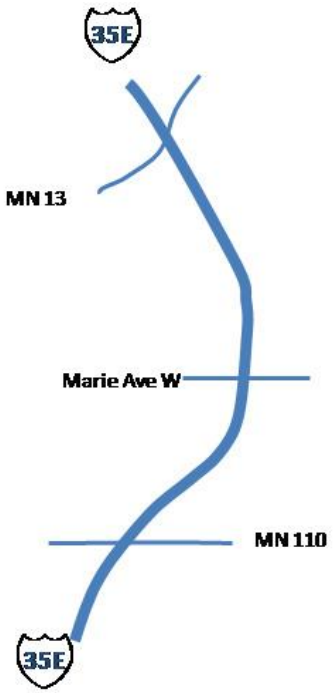
APPENDIX A: DETAILED CORRIDOR EVALUATION SUMMARIES

Project 1B: I-35E

Type	Asynchronous
Limits	TH-110 to TH-13
Lane Miles	.92
Cost Estimate	$5,733,000 (low) - $13,481,000 (high)
Cost Risk	.15 (low) - .25 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in southbound direction only. Geometric areas of concern are: widen bridge over Marie Avenue W.

Project Metrics	2030
Vehicle Miles of Travel	6,529,742 (build total) - 17,752 (change from no-build)
Vehicle Hours of Travel	220,927 (build total) - 3,257 (change from no-build)
Vehicle Hours of Delay	98,903 (build total) 2,845 (change from no-build)
Vehicular Volumes (change from no-build)	508 (total) 553 (per lane mile)
Person Trips (change from no build)	7,510 (total) 8,163 (per lane mile)
Peak Vehicle Trips (change from no build)	512 (total) 557 (per lane mile)



Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	553 (vehicles)	18
Daily new persons per lane mile	8,163 (persons)	1
	Rating: **Moderate**	
Optimization		
Daily reduction in congested VMT	33,872.0 (miles)	21
Daily peak hours of delay per trip reduced	1.28 (minutes)	3
Daily average travel time per trip reduced	3.77 (minutes)	6
	Rating: **High**	
Reduce SOV Demand		
Change in transit mode sure	.001	21
Change in SOV use rate	- .0827	21
	Rating: **Low**	
Cost Effectiveness		
Benefit-cost ratio (mean)	36.38	7
Benefit-cost ratio (standard deviation)	.65	
	Rating: **High**	
Transit Suitability		
2030 planned transit corridor	Express Bus Corridor	
Existing express bus trips	23 (total AM / PM peak periods)	14
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Moderate**	
Investment Parity		
Overall investment parity	No recent investment; corridor previously identified in 2030 Plan.	
	Rating: **High**	
Opportunity Rating		
Overall opportunity rating	No existing Bus on Shoulder availability; no Bus on Shoulders are planned	
	Rating: **Low**	

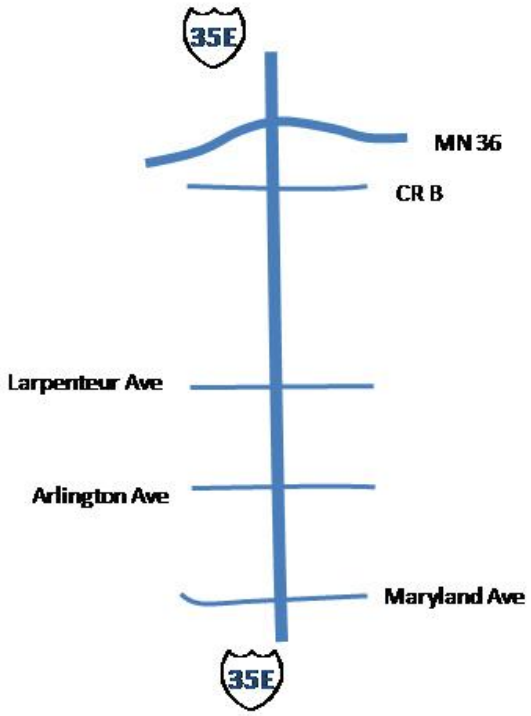
OVERALL CONCLUSION: **High**

Project 3A: I-35E

Type	Expansion
Limits	Maryland to TH-36
Lane Miles	6.22
Cost Estimate	$34,256,000 (low) - $44,321,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern include the Cayuga and TH-36 bridges.

Project Metrics	2030
Vehicle Miles of Travel	18,349,168 (build total) - 8,188 (change from no-build)
Vehicle Hours of Travel	607,796 (build total) - 6,137 (change from no-build)
Vehicle Hours of Delay	287,866 (build total) 7,142 (change from no-build)
Vehicular Volumes (change from no-build)	16,290 (total) 2,619 (per lane mile)
Person Trips (change from no build)	40,002 (total) 6,431 (per lane mile)
Peak Vehicle Trips (change from no build)	12,277 (total) 1,974 (per lane mile)



Project 3A (**I-35E**, *from Maryland to TH-36*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	2,619 (vehicles)	1
Daily new persons per lane mile	6,431 (persons)	2
	Rating: **High**	
Optimization		
Daily reduction in congested VMT	88,251.0 (miles)	17
Daily peak hours of delay per trip reduced	.88 (minutes)	9
Daily average travel time per trip reduced	1.79 (minutes)	20
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.002	18
Change in SOV use rate	- .0827	22
	Rating: **Low**	
Cost Effectiveness		
Benefit-cost ratio (mean)	19.08	10
Benefit-cost ratio (standard deviation)	.34	
	Rating: **Moderate**	
Transit Suitability		
2030 planned transit corridor	Express Bus Corridor	
Existing express bus trips	26 (total AM / PM peak periods)	13
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Moderate**	
Investment Parity		
Overall investment parity	No recent investment; corridor previously identified in 2030 Plan.	
	Rating: **High**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

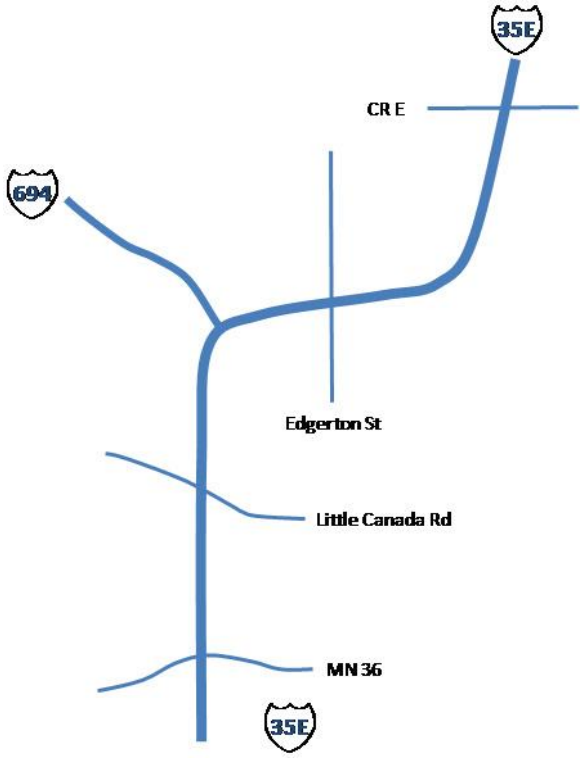
OVERALL CONCLUSION: **High**

Project 4A: I-35E

Type	Conversion
Limits	TH-36 to CR E
Lane Miles	13.58
Cost Estimate	$6,808,000 (low) - $12,025,000 (high)
Cost Risk	.15 (low) - .25 (high)

Managed Lanes Type, Geometric and Other Considerations: Converts left-side general purpose lane to managed lane, maintaining the right-side shoulder. No net increase in laneage. There are no major geometric areas of concern.

Project Metrics	2030
Vehicle Miles of Travel	24,869,713 (build total) - 24,359 (change from no-build)
Vehicle Hours of Travel	813,233 (build total) - 9,733 (change from no-build)
Vehicle Hours of Delay	365,168 (build total) 10,348 (change from no-build)
Vehicular Volumes (change from no-build)	16,430 (total) 1,210 (per lane mile)
Person Trips (change from no build)	19,060 (total) 1,404 (per lane mile)
Peak Vehicle Trips (change from no build)	12,082 (total) 890 (per lane mile)



Project 4A (**I-35E**, *from TH-36 to CR E*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	1,210 (vehicles)	8
Daily new persons per lane mile	1,404 (persons)	16
	Rating: **Moderate**	
Optimization		
Daily reduction in congested VMT	131,531.0 (miles)	9
Daily peak hours of delay per trip reduced	.43 (minutes)	19
Daily average travel time per trip reduced	1.67 (minutes)	21
	Rating: **Low**	
Reduce SOV Demand		
Change in transit mode sure	.003	13
Change in SOV use rate	- .0375	16
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	139.57	2
Benefit-cost ratio (standard deviation)	2.48	
	Rating: **High**	
Transit Suitability		
2030 planned transit corridor	Express Bus Corridor	
Existing express bus trips	0 (total AM / PM peak periods)	18
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Low**	
Investment Parity		
Overall investment parity	Recent investment made in corridor; corridor not identified on 2030 Plan.	
	Rating: **Low**	
Opportunity Rating		
Overall opportunity rating	Existing Bus on Shoulders across much of the corridor	
	Rating: **Moderate**	

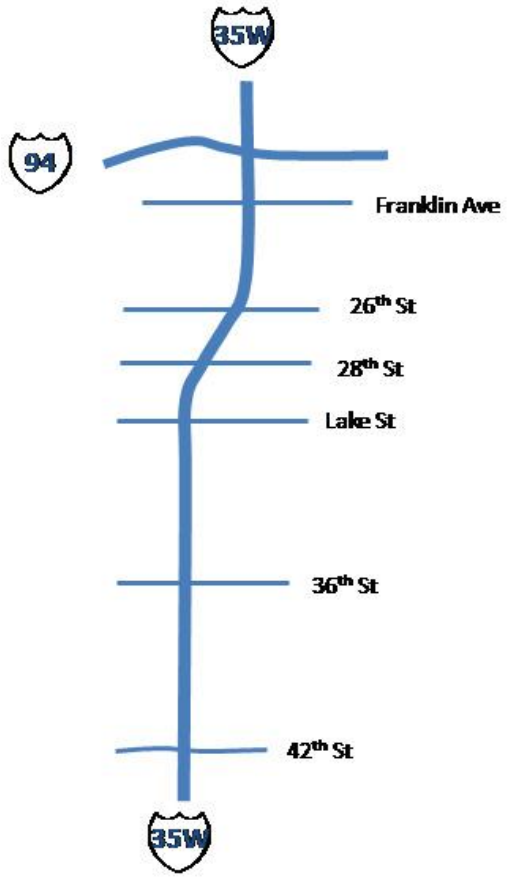
OVERALL CONCLUSION: **Moderate**

Project 6B: I-35W

Type	Asynchronous
Limits	42nd St. to Minneapolis CBD
Lane Miles	3.52
Cost Estimate	$12,938,000 (low) - $18,023,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in southbound direction only. There are no major geometric areas of concern.

