Rethinking I-94

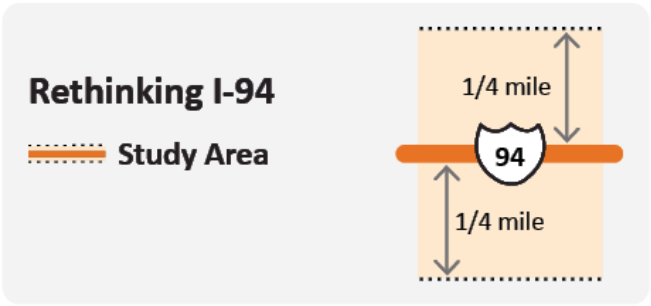
St Paul City Council Conversation

July 19, 2023

Conversation Overview

1. Schedule and environmental process
2. Rethinking I-94 transit study update
3. Alternatives development process
4. Upcoming public engagement
5. Next steps

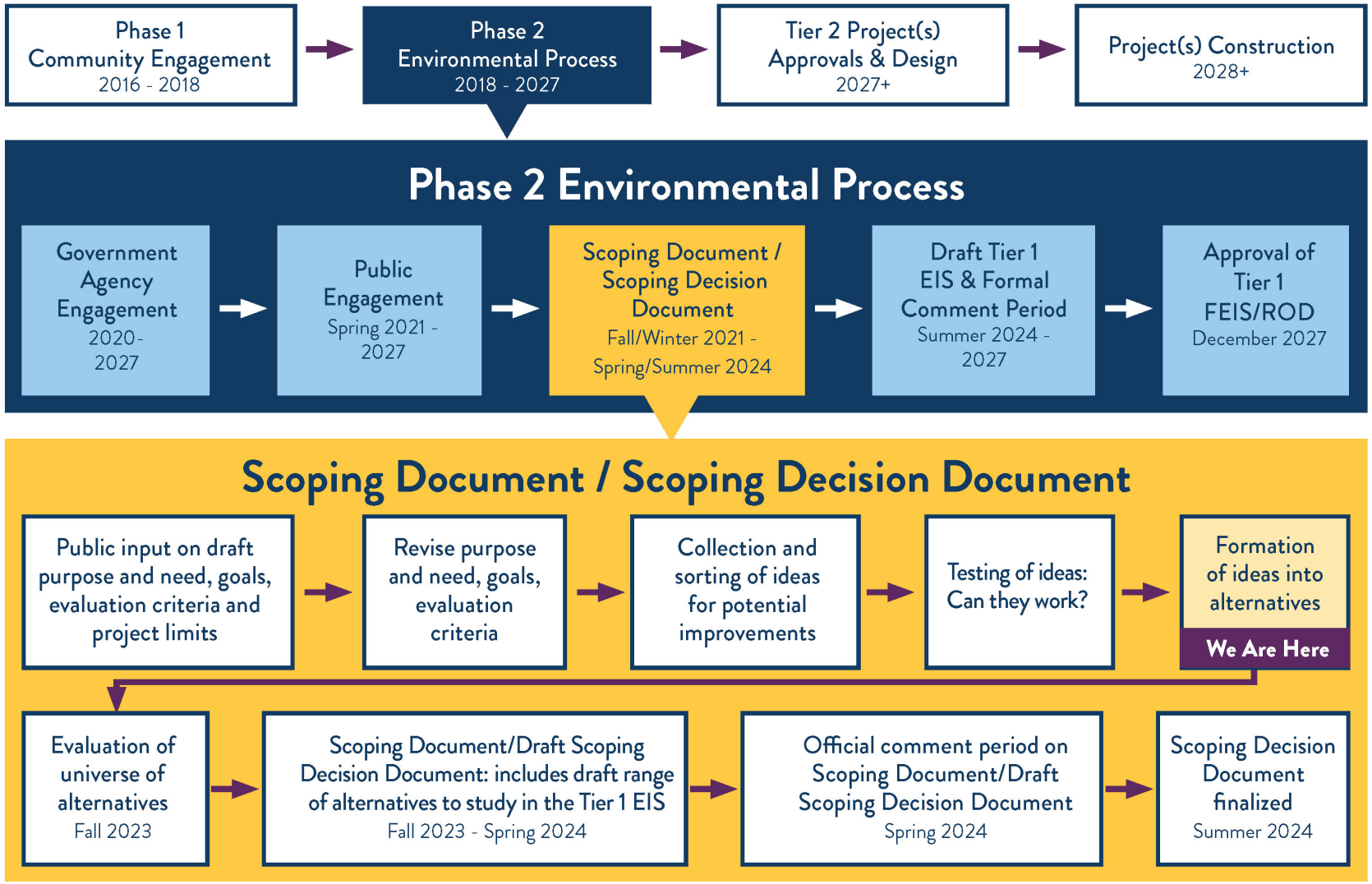
Project Location



Schedule

Rethinking I-94 Overall Project Schedule

DEPARTMENT OF TRANSPORTATION



Schedule subject to change (updated 6-28-2023)

Schedule

Environmental process outcomes

- Scoping phase: Through June 2024
  - Narrowed range of potential alternatives (roadway + transit ideas combined)
  - Alternatives will be high-level with limited details
  - List of locations for access/interchange modifications
  - High-level analysis of corridor impacts

Schedule

Environmental process outcomes

- Tier 1 EIS: Summer 2024 - 2027
  - Preferred corridor alternative – select roadway type (freeway or non-freeway), number and type of travel lanes, type of transit and associated stops.
  - Options for intersection/interchange modifications
  - Opportunities for crossing and parallel bicycle and pedestrian improvements
  - Visual quality analysis (corridor aesthetics)
  - Program of projects
  - More detailed analysis of corridor impacts

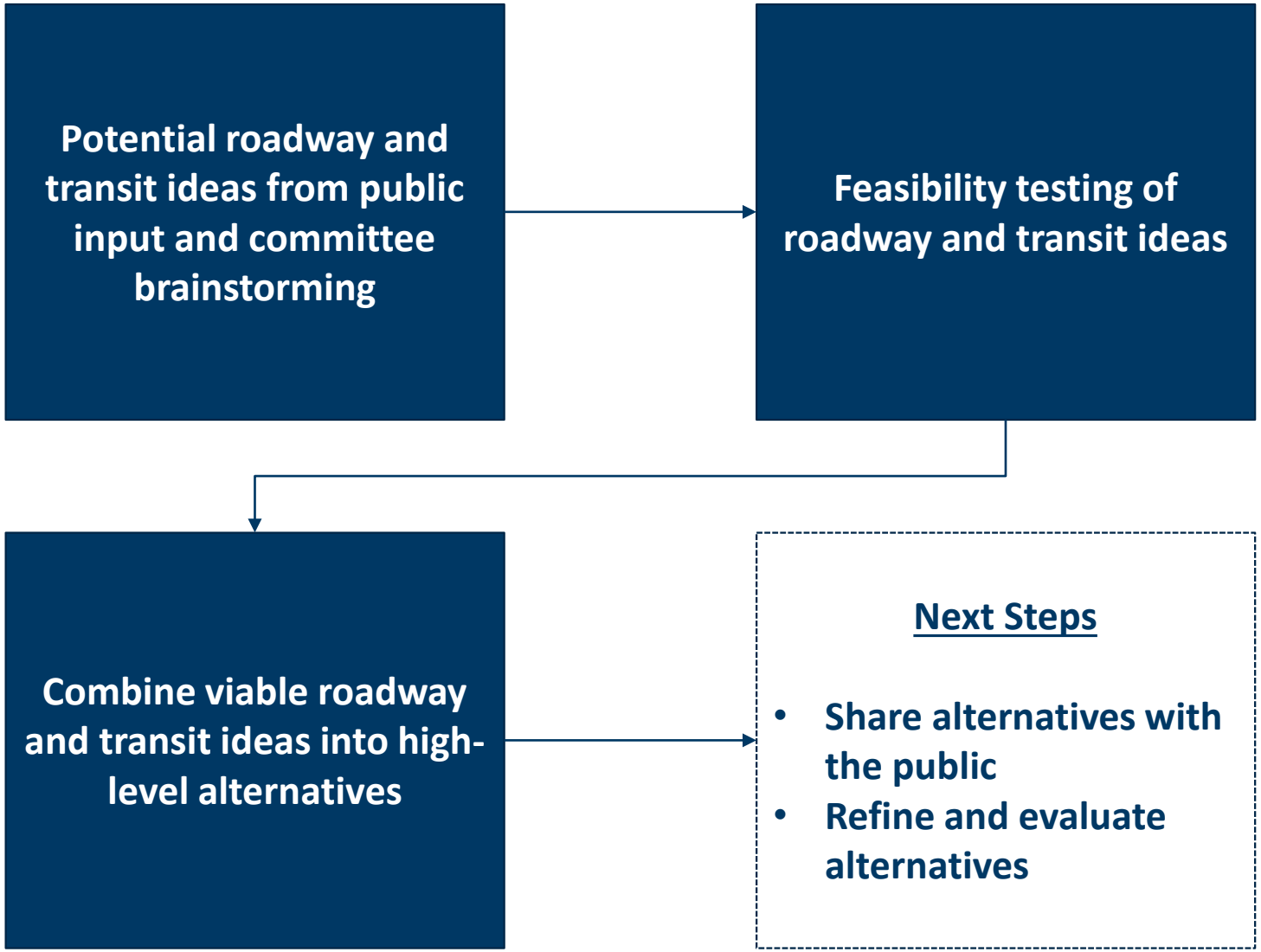
Schedule

Environmental process outcomes

- Tier 2 environmental documents: 2027+
  - Follows Tier 1 EIS, completed as projects are designed and constructed.
  - Separate documents to independently analyze and construct the program of projects to implement the corridor vision
  - Will address specific project impacts at individual project locations within the corridor.
  - Greater detail will be provided about interchanges, pedestrian and bicycle facilities, transit stops, landscaping, lighting, noise walls, and other roadway elements.
  - As designs become more detailed, potential opportunities for improved streetscaping (trees/vegetation), public art, and other uses of right of way will be better understood.

