

MnPASS System Study

Technical Memorandum #4

Evaluation Results – Round 1

Appendix

Volume 2

prepared for

Minnesota Department of Transportation

prepared by

Cambridge Systematics, Inc.

with

URS Corporation

MnPASS System Study

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December 2, 2004

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Cambridge Systematics, Inc.
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with

URS Corporation

System 1

Travel Demand Segment Summaries

MnPASS System Evaluation Summary

System 1

Segment I-494-1

Segment # 1

Length

8.11 miles

HOVs

Pay toll

Financial Evaluation

2030 Revenue	\$3,535,641
2030 Operating Cost	\$887,054
2030 Net Revenue	\$2,648,587
Capital Cost *	\$65,885,608
Annual Debt Service	\$4,953,223
Net Revenue/Debt Service	0.53

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Direct connection to I394 is possible, however the center median on I-394 needs to be wider so the connection can tie into the lanes on I-394.

Environmental Considerations

None noted.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	10.0	16.9	9.4	7.5	0.6	-6.8	17.73%
	7:30 AM - 8:30 AM	\$ 0.20	10.4	15.3	8.4	6.9	1.9	-5.0	9.46%
	8:30 AM - 9:30 AM	\$ 0.20	7.6	9.1	8.2	0.9	-0.6	-1.5	5.33%
PM	3:30 PM - 4:30 PM	\$ 0.20	16.4	19.5	8.7	10.7	7.7	-3.1	12.44%
	4:30 PM - 5:30 PM	\$ 0.20	29.1	32.7	10.7	21.9	18.4	-3.5	16.72%
	5:30 PM - 6:00 PM	\$ 0.20	21.8	23.4	9.7	13.7	12.1	-1.6	16.73%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	24.9	33.0	8.7	24.3	16.2	-8.1	10.13%
	7:30 AM - 8:30 AM	\$ 0.20	21.8	27.5	9.4	18.1	12.4	-5.7	14.68%
	8:30 AM - 9:30 AM	\$ 0.20	8.6	10.2	8.3	2.0	0.3	-1.6	7.13%
PM	3:30 PM - 4:30 PM	\$ 0.20	11.0	14.8	8.4	6.5	2.6	-3.9	8.22%
	4:30 PM - 5:30 PM	\$ 0.20	13.3	17.6	8.7	8.9	4.6	-4.3	12.45%
	5:30 PM - 6:00 PM	\$ 0.20	11.4	13.7	8.6	5.1	2.8	-2.3	12.80%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,723	3,159	255	3,414	-1,691	-98.12%
Mid-Day	9:30 AM - 2:30 PM	1,320	1,394	7	1,401	-81	-6.14%
PM Peak	2:30 PM - 7:00 PM	6,125	7,480	474	7,953	-1,829	-29.86%
Night	7:00 PM - 6:00 AM	823	850	2	851	-28	-3.44%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$502,244	10.95%
Mid-Day	\$17,223	0.48%
PM Peak	\$1,238,977	12.04%
Night	\$5,874	0.35%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	5,036	7,321	315	7,636	-2,600	-51.62%
Mid-Day	9:30 AM - 2:30 PM	1,340	1,421	0	1,421	-81	-6.02%
PM Peak	2:30 PM - 7:00 PM	2,945	4,237	240	4,478	-1,533	-52.05%
Night	7:00 PM - 6:00 AM	633	681	0	681	-48	-7.53%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,051,981	10.23%
Mid-Day	\$708	0.01%
PM Peak	\$718,633	18.79%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 1

Segment I-494-2

Segment # 2

Length 14.14 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$7,640,144
2030 Operating Cost	\$1,933,220
2030 Net Revenue	\$5,706,924
Capital Cost *	\$86,251,279
Annual Debt Service	\$6,484,296
Net Revenue/Debt Service	0.88

Infrastructure/Operational Considerations

Assumed all bridges going over the freeway will allow the fourth lane needed for the express lane in the current Design / Build section.