Project Metrics	2030
Vehicle Miles of Travel	9,615,525 (build total) - 23,350 (change from no-build)
Vehicle Hours of Travel	338,612 (build total) - 6,237 (change from no-build)
Vehicle Hours of Delay	168,743 (build total) 5,649 (change from no-build)
Vehicular Volumes (change from no-build)	902 (total) 256 (per lane mile)
Person Trips (change from no build)	5,296 (total) 1,504 (per lane mile)
Peak Vehicle Trips (change from no build)	941 (total) 267 (per lane mile)



Project 6B (**I-35W**, *from 42nd St. to Minneapolis CBD*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	256 (vehicles)	23
Daily new persons per lane mile	1,504 (persons)	14
	Rating: **Low**	
Optimization		
Daily reduction in congested VMT	91,109.0 (miles)	16
Daily peak hours of delay per trip reduced	.74 (minutes)	11
Daily average travel time per trip reduced	2.79 (minutes)	10
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.003	13
Change in SOV use rate	.0247	8
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	21.22	8
Benefit-cost ratio (standard deviation)	.38	
	Rating: **Moderate**	
Transit Suitability		
2030 planned transit corridor	Bus Rapid Transit Corridor	
Existing express bus trips	323 (total AM / PM peak periods)	1
Overall transit suitability	No significant need for ramp access; desirable inline stations identified by Metro Transit.	
	Rating: **Very High**	
Investment Parity		
Overall investment parity	No recent investment; corridor previously identified in 2030 Plan.	
	Rating: **High**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

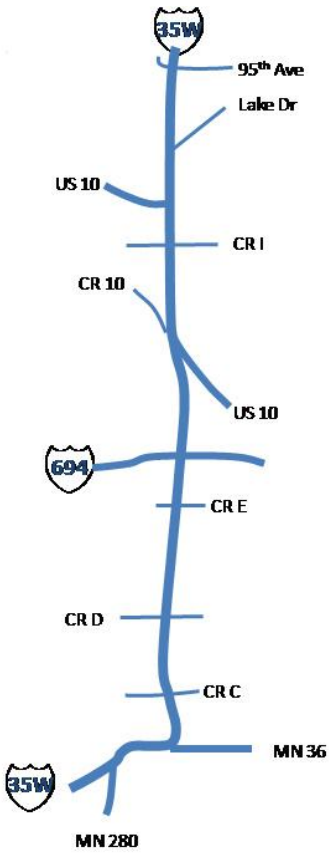
OVERALL CONCLUSION: **High**

Project 7B: I-35W

Type	Expansion
Limits	TH-280 to 95th Ave
Lane Miles	24.94
Cost Estimate	$143,223,000 (low) - $176,621,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: widen bridge over railroad, widen bridge over CR C, widen bridge over CR I, and southbound left exit to TH-36

Project Metrics	2030
Vehicle Miles of Travel	28,753,217 (build total) 37,780 (change from no-build)
Vehicle Hours of Travel	989,921 (build total) - 21,069 (change from no-build)
Vehicle Hours of Delay	452,735 (build total) 20,922 (change from no-build)
Vehicular Volumes (change from no-build)	17,232 (total) 691 (per lane mile)
Person Trips (change from no build)	35,558 (total) 1,426 (per lane mile)
Peak Vehicle Trips (change from no build)	12,147 (total) 487 (per lane mile)



Project 7B (**I-35W**, *from TH-280 to 95th Ave*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	691 (vehicles)	15
Daily new persons per lane mile	1,426 (persons)	15
	Rating: **Moderate**	
Optimization		
Daily reduction in congested VMT	233,879.0 (miles)	3
Daily peak hours of delay per trip reduced	.58 (minutes)	15
Daily average travel time per trip reduced	2.4 (minutes)	13
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.003	13
Change in SOV use rate	- .0301	15
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	13.64	15
Benefit-cost ratio (standard deviation)	.24	
	Rating: **Moderate**	
Transit Suitability		
2030 planned transit corridor	Bus Rapid Transit Corridor	
Existing express bus trips	76 (total AM / PM peak periods)	9
Overall transit suitability	No significant need for ramp access; desirable inline stations identified by Metro Transit.	
	Rating: **High**	
Investment Parity		
Overall investment parity	No recent investment; corridor was not previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

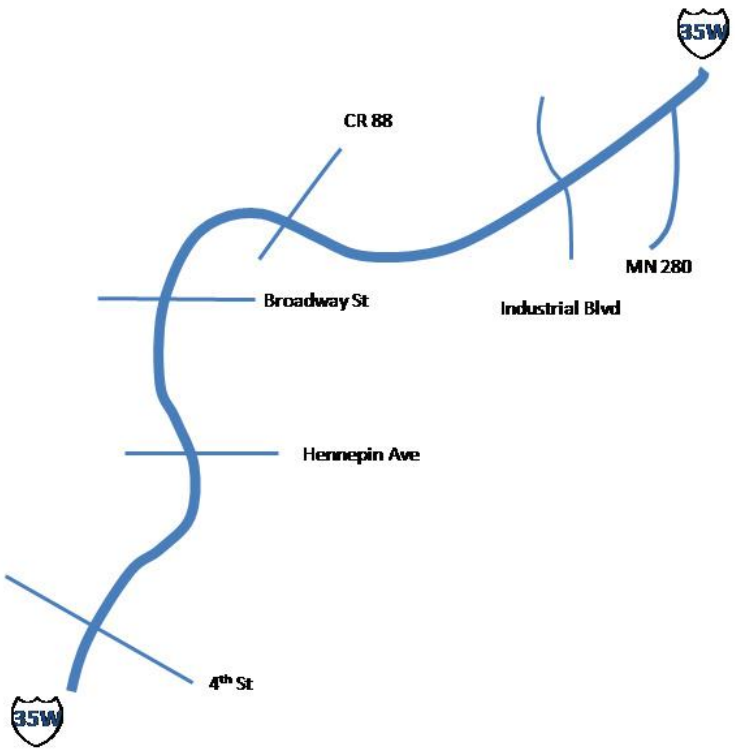
OVERALL CONCLUSION: **High**

Project 10A: I-35W

Type	Expansion
Limits	University to TH-280
Lane Miles	8.04
Cost Estimate	$47,713,000 (low) - $55,715,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern the bridge over Johnson Street.

Project Metrics	2030
Vehicle Miles of Travel	17,487,030 (build total) 18,905 (change from no-build)
Vehicle Hours of Travel	628,282 (build total) - 9,149 (change from no-build)
Vehicle Hours of Delay	306,913 (build total) 9,232 (change from no-build)
Vehicular Volumes (change from no-build)	12,598 (total) 1,567 (per lane mile)
Person Trips (change from no build)	30,585 (total) 3,804 (per lane mile)
Peak Vehicle Trips (change from no build)	8,885 (total) 1,105 (per lane mile)



Project 10A (**I-35W**, *from University to TH-280*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	1,567 (vehicles)	5
Daily new persons per lane mile	3,804 (persons)	7
	Rating: **High**	
Optimization		
Daily reduction in congested VMT	91,687.0 (miles)	15
Daily peak hours of delay per trip reduced	.3 (minutes)	20
Daily average travel time per trip reduced	2.21 (minutes)	15
	Rating: **Low**	
Reduce SOV Demand		
Change in transit mode sure	.004	7
Change in SOV use rate	- .0399	17
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	18.06	11
Benefit-cost ratio (standard deviation)	.32	
	Rating: **Moderate**	
Transit Suitability		
2030 planned transit corridor	Bus Rapid Transit Corridor	
Existing express bus trips	143 (total AM / PM peak periods)	3
Overall transit suitability	Some need for ramp access; no inline stations.	
	Rating: **High**	
Investment Parity		
Overall investment parity	No recent investment; corridor was not previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	Limited Bus on Shoulders, completion planned.	
	Rating: **Moderate**	

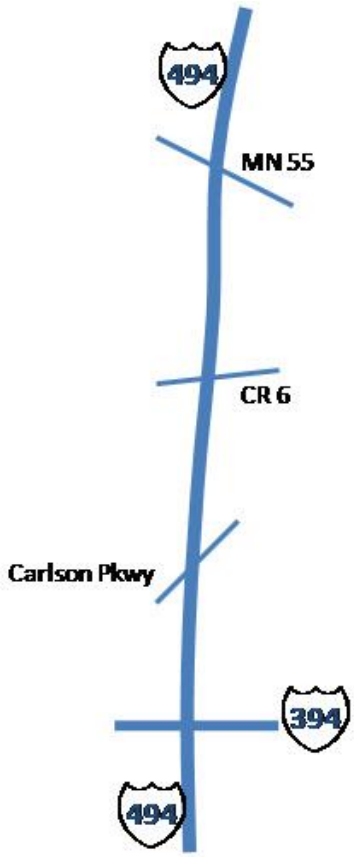
OVERALL CONCLUSION: **Moderate**

Project 17A: I-494

Type	Conversion
Limits	I-394 to TH-55
Lane Miles	4.80
Cost Estimate	$4,968,000 (low) - $8,775,000 (high)
Cost Risk	.15 (low) - .25 (high)

Managed Lanes Type, Geometric and Other Considerations: Converts left-side general purpose lane to managed lane, maintaining the right-side shoulder. No net increase in laneage. There are no major geometric areas of concern.

