

Highway **169** Mobility Study

Metropolitan Council Transportation Committee

December 12, 2016

Evaluating the potential for Bus Rapid Transit and MnPASS Express Lanes in the southwest Metro

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Metro District
MnDOT



Background Studies/Plans

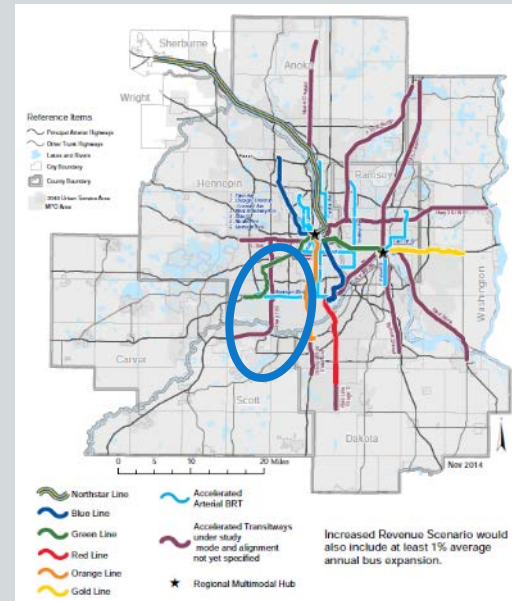
Highway Transitway Corridor Study (2014)

MnPASS System Study Phase 2 and Metropolitan Highway System Investment Study (2010)

Scott County Transit Operations and Capital Plan (2013)

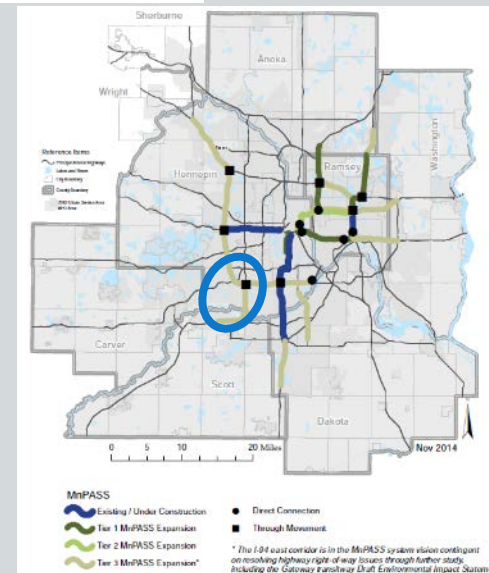
2040 Transportation Policy Plan (2015)

- Highway 169 in the Increased Revenue Scenario for MnPASS and BRT



2040 TPP
Transitways

2040 TPP
MnPASS



Study Purpose

Identify and evaluate cost-effective options for improving transit and reducing congestion on Highway 169

Options will include:

- Transitway facility
- Service operations improvements
- Coordinated MnPASS improvements
- Spot mobility improvements
- Other transit advantage improvements

Collaborative effort between MnDOT, Scott County and Metropolitan Council

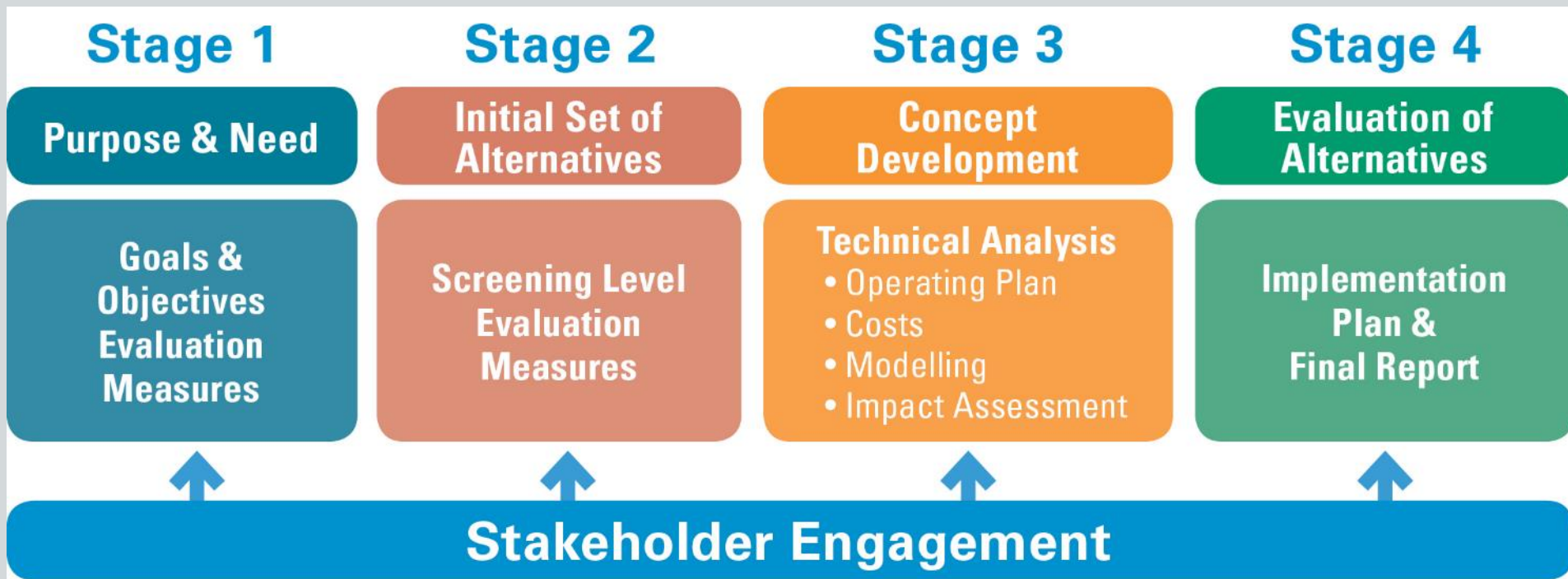
Funding partners also include Shakopee, Prior Lake and Highway 169 Corridor Coalition

