



System Study – Phase 3

Transportation Advisory Board

October 18, 2017

MnPASS Express Lanes

- MnPASS = MN's system of priced managed priced managed lanes (a/k/a High Occupancy Toll Lanes)

- MnPASS lanes currently in operation:

- I-394 since 2005
- I-35W since 2009
- I-35E since 2015



- MnPASS is a key strategy for improving the efficiency of the region's highway and transit systems by providing a reliable, congestion-free option to commuters during peak-travel times

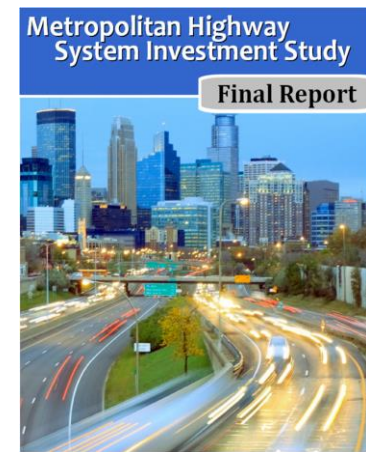
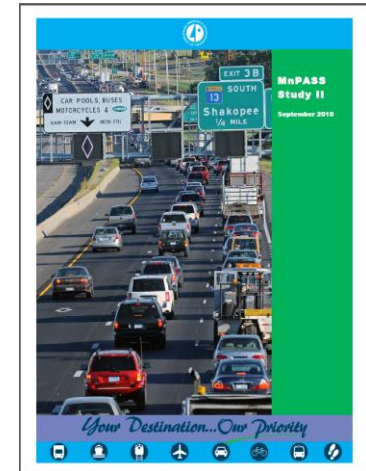
What are the Benefits of MnPASS?

MnPASS Lanes

- Improve the movement of people during congestion (i.e. increase person throughput)
 - A single MnPASS lane can carry twice as many people as a single regular lane during peak congestion
- Improve travel time reliability
 - Transit buses and commuters can plan for and rely on a 50-55 mph trip in a MnPASS lane
- Improve bus transit and carpooling
 - Express bus ridership on I-35W increased 55% within three years after opening of MnPASS lanes
 - Nearly 90% of the people using the MnPASS lanes are either riding on buses or in carpools

Past MnPASS System Studies

- Phase 1 study completed in 2005
- Phase 2 study completed in 2010
 - In coordination with the Met Council's Metropolitan Highway System Investment Study
 - Results adopted into the 2030 TPP and updated in the 2040 TPP