Project Metrics	2030
Vehicle Miles of Travel	19,094,389 (build total) - 55,287 (change from no-build)
Vehicle Hours of Travel	679,009 (build total) - 14,466 (change from no-build)
Vehicle Hours of Delay	343,750 (build total) 13,326 (change from no-build)
Vehicular Volumes (change from no-build)	581 (total) 121 (per lane mile)
Person Trips (change from no build)	9,607 (total) 2,001 (per lane mile)
Peak Vehicle Trips (change from no build)	255 (total) 53 (per lane mile)



Project 17A (**I-494**, *from I-394 to TH-55*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	121 (vehicles)	24
Daily new persons per lane mile	2,001 (persons)	11
	Rating: **Low**	
Optimization		
Daily reduction in congested VMT	101,438.0 (miles)	13
Daily peak hours of delay per trip reduced	.5 (minutes)	17
Daily average travel time per trip reduced	6.68 (minutes)	2
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.004	7
Change in SOV use rate	.0792	3
	Rating: **High**	
Cost Effectiveness		
Benefit-cost ratio (mean)	255.06	1
Benefit-cost ratio (standard deviation)	4.53	
	Rating: **High**	
Transit Suitability		
2030 planned transit corridor	Not a transit corridor	
Existing express bus trips	0 (total AM / PM peak periods)	18
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Very Low**	
Investment Parity		
Overall investment parity	No recent investment; corridor previously identified in 2030 Plan.	
	Rating: **High**	
Opportunity Rating		
Overall opportunity rating	No existing Bus on Shoulder availability; no Bus on Shoulders are planned	
	Rating: **Low**	

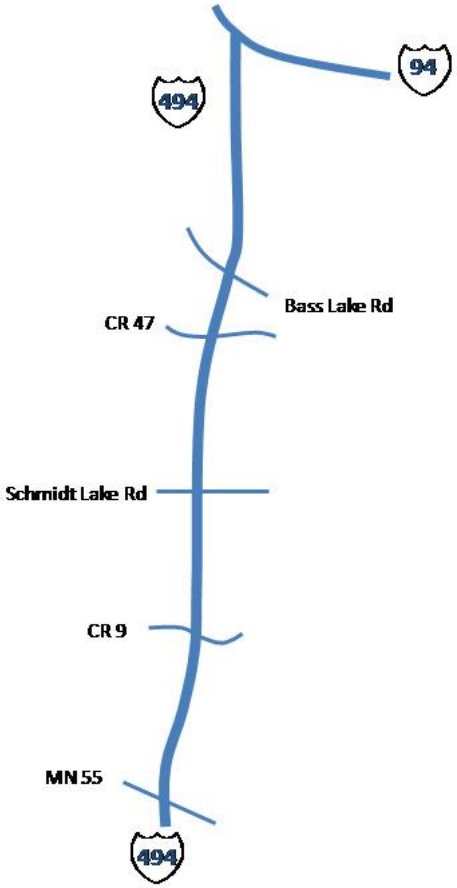
OVERALL CONCLUSION: **Moderate**

Project 18A: I-494

Type	Expansion
Limits	TH-55 to I-94 /I-494
Lane Miles	16.24
Cost Estimate	$75,728,400 (low) - $107,163,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: widen bridge over Schmidt Lake Road, widen bridge over railroad, and widen bridge over CR 47.

Project Metrics	2030
Vehicle Miles of Travel	22,528,332 (build total) 61,038 (change from no-build)
Vehicle Hours of Travel	809,286 (build total) - 12,252 (change from no-build)
Vehicle Hours of Delay	406,276 (build total) 12,998 (change from no-build)
Vehicular Volumes (change from no-build)	12,680 (total) 781 (per lane mile)
Person Trips (change from no build)	32,471 (total) 1,999 (per lane mile)
Peak Vehicle Trips (change from no build)	9,995 (total) 615 (per lane mile)



Project 18A (**I-494**, *from TH-55 to I-94 /I-494*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	781 (vehicles)	13
Daily new persons per lane mile	1,999 (persons)	12
	Rating: **Moderate**	
Optimization		
Daily reduction in congested VMT	96,685.0 (miles)	14
Daily peak hours of delay per trip reduced	.55 (minutes)	16
Daily average travel time per trip reduced	3.63 (minutes)	7
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.007	1
Change in SOV use rate	.0393	7
	Rating: **High**	
Cost Effectiveness		
Benefit-cost ratio (mean)	14.43	14
Benefit-cost ratio (standard deviation)	.26	
	Rating: **Moderate**	
Transit Suitability		
2030 planned transit corridor	Not a transit corridor	
Existing express bus trips	0 (total AM / PM peak periods)	18
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Very Low**	
Investment Parity		
Overall investment parity	No recent investment; corridor previously identified in 2030 Plan.	
	Rating: **High**	
Opportunity Rating		
Overall opportunity rating	No existing Bus on Shoulder availability; no Bus on Shoulders are planned	
	Rating: **Low**	

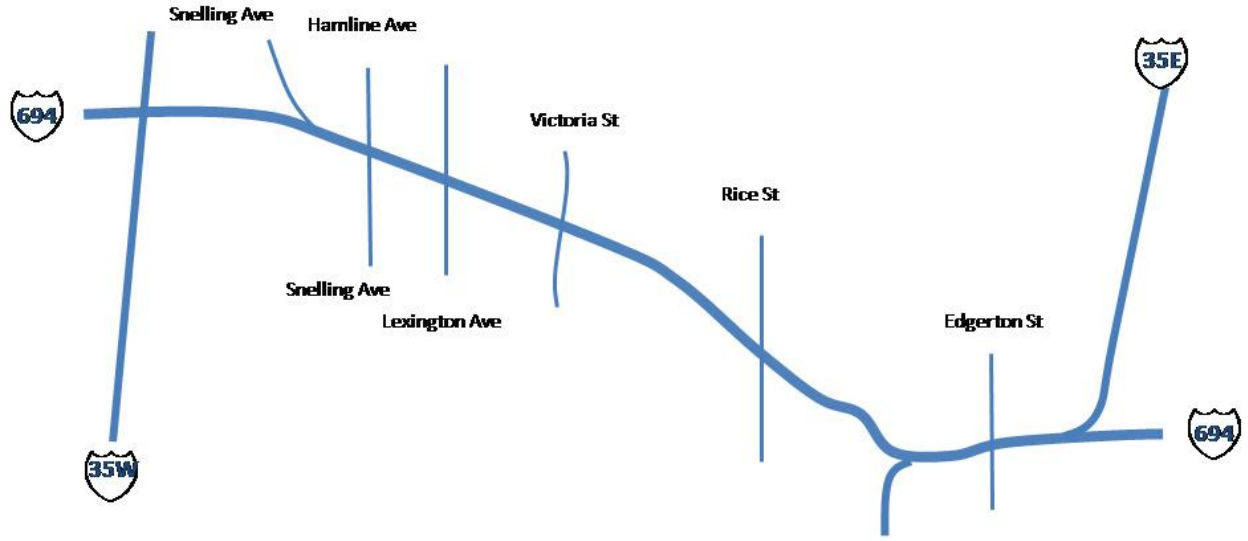
OVERALL CONCLUSION: **Moderate**

Project 19A: I-694

Type	Expansion
Limits	I-35W to I-35E
Lane Miles	10.30
Cost Estimate	$36,553,000 (low) - $47,250,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: reconstruction of I-694/US 10/Snelling Interchange, widen bridge over Island Lake, and the underpass railroad bridge replacement.

Project Metrics	2030
Vehicle Miles of Travel	22,450,827 (build total) 64,715 (change from no-build)
Vehicle Hours of Travel	711,953 (build total) - 5,171 (change from no-build)
Vehicle Hours of Delay	311,287 (build total) 6,814 (change from no-build)
Vehicular Volumes (change from no-build)	19,522 (total) 1,895 (per lane mile)
Person Trips (change from no build)	39,688 (total) 3,853 (per lane mile)
Peak Vehicle Trips (change from no build)	15,156 (total) 1,471 (per lane mile)



Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	1,895 (vehicles)	3
Daily new persons per lane mile	3,853 (persons)	6
	Rating: **High**	
Optimization		
Daily reduction in congested VMT	8,615.0 (miles)	24
Daily peak hours of delay per trip reduced	.97 (minutes)	5
Daily average travel time per trip reduced	1.56 (minutes)	23
	Rating: **Low**	
Reduce SOV Demand		
Change in transit mode sure	.006	3
Change in SOV use rate	.0112	9
	Rating: **High**	
Cost Effectiveness		
Benefit-cost ratio (mean)	16.4	13
Benefit-cost ratio (standard deviation)	.29	
	Rating: **Moderate**	
Transit Suitability		
2030 planned transit corridor	Not a transit corridor	
Existing express bus trips	6 (total AM / PM peak periods)	17
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Low**	
Investment Parity		
Overall investment parity	No recent investment; corridor previously identified in 2030 Plan.	
	Rating: **High**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