Study Outcome

Results of the study will be used to determine whether to:

- Advance recommended improvements into environmental/design phase;
- Add specific recommended improvements to already programmed projects; or
- Prepare recommended improvements should additional funding become available

Study Process



Study Groups

Project Management Team

- Provide project oversight and overall work direction
- Council, MnDOT, Scott and Hennepin counties

Technical Advisory Committee

- Provide technical input on study work efforts
- Staff representing: State and federal agencies, counties, cities and transit providers along the corridor

Policy Advisory Committee

- Provide policy input and direction and make study recommendations
- Elected or appointed members representing: State and federal agencies, counties, cities, other key agencies & stakeholders

Project Goals

Goal 1: Improve access to local and regional destinations, activity centers, and employment concentrations

Goal 2: Provide better mobility in the corridor and options to avoid congestion

Goal 3: Improve the attractiveness of transit to serve more people in the corridor

Goal 4: Provide a high long-term return on the transportation investment

Goal 5: Prioritize service to existing areas with development patterns that support transit and to those committed to implementing future development patterns that support transit service

Goal 6: Preserve and enhance the quality of the built and natural environments

MnPASS Alternatives

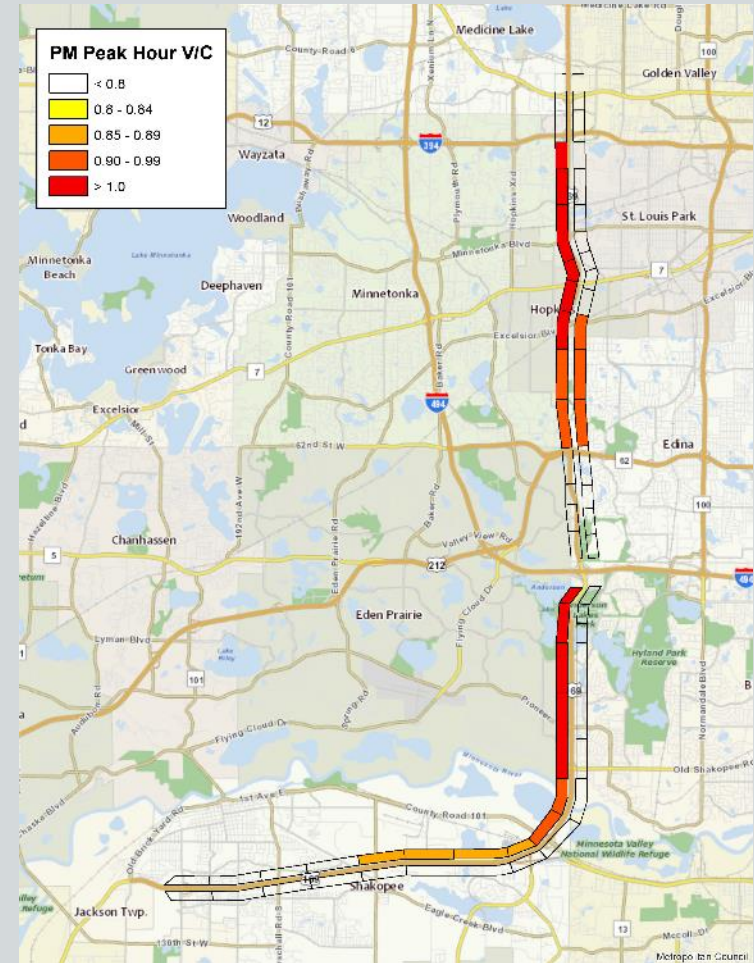
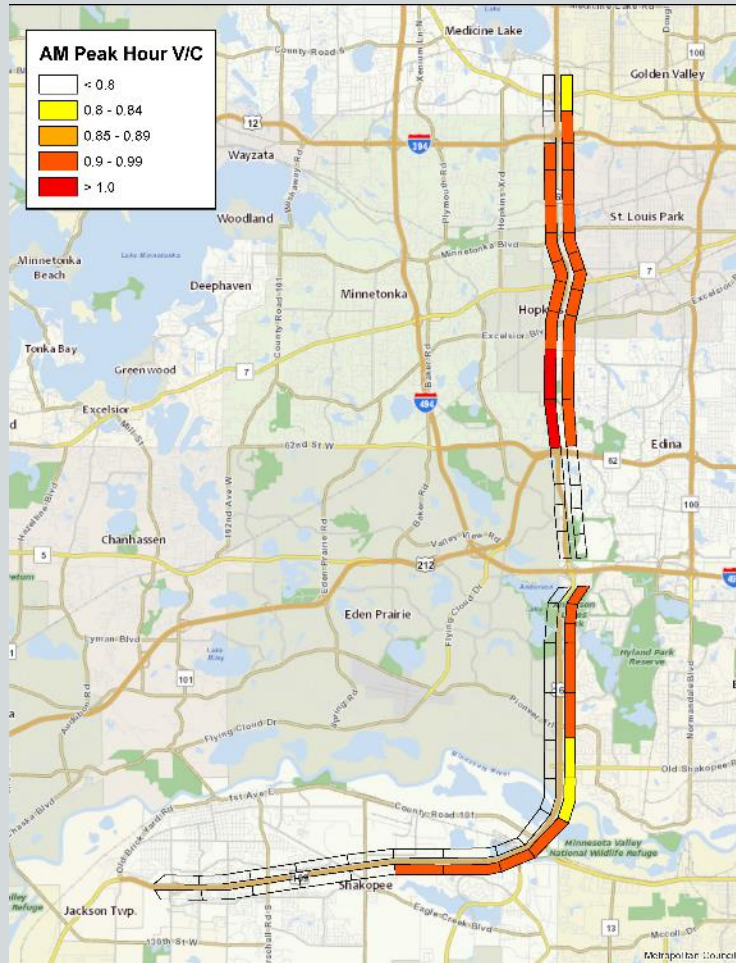
Alternative Components

