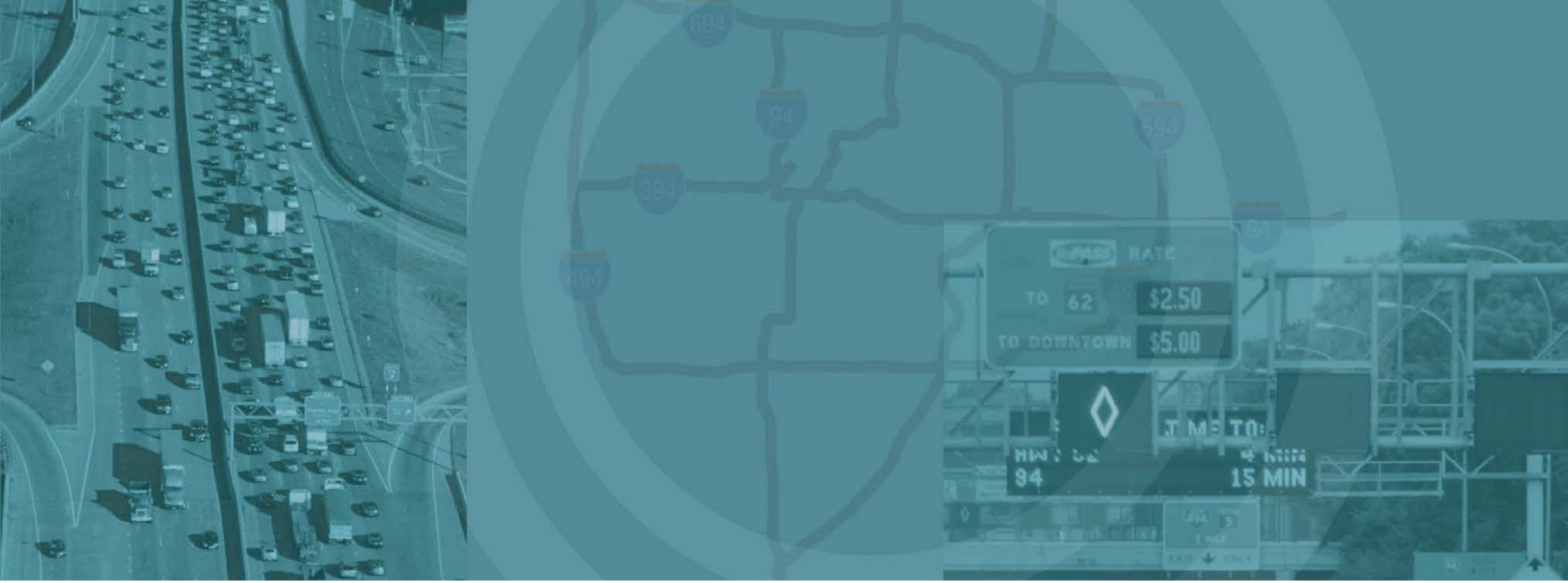


MnPASS System Study – Phase 3

TAB Technical Advisory Committee

October 4, 2017

DEPARTMENT OF TRANSPORTATION

www.dot.state.mn.us/metro/projects/mnpass-study/

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?

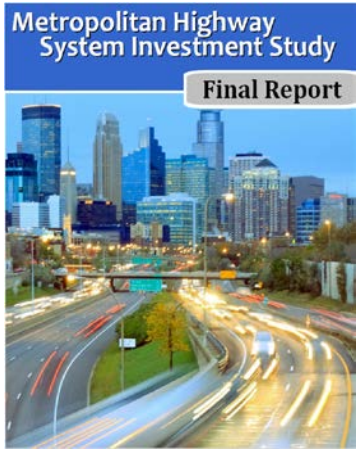
MnPASS Lanes

- 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
  - With MnPASS, commuters can rely on a 50-55 mph trip
- 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