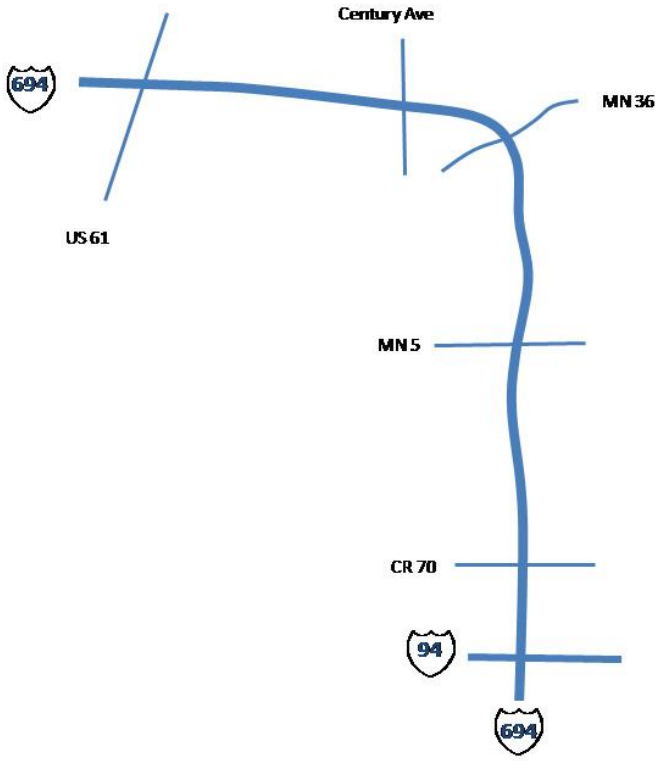
OVERALL CONCLUSION: **High**

Project 20B: I-694

Type	Expansion
Limits	I-94 to US 61
Lane Miles	20.64
Cost Estimate	$75,265,000 (low) - $117,180,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: widen bridge over railroad, widen bridge over TH-5, widen bridge over 50th Street N, widen bridge at Willard Mungar Trail, widen bridge over TH-36, widen bridge over White Bear Ave, underpass railroad bridge replacement, and widen bridge over US 61.

Project Metrics	2030
Vehicle Miles of Travel	24,269,578 (build total) 65,230 (change from no-build)
Vehicle Hours of Travel	775,497 (build total) - 9,445 (change from no-build)
Vehicle Hours of Delay	339,573 (build total) 10,020 (change from no-build)
Vehicular Volumes (change from no-build)	16,715 (total) 810 (per lane mile)
Person Trips (change from no build)	14,981 (total) 726 (per lane mile)
Peak Vehicle Trips (change from no build)	12,659 (total) 613 (per lane mile)



Project 20B (**I-694**, *from I-94 to US 61*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	810 (vehicles)	12
Daily new persons per lane mile	726 (persons)	22
	Rating: **Moderate**	
Optimization		
Daily reduction in congested VMT	212,827.0 (miles)	5
Daily peak hours of delay per trip reduced	.65 (minutes)	14
Daily average travel time per trip reduced	2.47 (minutes)	12
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.002	18
Change in SOV use rate	.0043	10
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	12.44	16
Benefit-cost ratio (standard deviation)	.22	
	Rating: **Low**	
Transit Suitability		
2030 planned transit corridor	Not a transit corridor	
Existing express bus trips	0 (total AM / PM peak periods)	18
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Very Low**	
Investment Parity		
Overall investment parity	No recent investment; corridor previously identified in 2030 Plan.	
	Rating: **High**	
Opportunity Rating		
Overall opportunity rating	No existing Bus on Shoulder availability; no Bus on Shoulders are planned	
	Rating: **Low**	

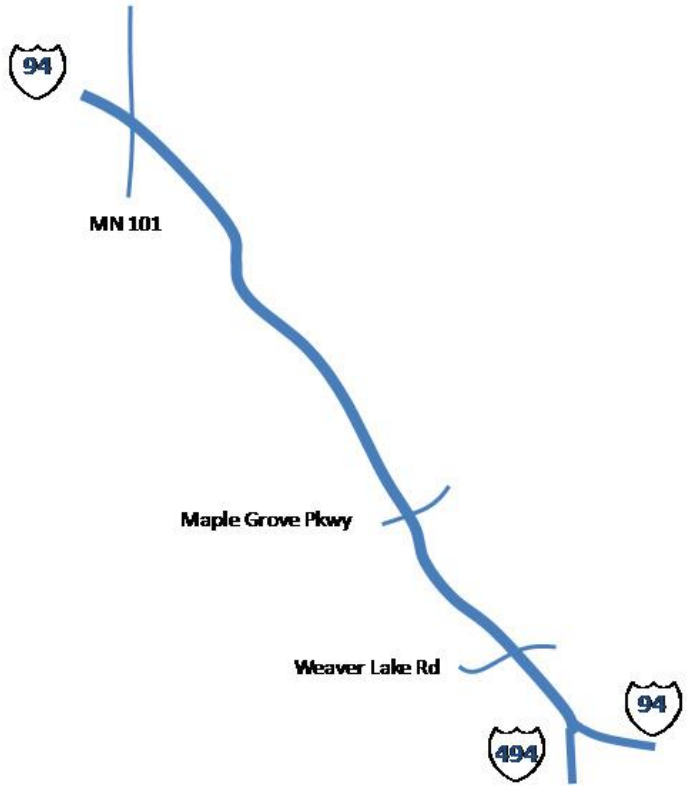
OVERALL CONCLUSION: **Low**

Project 21B: I-94

Type	Expansion
Limits	TH-101 to I-94 /I-494
Lane Miles	34.32
Cost Estimate	$115,025,000 (low) - $135,837,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are a design exception needed for EB lanes under TH-101

Project Metrics	2030
Vehicle Miles of Travel	26,404,400 (build total) - 44,732 (change from no-build)
Vehicle Hours of Travel	878,139 (build total) - 22,989 (change from no-build)
Vehicle Hours of Delay	408,570 (build total) 21,662 (change from no-build)
Vehicular Volumes (change from no-build)	10,433 (total) 304 (per lane mile)
Person Trips (change from no build)	27,485 (total) 801 (per lane mile)
Peak Vehicle Trips (change from no build)	8,158 (total) 238 (per lane mile)



Project 21B (**I-94**, *from TH-101 to I-94 /I-494*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	304 (vehicles)	22
Daily new persons per lane mile	801 (persons)	19
	Rating: **Low**	
Optimization		
Daily reduction in congested VMT	277,055.0 (miles)	2
Daily peak hours of delay per trip reduced	1.51 (minutes)	2
Daily average travel time per trip reduced	4.31 (minutes)	5
	Rating: **High**	
Reduce SOV Demand		
Change in transit mode sure	.005	4
Change in SOV use rate	.0758	4
	Rating: **High**	
Cost Effectiveness		
Benefit-cost ratio (mean)	17.73	12
Benefit-cost ratio (standard deviation)	.31	
	Rating: **Moderate**	
Transit Suitability		
2030 planned transit corridor	Express Bus Corridor	
Existing express bus trips	22 (total AM / PM peak periods)	15
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Moderate**	
Investment Parity		
Overall investment parity	No recent investment; corridor was not previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	Limited Bus on Shoulders, completion planned.	
	Rating: **Moderate**	

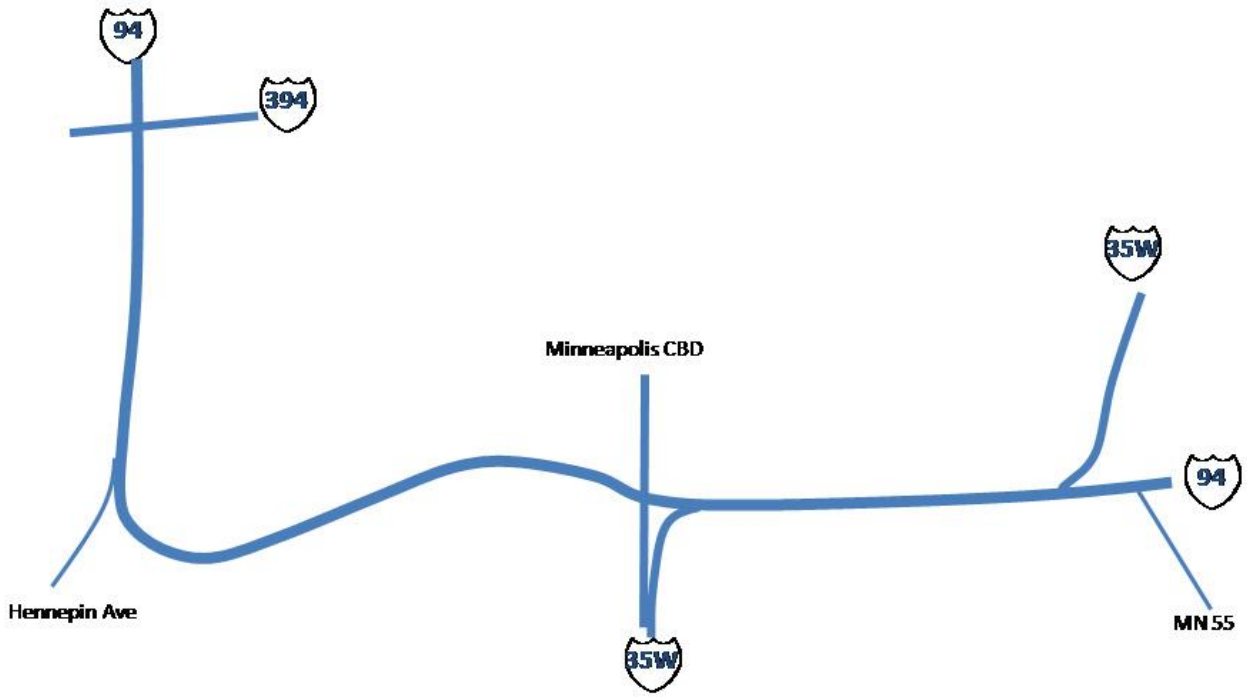
OVERALL CONCLUSION: **Moderate**

Project 22B: I-94

Type	Asynchronous
Limits	Hiawatha to I-394
Lane Miles	1.92
Cost Estimate	$9,919,000 (low) - $13,817,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in westbound direction only. Geometric areas of concern are: connectivity concerns and spacing at the Lowry Hill Tunnel.