Environmental Considerations

Potential environmental issues includes three parks, the Minnehaha Creek and Nine Mile Creek.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 4

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	30.1	27.5	15.5	11.9	14.6	2.6	10.17%
	7:30 AM - 8:30 AM	\$ 0.20	28.1	25.8	15.4	10.5	12.7	2.3	9.89%
	8:30 AM - 9:30 AM	\$ 0.30	15.2	15.2	14.3	0.9	0.8	-0.1	4.32%
PM	3:30 PM - 4:30 PM	\$ 0.20	23.2	32.8	15.9	16.9	7.3	-9.6	11.00%
	4:30 PM - 5:30 PM	\$ 0.30	35.5	51.5	16.0	35.6	19.6	-16.0	9.44%
	5:30 PM - 6:00 PM	\$ 0.20	29.6	36.3	18.0	18.2	11.6	-6.6	13.20%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	30.4	44.8	15.6	29.2	14.7	-14.4	9.47%
	7:30 AM - 8:30 AM	\$ 0.30	27.9	39.3	15.3	23.9	12.6	-11.3	8.85%
	8:30 AM - 9:30 AM	\$ 0.30	14.9	17.1	14.4	2.7	0.4	-2.2	5.50%
PM	3:30 PM - 4:30 PM	\$ 0.20	25.4	22.9	15.1	7.8	10.3	2.5	9.74%
	4:30 PM - 5:30 PM	\$ 0.20	43.2	34.5	16.6	17.9	26.5	8.7	11.33%
	5:30 PM - 6:00 PM	\$ 0.30	32.3	29.9	15.3	14.6	17.0	2.4	9.09%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	No-Build vs. Build (total)	
						VHT	%
AM Peak	6:00 AM - 9:30 AM	7,579	6,359	370	6,729	850	11.22%
Mid-Day	9:30 AM - 2:30 PM	3,564	3,774	113	3,887	-323	-9.06%
PM Peak	2:30 PM - 7:00 PM	9,799	15,612	748	16,360	-6,562	-66.96%
Night	7:00 PM - 6:00 AM	1,637	2,156	15	2,171	-534	-32.65%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,134,098	7.92%
Mid-Day	\$184,383	2.96%
PM Peak	\$2,380,116	9.25%
Night	\$44,506	1.29%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	No-Build vs. Build (total)	
						VHT	%
AM Peak	6:00 AM - 9:30 AM	7,368	12,058	466	12,524	-5,156	-69.99%
Mid-Day	9:30 AM - 2:30 PM	3,864	3,512	111	3,623	241	6.23%
PM Peak	2:30 PM - 7:00 PM	12,303	9,326	558	9,884	2,419	19.66%
Night	7:00 PM - 6:00 AM	2,098	1,698	2	1,700	398	18.97%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,996,430	7.93%
Mid-Day	\$172,966	3.09%
PM Peak	\$1,719,366	18.11%
Night	\$8,279	0.14%

MnPASS System Evaluation Summary

System 1

Segment I-494-3

Segment # 3

Length 7.85 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$3,580,790
2030 Operating Cost	\$1,407,466
2030 Net Revenue	\$2,173,324
Capital Cost *	\$92,131,528
Annual Debt Service	\$6,926,368
Net Revenue/Debt Service	0.31

Infrastructure/Operational Considerations

Mn/DOT has been developing a new design for part of this segment. The new design was not considered to be in place since it is not in the work program. Significant retaining wall issues exist along the section.

Environmental Considerations

Potential environmental issues include the Minnesota River Valley and the US Wildlife & Recreation Area.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 3

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	17.8	13.2	8.1	5.1	9.7	4.6	6.56%
	7:30 AM - 8:30 AM	\$ 0.20	17.3	13.1	8.2	5.0	9.1	4.2	7.02%
	8:30 AM - 9:30 AM	\$ 0.20	8.9	8.6	8.0	0.6	0.9	0.3	4.43%
PM	3:30 PM - 4:30 PM	\$ 0.20	18.3	18.5	8.4	10.1	9.9	-0.1	8.26%
	4:30 PM - 5:30 PM	\$ 0.20	31.0	31.6	8.9	22.7	22.1	-0.6	8.97%
	5:30 PM - 6:00 PM	\$ 0.20	24.6	24.6	8.7	15.8	15.9	0.1	8.88%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	27.7	28.1	8.3	19.8	19.4	-0.3	6.85%
	7:30 AM - 8:30 AM	\$ 0.20	24.3	23.2	9.0	14.3	15.3	1.1	11.46%
	8:30 AM - 9:30 AM	\$ 0.20	9.9	9.7	8.0	1.6	1.8	0.2	5.78%
PM	3:30 PM - 4:30 PM	\$ 0.20	14.7	12.2	8.1	4.1	6.6	2.5	6.57%
	4:30 PM - 5:30 PM	\$ 0.20	20.1	17.8	8.4	9.4	11.8	2.3	8.42%
	5:30 PM - 6:00 PM	\$ 0.20	16.0	15.1	8.3	6.9	7.7	0.9	8.42%