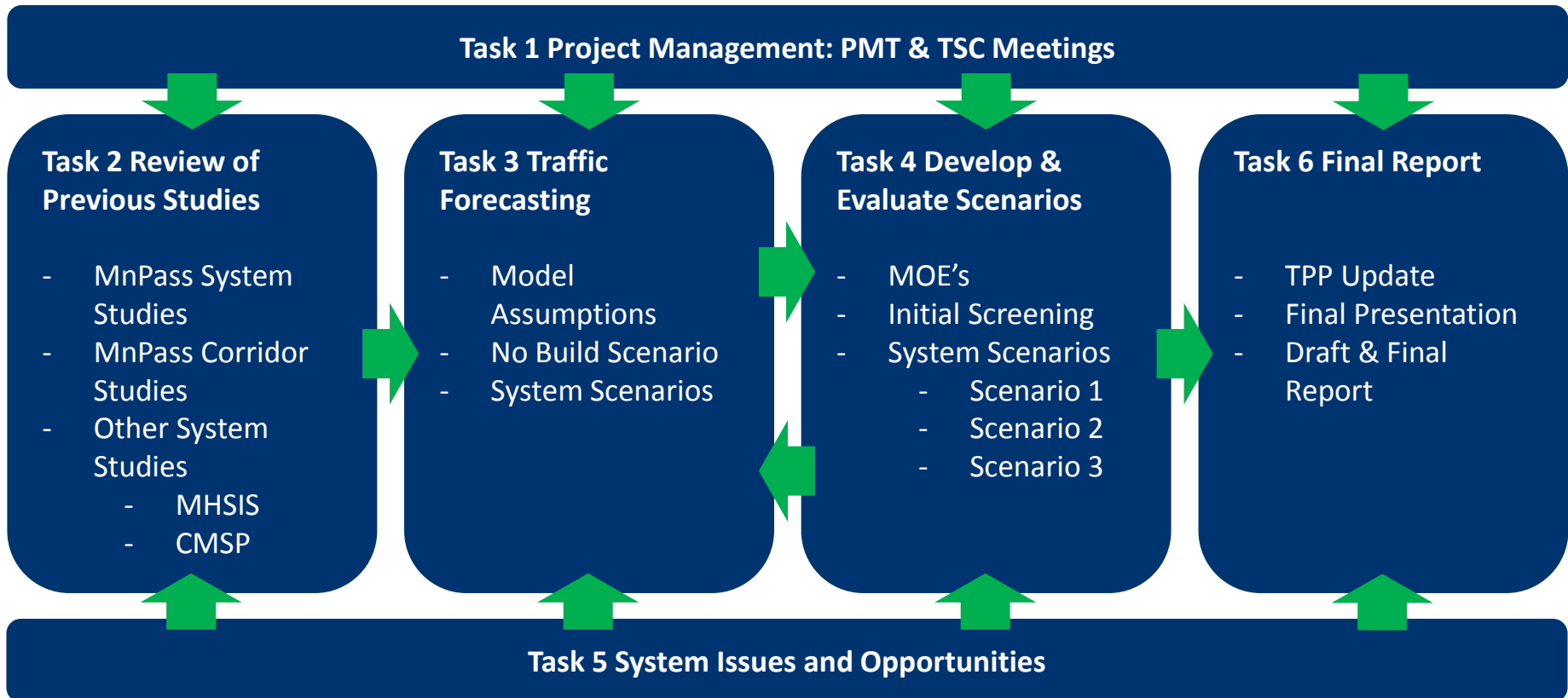


MnPASS System Study Phase 3 - Goals

Phase 3 study goals:

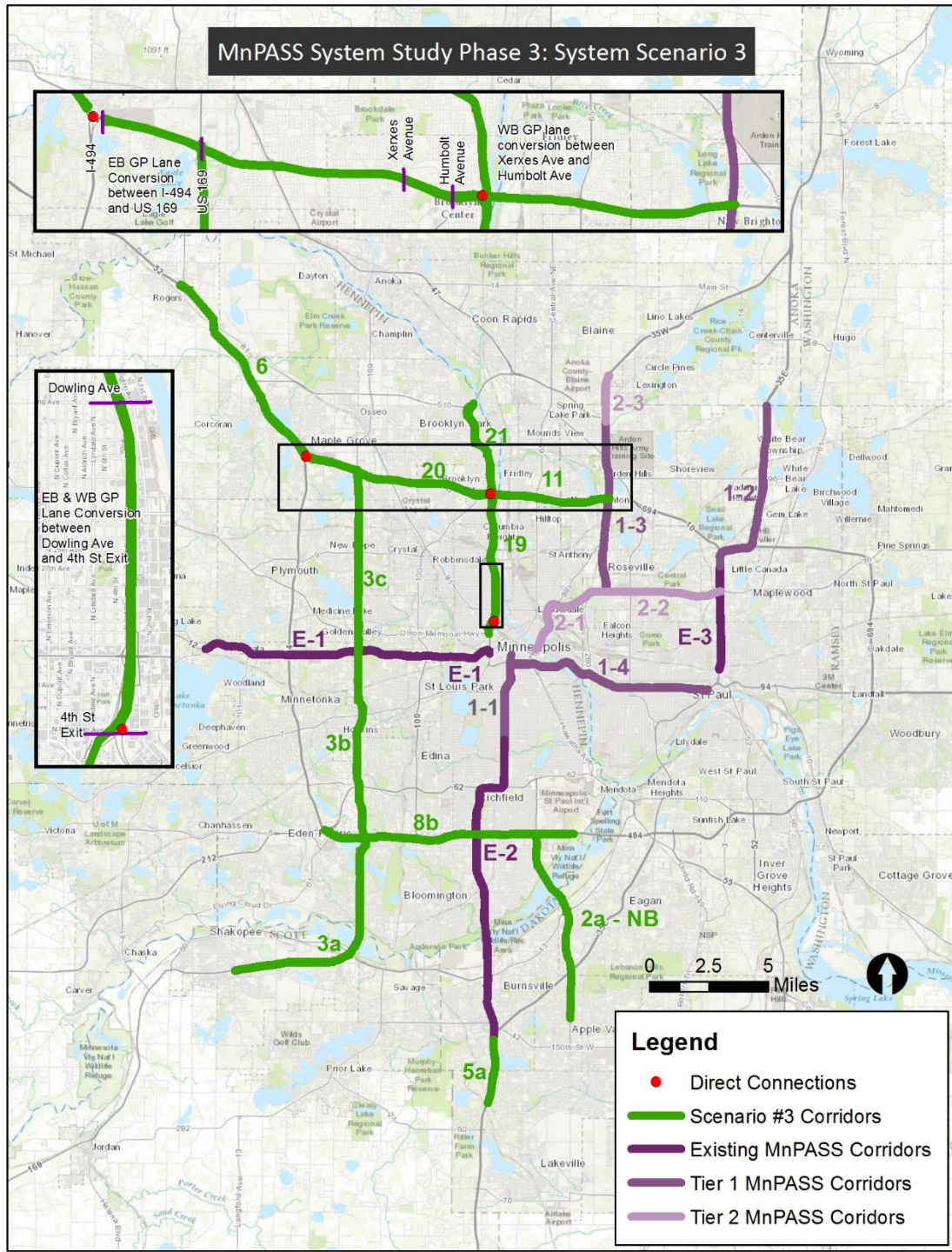
- Update the MnPASS system vision for inclusion in the 2017/18 TPP Update
- Evaluate key MnPASS issues, opportunities, and risks from both a regional needs perspective and a national state-of-the-practice perspective