Transit Study Update

Alternatives development process



TYPES OF TRANSIT

Bus on Shoulder

Commuter/Express Bus
or
Highway Bus Rapid Transit (BRT)

Source: Metro Transit Photo Library, I-94

Managed Lane

Commuter/Express Bus
or
Highway Bus Rapid Transit (BRT)

Source: Star Tribune, Minneapolis, MN, EB I-394

Non-Highway

Dedicated Bus Rapid Transit
(BRT)

Source: Star Tribune, Minneapolis, MN, Hennepin Ave., Uptown

Not Recommended:

- Local Bus/Limited Stop
- Arterial Bus Rapid Transit (BRT)

TYPES OF TRANSIT

Light Rail

Source: Metro Transit Photo Library, Green Line

- Not originally recommended
- Studied due to public interest

Not Recommended:

Commuter Rail

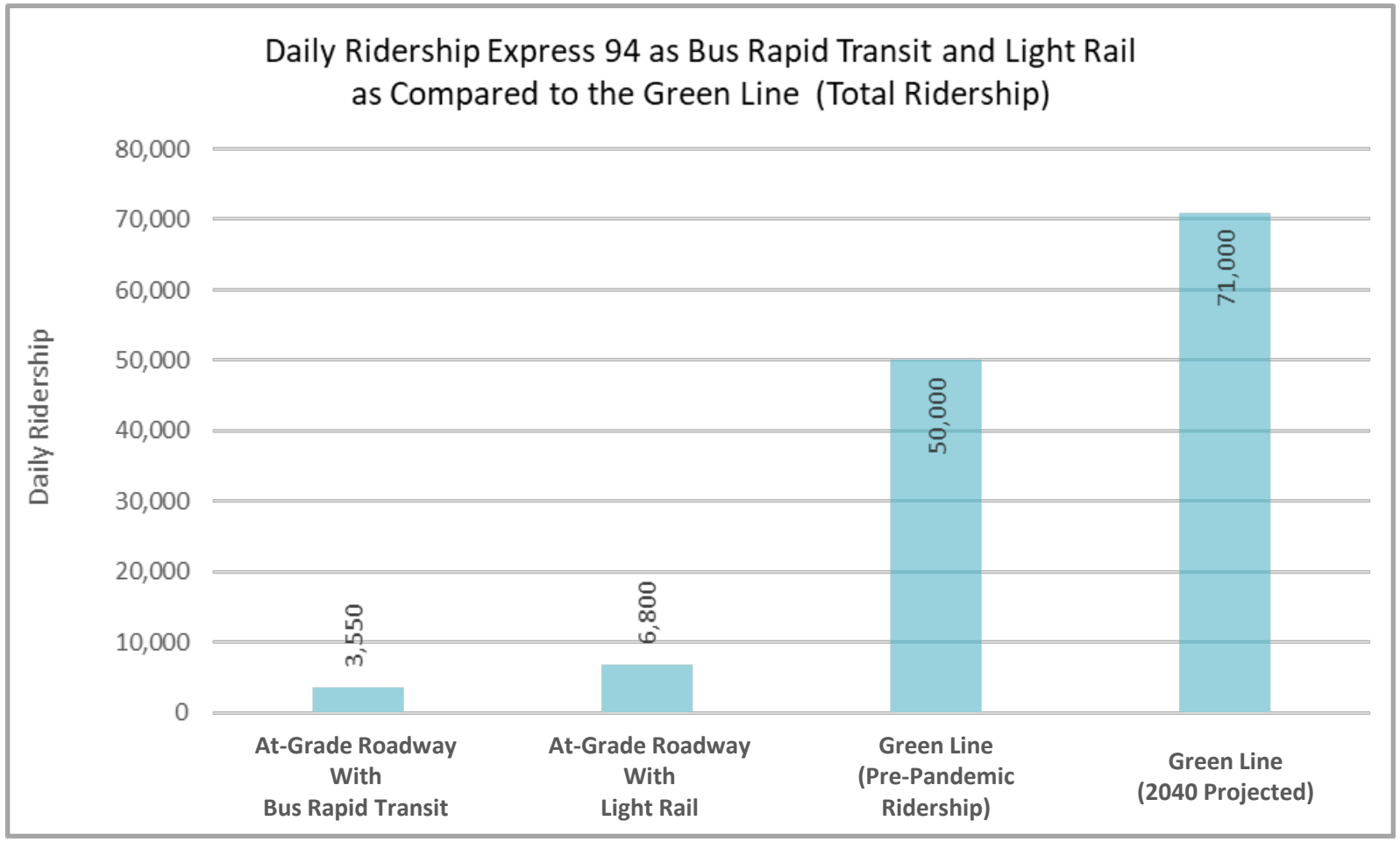
Source: Metro Transit Photo Library, Northstar Commuter Rail

High Speed Rail

Source: Shinkansen High Speed Rail, Japan

RIDERSHIP SENSITIVITY ANALYSIS

Based on ridership analysis, demand along the project corridor does not warrant light rail.



TRANSIT IDEAS

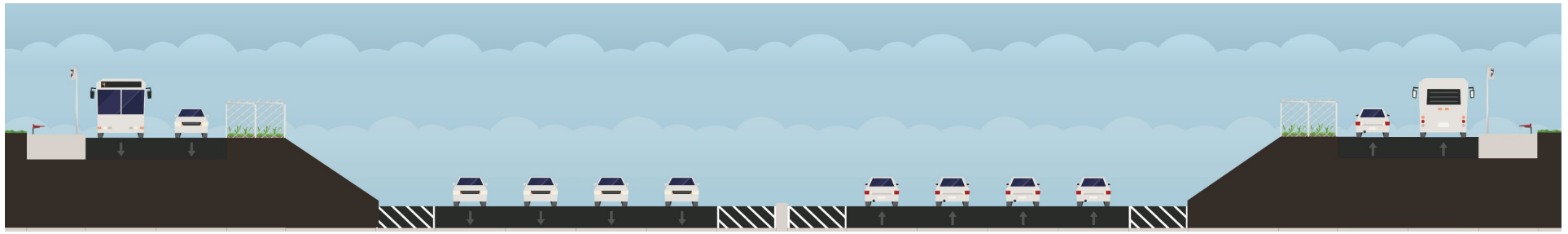
Running Way	Transit Type	Station Type	Stations/Stops
Partial Shoulder (No Build)	Express Bus	In-Line	Huron (WB)
100% Shoulder	Highway BRT	In-Line	25th/27th, Huron (WB), Cretin, Snelling, Dale
			Snelling
Managed Lane (TPP)	Express Bus	None	None
Managed Lane	Highway BRT	On-Line	Snelling
			25th/27th, Snelling, Dale
			25th/27th, Huron, Cretin, Snelling, Dale
At-Grade Roadway	Dedicated BRT	On-Line	25th/27th, Snelling, Dale

TRANSIT STATION / STOP TYPES

In-Line

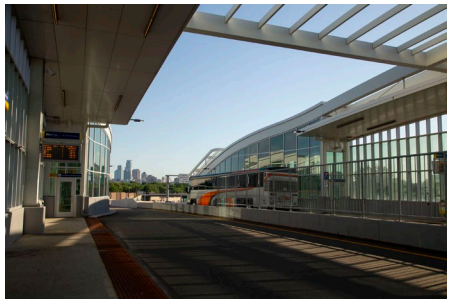
Typically located along freeway on- and off-ramps; bus exits the freeway to access the bus stop.

Source: TGC, I-94 at Snelling Ave.



On-Line

Located along the freeway so the bus does not have to exit to access the station.



Source: Metropolitan Council, Orange Line, Lake St. Station.

** Pictures shown are not project alternatives, they are for the purpose of illustrating potential stop types only.*

HOW WERE THE TRANSIT IDEAS EVALUATED?

Performance: Which Transit Ideas provide fast, reliable transit travel times and attract more new riders against the No Build scenario? The criterion examines ridership, transit travel time, average speed, and corridor origin/destination transit travel time.

Accessibility via Transit: Which Transit Ideas most improve access to destinations via transit? The criterion provides data about access to and from a variety of destinations important to transit riders.

Proximity to Transit Stations/Stops within Project Corridor: Which Transit Ideas serve more people and jobs with improved transit service and facilities? The criterion considers total population, minority populations, low-Income populations, population forecast, and location of jobs.

HOW WERE THE TRANSIT IDEAS EVALUATED?

Connectivity to Transit Stations/Stops within Project corridor: Which Transit Ideas support a well-connected transit network? The criterion examines the number of bike lanes and local and high-frequency transit routes connecting to online and/or inline stations/stops on the project corridor.

Environmental: Which Transit Ideas most help to manage the environmental impact of vehicle miles traveled in private automobiles? The criterion examines the network change in vehicle miles traveled for private automobile use.

Complexity and Cost: Which Transit Ideas balance reasonable cost and implementation complexity? The criterion explores implications about cost and implementation ease.

EVALUATION SUMMARY

Transit Ideas → I-94 Corridor Alternatives

Continue to Evaluate With Highway Ideas	Idea	Running Way	Transit Type	Station Type	Station/Stop	Key Findings (Comparison to No Build)
Do Not Continue to Evaluate	A.1	100% Shoulder	Express Bus	In-Line	25th/27th, Huron (WB), Cretin, Snelling, Dale	• Exiting the highway five times **creates a time penalty** for all riders. • Significantly **reduces ridership** (~70%) on Express Route 94 and other corridor routes.
Continue to Evaluate	A.2	100% Shoulder	Express Bus	In-Line	Snelling	• Like No Build existing service but with **speed enhancements on the west end of the corridor.**
Continue to Evaluate	TPP	Managed Lane	Express Bus	None	None	• **Required to be evaluated** per Federal Highway Administration guidance. • **Fastest transit travel time**, among all Transit Ideas, along the corridor.
Continue to Evaluate	B.1	Managed Lane	Highway BRT	On-Line	Snelling	• Projected to also **increase ridership for routes already using the corridor**. • **Second fastest transit travel time**, among all Transit Ideas, along the corridor.
Continue to Evaluate	B.2	Managed Lane	Highway BRT	On-Line	25th/27th, Snelling, Dale	• Provides **access to the top three trip-generating stations/stops** along the corridor. • Provides the **highest level of accessibility to transit** among all Transit Ideas
Do Not Continue to Evaluate	B.3	Managed Lane	Highway BRT	On-Line	25th/27th, Huron, Cretin, Snelling, Dale	• Cretin Avenue and Huron Boulevard are **lower ridership generating stations** (comparatively) and create a time penalty.
Continue to Evaluate	C.1	At-Grade Roadway	Dedicated BRT	On-Line	25th/27th, Snelling, Dale	• Provides **ridership increases to Green Line and Blue Line** • Provides **similar Project Corridor level ridership** as ideas B.2 and B.3
Do Not Continue to Evaluate	LRT	At-Grade Roadway	LRT	On-Line	25th/27th, Snelling, Dale	• Corridor **does not generate sufficient ridership** to warrant further study of a light rail alternative.

Others Key Considerations

> A significant change to the corridor (e.g., at-grade roadway) would significantly impact transit system operations.