Vehicle Hours Evaluation

EastBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total) VHT	% Savings
			Free	MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	5,051	3,139	136	3,275	1,776	35.16%
Mid-Day	9:30 AM - 2:30 PM	2,727	2,430	116	2,546	182	6.67%
PM Peak	2:30 PM - 7:00 PM	10,608	10,469	368	10,836	-228	-2.15%
Night	7:00 PM - 6:00 AM	1,169	1,113	0	1,113	56	4.75%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$421,112	5.71%
Mid-Day	\$206,359	4.66%
PM Peak	\$1,059,078	7.78%
Night	\$155	0.02%

WestBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total) VHT	% Savings
			Free	MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	8,070	8,113	283	8,396	-326	-4.04%
Mid-Day	9:30 AM - 2:30 PM	2,639	2,505	95	2,600	39	1.46%
PM Peak	2:30 PM - 7:00 PM	6,411	5,214	248	5,462	950	14.81%
Night	7:00 PM - 6:00 AM	1,142	1,136	2	1,138	4	0.33%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$931,949	7.66%
Mid-Day	\$207,956	3.82%
PM Peak	\$745,936	17.47%
Night	\$8,246	0.15%

MnPASS System Evaluation Summary

System 1

Segment I-494-4

Segment # 4

Length 11.82 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$5,243,452
2030 Operating Cost	\$2,270,950
2030 Net Revenue	\$2,972,502
Capital Cost *	\$87,309,826
Annual Debt Service	\$6,563,877
Net Revenue/Debt Service	0.45

Infrastructure/Operational Considerations

Assumed that one lane in each direction would go to the express lane on the new Mississippi River Bridge (Wakota Bridge).

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 5

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	20.4	26.1	13.8	12.3	6.6	-5.7	13.74%
	7:30 AM - 8:30 AM	\$ 0.20	20.0	23.4	13.3	10.2	6.7	-3.5	12.91%
	8:30 AM - 9:30 AM	\$ 0.20	12.7	13.4	12.1	1.4	0.7	-0.7	6.18%
PM	3:30 PM - 4:30 PM	\$ 0.20	20.6	19.3	12.4	6.9	8.2	1.3	8.80%
	4:30 PM - 5:30 PM	\$ 0.20	35.0	26.0	14.9	11.1	20.1	9.0	12.31%
	5:30 PM - 6:00 PM	\$ 0.20	29.0	22.8	14.1	8.7	14.9	6.2	12.86%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	25.5	21.5	12.9	8.6	12.5	3.9	10.02%
	7:30 AM - 8:30 AM	\$ 0.20	22.8	20.6	12.7	7.9	10.1	2.2	10.06%
	8:30 AM - 9:30 AM	\$ 0.20	13.9	12.9	12.0	1.0	1.9	1.0	4.81%
PM	3:30 PM - 4:30 PM	\$ 0.20	18.2	20.3	12.6	7.7	5.6	-2.1	10.36%
	4:30 PM - 5:30 PM	\$ 0.20	25.1	34.9	14.5	20.4	10.5	-9.9	13.17%
	5:30 PM - 6:00 PM	\$ 0.20	22.5	28.1	13.6	14.5	8.9	-5.6	12.34%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	No-Build vs. Build (total)	
						VHT	%
AM Peak	6:00 AM - 9:30 AM	4,569	6,692	499	7,191	-2,622	-57.40%
Mid-Day	9:30 AM - 2:30 PM	2,782	2,867	47	2,914	-132	-4.73%
PM Peak	2:30 PM - 7:00 PM	9,675	7,032	463	7,495	2,180	22.53%
Night	7:00 PM - 6:00 AM	1,696	1,393	0	1,393	303	17.87%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	No-Build vs. Build (total)	
						VHT	%
AM Peak	6:00 AM - 9:30 AM	6,586	4,525	274	4,799	1,787	27.14%
Mid-Day	9:30 AM - 2:30 PM	2,899	2,827	45	2,873	27	0.93%
PM Peak	2:30 PM - 7:00 PM	6,964	9,689	596	10,285	-3,321	-47.69%
Night	7:00 PM - 6:00 AM	1,369	1,743	0	1,743	-374	-27.32%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,394,380	10.36%
Mid-Day	\$73,415	1.58%
PM Peak	\$1,253,761	8.60%
Night	\$0	0.00%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$808,287	7.91%
Mid-Day	\$76,423	1.55%
PM Peak	\$1,637,185	15.25%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 1