MnPASS System Study Phase 3 - Process



Technical Steering Committee (TSC) consisted of representatives from MnDOT, Met Council, transit providers, metro counties and FHWA

MnPASS System Study Phase 3: System Scenario 3



System Scenario 3 Evaluation Summary Table

Corridor	Location	Change in Average Person Throughput	Total Person Hours Saved	Percent Travel Time Savings	Cost (M)	Cost Variability
2a -NB	TH 77	3,118	747	3.2%	\$50	Medium
3a	US 169 South	7,985	1,765	5.8%	\$130	Low
3b	US 169 Middle	15,492	768	3.8%	\$200	High
3c	US 169 North	7,788	760	4.2%	\$180	Medium
5a	I35 South	3,490	795	8.9%	\$40	Medium
6	I94 West	3,846	1,106	3.7%	\$80	Low
8b	I494 Bloomington	18,786	4,121	9.8%	\$220	High
11	I694 Middle	2,361	936	3.9%	\$120	Medium
19	I94 North Mpls	16,552	-119	-1.2%	\$110	Med / High
20	I94/I694 Commons	3,044	1,487	4.9%	\$110	Med / High
21	TH 252	36,925	1,186	39.7%	\$140	Medium

System Scenario 3 Corridor Evaluation Ranking

Rank	Corridor	Location	Change in Average Person Throughput	Cost (M)	Change in Average Person Throughput per \$M
1	21	TH 252	36,925 ¹	\$140 ¹	264 ¹
2	19	I94 North Mpls	16,552	\$110	151
3	5a	I35 South	3,490	\$40	87
4	8b	I494 Bloomington	18,786	\$220	85
5	3b	US 169 Middle	15,492	\$200	78
6	2a -NB	TH 77	3,118	\$50	62
7	3a	US 169 South	7,985	\$130	61
8	6	I94 West	3,846	\$80	48
9	3c	US 169 North	7,788	\$180	43
10	20	I94/I694 Commons	3,044	\$110	28
11	11	I694 Middle	2,361	\$120	20

Results Summary

- Scenario 3 has similar benefits to previous scenarios, but a lower cost per mile and total cost
- TH 252¹(21) and corridor I494 in Bloomington (8b) are very strong
- I94 in North Minneapolis (19) has a large increase in throughput, but fewer hours saved
- I35 South (5a) has moderate benefits, but very low cost
- TH 77 (2a-NB), US 169 South (3a), US 169 Middle (3b) also score moderately

Schedule/Next Steps

- Draft final report available later in October
- Council staff drafting TPP update are currently considering:
 - MnPASS corridor tiering
 - Increased revenue scenario