B.3 – Bus Rapid Transit on Managed Lane, Five Station

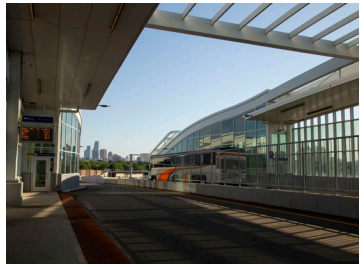
> LOCATION
Managed Lane

Source: Star Tribune, Minneapolis, EB I-394

> TYPE OF BUS
Bus Rapid Transit

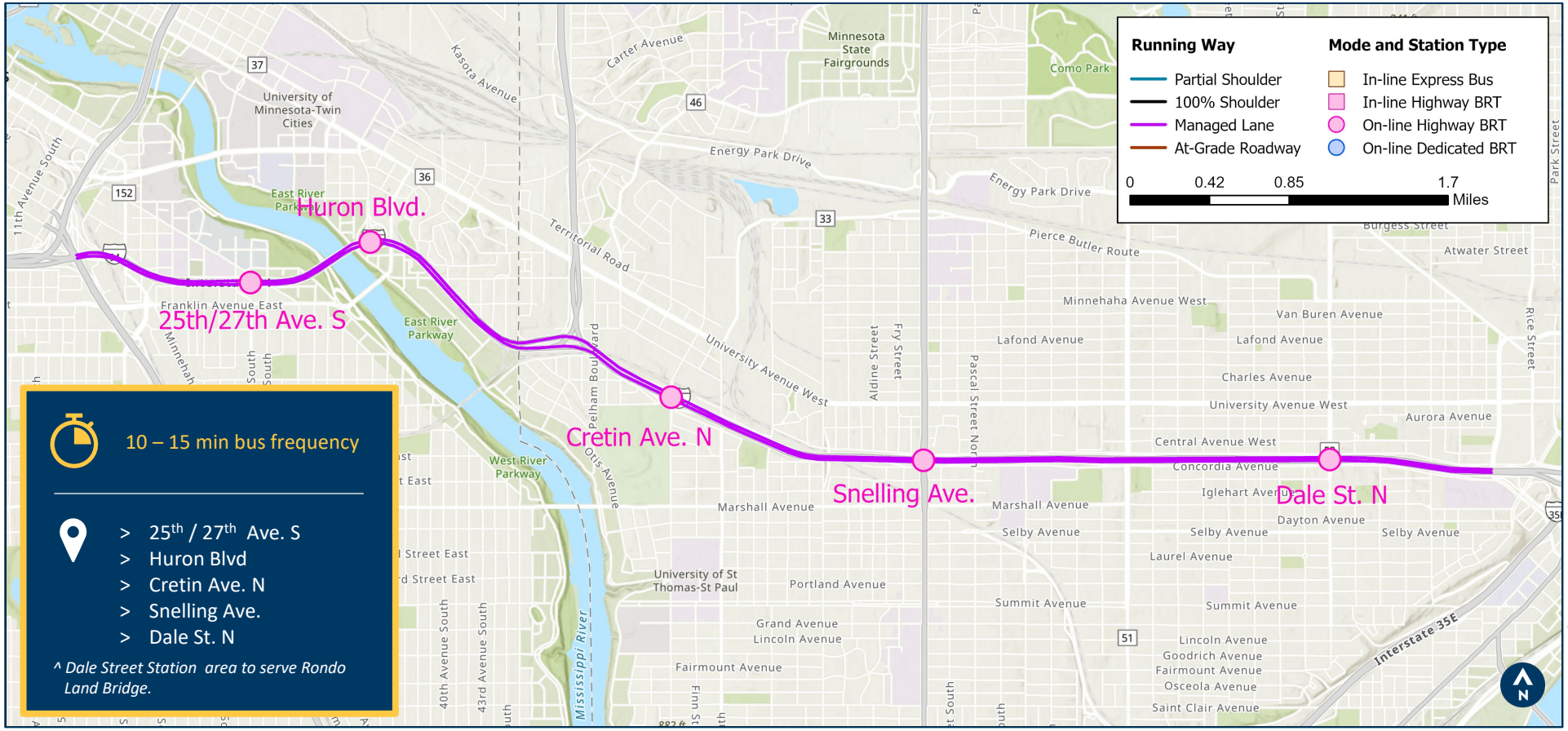
Source: Metro Transit Photo Library, C Line, 7th & 3rd/4th Station

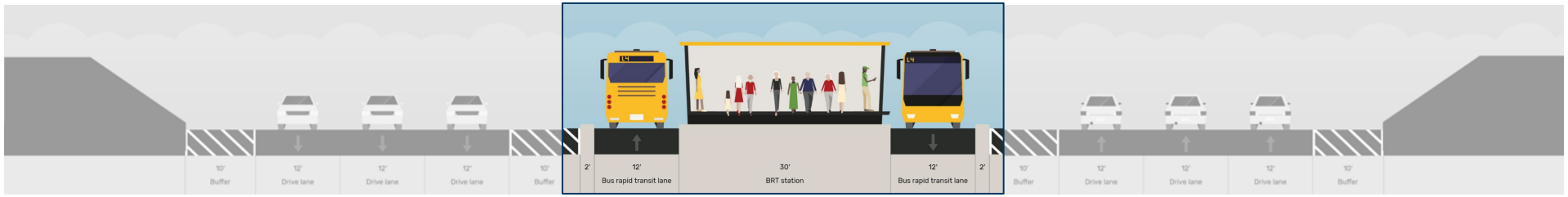
> STATION TYPE
On-Line



Source: Metropolitan Council, Orange Line, Lake St. Station

**Pictures shown are for illustration purpose only*





PROJECT CORRIDOR – RIDERSHIP
(Net new corridor transit ridership (New Station/Stops))

No Build

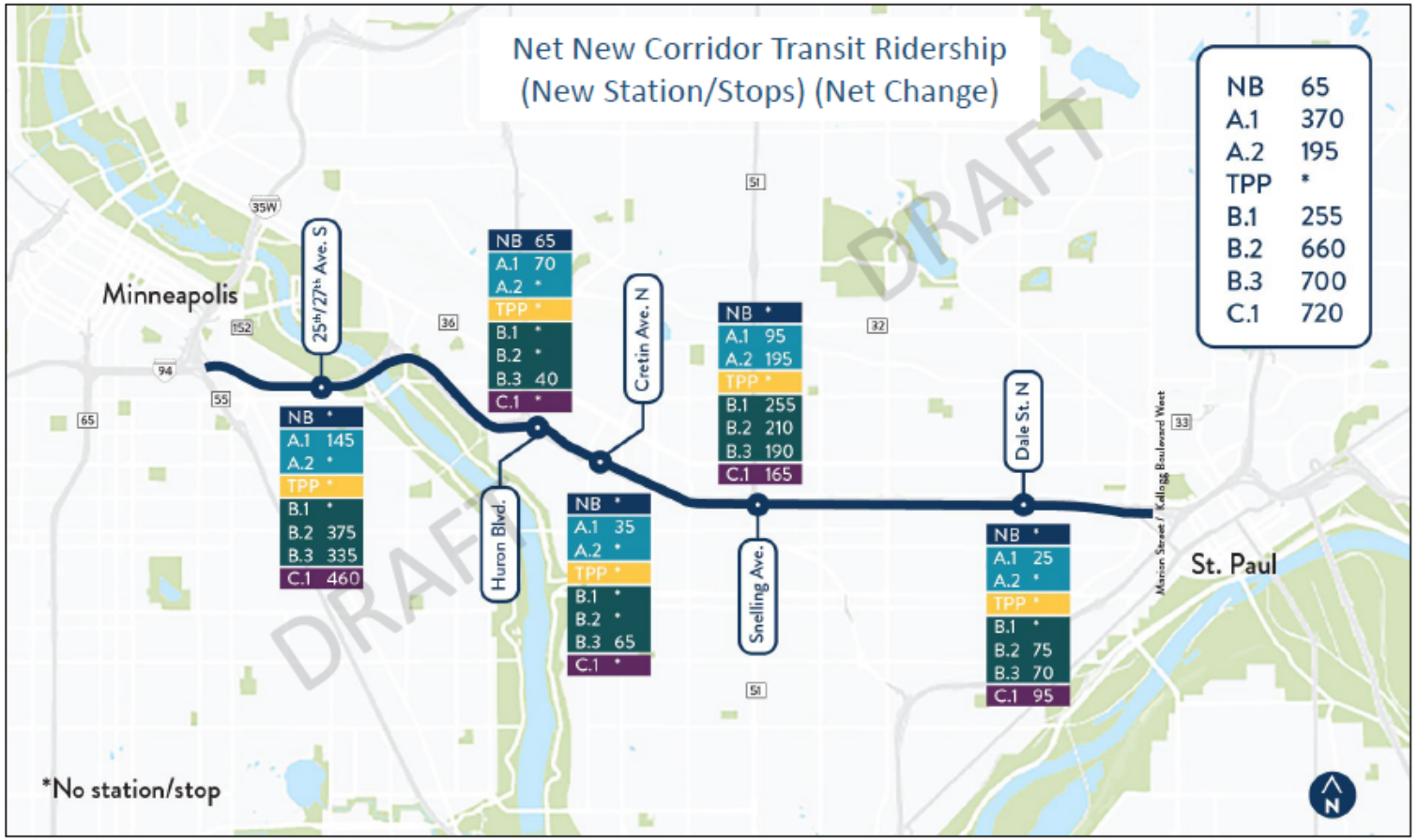
Ridership = 65
(Huron WB Only)

Net Ridership Change %

A.1	A.2	TPP	B.1	B.2	B.3	C.1
575%	190%	-100%	285%	930%	1,085%	1,130%

RANKING SCALE
LOW — HIGH

Key Finding: 25th/27th and Snelling stations generate most of the new project ridership.



Idea	Running Way	Transit Type	Station Type	Station /Stop
No Build	Partial Shoulder	Express Bus	In-Line	Huron (WB)
A.1	100% Shoulder	Highway BRT	In-Line	25th/27th, Huron (WB), Cretin, Snelling, Dale
A.2	100% Shoulder	Highway BRT	In-Line	Snelling
TPP	Managed Lane	Express Bus	None	None
B.1	Managed Lane	Highway BRT	On-Line	Snelling
B.2	Managed Lane	Highway BRT	On-Line	25th/27th, Snelling, Dale
B.3	Managed Lane	Highway BRT	On-Line	25th/27th, Huron, Cretin, Snelling, Dale
C.1	At-Grade Roadway	Dedicated BRT	On-Line	25th/27th, Snelling, Dale

Current Year of Base Model: February 2020. Horizon Year: 2040

OTHER ROUTES THAT USE THE PROJECT CORRIDOR – RIDERSHIP

(Net new transit ridership for routes that use the corridor)