Segment I-694-1

Segment # 5

Length 12.54 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$4,114,325
2030 Operating Cost	\$1,280,492
2030 Net Revenue	\$2,833,833
Capital Cost *	\$74,876,268
Annual Debt Service	\$5,629,133
Net Revenue/Debt Service	0.50

Infrastructure/Operational Considerations

Currently new construction and would require widening new sections. Difficult to fit lanes through the interchanges near TH 94, TH 100 & TH 252.

Environmental Considerations

Potential environmental issues include Long Lake - narrow right-of-way in this location next to the lake

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 3

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	31.3	44.0	13.4	30.6	17.9	-12.7	7.48%
	7:30 AM - 8:30 AM	\$ 0.10	29.2	37.2	17.1	20.1	12.1	-8.0	13.84%
	8:30 AM - 9:30 AM	\$ 0.10	14.2	15.8	13.0	2.8	1.3	-1.5	7.76%
PM	3:30 PM - 4:30 PM	\$ 0.20	20.6	21.4	12.9	8.5	7.7	-0.8	5.87%
	4:30 PM - 5:30 PM	\$ 0.20	31.2	33.6	13.6	20.1	17.6	-2.4	8.84%
	5:30 PM - 6:00 PM	\$ 0.20	27.0	29.3	13.4	15.9	13.6	-2.3	8.62%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	24.7	24.6	13.4	11.2	11.4	0.2	8.96%
	7:30 AM - 8:30 AM	\$ 0.20	24.2	23.7	13.2	10.5	11.0	0.5	7.95%
	8:30 AM - 9:30 AM	\$ 0.10	13.4	13.9	12.8	1.1	0.6	-0.5	6.16%
PM	3:30 PM - 4:30 PM	\$ 0.10	25.4	29.3	13.8	15.5	11.6	-3.9	10.33%
	4:30 PM - 5:30 PM	\$ 0.20	38.9	47.9	13.7	34.2	25.2	-9.0	8.13%
	5:30 PM - 6:00 PM	\$ 0.20	29.6	34.8	13.4	21.5	16.2	-5.2	7.69%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	No-Build vs. Build (total)	
						VHT	%
AM Peak	6:00 AM - 9:30 AM	8,715	12,687	593	13,280	-4,565	-52.38%
Mid-Day	9:30 AM - 2:30 PM	3,431	3,630	9	3,640	-209	-6.09%
PM Peak	2:30 PM - 7:00 PM	9,386	10,359	404	10,763	-1,377	-14.68%
Night	7:00 PM - 6:00 AM	1,781	1,871	0	1,871	-91	-5.09%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	No-Build vs. Build (total)	
						VHT	%
AM Peak	6:00 AM - 9:30 AM	6,557	6,622	327	6,949	-392	-5.97%
Mid-Day	9:30 AM - 2:30 PM	3,601	3,761	17	3,778	-177	-4.91%
PM Peak	2:30 PM - 7:00 PM	12,408	15,568	539	16,107	-3,699	-29.81%
Night	7:00 PM - 6:00 AM	2,055	2,176	0	2,176	-121	-5.87%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$983,275	8.99%
Mid-Day	\$14,767	0.26%
PM Peak	\$1,067,811	6.50%
Night	\$0	0.00%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$878,724	7.11%
Mid-Day	\$27,764	0.46%
PM Peak	\$1,141,983	12.23%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 1

Segment I-694-2

Segment # 6

Length 5.30 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$3,018,649
2030 Operating Cost	\$740,826
2030 Net Revenue	\$2,277,823
Capital Cost *	\$115,441,936
Annual Debt Service	\$8,678,824
Net Revenue/Debt Service	0.26

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Used a flyover in the area of TH 10 and Snelling. This cost may not be needed if Mn/DOT reconstructs the interchange. The project is under study.

Between Rice Street and TH 61 is a project to be under construction shortly called "Unweave the Weave". However, it is not possible to carry an express lane through this new section without having a weave through the lane. Therefore a long flyover was considered to avoid this weave. Cost is in both 694-2 and 694-3.