- Southern Termini
- Northern Termini
- Cross Sections

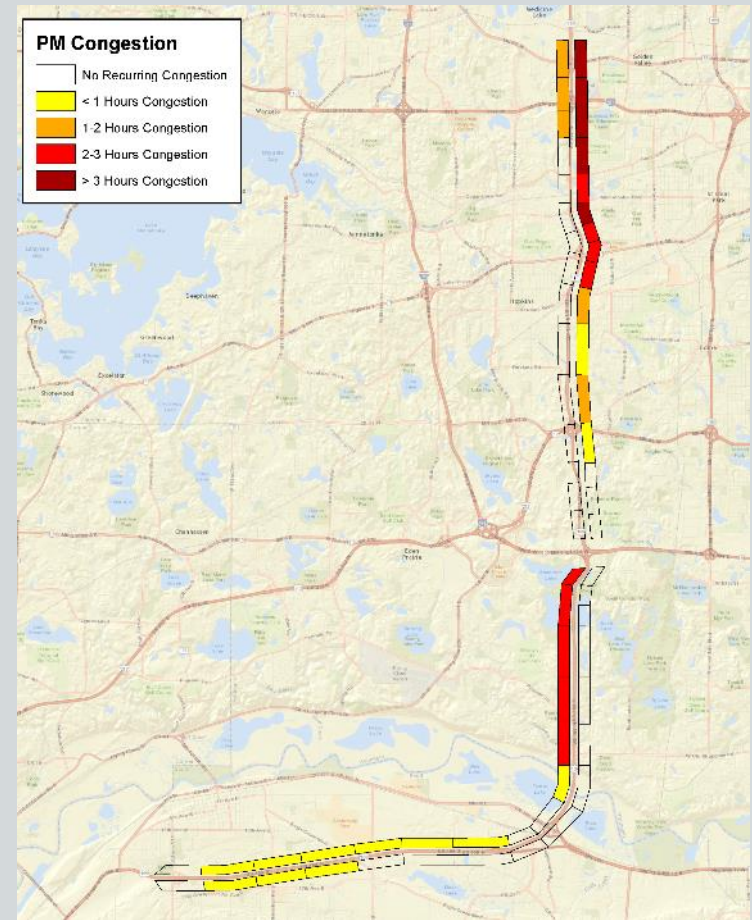
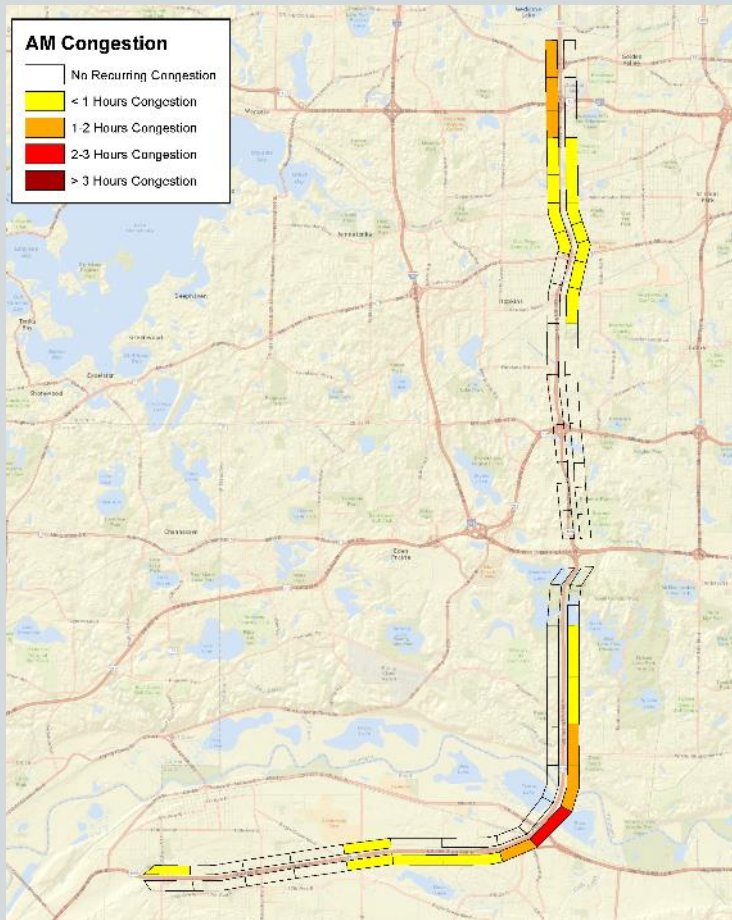
Screening Criteria

- Implementation Feasibility
- Existing Traffic Operations Needs
- Requires Additional Analysis