Project Metrics	2030
Vehicle Miles of Travel	9,034,482 (build total) - 35,468 (change from no-build)
Vehicle Hours of Travel	324,458 (build total) - 5,394 (change from no-build)
Vehicle Hours of Delay	157,767 (build total) 4,843 (change from no-build)
Vehicular Volumes (change from no-build)	1,766 (total) 920 (per lane mile)
Person Trips (change from no build)	- 1,475 (total) - 768 (per lane mile)
Peak Vehicle Trips (change from no build)	1,681 (total) 876 (per lane mile)



Project 22B (**I-94**, *from Hiawatha to I-394*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	920 (vehicles)	11
Daily new persons per lane mile	- 768 (persons)	24
	Rating: **Low**	
Optimization		
Daily reduction in congested VMT	36,460.0 (miles)	19
Daily peak hours of delay per trip reduced	.19 (minutes)	21
Daily average travel time per trip reduced	3.11 (minutes)	9
	Rating: **Low**	
Reduce SOV Demand		
Change in transit mode sure	.001	21
Change in SOV use rate	.159	1
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	37.97	6
Benefit-cost ratio (standard deviation)	.67	
	Rating: **High**	
Transit Suitability		
2030 planned transit corridor	Bus Rapid Transit Corridor	
Existing express bus trips	304 (total AM / PM peak periods)	2
Overall transit suitability	Significant bus volumes entering from ramps; access on right side of managed capacity may be necesssary to accommodate entering buses	
	Rating: **High**	
Investment Parity		
Overall investment parity	No recent investment; corridor was not previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

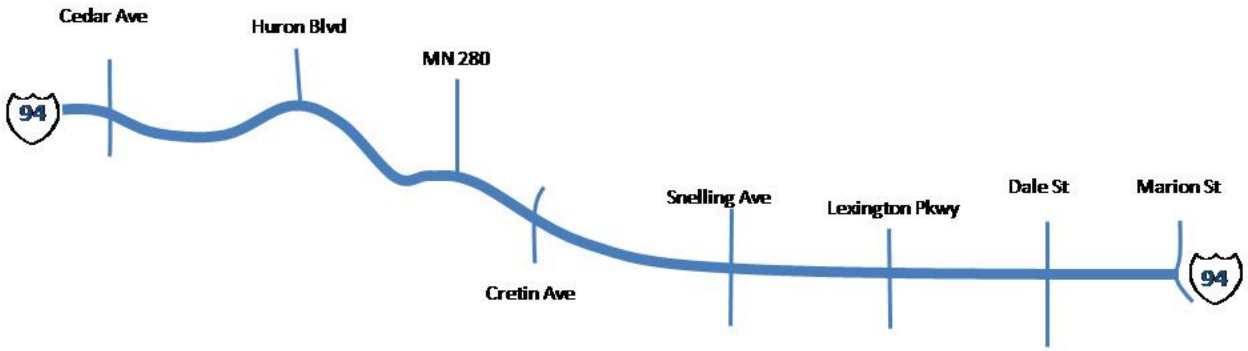
OVERALL CONCLUSION: **Moderate**

Project 23A: I-94

Type	Expansion
Limits	Cedar to Marion
Lane Miles	14.24
Cost Estimate	$110,413,000 (low) - $150,647,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: ramp modifications at Cretin/Vandilia, Pascal Street, Marion/Kellogg, and 5th/10th Street.

Project Metrics	2030
Vehicle Miles of Travel	21,411,148 (build total) - 18,240 (change from no-build)
Vehicle Hours of Travel	699,749 (build total) - 12,385 (change from no-build)
Vehicle Hours of Delay	302,519 (build total) 11,845 (change from no-build)
Vehicular Volumes (change from no-build)	23,838 (total) 1,674 (per lane mile)
Person Trips (change from no build)	33,472 (total) 2,351 (per lane mile)
Peak Vehicle Trips (change from no build)	14,810 (total) 1,040 (per lane mile)



Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	1,674 (vehicles)	4
Daily new persons per lane mile	2,351 (persons)	10
	Rating: **High**	
Optimization		
Daily reduction in congested VMT	110,646.0 (miles)	11
Daily peak hours of delay per trip reduced	.09 (minutes)	24
Daily average travel time per trip reduced	1.99 (minutes)	18
	Rating: **Low**	
Reduce SOV Demand		
Change in transit mode sure	.004	7
Change in SOV use rate	- .0561	18
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	9.57	21
Benefit-cost ratio (standard deviation)	.17	
	Rating: **Low**	
Transit Suitability		
2030 planned transit corridor	Bus Rapid Transit Corridor	
Existing express bus trips	142 (total AM / PM peak periods)	4
Overall transit suitability	Significant bus volumes on ramps may require additional accommodation with inline station location.	
	Rating: **High**	
Investment Parity		
Overall investment parity	No recent investment; corridor was not previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

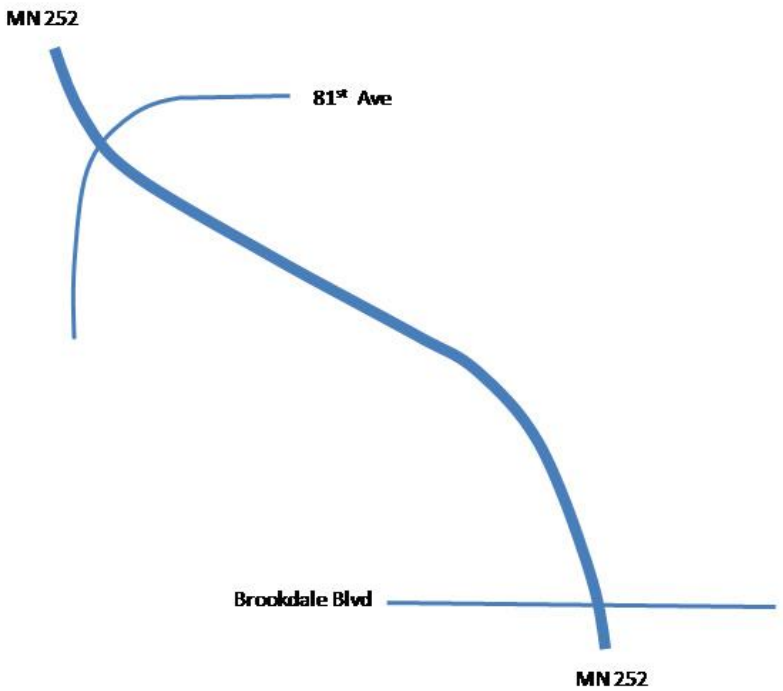
OVERALL CONCLUSION: **Moderate**

Project 26B: TH-252

Type	Asynchronous
Limits	77th Ave to 81st Ave
Lane Miles	.66
Cost Estimate	$2,363,000 (low) - $3,497,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in northbound direction only. Geometric areas of concern are: intersection modifications at Brookdale Drive and 81st Avenue.

Project Metrics	2030
Vehicle Miles of Travel	5,111,857 (build total) - 23,545 (change from no-build)
Vehicle Hours of Travel	221,104 (build total) - 3,965 (change from no-build)
Vehicle Hours of Delay	119,598 (build total) 3,472 (change from no-build)
Vehicular Volumes (change from no-build)	271 (total) 410 (per lane mile)
Person Trips (change from no build)	1,873 (total) 2,838 (per lane mile)
Peak Vehicle Trips (change from no build)	148 (total) 225 (per lane mile)



Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	410 (vehicles)	19
Daily new persons per lane mile	2,838 (persons)	8
	Rating: **Moderate**	
Optimization		
Daily reduction in congested VMT	26,099.0 (miles)	22
Daily peak hours of delay per trip reduced	.95 (minutes)	6
Daily average travel time per trip reduced	12.95 (minutes)	1
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.004	7
Change in SOV use rate	.0538	5
	Rating: **High**	
Cost Effectiveness		
Benefit-cost ratio (mean)	108.53	3
Benefit-cost ratio (standard deviation)	1.93	
	Rating: **High**	
Transit Suitability		
2030 planned transit corridor	Express Bus Corridor	
Existing express bus trips	140 (total AM / PM peak periods)	5
Overall transit suitability	No significant bus access to ramps; multiple desirable inline stations by MetroTransit along the corridor (but not in the vicinity of the project)	
	Rating: **Very High**	
Investment Parity		
Overall investment parity	Recent investment in the corridor; corridor was previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

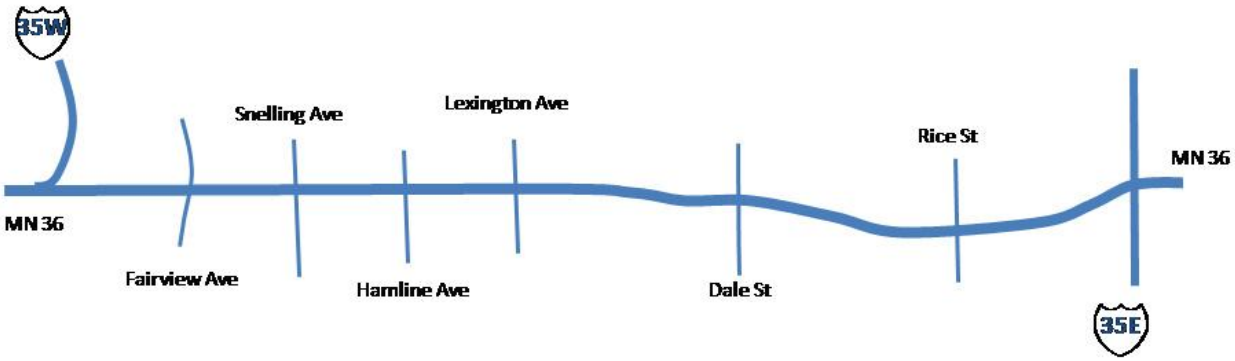
OVERALL CONCLUSION: **High**

Project 27A: TH-36

Type	Expansion
Limits	I-35W to I-35E
Lane Miles	17.28
Cost Estimate	$39,031,000 (low) - $56,166,000 (high)
Cost Risk	.15 (low) - .25 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: widen WB bridge over Cleveland, widen EB and WB bridges over Fairview, widen bridge over Lexington Ave, and the I-35E underpass requires design exception.

