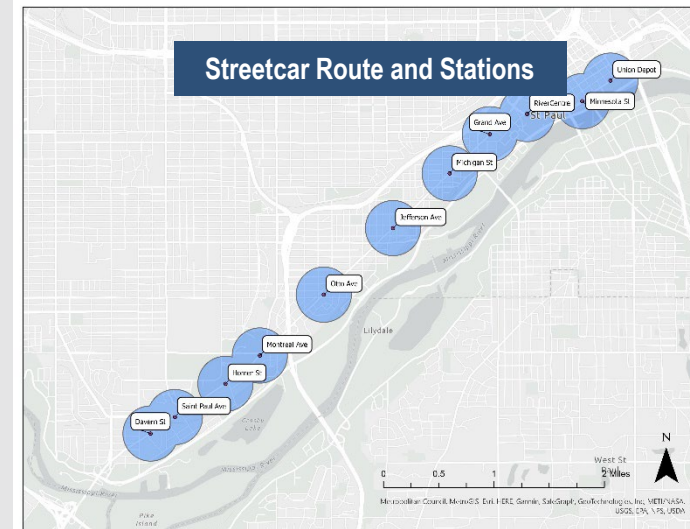
# Riverview Economic Development Analysis (EDA)

## Purpose

- Analyze the projected economic development impacts of Arterial Bus Rapid Transit (ABRT) and Streetcar in the Riverview Corridor:
  - Real estate value appreciation.
  - New development generated by new transit investment.

## Not a “Return on Investment” Assessment

- Does not include detailed equivalent cost comparison.
- Does not evaluate benefits other than real estate value and new development.
  - No analysis of direct benefits such as reduced travel times, enhanced safety, and reduced emissions.
  - No analysis of indirect benefits such as improved access to labor shed and regional construction benefits.
- Only looks at economic development benefits in Saint Paul.



# The Riverview EDA does not look at the difference between Streetcar Option 1 and Option 2

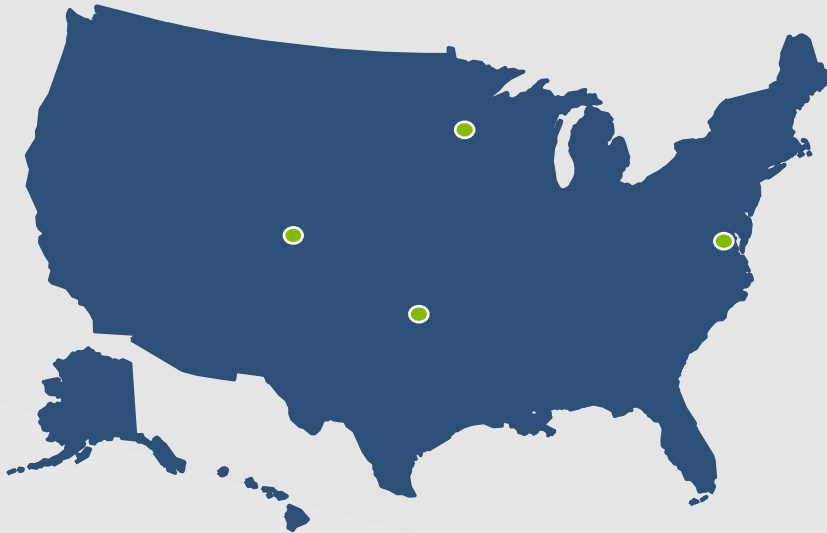
- Qualitative differences can impact economic development.
- But differences are not easy to measure and forecast.

Potential Economic Development Issue	Streetcar—Option 1 (Center-Running Portion)	Streetcar—Option 2 (Side-Running Portion)
<b>Ridership Numbers</b>	Ridership numbers are nearly equal (2040 Forecast: 11,600)	Ridership numbers are nearly equal (2040 Forecast: 11,200)
<b>Speed and Reliability</b>	More dedicated lanes means more reliable service	More shared use lanes means more potential for delays
<b>Pedestrian Access</b>	Pedestrians must cross to center stations and can only cross at signalized intersections	Pedestrians can access transit from the curb and can cross at most intersections
<b>Vehicular Traffic Movements</b>	Limited left turns for vehicles	More options for left turns for vehicles
<b>On-Street Parking</b>	Very limited space for on-street (about 35 spaces remain)	Much on-street parking can remain (about 400 spaces remain)
<b>Delivery/Loading Operations</b>	Impact to curb-side delivery	Impact to curb-side delivery but option to add loading zones at expense of parking