Volume-to-Capacity



Duration of Congestion

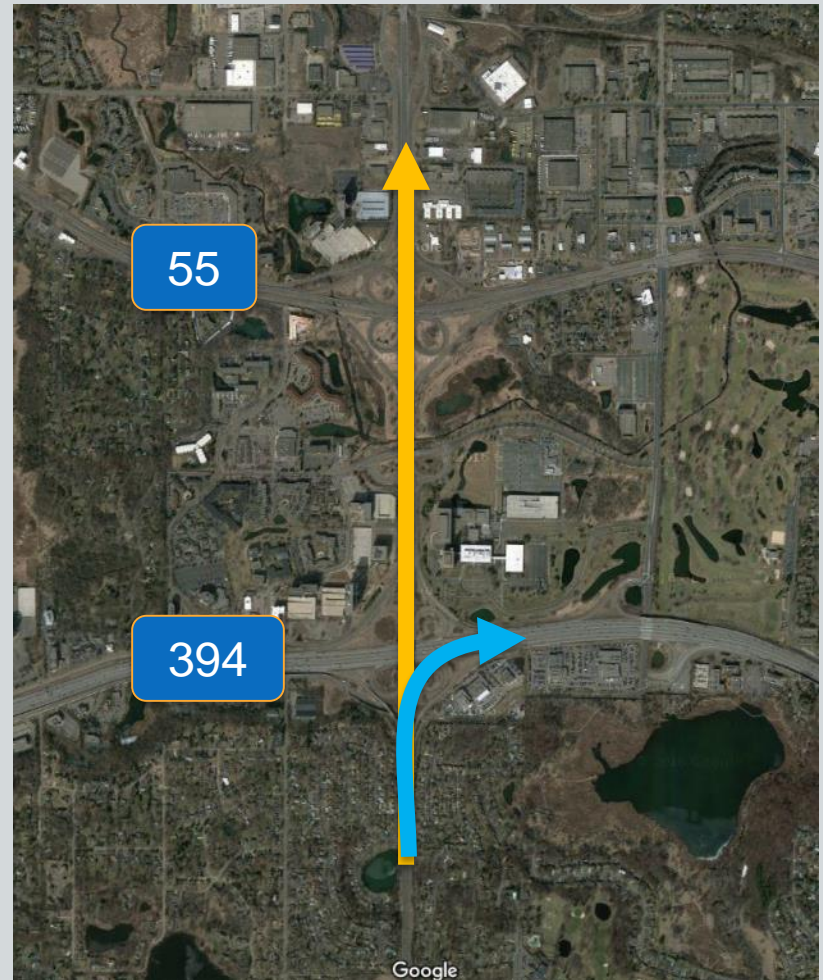


Southern Terminus

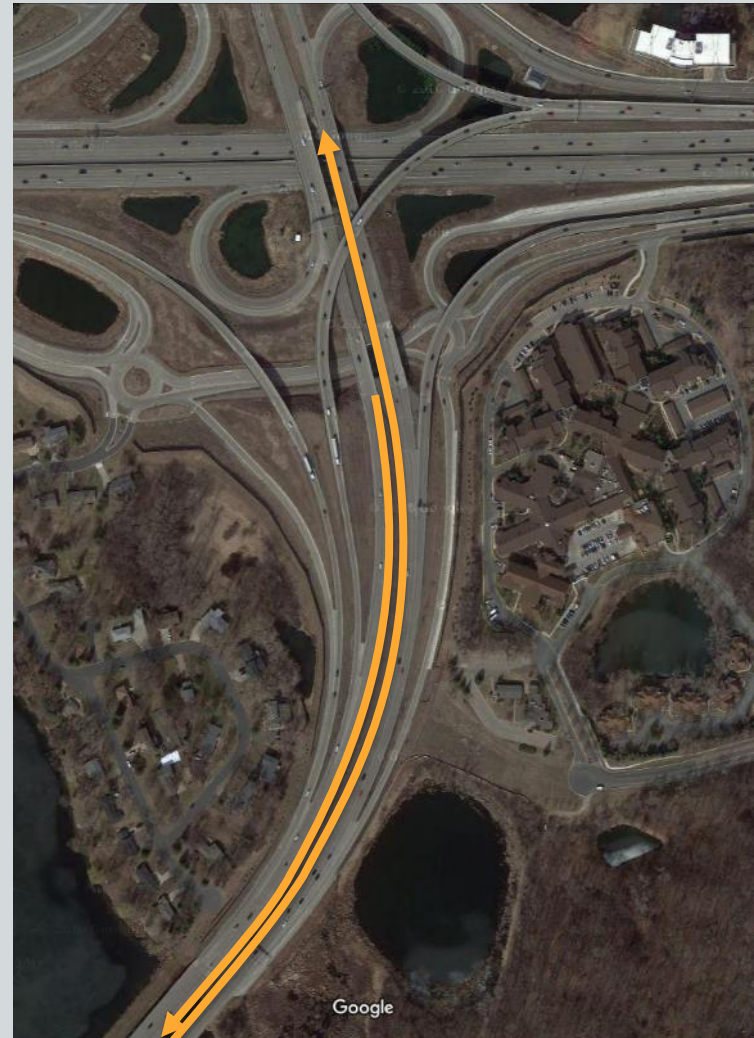
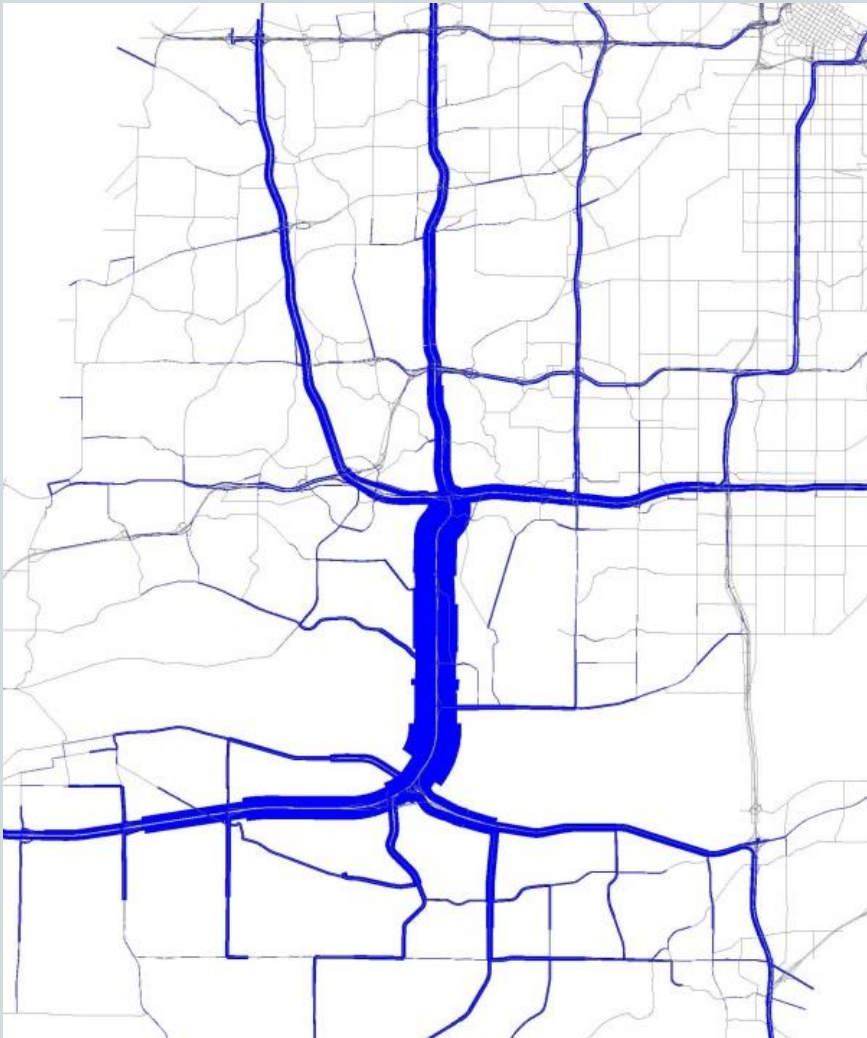
- Existing operational needs extend beyond both TH 101 and CR 21
- Operational need not anticipated to Hwy 41 – more likely CSAH 69
- Allow forecasts to demonstrate traffic need