Project Metrics	2030
Vehicle Miles of Travel	23,573,886 (build total) 3,173 (change from no-build)
Vehicle Hours of Travel	839,382 (build total) - 16,575 (change from no-build)
Vehicle Hours of Delay	397,072 (build total) 16,096 (change from no-build)
Vehicular Volumes (change from no-build)	9,893 (total) 573 (per lane mile)
Person Trips (change from no build)	26,080 (total) 1,509 (per lane mile)
Peak Vehicle Trips (change from no build)	7,202 (total) 417 (per lane mile)



Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	573 (vehicles)	17
Daily new persons per lane mile	1,509 (persons)	13
	Rating: **Moderate**	
Optimization		
Daily reduction in congested VMT	224,568.0 (miles)	4
Daily peak hours of delay per trip reduced	.69 (minutes)	12
Daily average travel time per trip reduced	2.16 (minutes)	16
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.003	13
Change in SOV use rate	- .0566	19
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	38.45	5
Benefit-cost ratio (standard deviation)	.68	
	Rating: **High**	
Transit Suitability		
2030 planned transit corridor	Bus Rapid Transit Corridor	
Existing express bus trips	41 (total AM / PM peak periods)	12
Overall transit suitability	No significant need for ramp access; one desirable inline station location.	
	Rating: **High**	
Investment Parity		
Overall investment parity	No recent investment; corridor previously identified in 2030 Plan.	
	Rating: **High**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

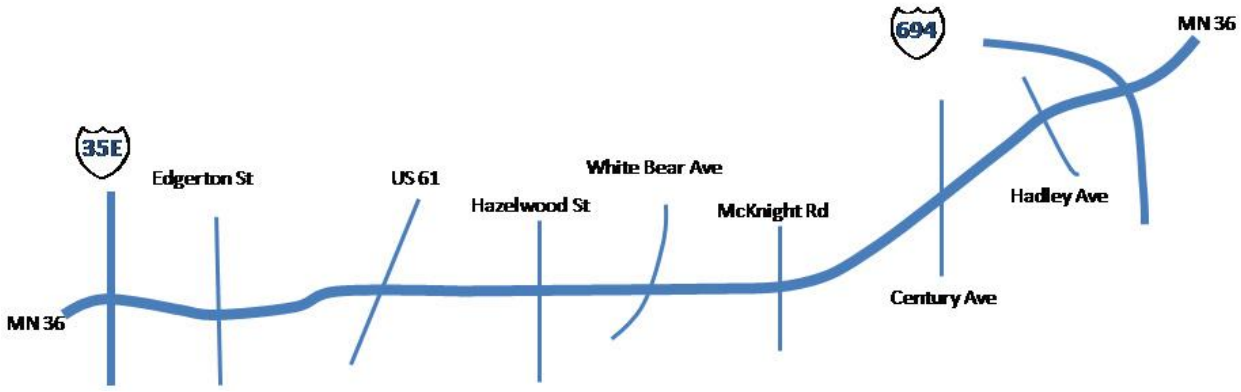
OVERALL CONCLUSION: **High**

Project 28B: TH-36

Type	Expansion
Limits	I-35E to I-694
Lane Miles	32.16
Cost Estimate	$50,416,000 (low) - $71,070,000 (high)
Cost Risk	.15 (low) - .25 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: widen Keller Lake Bridge, widen bridge at TH-61, widen bridge at White Bear Ave, widen bridge at McKnight Road, intersection modification at Century Avenue, intersection modification at Hadley Avenue and replacement of railroad bridge at Bruce Vento Trail.

Project Metrics	2030
Vehicle Miles of Travel	29,346,119 (build total) - 14,889 (change from no-build)
Vehicle Hours of Travel	1,006,489 (build total) - 24,916 (change from no-build)
Vehicle Hours of Delay	458,993 (build total) 23,881 (change from no-build)
Vehicular Volumes (change from no-build)	10,287 (total) 320 (per lane mile)
Person Trips (change from no build)	25,665 (total) 798 (per lane mile)
Peak Vehicle Trips (change from no build)	6,982 (total) 217 (per lane mile)



Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	320 (vehicles)	21
Daily new persons per lane mile	798 (persons)	20
	Rating: **Low**	
Optimization		
Daily reduction in congested VMT	302,410.0 (miles)	1
Daily peak hours of delay per trip reduced	.77 (minutes)	10
Daily average travel time per trip reduced	2.58 (minutes)	11
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.004	7
Change in SOV use rate	- .0017	11
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	43.08	4
Benefit-cost ratio (standard deviation)	.76	
	Rating: **High**	
Transit Suitability		
2030 planned transit corridor	Bus Rapid Transit Corridor	
Existing express bus trips	53 (total AM / PM peak periods)	11
Overall transit suitability	Some need for ramp access; may require inline station consideration, despite one not identiifed.	
	Rating: **High**	
Investment Parity		
Overall investment parity	Recent investment made in corridor; corridor not identified on 2030 Plan.	
	Rating: **Low**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

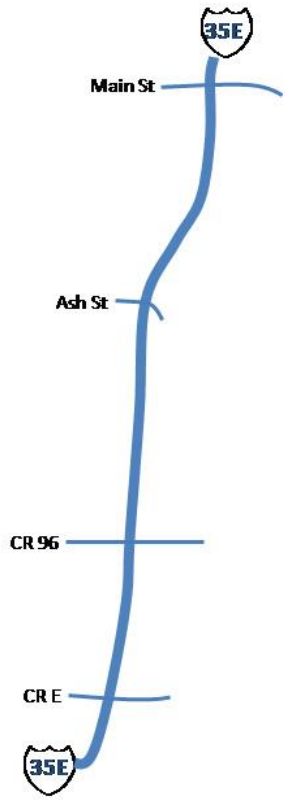
OVERALL CONCLUSION: **Moderate**

Project 29B: I-35E

Type	Expansion
Limits	CR E to CSAH 14
Lane Miles	29.98
Cost Estimate	$103,811,000 (low) - $137,388,000 (high)
Cost Risk	.15 (low) - .25 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern area: widen bridge over Goose Lake Road, a design exception for bridges under TH-96, railroad, CR H2, and Ash Street.

Project Metrics	2030
Vehicle Miles of Travel	25,658,044 (build total) 24,178 (change from no-build)
Vehicle Hours of Travel	838,311 (build total) - 13,307 (change from no-build)
Vehicle Hours of Delay	372,008 (build total) 14,020 (change from no-build)
Vehicular Volumes (change from no-build)	21,854 (total) 729 (per lane mile)
Person Trips (change from no build)	37,327 (total) 1,245 (per lane mile)
Peak Vehicle Trips (change from no build)	14,944 (total) 498 (per lane mile)



Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	729 (vehicles)	14
Daily new persons per lane mile	1,245 (persons)	17
	Rating: **Moderate**	
Optimization		
Daily reduction in congested VMT	106,631.0 (miles)	12
Daily peak hours of delay per trip reduced	.46 (minutes)	18
Daily average travel time per trip reduced	2.04 (minutes)	17
	Rating: **Low**	
Reduce SOV Demand		
Change in transit mode sure	.003	13
Change in SOV use rate	- .0181	14
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	12.16	17
Benefit-cost ratio (standard deviation)	.22	
	Rating: **Moderate**	
Transit Suitability		
2030 planned transit corridor	Express Bus Corridor	
Existing express bus trips	0 (total AM / PM peak periods)	18
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Low**	
Investment Parity		
Overall investment parity	No recent investment; corridor was not previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	No current Bus on Shoulders, completion planned.	
	Rating: **Moderate**	

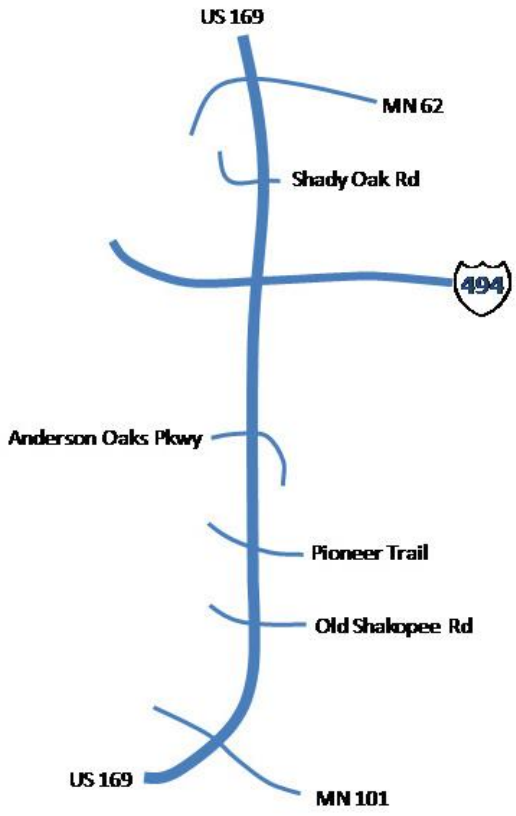
OVERALL CONCLUSION: **Low**

Project 41A: US 169

Type	Expansion
Limits	Minnesota River to TH-62
Lane Miles	9.52
Cost Estimate	$92,625,000 (low) - $115,587,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: widen bridges over Anderson Lakes, and widen bridge over TH-62/ TH-212.