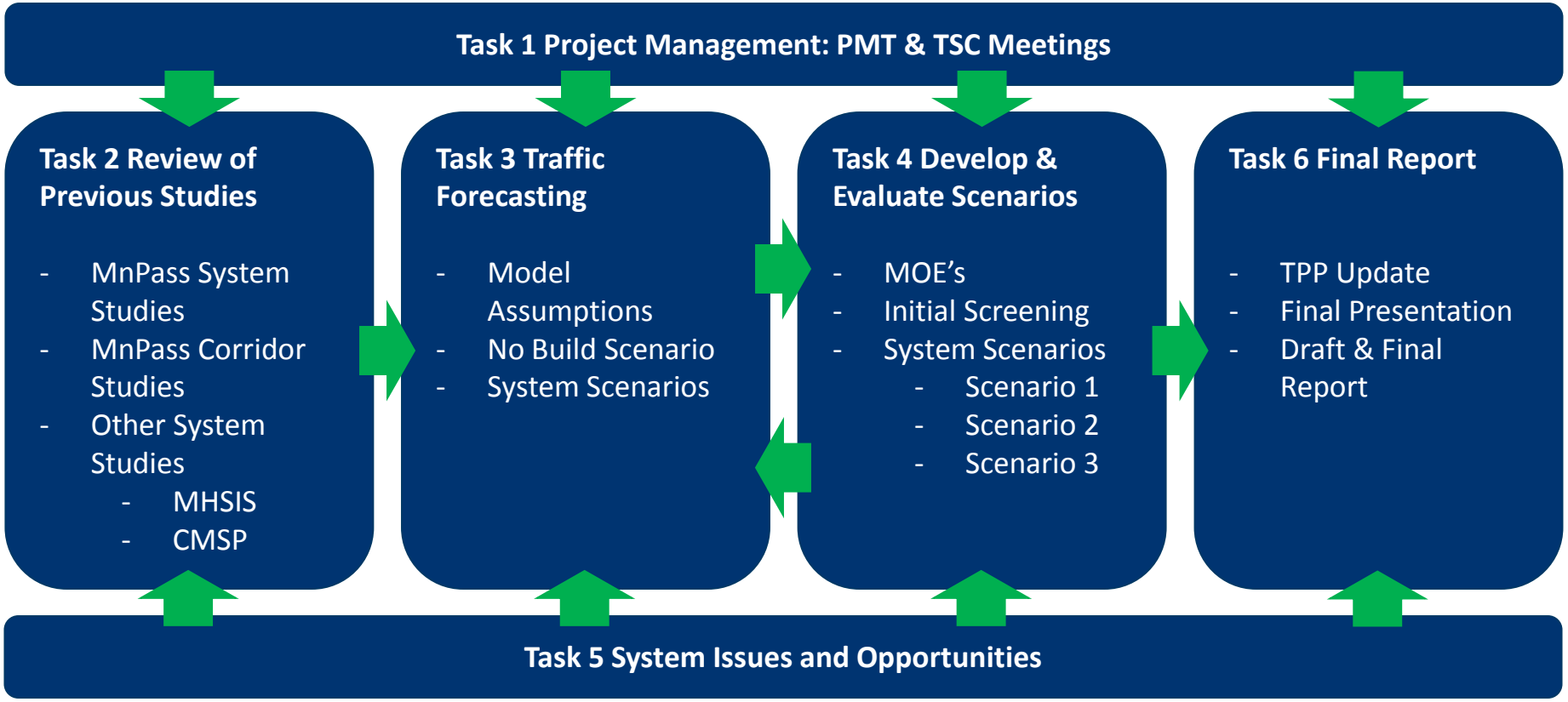


MnPASS System Study Phase 3 - Goals