# The Riverview EDA uses four model studies to develop methodology

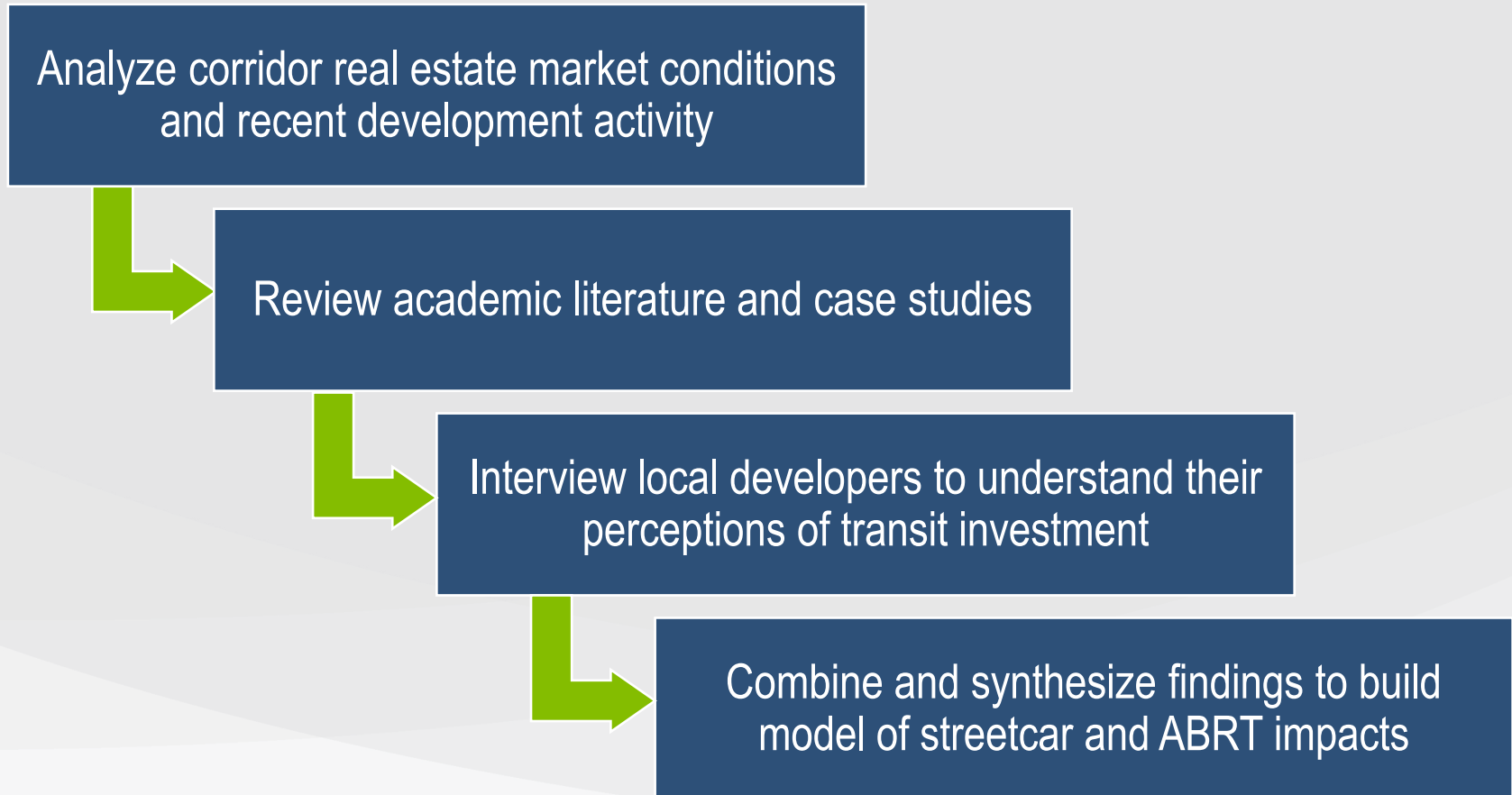
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- **Economic Development Impacts of Transit Alternatives—West Broadway Transit Study** (SRF Consulting Group Team), Minneapolis, Minnesota, November 11, 2015
- **Oklahoma City Modern Streetcar Project Land Use and Economic Development Assessment** (E.D. Hovee & Company, LLC), Oklahoma City, Oklahoma, November 6, 2013
- **Economic Development Impacts for Colfax Corridor** (Leland Consulting Group and P.U.M.A.), Denver, Colorado, June 2013
- **Value Capture and Tax-Increment Financing Options for Streetcar Construction** (The Brookings Institution, HDR, Re-Connecting America, and RCLCO), Washington, D.C., June 2009