Project Metrics	2030
Vehicle Miles of Travel	14,775,104 (build total) 47,790 (change from no-build)
Vehicle Hours of Travel	478,644 (build total) - 7,584 (change from no-build)
Vehicle Hours of Delay	207,815 (build total) 7,938 (change from no-build)
Vehicular Volumes (change from no-build)	13,979 (total) 1,468 (per lane mile)
Person Trips (change from no build)	56,555 (total) 5,941 (per lane mile)
Peak Vehicle Trips (change from no build)	8,334 (total) 875 (per lane mile)



Project 41A (**US 169**, *from Minnesota River to TH-62*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	1,468 (vehicles)	6
Daily new persons per lane mile	5,941 (persons)	3
	Rating: **High**	
Optimization		
Daily reduction in congested VMT	22,035.0 (miles)	23
Daily peak hours of delay per trip reduced	3.38 (minutes)	1
Daily average travel time per trip reduced	3.2 (minutes)	8
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.007	1
Change in SOV use rate	- .0123	13
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	7.62	23
Benefit-cost ratio (standard deviation)	.14	
	Rating: **Low**	
Transit Suitability		
2030 planned transit corridor	Express Bus Corridor	
Existing express bus trips	21 (total AM / PM peak periods)	16
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Moderate**	
Investment Parity		
Overall investment parity	No recent investment; corridor previously identified in 2030 Plan.	
	Rating: **High**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

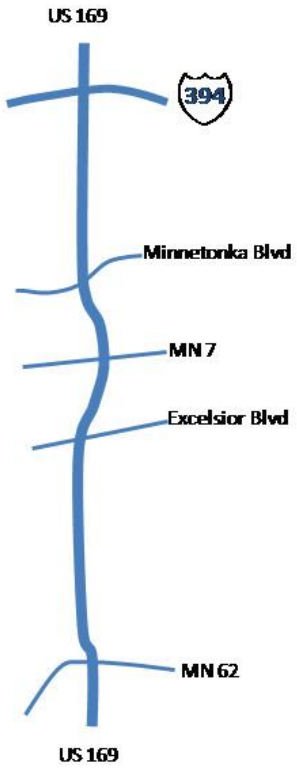
OVERALL CONCLUSION: **Moderate**

Project 42B: US 169

Type	Expansion
Limits	TH-62 to I-394
Lane Miles	15.46
Cost Estimate	$140,965,000 (low) - $238,712,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: widen bridges over TH-62/TH-212, widen bridge over Nine-Mile Creek, widen bridge over Excelsior Blvd, widen bridge over Minnetonka Mills, widen bridge over Minnehaha Creek, widen bridge over railroad, widen bridge over I-394 Frontage Road, replace bridge at Minnetonka Bouelvard, and replace bridge at Cedar Lake Road.

Project Metrics	2030
Vehicle Miles of Travel	22,973,869 (build total) - 5,686 (change from no-build)
Vehicle Hours of Travel	856,709 (build total) - 16,424 (change from no-build)
Vehicle Hours of Delay	434,498 (build total) 16,127 (change from no-build)
Vehicular Volumes (change from no-build)	16,150 (total) 1,045 (per lane mile)
Person Trips (change from no build)	38,713 (total) 2,504 (per lane mile)
Peak Vehicle Trips (change from no build)	12,846 (total) 831 (per lane mile)



Project 42B (**US 169**, *from TH-62 to I-394*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	1,045 (vehicles)	10
Daily new persons per lane mile	2,504 (persons)	9
	Rating: **Moderate**	
Optimization		
Daily reduction in congested VMT	195,729.0 (miles)	6
Daily peak hours of delay per trip reduced	.11 (minutes)	23
Daily average travel time per trip reduced	4.57 (minutes)	4
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.004	7
Change in SOV use rate	- .0075	12
	Rating: **Moderate**	
Cost Effectiveness		
Benefit-cost ratio (mean)	10.45	19
Benefit-cost ratio (standard deviation)	.19	
	Rating: **Low**	
Transit Suitability		
2030 planned transit corridor	Express Bus Corridor	
Existing express bus trips	120 (total AM / PM peak periods)	6
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **High**	
Investment Parity		
Overall investment parity	No recent investment; corridor was not previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

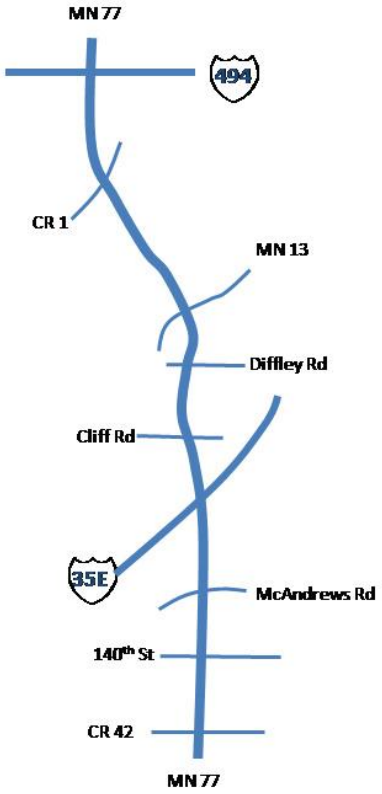
OVERALL CONCLUSION: **Moderate**

Project 45A: TH-77

Type	Expansion
Limits	CSAH 42 to I-494
Lane Miles	18.74
Cost Estimate	$64,083,000 (low) - $141,413,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: 140th Street intersection geometric modifications, design exception for Minnesota River Bridge, and major challenges between Killebrew Drive and I-494.

Project Metrics	2030
Vehicle Miles of Travel	18,488,181 (build total) 69,401 (change from no-build)
Vehicle Hours of Travel	659,958 (build total) - 6,532 (change from no-build)
Vehicle Hours of Delay	310,740 (build total) 7,070 (change from no-build)
Vehicular Volumes (change from no-build)	20,151 (total) 1,075 (per lane mile)
Person Trips (change from no build)	83,091 (total) 4,434 (per lane mile)
Peak Vehicle Trips (change from no build)	13,017 (total) 695 (per lane mile)



Project 45A (**TH-77**, *from CSAH 42 to I-494*)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	1,075 (vehicles)	9
Daily new persons per lane mile	4,434 (persons)	5
	Rating: **High**	
Optimization		
Daily reduction in congested VMT	69,211.0 (miles)	18
Daily peak hours of delay per trip reduced	.93 (minutes)	7
Daily average travel time per trip reduced	1.61 (minutes)	22
	Rating: **Low**	
Reduce SOV Demand		
Change in transit mode sure	.001	21
Change in SOV use rate	- .0706	20
	Rating: **Low**	
Cost Effectiveness		
Benefit-cost ratio (mean)	9.31	22
Benefit-cost ratio (standard deviation)	.17	
	Rating: **Low**	
Transit Suitability		
2030 planned transit corridor	Bus Rapid Transit Corridor	
Existing express bus trips	86 (total AM / PM peak periods)	7
Overall transit suitability	Significant bus volumes on ramps may require additional accommodation with inline station location.	
	Rating: **High**	
Investment Parity		
Overall investment parity	No recent investment; corridor was not previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	Extensive Bus on Shoulder availability.	
	Rating: **High**	

OVERALL CONCLUSION: **Moderate**

Project 50A: I-494

Type	Expansion
Limits	TH-169 to I-94 / I-694
Lane Miles	30.72
Cost Estimate	$122,775,000 (low) - $148,905,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median-based managed lane in each direction. Geometric areas of concern are: a design exception at Valley View Rd overpass, widen bridge over Minnetonka Boulevard, widen bridge at I-394, widen bridge at Schmidt Lake Road, widen railroad bridge, widen bridge at County Road 47, and potential interchange modifications to improve available width.

Project Metrics	2030
Vehicle Miles of Travel	25,595,710 (build total) 134,282 (change from no-build)
Vehicle Hours of Travel	921,838 (build total) - 11,363 (change from no-build)
Vehicle Hours of Delay	451,913 (build total) 13,078 (change from no-build)
Vehicular Volumes (change from no-build)	19,247 (total) 626 (per lane mile)
Person Trips (change from no build)	17,682 (total) 576 (per lane mile)
Peak Vehicle Trips (change from no build)	15,352 (total) 500 (per lane mile)

Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	626 (vehicles)	16
Daily new persons per lane mile	576 (persons)	23
	Rating: **Low**	
Optimization		
Daily reduction in congested VMT	159,045.0 (miles)	8
Daily peak hours of delay per trip reduced	.65 (minutes)	13
Daily average travel time per trip reduced	2.3 (minutes)	14
	Rating: **Moderate**	
Reduce SOV Demand		
Change in transit mode sure	.005	4
Change in SOV use rate	.0929	2
	Rating: **High**	
Cost Effectiveness		
Benefit-cost ratio (mean)	10.27	20
Benefit-cost ratio (standard deviation)	.18	
	Rating: **Low**	
Transit Suitability		
2030 planned transit corridor	Not a transit corridor	
Existing express bus trips	0 (total AM / PM peak periods)	18
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Very Low**	
Investment Parity		
Overall investment parity	Recent investment made in corridor; corridor not identified on 2030 Plan.	
	Rating: **Low**	
Opportunity Rating		
Overall opportunity rating	No existing Bus on Shoulder availability; no Bus on Shoulders are planned	
	Rating: **Low**	

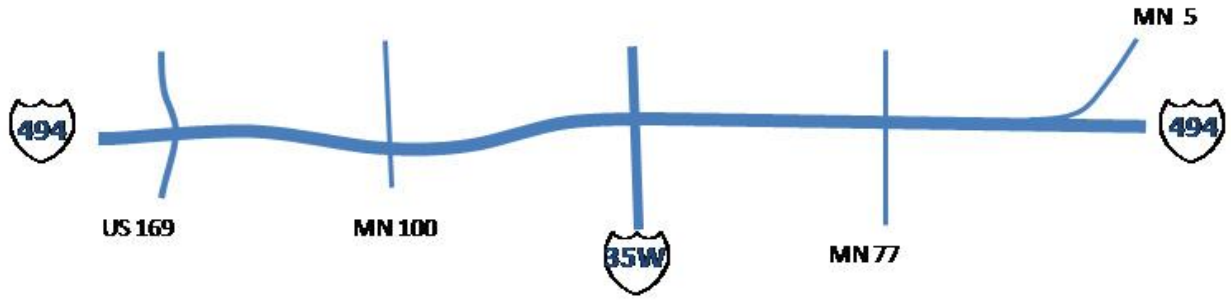
OVERALL CONCLUSION: **Low**

Project 53A: I-494

Type	Expansion
Limits	TH-169 to TH-5
Lane Miles	19.30
Cost Estimate	$130,875,000 (low) - $155,655,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: interchange modification at Prairie Center Drive, interchange modification at I-35W, interchange modification at Nicollet Ave, and replacement bridge at Xerxes Avenue.