No Build | Ridership = 8,480

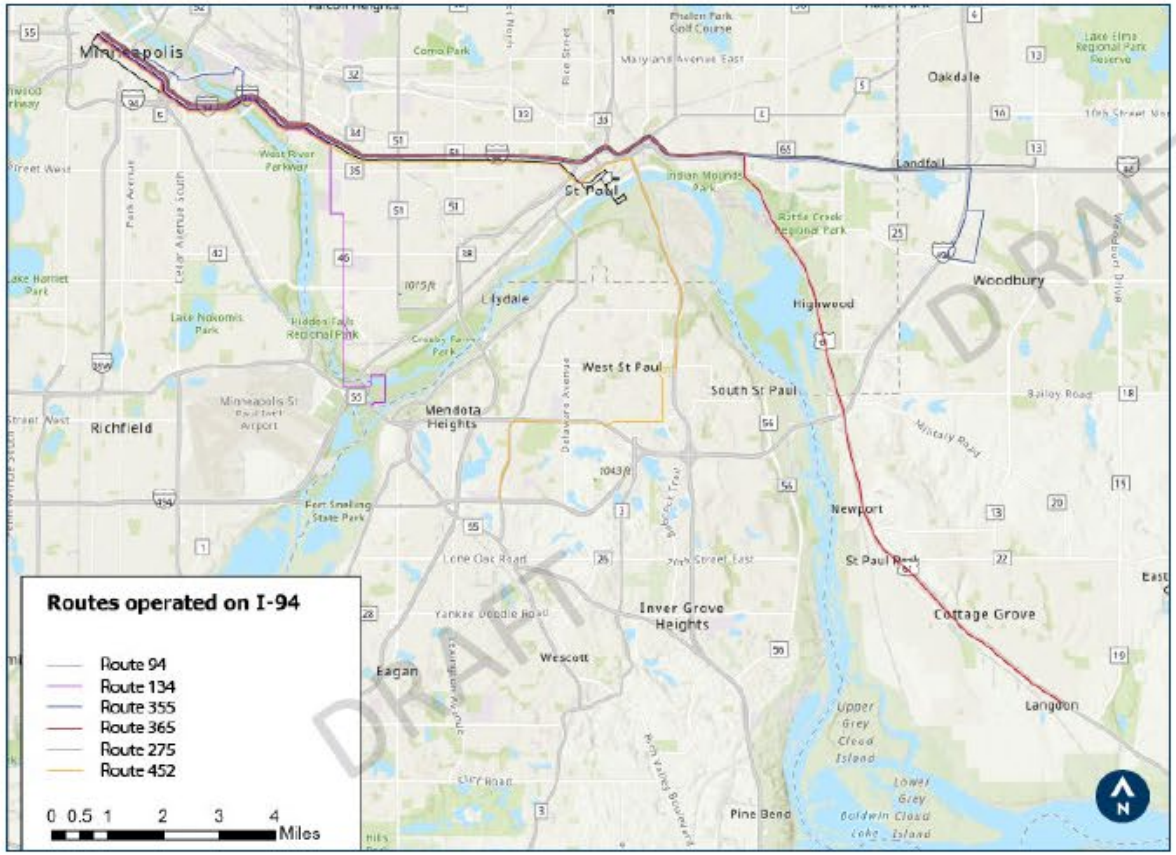
RANKING SCALE

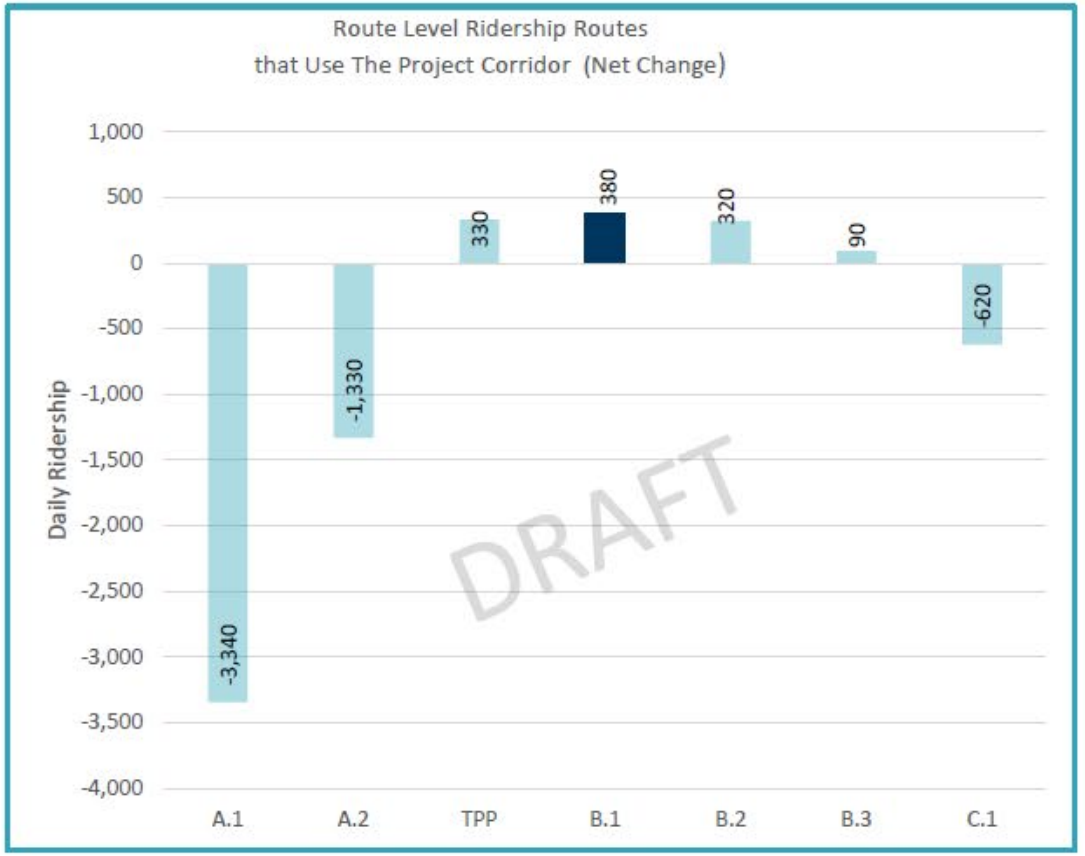
LOW — HIGH

Key Finding: Routes that use the corridor decline in ridership as more stops are added, specifically in-line stops.

Net Ridership (Routes that Use the Corridor) Change %

A.1	A.2	TPP	B.1	B.2	B.3	C.1
-39%	-16%	3.9%	4.5%	3.8%	1.1%	-7.3%





Current Year of Base Model: February 2020. Horizon Year: 2040

Transit Study Update

Stop/station considerations

- Three stops in the corridor balances transit travel time and access (ridership) when compared to one or five stops
- 25th/27th Ave
  - Already well-served by transit
  - Challenging location for station construction
- Snelling Ave
  - Key transfer location (A Line, Green Line, etc.)
  - Current Route 94 stop location
- Dale St
  - Lowest ridership among 3 stations advanced

Transit Study Update

Stop/station considerations

- Locations not final – could be adjusted based on preferred alternative
- Specific transit connections into downtown Minneapolis and St. Paul would be determined later in the process
- Additional discussion of Huron Blvd stop
  - Not advanced at this time but could be re-evaluated later in the process based on UMN redevelopment plans.

Transit Study Update

Study outcomes

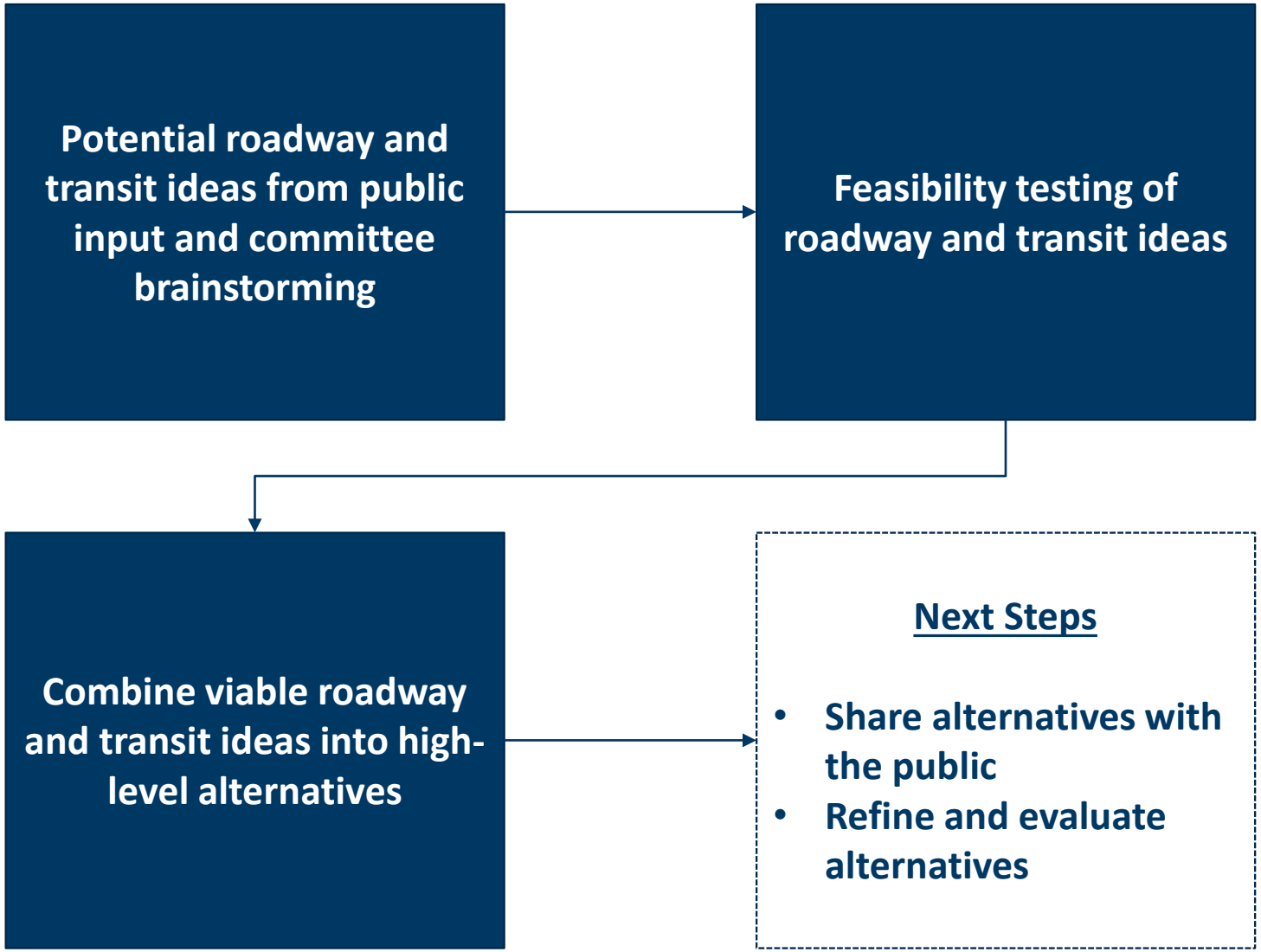
- Five transit ideas advanced for additional review.
- Three preliminary stop locations (25th/27th, Snelling Ave, Dale St) advanced for additional review.
- Draft alternatives reflect these transit ideas.

Transit Study Update

Comments/Questions/Discussion

Alternatives Development Process

Alternatives development process



Alternatives Development Process

Roadway ideas testing

- Purpose:
  - Determine what would happen in and around I-94 at a high level with different roadway types and number of travel lanes.
  - Understand general implications of different options and the potential for congestion on the supporting roadway network
- Agency and committee workshops held to guide process and discuss results
- Used the Met Council's Regional Model.
  - Provides a high-level overview of travel patterns, not detailed information.
  - Tier 1 EIS will involve more detailed modeling.