Northern Terminus: I-394/TH 55

- I-394 MnPASS attractive to Hwy 169 MnPASS users
- I-394 MnPASS connection options will be evaluated
- MnPASS to TH 55 serves additional congested segments along Hwy 169
- MnPASS north of TH 55 will be primarily evaluated in the MnPASS Phase 3 System Study



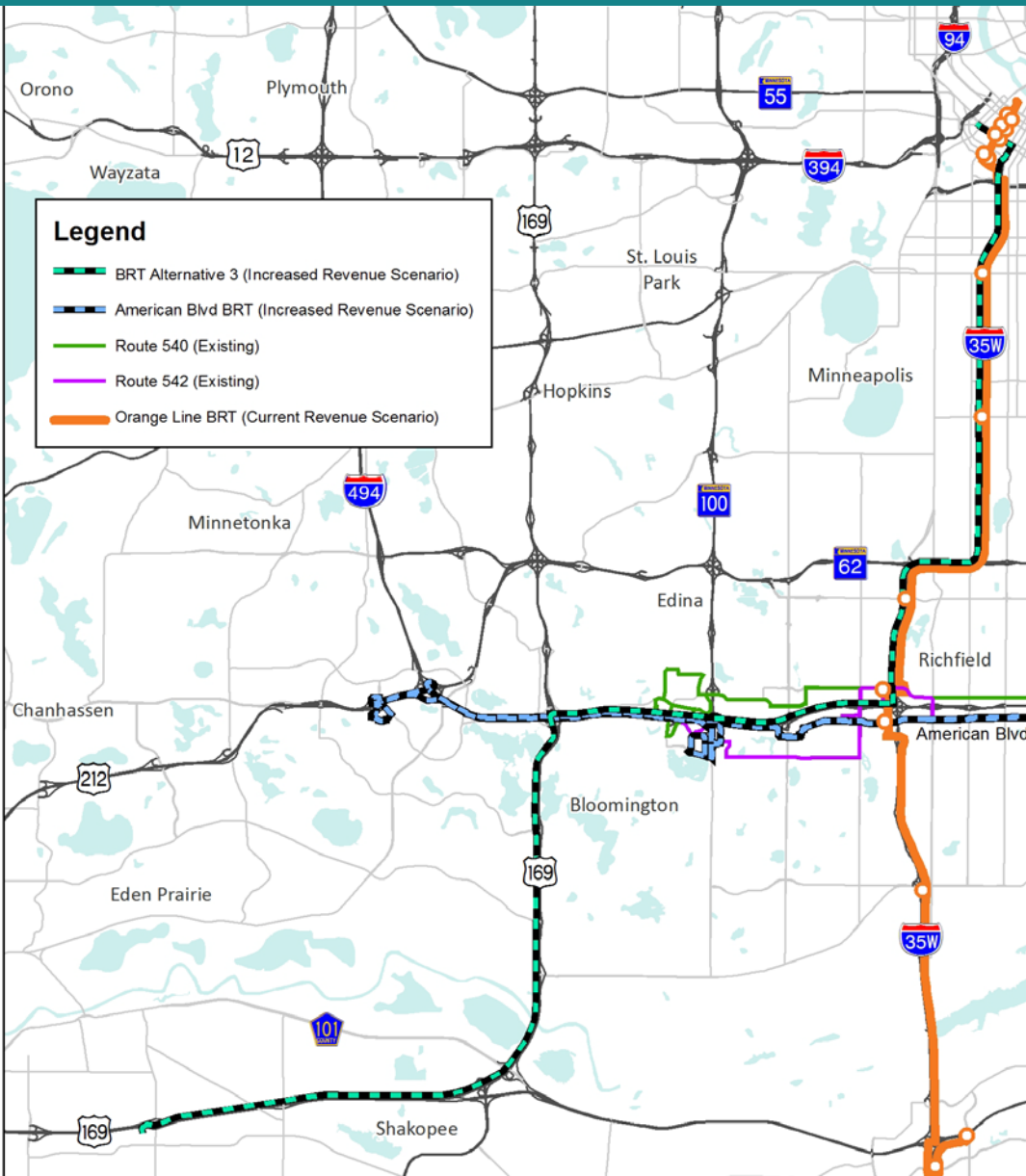
Northern Terminus: I-494



MnPASS Alternatives

Alternatives		Screening Criteria			
		Implementation Feasibility	Existing Traffic Operations Needs	Requires Additional Analysis	Determination Up to 3 full alternatives will be carried forward for detailed analysis.
1a	Southern Termini: TH 41	✓		✓	To CH 69 "as needed"
1b	Southern Termini: TH 101 (on 101)	✓			
1c	Southern Termini: CR 21 (on 21)	✓			
2a	Northern Termini: I-494	✓	✓		Retain