Project Metrics	2030
Vehicle Miles of Travel	28,074,099 (build total) 148,729 (change from no-build)
Vehicle Hours of Travel	995,289 (build total) - 14,809 (change from no-build)
Vehicle Hours of Delay	484,829 (build total) 16,535 (change from no-build)
Vehicular Volumes (change from no-build)	27,948 (total) 1,448 (per lane mile)
Person Trips (change from no build)	20,392 (total) 1,057 (per lane mile)
Peak Vehicle Trips (change from no build)	18,349 (total) 951 (per lane mile)



Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	1,448 (vehicles)	7
Daily new persons per lane mile	1,057 (persons)	18
	Rating: **Moderate**	
Optimization		
Daily reduction in congested VMT	183,630.0 (miles)	7
Daily peak hours of delay per trip reduced	.9 (minutes)	8
Daily average travel time per trip reduced	1.86 (minutes)	19
	Rating: **High**	
Reduce SOV Demand		
Change in transit mode sure	.002	18
Change in SOV use rate	- .0969	23
	Rating: **Low**	
Cost Effectiveness		
Benefit-cost ratio (mean)	12.07	18
Benefit-cost ratio (standard deviation)	.21	
	Rating: **Low**	
Transit Suitability		
2030 planned transit corridor	Express Bus Corridor	
Existing express bus trips	0 (total AM / PM peak periods)	18
Overall transit suitability	Significant of off-corridor bus use of ramps does not necessitate inline station consideration on mainline.	
	Rating: **Low**	
Investment Parity		
Overall investment parity	Recent investment in the corridor; corridor was previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	Very limited Bus on Shoulders; only partial implementation planned.	
	Rating: **Low**	

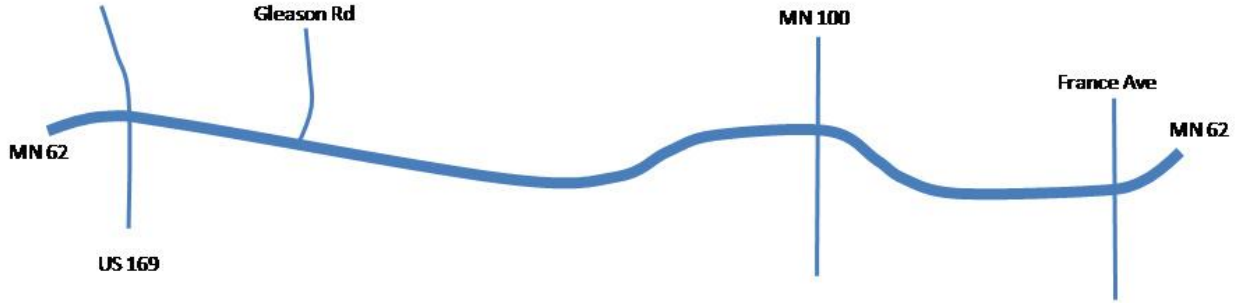
OVERALL CONCLUSION: **Low**

Project 54A: TH-62

Type	Expansion
Limits	TH-169 to France Ave
Lane Miles	6.85
Cost Estimate	$54,263,000 (low) - $70,808,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median based managed lane in each direction. Geometric areas of concern are: widen bridge at TH -62/Valley View Road, and MnPass lanes not compatible with Crosstown Reconstruction design.

Project Metrics	2030
Vehicle Miles of Travel	19,892,515 (build total) - 21,712 (change from no-build)
Vehicle Hours of Travel	730,484 (build total) - 12,712 (change from no-build)
Vehicle Hours of Delay	370,501 (build total) 12,242 (change from no-build)
Vehicular Volumes (change from no-build)	14,565 (total) 2,125 (per lane mile)
Person Trips (change from no build)	32,927 (total) 4,804 (per lane mile)
Peak Vehicle Trips (change from no build)	10,438 (total) 1,523 (per lane mile)



Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	2,125 (vehicles)	2
Daily new persons per lane mile	4,804 (persons)	4
	Rating: **High**	
Optimization		
Daily reduction in congested VMT	124,711.0 (miles)	10
Daily peak hours of delay per trip reduced	1.05 (minutes)	4
Daily average travel time per trip reduced	4.83 (minutes)	3
	Rating: **High**	
Reduce SOV Demand		
Change in transit mode sure	.005	4
Change in SOV use rate	.0464	6
	Rating: **High**	
Cost Effectiveness		
Benefit-cost ratio (mean)	20.5	9
Benefit-cost ratio (standard deviation)	.36	
	Rating: **Moderate**	
Transit Suitability		
2030 planned transit corridor	Express Bus Corridor	
Existing express bus trips	86 (total AM / PM peak periods)	7
Overall transit suitability	No significant need for ramp access, no inline stations	
	Rating: **Moderate**	
Investment Parity		
Overall investment parity	No recent investment; corridor was not previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	No existing Bus on Shoulder availability; no Bus on Shoulders are planned	
	Rating: **Low**	

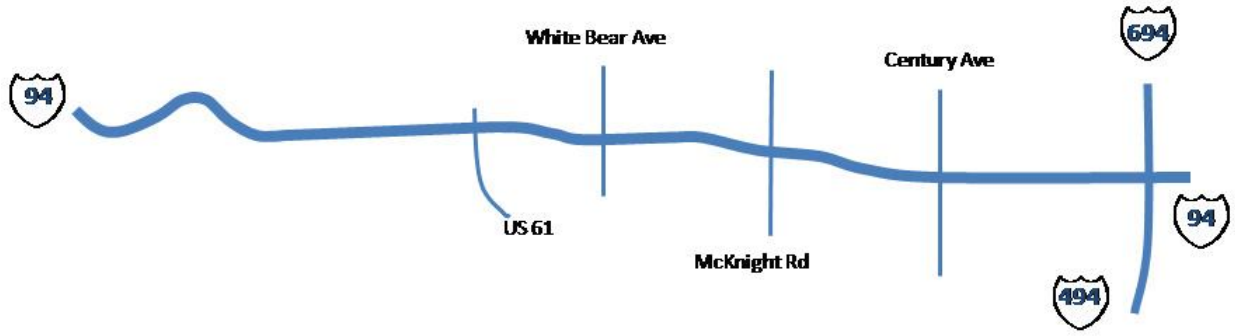
OVERALL CONCLUSION: **Moderate**

Project 55A: I-94

Type	Expansion
Limits	St. Paul CBD to I-694
Lane Miles	10.86
Cost Estimate	$133,400,000 (low) - $161,406,000 (high)
Cost Risk	.25 (low) - .35 (high)

Managed Lanes Type, Geometric and Other Considerations: Managed lane expansion, adding a median-based managed lane in each direction. Geometric areas of concern are: a realignment of eastbound lane under Mounds Boulevard exit ramp, design exception at Mounds Boulevard overpass and exit ramp, widen bridge at numerous locations throughout corridor.

Project Metrics	2030
Vehicle Miles of Travel	13,160,854 (build total) - 1,868 (change from no-build)
Vehicle Hours of Travel	414,306 (build total) - 3,724 (change from no-build)
Vehicle Hours of Delay	163,592 (build total) 3,515 (change from no-build)
Vehicular Volumes (change from no-build)	3,895 (total) 359 (per lane mile)
Person Trips (change from no build)	8,518 (total) 784 (per lane mile)
Peak Vehicle Trips (change from no build)	2,825 (total) 260 (per lane mile)



Measures of Effectiveness	Value	Rank (of 24)
Throughput		
Daily new vehicles per lane mile	359 (vehicles)	20
Daily new persons per lane mile	784 (persons)	21
	Rating: **Low**	
Optimization		
Daily reduction in congested VMT	35,257.0 (miles)	20
Daily peak hours of delay per trip reduced	.12 (minutes)	22
Daily average travel time per trip reduced	.98 (minutes)	24
	Rating: **Low**	
Reduce SOV Demand		
Change in transit mode sure	.0	24
Change in SOV use rate	- .1711	24
	Rating: **Low**	
Cost Effectiveness		
Benefit-cost ratio (mean)	3.09	24
Benefit-cost ratio (standard deviation)	.05	
	Rating: **Low**	
Transit Suitability		
2030 planned transit corridor	Bus Rapid Transit Corridor	
Existing express bus trips	67 (total AM / PM peak periods)	10
Overall transit suitability	Significant use of ramps by buses; multiple inline stations identified in MetroTransit plan.	
	Rating: **High**	
Investment Parity		
Overall investment parity	No recent investment; corridor was not previously identified in the 2030 Plan.	
	Rating: **Moderate**	
Opportunity Rating		
Overall opportunity rating	Limited Bus on Shoulders, completion planned.	
	Rating: **Moderate**	

OVERALL CONCLUSION: **Low**