Alternatives Development Process

Roadway ideas considered

Highway Idea	Status
No Build	Retained
Add General Purpose Lane	
Add Managed Lane	
Convert General Purpose Lane to Managed Lane	
Reconfigure to At-Grade Roadway with Bus Rapid Transit	
Remove the Freeway (without replacement)	Dismissed
Reconfigure to At-Grade Roadway (without transit)	
Lower Speed Limit	

Alternatives Development Process

Alternatives added:

- Adding general purpose lane with transit shoulder
- Freeway with two general purpose lanes and a managed lane
- Local and regional roadway hybrid

Alternatives Development Process

Key takeaways:

- Alternatives that increase capacity (more travel lanes, managed lane) could:

Increase the amount of vehicle miles traveled (VMT)

Decrease person hours of travel (PHT)

Decrease vehicle hours of travel (VHT)

Alternatives Development Process

Key takeaways:

- Alternatives that increase capacity (more travel lanes, managed lane) could:

Decrease hours of delay

Increase travel time reliability

Alternatives Development Process

Key takeaways:

- Alternatives that reduce capacity (fewer travel lanes) could:

Decrease the amount of vehicle miles traveled (VMT)

Increase person hours of travel (PHT)

Increase vehicle hours of travel (VHT)

Alternatives Development Process

Key takeaways:

- Alternatives that reduce capacity (fewer travel lanes) could:

Increase hours of delay

Decrease travel time reliability

Alternatives Development Process

Key takeaways

- Alternatives that reduce capacity will result in substantial reductions in the number of trips on I-94.
- Users may:
  - Choose to not take some trips
  - Change when they travel
  - Change travel modes
  - Change home or work locations
- The remaining trips will take place on the local roadway system and other regional highways, impacting these routes.

Alternatives Development Process

Key takeaways

- Each alternative will have tradeoffs that will need to be balanced in the evaluation process.
- Traffic measures are not the only criteria that will be considered when evaluating alternatives and making decisions.
- There are many other criteria including other project needs, potential project impacts and items from the project's Statement of Goals, including criteria and measures for Livability.

Alternatives

Alternatives Development Process

Considerations

- Intersection/interchange modifications not determined at this time.
- MnDOT is committed to walkability and bikeability improvements as part of all build alternatives. Specific improvements will be determined later in the process.
- Potential streetscaping and other aesthetic elements will be determined later in the process.
- Reconnect Rondo Land Bridge project will be considered in the decision-making process for the project alternatives.

Alternatives

Alternatives:

- General Maintenance
- Maintenance – A
- Maintenance – B
- At-Grade – A
- At-Grade – B
- Local/Regional Roadways – A
- Reduced Freeway – A
- Reconfigure Freeway – A
- Expanded Freeway – A
- Expanded Freeway – B

Rethinking I-94 | General Maintenance, Maintenance A, and Maintenance B

General Maintenance

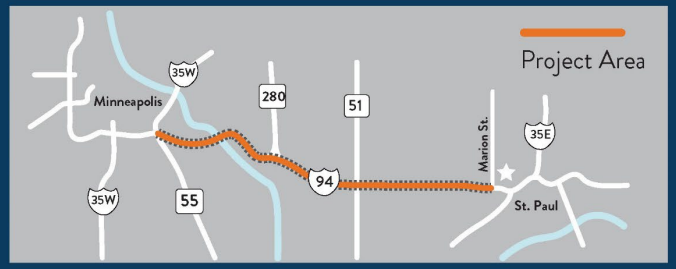
No Build. I-94 would remain as is. Transit would continue as it is today.

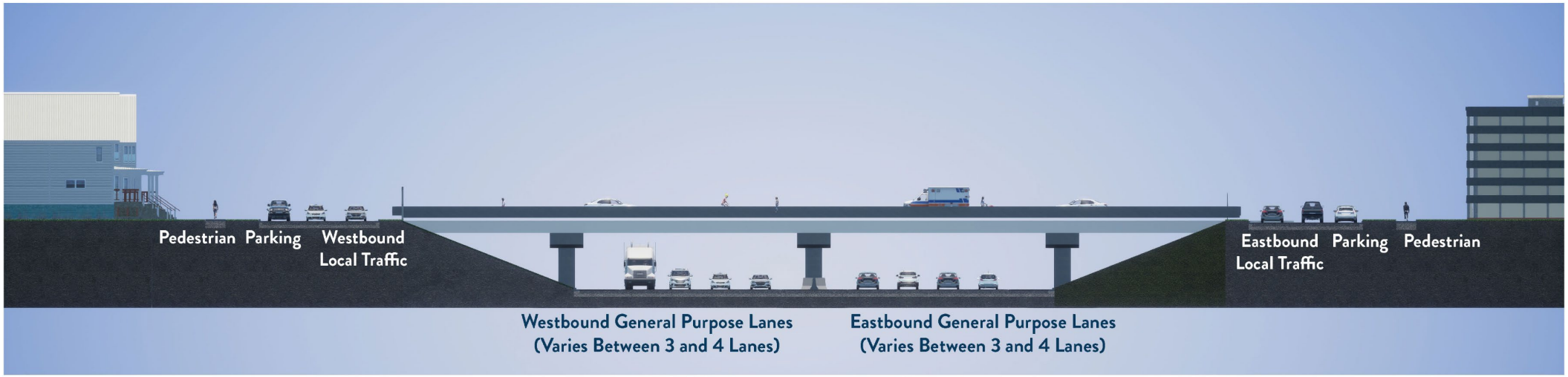
Maintenance A

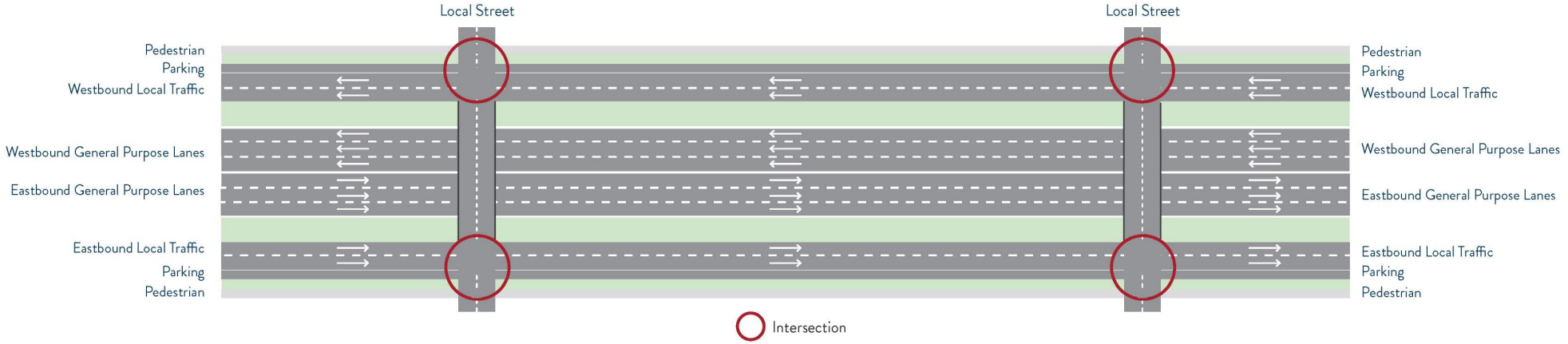
Maintain the existing infrastructure. Transit would continue as it is today.

Maintenance B

Replace the existing infrastructure to current standards with consistent shoulders. This would allow transit to run on shoulders along the corridor.





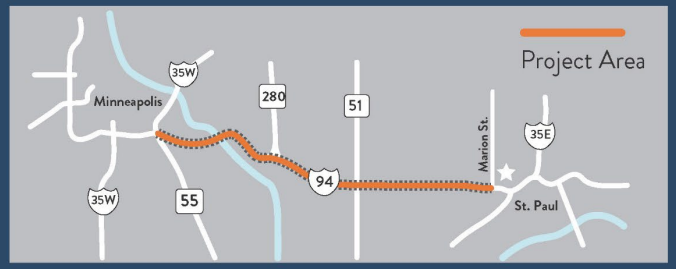


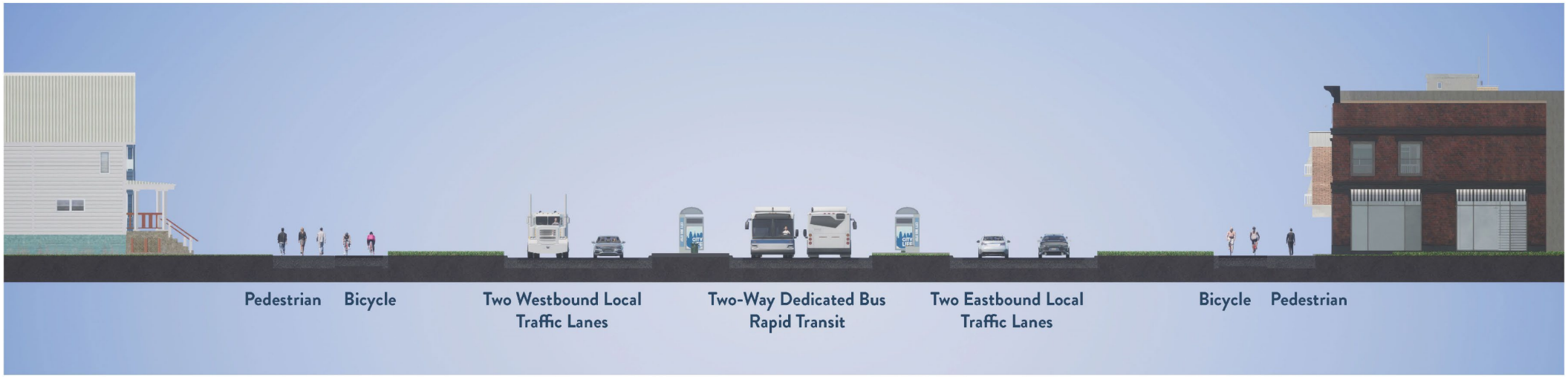
DRAFT – Pre-Decisional

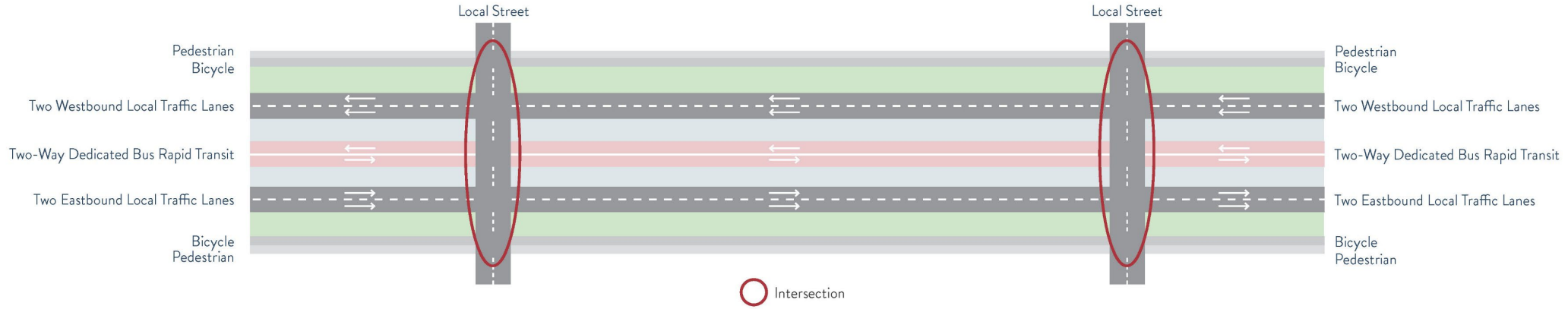
*Visualizations are intended for conceptual purposes only and are not to be interpreted as showing actual scale or final design for the roadway. They only represent a small section of the corridor. Potential changes to overpasses, interchanges, ramps, frontage roads, and parking have not been determined at this time. Final design will be determined through careful consideration of various factors and may differ from the concepts depicted. MnDOT is committed to walkability and bikeability improvements on all build alternatives. Details on improvements will be identified later in the process.