2b	Northern Termini: TH 62	✓			
2c	Northern Termini: I-394/TH 55	✓	✓		Retain
2d	Northern Termini: North of TH 55				
3a	Cross Sections: Standard left adjacent to GP lane	✓	✓		Preferred
3b	Cross Sections: Min. width (lanes and shoulders) left adjacent to GP lane	✓	✓		As Needed
3c	Cross Sections: Single lane reversible	✓	✓	✓	Retain
3d	Cross Sections: Double lane reversible	Eliminate			

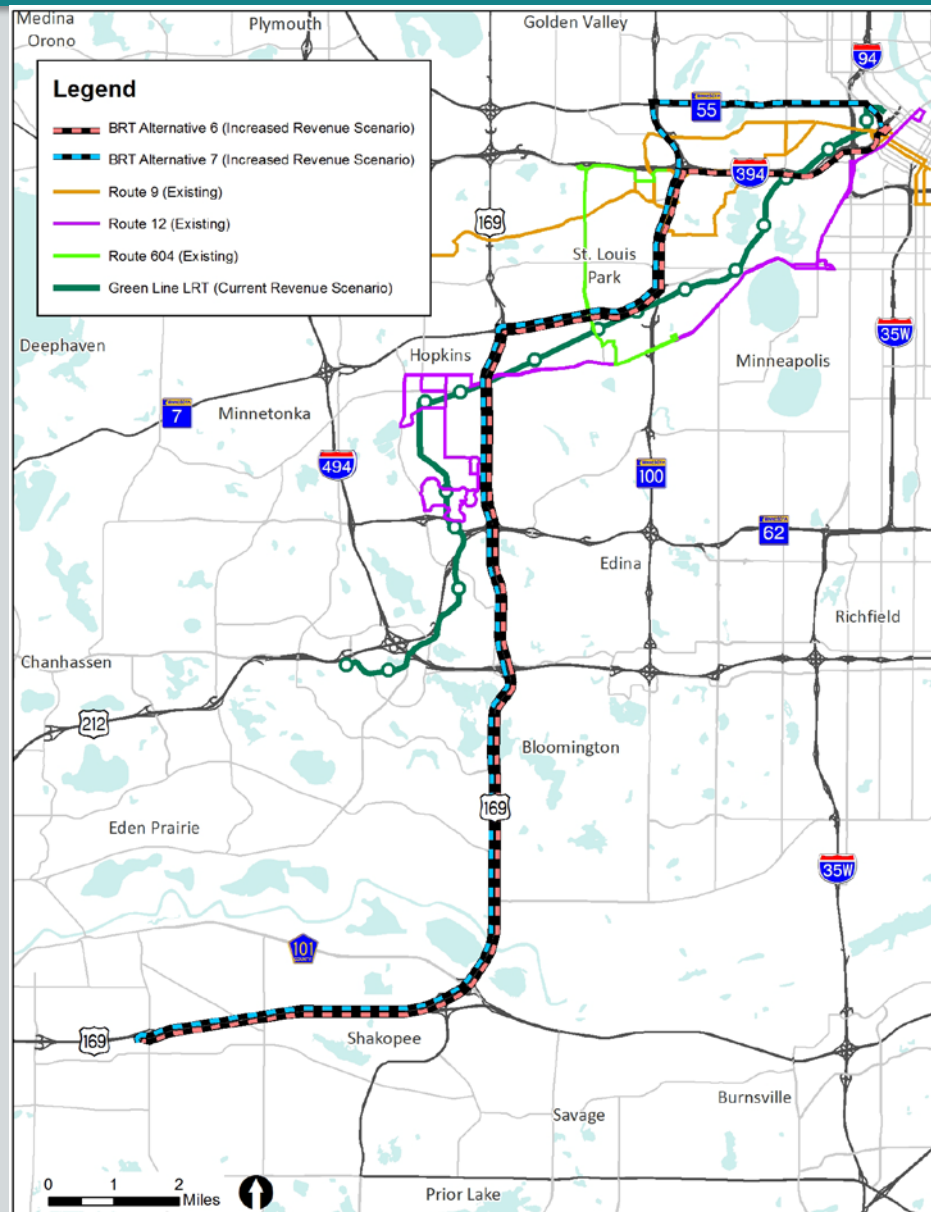
Duplication of Existing & Planned Service



BRT Alternative 3: Marschall Road to Downtown Mpls via US 169, I-494, I-35W

- Local Routes 540, 542 run roughly parallel to I-494
- Orange Line and many express routes run on I-35W

Duplication of Existing & Planned Service



BRT Alternative 6: Marschall Road to Downtown Mpls via US 169, TH 7, TH 100, I-394