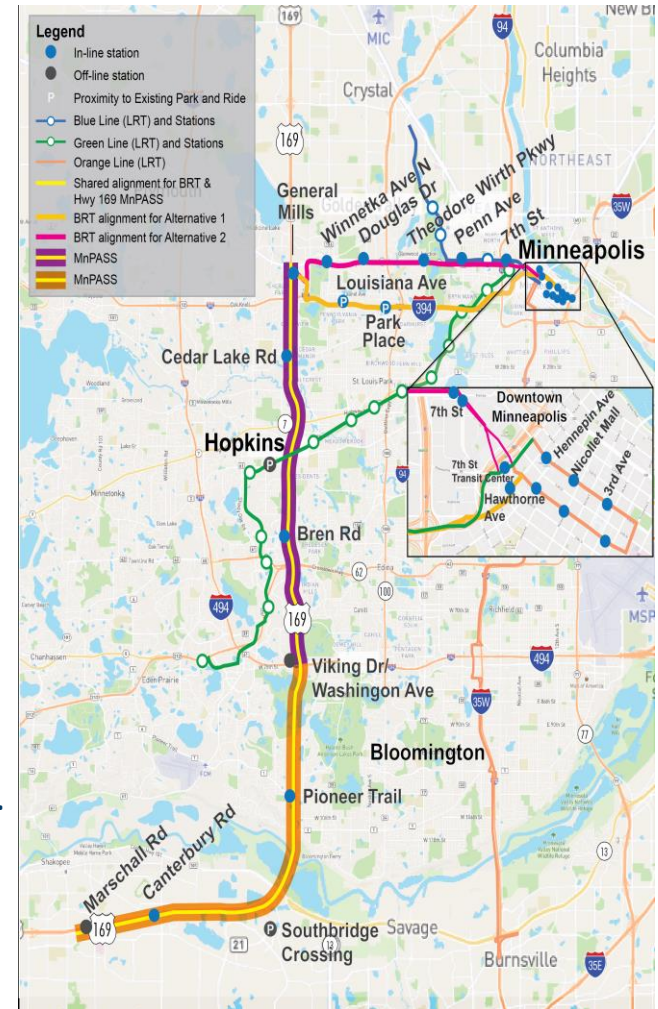
I-494/Hwy. 62 Congestion Relief Study

- Study evaluated MnPASS lane options and spot mobility improvements on I-494 and Hwy. 62 between the MSP Airport and Eden Prairie.
- Study is nearing completion and a recommended implementation plan of improvements has been developed that includes adding MnPASS lanes on I-494 between W. Bush Lake Rd. and Hwy. 5, as well as implementing several spot mobility improvements on Hwy. 62 and I-494



Hwy. 169 Mobility Study

- Study focused primarily on evaluating highway BRT alternatives, MnPASS options and spot mobility improvements on Hwy. 169 between Shakopee and Golden Valley
- Collaborative effort between MnDOT, Met Council and Scott County
- Study completion anticipated Nov./Dec. 2017 – the key evaluation findings to date include:
 - Two good BRT alternatives:
 - Marschall Rd. to downtown Mpls. via Hwy. 169 and I-394
 - Marschall Rd. to downtown Mpls. via Hwy. 169 and Hwy. 55
 - Adding MnPASS lanes on Hwy. 169 between Marschall Rd. and Hwy. 55 would provide significant mobility benefits and there are a range of design options at specific locations
 - Several viable spot mobility improvements



Questions/Comments

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MnPASS System Study Phase 3: System Scenario 3