Rethinking I-94 | At-Grade – A

This concept involves the removal of the existing freeway and replacing it with an at-grade roadway featuring dedicated bus rapid transit (BRT) lanes with three stops.







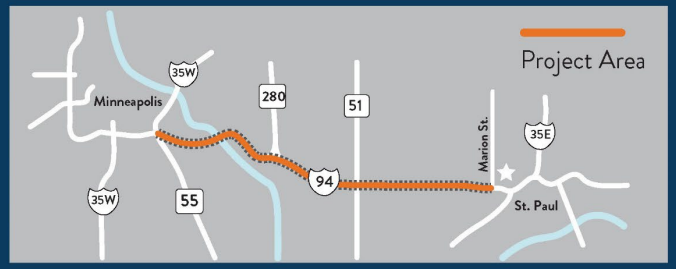
DRAFT – Pre-Decisional

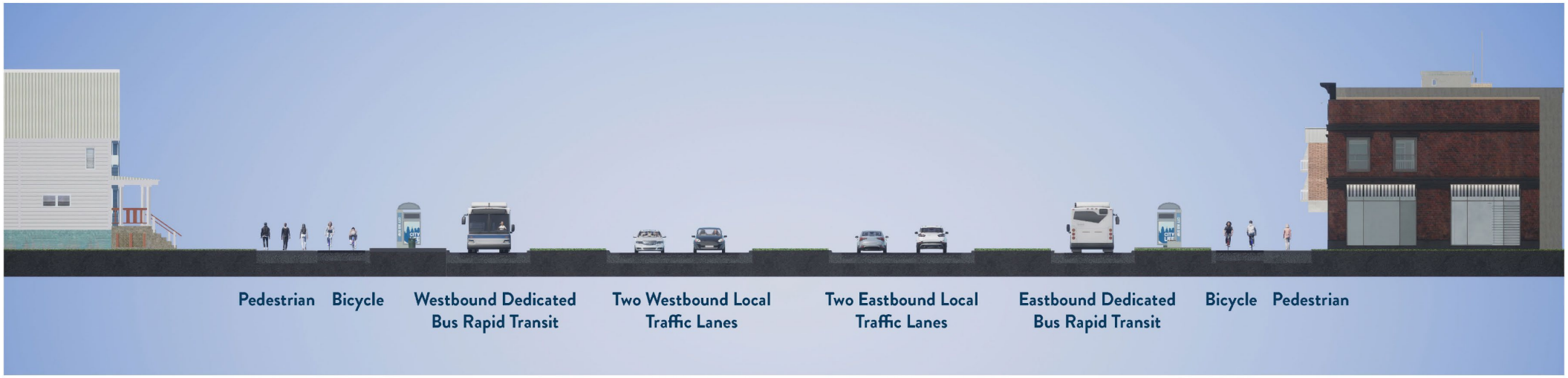
7/18/2023

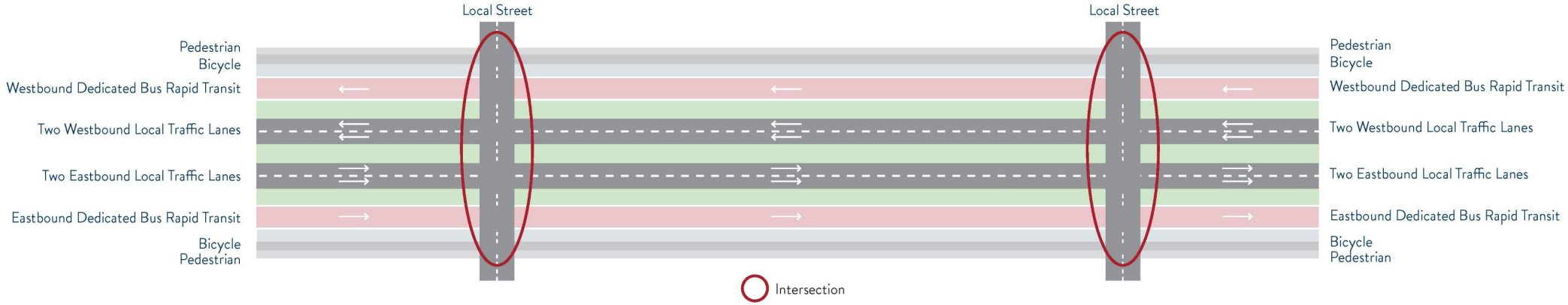
*Visualizations are intended for conceptual purposes only and are not to be interpreted as showing actual scale or final design for the roadway. They only represent a small section of the corridor. Potential changes to overpasses, interchanges, ramps, frontage roads, and parking have not been determined at this time. Final design will be determined through careful consideration of various factors and may differ from the concepts depicted. MnDOT is committed to walkability and bikeability improvements on all build alternatives. Details on improvements will be identified later in the process.

Rethinking I-94 | At-Grade – B

This concept involves the removal of the existing freeway and replacing it with an at-grade roadway featuring dedicated bus rapid transit (BRT) lanes on each side of the roadway with three stops.







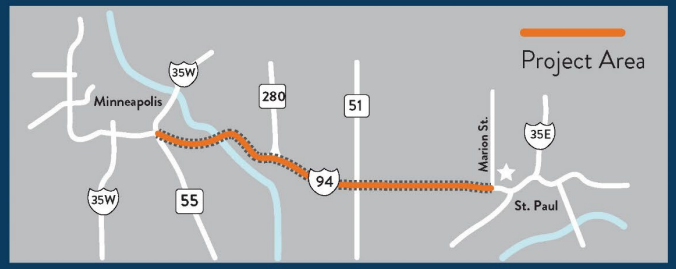
DRAFT – Pre-Decisional

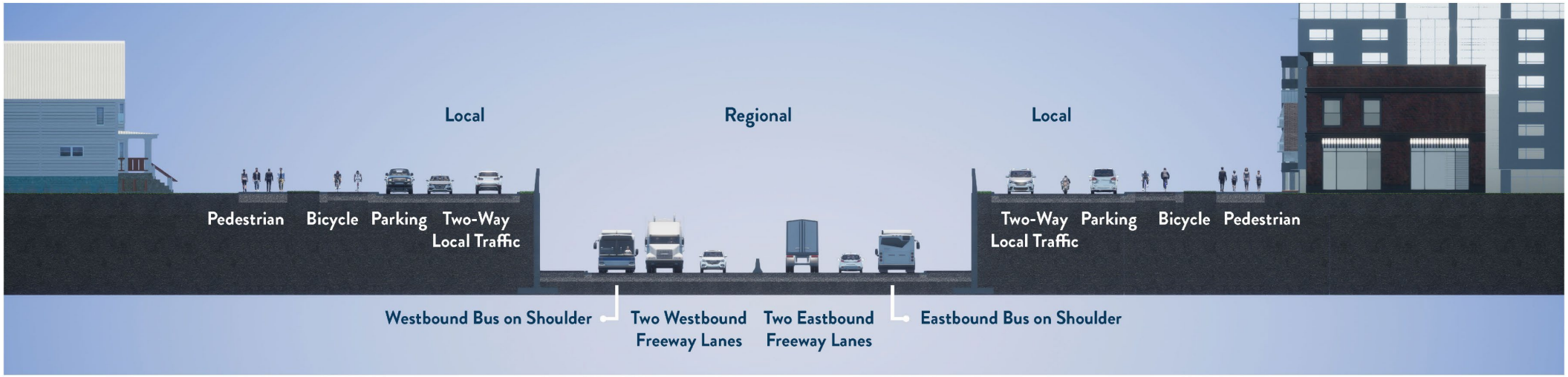
7/18/2023

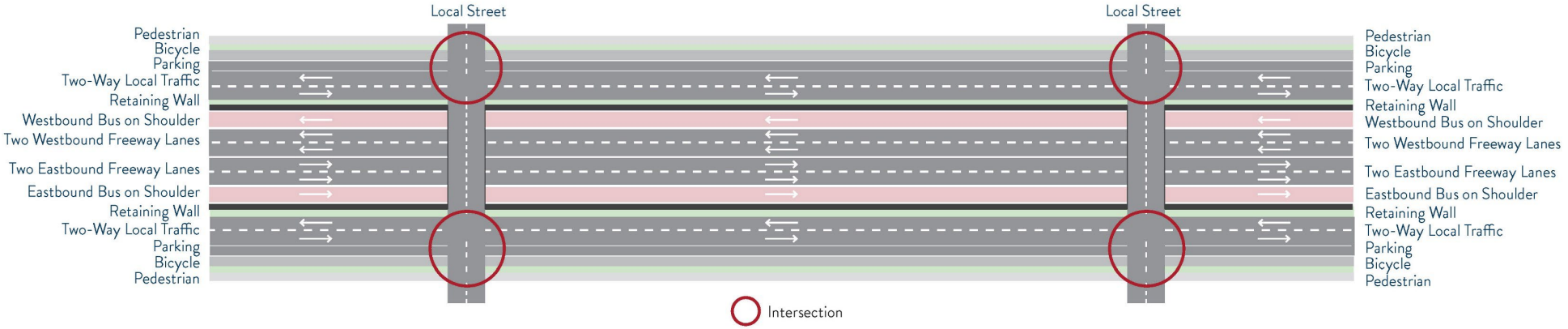
*Visualizations are intended for conceptual purposes only and are not to be interpreted as showing actual scale or final design for the roadway. They only represent a small section of the corridor. Potential changes to overpasses, interchanges, ramps, frontage roads, and parking have not been determined at this time. Final design will be determined through careful consideration of various factors and may differ from the concepts depicted. MnDOT is committed to walkability and bikeability improvements on all build alternatives. Details on improvements will be identified later in the process.

Rethinking I-94 | Local/Regional Roadways – A

This concept features a separation into two roadway systems, providing a separate local traffic roadway and freeway space for through trips. The local system provides transportation options for local traffic, while the regional system offers limited access for regional traffic and includes transit on the shoulder.