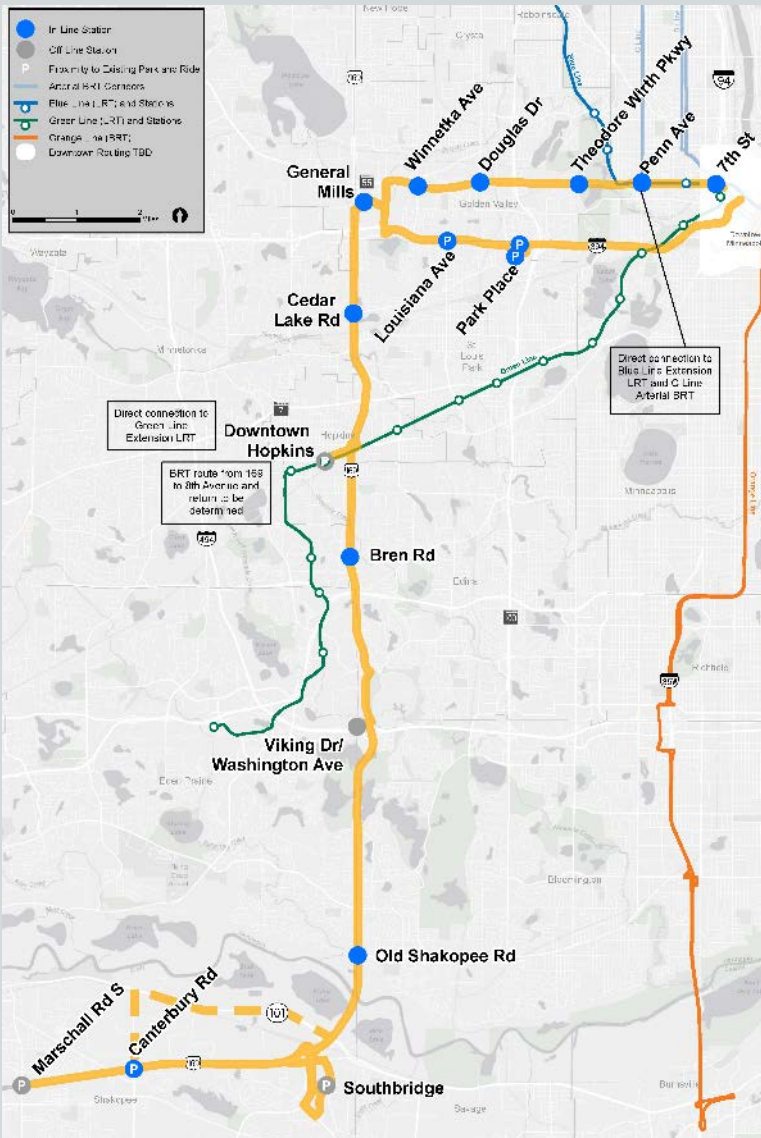
BRT Alternative 7: Marschall Road to Downtown Mpls via US 169, TH 7, TH 100, TH 55

- Local Route 9 runs on Glenwood Avenue and Cedar Lake Road
- Local Route 12 runs from Opus to Excelsior Boulevard
- Local Route 604 runs on Excelsior Blvd, Louisiana Ave, and I-394
- Southwest LRT runs parallel to Highway 7 and Highway 169

Initial Screening: Transitway Alt.

	Alternatives	Screening Criteria			
		Duplication of Existing Service	Connect to Downtown Minneapolis	Results of Home-Work (LEHD) Analysis	Determination Up to 3 alternatives will be carried forward for detailed analysis.
1	Marschall Road to Downtown Mpls via US 169, I-394	Retain	Retain	Retain	Retain
2	Marschall Road to Downtown Mpls via US 169, TH 55	Retain	Retain	Eliminate from full analysis; Alternative 5 better serves major employer	
3	Marschall Road to Downtown Mpls via US 169, I-494, I-35W	Eliminate from full analysis; Redundant with local American Blvd service and Orange Line			
4	Marschall Road to Downtown Mpls via US 169, TH 62, I-35W	Retain	Retain	Eliminate from full analysis; does not serve H/W pairs as effectively	
5	Marschall Road to Downtown Mpls via US 169, Betty Crocker Drive, TH 55	Retain	Retain	Retain	Retain
6	Marschall Road to Downtown Mpls via US 169, TH 7, TH 100, I-394	Eliminate from full analysis; Redundant with Green Line Extension and local service			
7	Marschall Road to Downtown Mpls via US 169, TH 7, TH 100, TH 55	Eliminate from full analysis; Redundant with Green Line Extension and local service			

Bus Rapid Transit Alternatives



- Recommended for detailed analysis of alternatives
- Station locations reviewed by TAC at workshop and by Scott County communities at workshop