# The Riverview EDA follows the same basic methodology as the model studies

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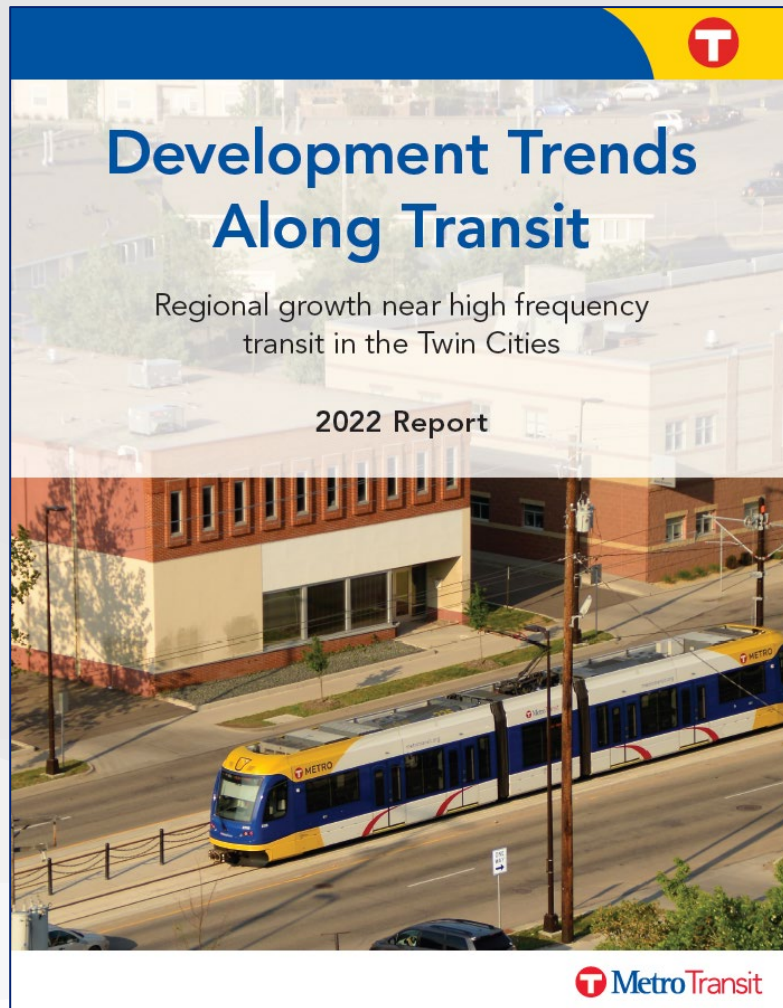
# Literature review and case study analysis finds that, generally, fixed rail is more impactful than arterial BRT



Photos from Steve Morgan, Wikimedia Commons, and King County

- Most significant drivers of development are supportive public policy and favorable market conditions.
- Light rail systems and streetcars have generated significant value premiums for multifamily and commercial uses.
- BRT with dedicated lanes can create value premiums comparable to fixed rail premiums. However, BRT without dedicated lanes is less impactful.
- Results vary significantly across different metro areas and time periods.
- No study can provide definitive estimates of modality differences.

# Local development trends were analyzed to understand evidence for the Twin Cities Metro Area



- Study found that since 2009, 36% of regional development has occurred along high-frequency transit lines.
- More development occurred along fixed-rail LRT than ABRT or high-frequency bus lines.
- These corridors include popular neighborhoods, so much of the development momentum cannot be attributed to transit.
- The quality and frequency of the line are critical to attract new development.



# Interviews with local developers echoed findings from case studies and literature review

- Interviewed eight real estate developers and economic development professionals.
- Asked about how they think about fixed rail versus ABRT infrastructure.
- Most agreed that fixed rail is more attractive for developers.
- Some said that ABRT can also drive development, but not as strong as fixed rail.
- Developers said it was a qualitative factor for development.
- Concerned about recent ridership trends/crime trends for transit projects.