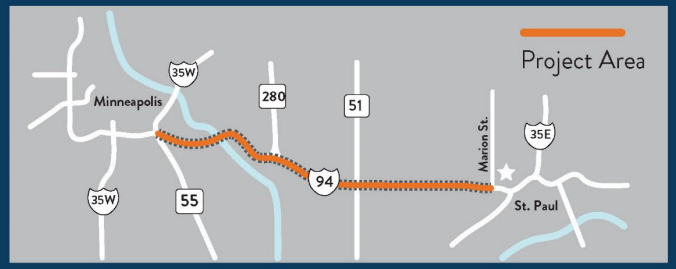
DRAFT – Pre-Decisional

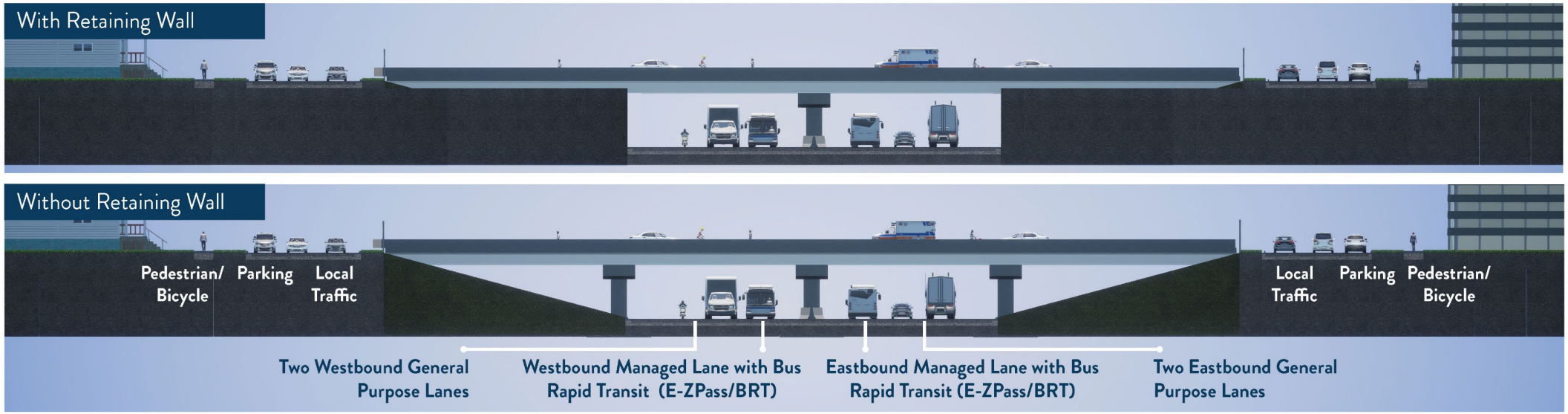
*Visualizations are intended for conceptual purposes only and are not to be interpreted as showing actual scale or final design for the roadway. They only represent a small section of the corridor. Potential changes to overpasses, interchanges, ramps, frontage roads, and parking have not been determined at this time. Final design will be determined through careful consideration of various factors and may differ from the concepts depicted. MnDOT is committed to walkability and bikeability improvements on all build alternatives. Details on improvements will be identified later in the process.

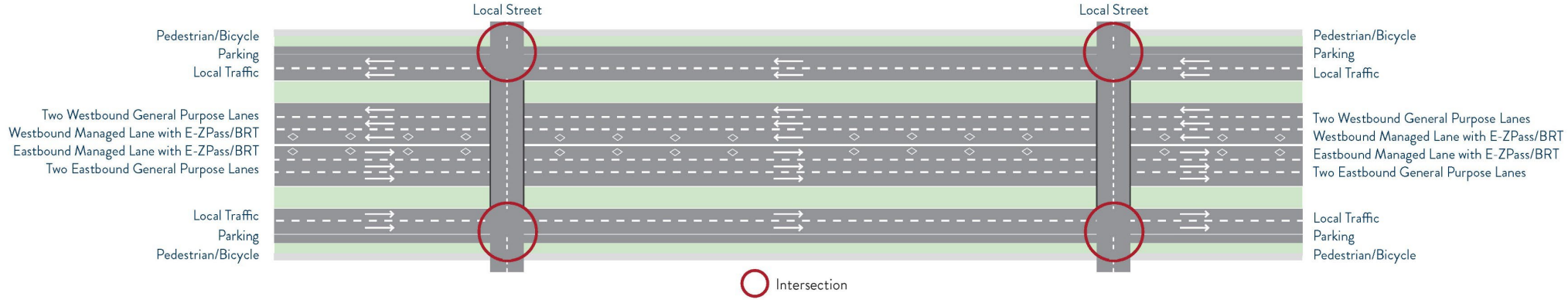
Rethinking I-94 | Reduced Freeway – A

This concept involves rebuilding the existing freeway to include two general purpose lanes and one managed lane (E-ZPass express lane) with bus rapid transit (BRT) in each direction. The BRT system could include up to three strategically placed stops along the managed lane.

Transit Options: No transit stops (Transit - 0); 1 transit stop at Snelling (Transit - 1); or 3 transit stops at 25th/27th Ave, Snelling Ave, and Dale St (Transit - 3)







DRAFT – Pre-Decisional

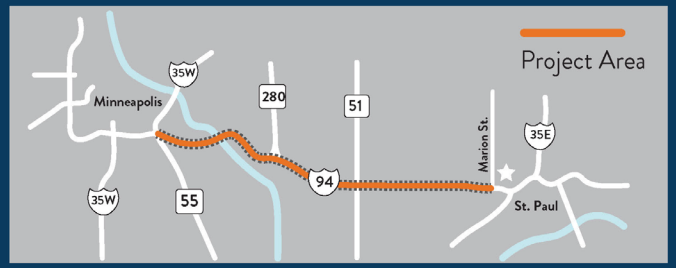
7/18/2023

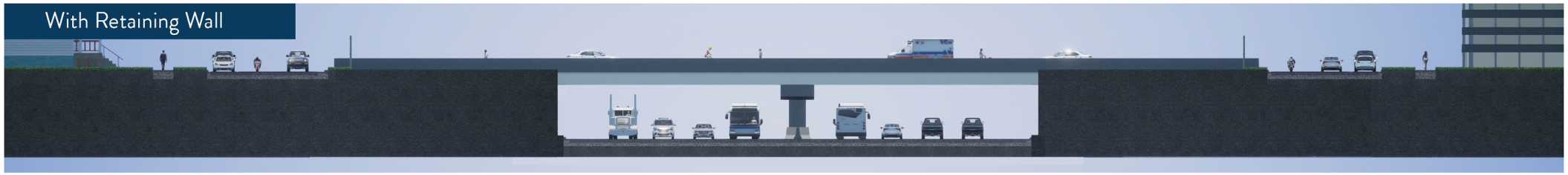
*Visualizations are intended for conceptual purposes only and are not to be interpreted as showing actual scale or final design for the roadway. They only represent a small section of the corridor. Potential changes to overpasses, interchanges, ramps, frontage roads, and parking have not been determined at this time. Final design will be determined through careful consideration of various factors and may differ from the concepts depicted. MnDOT is committed to walkability and bikeability improvements on all build alternatives. Details on improvements will be identified later in the process.

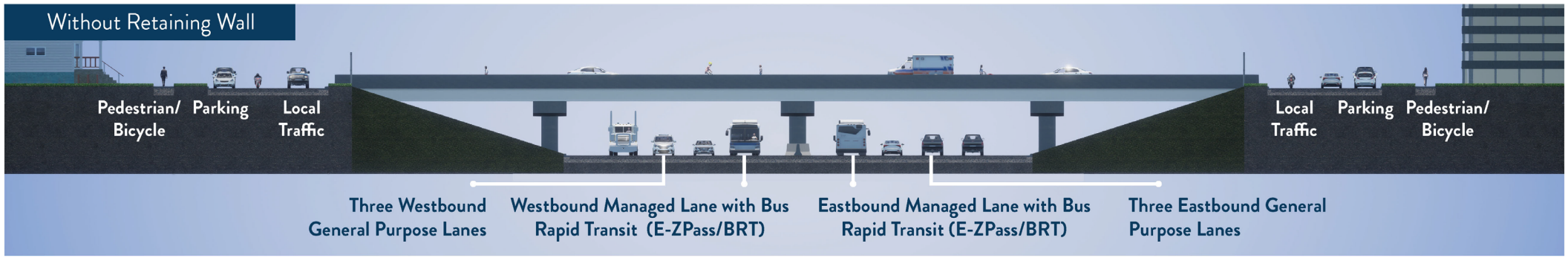
Rethinking I-94 | Reconfigure Freeway - A

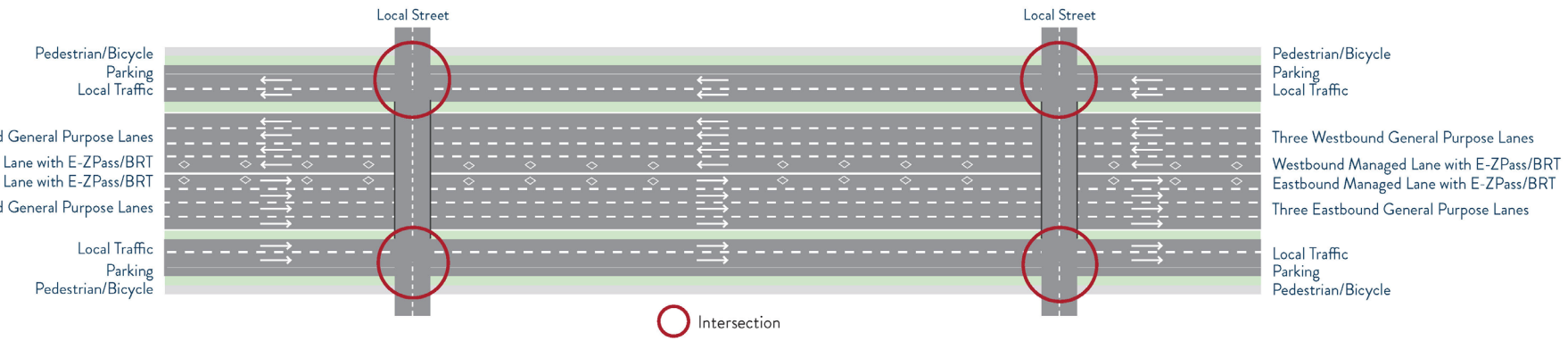
This concept involves rebuilding the existing freeway to include three general purpose lanes and one managed lane (E-ZPass express lane) with bus rapid transit (BRT) in each direction. The BRT system could include up to three strategically placed stops along the managed lane.