Alternatives Summary

BRT Alternatives

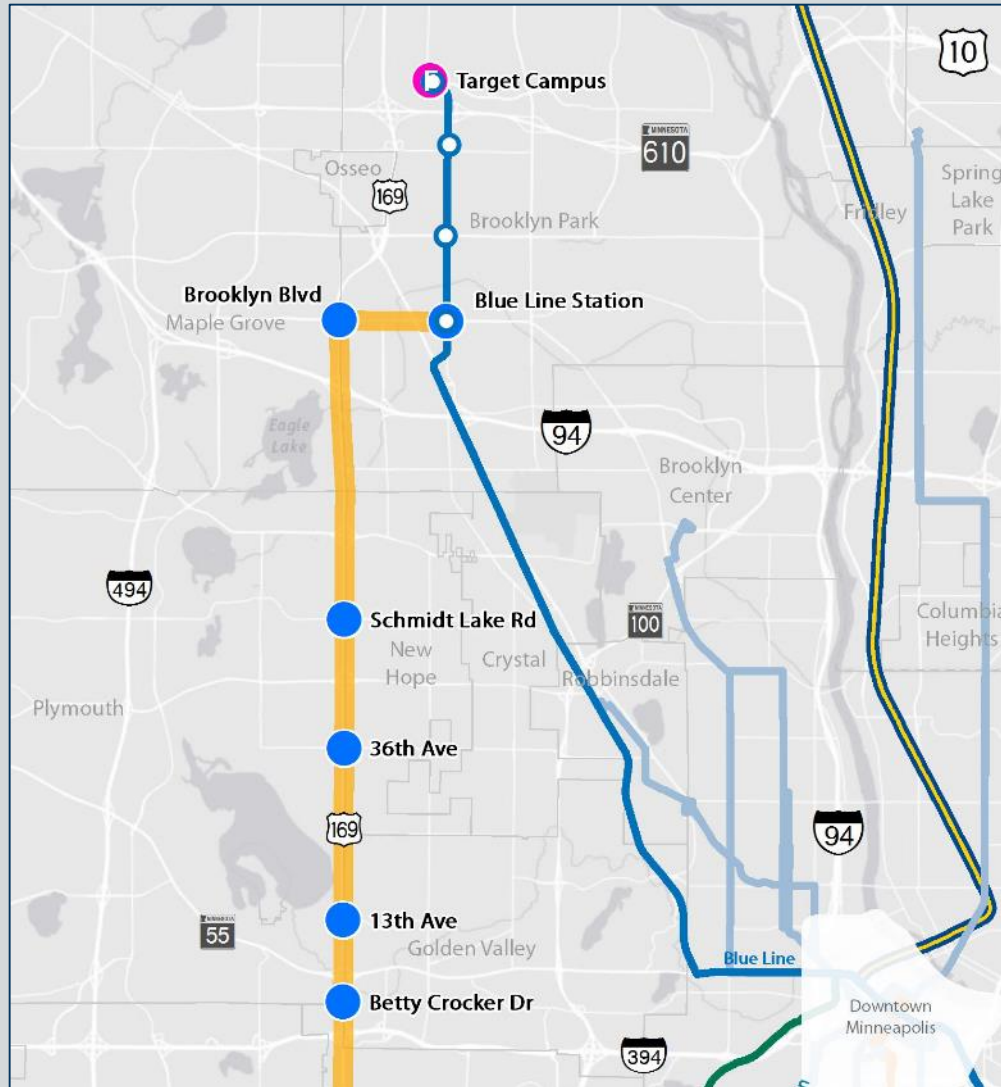
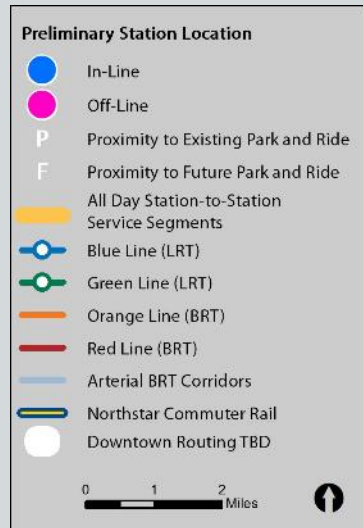
1. Marschall Road to downtown Minneapolis via US 169 and I-394 (included in the Highway Transitway Corridor Study)
2. Marschall Road to downtown Minneapolis via US 169, Betty Crocker Drive, and TH 55

MnPASS Alternatives

1. CSAH 69 to I-394/TH 55
 - With MnPASS connection to I-394
2. CSAH 69 to I-494

SHAKOPEE TO BROOKLYN PARK BRT ALTERNATIVE ANALYSIS

Brooklyn Park Alignment



Evaluation Summary

Evaluation Relative to Other Corridors in the Highway Transitway Corridor Study

		I-94	HWY 65	I-35E North	HWY 36	I-35E South	HWY 169 S	HWY 212	I-394	HWY 55	HWY 169 N
Goal 1: Provide mobility benefits and respond to trip patterns/needs and deficiencies for markets identified in the purpose and need											
1	Guideway total ridership	■	●	●	■	◐	■	●	■	◐	■
2	Growth in guideway total ridership	◐	●	◐	■	◐	■	●	■	◐	◐
3	Off-peak hour ridership and reverse-commute direction	■	■	●	◐	■	■	■	■	■	■
4	Transit-reliant ridership	■	●	◐	◐	◐	◐	●	◐	■	■
5	Minority residents in the service area	■	●	■	◐	●	●	●	●	◐	●
Goal 2: Provide affordable, effective transportation improvements											
6	Cost effectiveness	◐	●	◐	■	◐	◐	●	■	◐	◐
Goal 3: Meet Transportation Policy Plan (TPP) ridership goals											
7	Station-to-station ridership	◐	●	●	■	◐	■	●	■	◐	◐
8	New transit riders	◐	●	●	◐	◐	■	●	■	◐	■
Goal 4: Seamlessly integrate with existing systems and provide valuable regional connections											
9	2010 Trips with the build alternative	◐	●	●	■	◐	■	●	■	◐	■
10	Connections to existing or planned high frequency transitways	●	●	●	◐	■	◐	●	●	■	■
Goal 5: Support area development plans, forecast growth assignment, redevelopment potential											
11	Forecast growth in population	●	●	●	●	●	◐	■	●	◐	■
12	Forecast growth in employment	■	●	◐	●	●	◐	◐	●	●	■
TOTAL		■	●	●	■	◐	■	●	■	■	■

PAC Discussion on Alternative

- Intent of study is to recommend one preferred alternative
- While this alternative is compelling, it feels like a separate study
- Alternative should not be further pursued as part of the Highway 169 Mobility Study
- It should be considered for a separate study

Study Next Steps: Technical Analyses

- Transit operating plan
- Highway operating plan
- Transit ridership forecast
- Highway traffic forecast
- Capital cost estimate
- Transportation system issues analysis
- Community issues analysis
- Social, equity, environmental, and economic analysis

Project Contact

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