EB GP Lane Conversion between I-494 and US 169

WB GP lane conversion between Xerxes Ave and Humbolt Ave

Dowling Ave

EB & WB GP Lane Conversion between Dowling Ave and 4th St Exit

4th St Exit

20

21

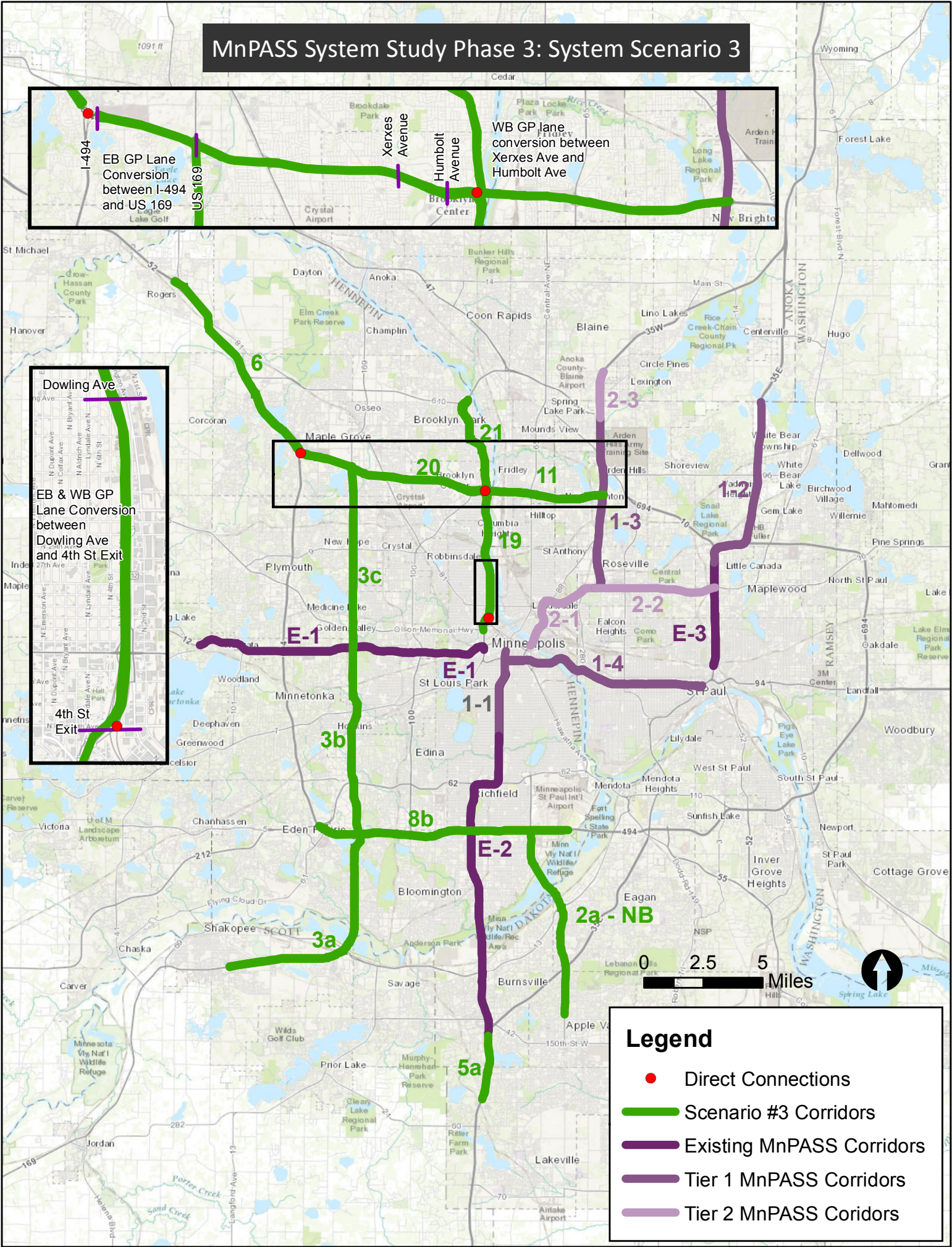
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19



Legend

- Direct Connections
- Scenario #3 Corridors
- Existing MnPASS Corridors
- Tier 1 MnPASS Corridors
- Tier 2 MnPASS Corridors



Corridor	Highway	Corridor Limits
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Existing MnPASS Corridors

E-1	I-394	Hennepin Co 15/Carlson Pkwy to Downtown Minneapolis
E-2	I-35W	Crystal Lake Rd/Cliff Rd to 46th St/26th St
E-3	I-35E	Cayuga St/Ramsey Co E to Little Canada Rd

TPP Tier 1 Corridors (Current Revenue Scenario)

1-1	I-35W	Downtown Minneapolis to 46th St (Under Construction)
1-2	I-35E	Little Canada Rd to Ramsey Co J/Ramsey Co 96 (Completed)
1-3	I-35W	MN 36/280 to US 10
1-4	I-94	Downtown Minneapolis and Downtown St. Paul

TPP Tier 2 Corridors (Increased Revenue Scenario)

2-1	I-35W	Downtown Minneapolis to MN 36/280
2-2	TH 36 Eastbound	I-35W to I-35E
2-3	I-35W	US 10 to 95th Ave in Blaine (Funded)

Scenario 3 Corridors

2a-NB	TH 77 Northbound	138th Street to I-494
3a	US 169	Marschall Road to I-494
3b	US 169	I-494 to I-394
3c	US 169	I-394 to I-694
5a	I-35	Crystal Lake Rd/Southcross Dr to Dakota Co 50
6	I-94	I-494 to TH 101
8b	I-494	US 212 to TH 5/MSP Airport
11	I-694	I-94 to I-35W
19	I-94	TH 55 to TH 252
20	I-94	TH 252 to I-494/694
21	TH 252	I-94 to TH 610