Transit Options: No transit stops (Transit - 0); 1 transit stop at Snelling (Transit - 1); or 3 transit stops at 25th/27th Ave, Snelling Ave, and Dale St (Transit - 3)









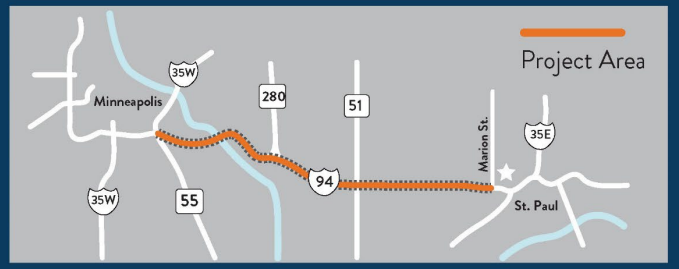
DRAFT – Pre-Decisional

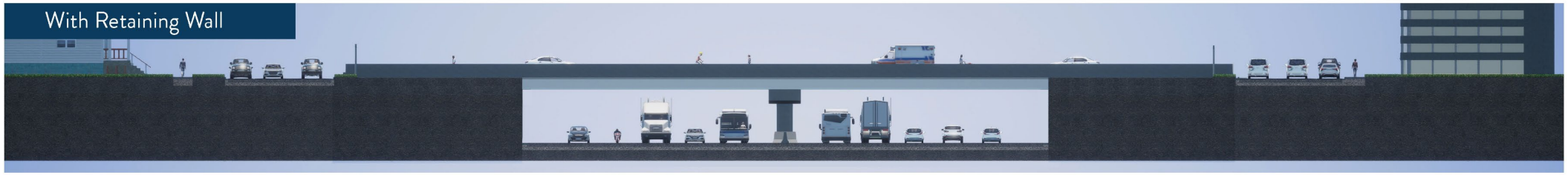
*Visualizations are intended for conceptual purposes only and are not to be interpreted as showing actual scale or final design for the roadway. They only represent a small section of the corridor. Potential changes to overpasses, interchanges, ramps, frontage roads, and parking have not been determined at this time. Final design will be determined through careful consideration of various factors and may differ from the concepts depicted. MnDOT is committed to walkability and bikeability improvements on all build alternatives. Details on improvements will be identified later in the process.

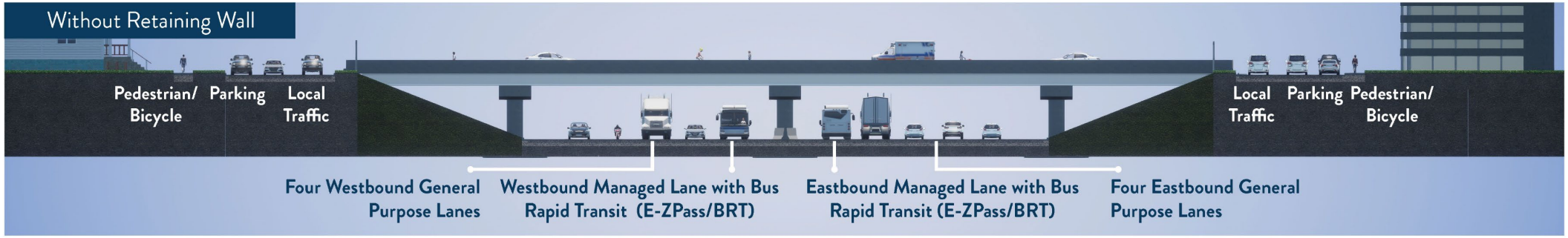
Rethinking I-94 | Expanded Freeway – A

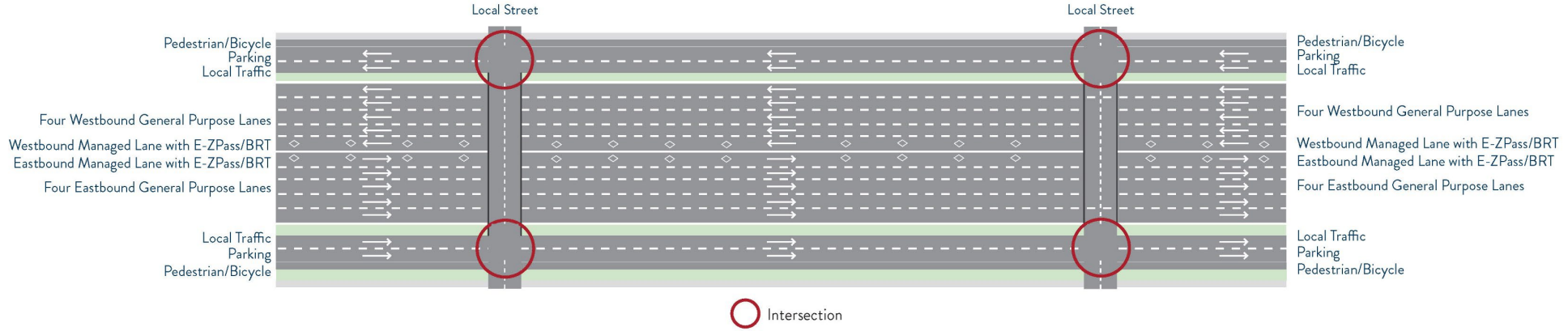
This concept involves rebuilding the existing freeway and adding one managed lane (E-ZPass express lane) with bus rapid transit (BRT) in each direction. The number of lanes will vary throughout the corridor. The BRT system could include up to three strategically placed stops along the managed lane.

Transit Options: No transit stops (Transit - 0); 1 transit stop at Snelling (Transit - 1); or 3 transit stops at 25th/27th Ave, Snelling Ave, and Dale St (Transit - 3)





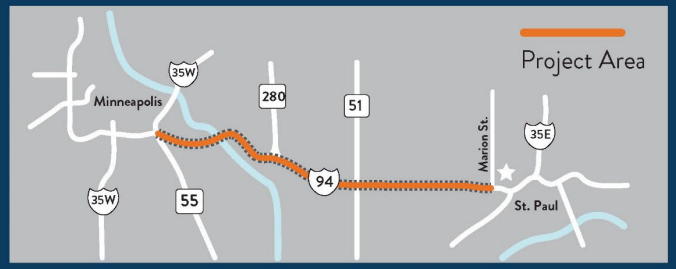


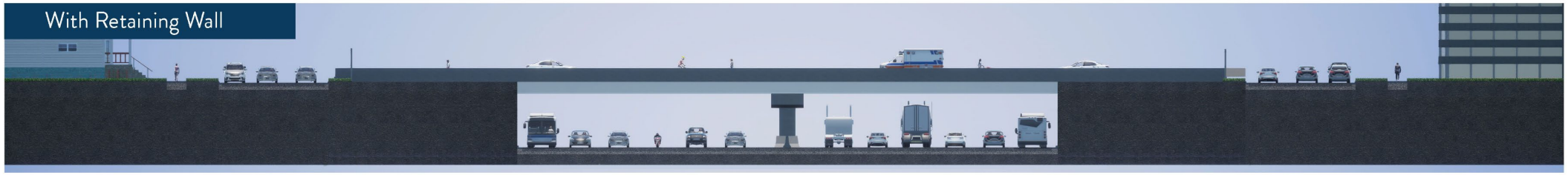


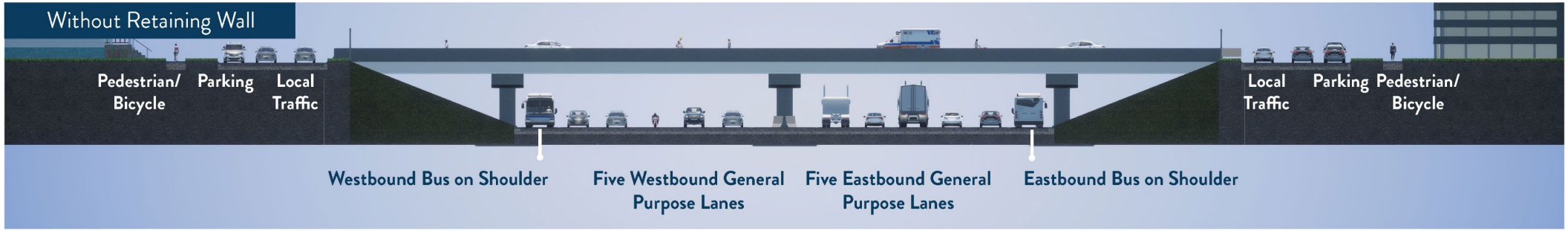
*Visualizations are intended for conceptual purposes only and are not to be interpreted as showing actual scale or final design for the roadway. They only represent a small section of the corridor. Potential changes to overpasses, interchanges, ramps, frontage roads, and parking have not been determined at this time. Final design will be determined through careful consideration of various factors and may differ from the concepts depicted. MnDOT is committed to walkability and bikeability improvements on all build alternatives. Details on improvements will be identified later in the process.

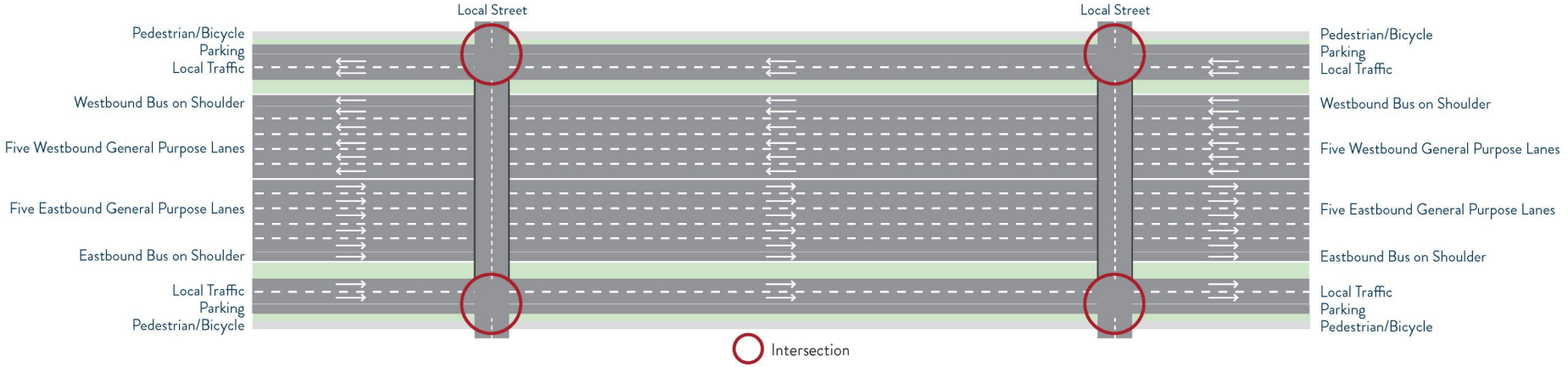
Rethinking I-94 | Expanded Freeway – B

This concept involves rebuilding the existing freeway to include the current lane configuration plus an additional general purpose lane and adding a shoulder along the entire corridor for a transit lane in each direction.









*Visualizations are intended for conceptual purposes only and are not to be interpreted as showing actual scale or final design for the roadway. They only represent a small section of the corridor. Potential changes to overpasses, interchanges, ramps, frontage roads, and parking have not been determined at this time. Final design will be determined through careful consideration of various factors and may differ from the concepts depicted. MnDOT is committed to walkability and bikeability improvements on all build alternatives. Details on improvements will be identified later in the process.

Alternatives

Comments/Questions/Discussion

Upcoming Public Engagement

Alternatives rollout

- Community events
- Media
- Council and board meetings
- Neighborhood group meetings
- Online and in-person open house events
- Surveys

Upcoming Public Engagement

Comments/Questions/Discussion

Rethinking I-94 Next Steps

Next Steps

- Technical activities
  - Wrap up ideas testing
  - Refine and evaluate alternatives
- Engagement activities
  - Alternatives rollout

Thank You