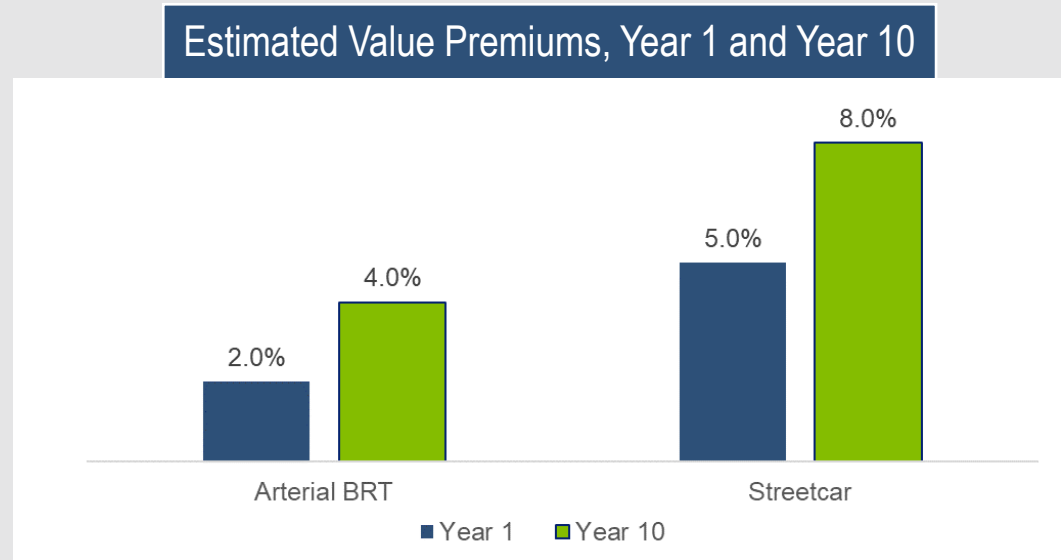
Photos from LOCi Consulting LLC



# Transit projects create value two ways:

## (1) The project drives existing property values higher

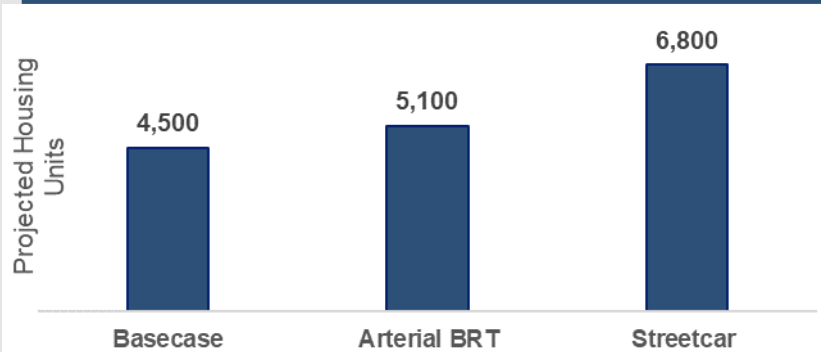
- Existing property value premiums are estimated using model studies, literature review, and case studies.
- Properties within 0.25 miles of stations.
- Impacted real estate is projected to see value premiums in Year 1 of operations.
- Growth is projected to continue through Year 10.



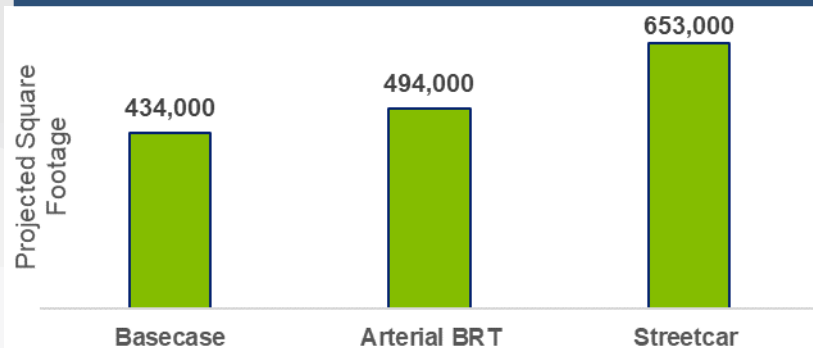
Source: Perkins+Will; LOCi Consulting LLC

# And (2), higher values incentivize new development and redevelopment projects in the corridor

Forecasted Residential Development, 2033-2053



Forecasted Commercial Development, 2033-2053



- The Riverview EDA identified key areas for potential development or redevelopment in the corridor.
- Estimated base case development forecast using previous development trends.
- Synthesized model studies, literature review, case studies, and developer interviews to estimate incremental new development and redevelopment.

Source: Perkins+Will; LOCi Consulting LLC

# Riverview EDA Findings—Estimated Incremental Real Estate Value Created



## Streetcar:



## ABRT:



\* 20-year post-development period. Dollars are shown in projected dollars for first year of operation (2033 for Streetcar; 2030 for ABRT) with assumed 3.5% inflation. Estimate is present value discounted to the first year of operations.

# Community Engagement Report and Plan



# Community Engagement Report



- July to December 2023.
- In-person engagement.
- District Council briefings.
- INPUTiD interactive map.
- Info@ email.
- Since the January 31 PAC meeting.

# Community Engagement Plan



## In-person engagement.

- Open house public meetings.
- Pop-up events.
- District Council briefings.
- Focusing on:
  - Underrepresented groups.
  - Pedestrians and transit riders.
  - Area businesses.

# Community Engagement Plan



Online engagement and communication.

- Project website and library updates.
- Photo simulations.
- Surveys and questionnaires.
- [Info@riverviewcorridor.com](mailto:Info@riverviewcorridor.com).
- Updated INPUTiD interactive map.
- Outdoor advertising campaign.

# Next Steps



## Next Steps

- **PAC February 29** – Authorize release of streetcar and bus options for public input and engagement.
- **Spring/Summer 2024** – Public engagement.
- **Summer/Fall 2024** – PAC action on next steps.

# Thank You for Attending

LEARN MORE: [RIVERVIEWCORRIDOR.COM](https://riverviewcorridor.com)