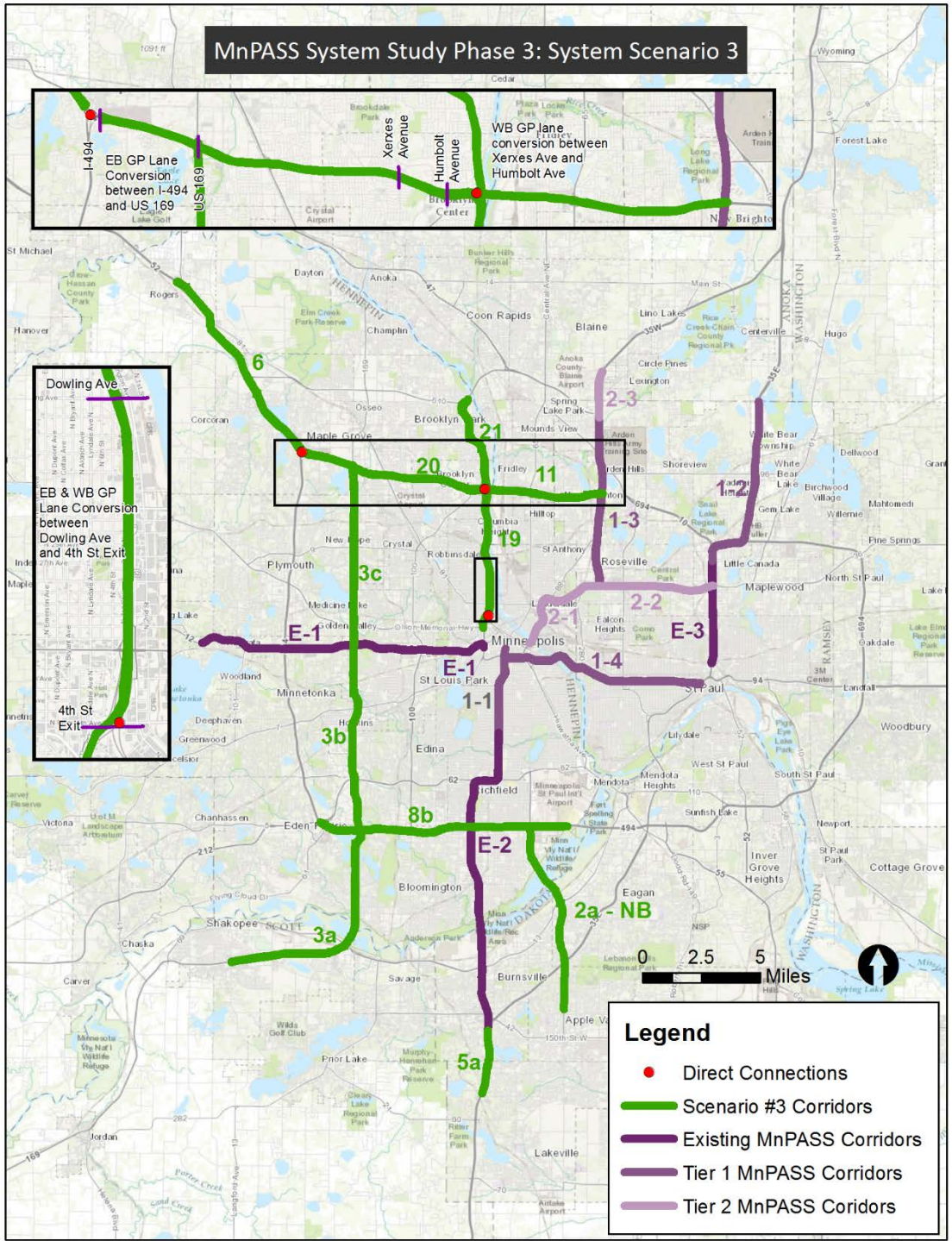
Phase 3 study goals:

- 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
I-494
EB GP Lane Conversion between I-494 and US 169
US 169
Xerxes Avenue
Humbolt Avenue
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
6
21
20
11
19
3c
E-1
E-1
1-1
3b
8b
E-2
3a
5a
2-3
1-3
2-2
2-1
E-3
1-4
2a - NB
0 2.5 5 Miles
Legend
Direct Connections
Scenario #3 Corridors
Existing MnPASS Corridors
Tier 1 MnPASS Corridors
Tier 2 MnPASS Coridors

System Scenario 3 Evaluation Summary Table

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

System Scenario 3 Corridor Evaluation Ranking

Rank	Corridor	Change in Average Person Throughput	Cost (M)	Change in Average Person Throughput per $M
1	**21**	36,925[1]	$140[1]	264[1]
2	**19**	16,552	$110	151
3	**5a**	3,490	$40	87
4	**8b**	18,786	$220	85
5	**3b**	15,492	$200	78
6	**2a -NB**	3,118	$50	62
7	**3a**	7,985	$130	61
8	**6**	3,846	$80	48
9	**3c**	7,788	$180	43
10	**20**	3,044	$110	28
11	**11**	2,361	$120	20

1 – Corridor dependent on freeway conversion

Results Summary

- Scenario 3 has similar benefits to previous scenarios, but a lower cost per mile and total cost
- Corridor 21[1] and corridor 8b are very strong
- Corridor 19 has a large increase in throughput, but fewer hours saved
- Corridor 5a has moderate benefits, but very low cost
- Corridors 2a-NB, 3a, 3b also score moderately

1 – Corridor dependent on freeway conversion

Schedule/Next Steps

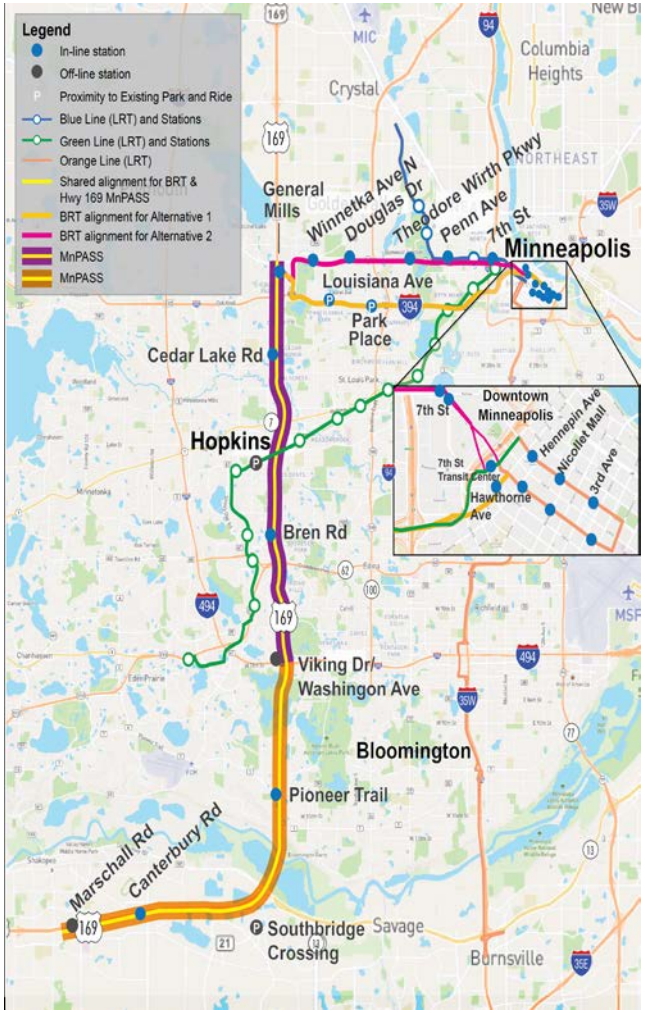
- Draft final report available later in October
- Council staff drafting TPP update are currently considering:
  - MnPASS corridor tiering
  - Increased revenue scenario

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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