Environmental Considerations

Potential environmental issues include Island Lake Park.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	12.7	10.3	6.3	4.0	6.3	2.3	12.86%
	7:30 AM - 8:30 AM	\$ 0.30	11.6	9.5	5.6	3.9	5.9	2.0	8.45%
	8:30 AM - 9:30 AM	\$ 0.50	5.6	5.6	5.4	0.2	0.3	0.1	4.60%
PM	3:30 PM - 4:30 PM	\$ 0.50	8.9	8.7	5.4	3.3	3.5	0.1	4.29%
	4:30 PM - 5:30 PM	\$ 0.30	13.5	13.0	5.9	7.1	7.6	0.5	9.98%
	5:30 PM - 6:00 PM	\$ 0.50	10.8	11.2	5.5	5.7	5.3	-0.4	6.86%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	12.2	10.1	5.9	4.2	6.3	2.1	11.43%
	7:30 AM - 8:30 AM	\$ 0.20	11.6	9.4	5.8	3.5	5.8	2.3	10.93%
	8:30 AM - 9:30 AM	\$ 0.50	5.6	5.7	5.4	0.3	0.2	-0.1	4.17%
PM	3:30 PM - 4:30 PM	\$ 0.40	9.3	7.9	5.5	2.5	3.9	1.4	5.97%
	4:30 PM - 5:30 PM	\$ 0.30	12.3	11.5	6.0	5.4	6.2	0.8	11.27%
	5:30 PM - 6:00 PM	\$ 0.50	9.5	9.6	5.6	4.0	4.0	-0.1	7.38%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	3,561	2,770	179	2,949	612	17.19%
Mid-Day	9:30 AM - 2:30 PM	1,277	1,339	3	1,342	-65	-5.11%
PM Peak	2:30 PM - 7:00 PM	4,162	4,070	151	4,221	-58	-1.40%
Night	7:00 PM - 6:00 AM	635	671	0	671	-36	-5.71%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$664,049	8.32%
Mid-Day	\$4,513	0.19%
PM Peak	\$856,349	5.77%
Night	\$0	0.00%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	3,443	2,693	177	2,870	573	16.64%
Mid-Day	9:30 AM - 2:30 PM	1,249	1,284	3	1,287	-38	-3.01%
PM Peak	2:30 PM - 7:00 PM	3,953	3,448	173	3,621	332	8.41%
Night	7:00 PM - 6:00 AM	618	643	0	643	-25	-4.12%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$585,400	8.58%
Mid-Day	\$4,489	0.21%
PM Peak	\$903,848	13.88%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 1

Segment I-694-3

Segment # 7

Length 11.98 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$4,426,424
2030 Operating Cost	\$1,321,638
2030 Net Revenue	\$3,104,786
Capital Cost *	\$140,730,449
Annual Debt Service	\$10,579,993
Net Revenue/Debt Service	0.29

Infrastructure/Operational Considerations

Between Rice Street and TH 61 is a project to be under construction shortly called "Unweave the Weave". However, it is not possible to carry an express lane through this new section without having a weave through the lane. Therefore a long flyover was considered to avoid this weave. Cost is in both 694-2 and 694-3.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 4

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	25.8	16.0	12.4	3.7	13.5	9.8	10.02%
	7:30 AM - 8:30 AM	\$ 0.20	23.3	15.6	12.3	3.3	11.0	7.7	9.66%
	8:30 AM - 9:30 AM	\$ 0.20	13.2	12.0	12.1	-0.1	1.1	1.2	4.48%
PM	3:30 PM - 4:30 PM	\$ 0.20	17.9	19.0	12.6	6.4	5.3	-1.1	11.69%
	4:30 PM - 5:30 PM	\$ 0.30	28.1	30.1	13.0	17.1	15.1	-2.0	12.01%
	5:30 PM - 6:00 PM	\$ 0.30	22.6	23.3	12.8	10.6	9.8	-0.7	11.65%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	21.3	24.5	13.5	11.1	7.8	-3.2	14.65%
	7:30 AM - 8:30 AM	\$ 0.20	20.6	22.0	13.1	8.9	7.5	-1.4	13.71%
	8:30 AM - 9:30 AM	\$ 0.30	12.6	13.3	12.2	1.1	0.5	-0.6	6.13%
PM	3:30 PM - 4:30 PM	\$ 0.20	19.8	14.9	12.3	2.6	7.4	4.9	9.42%
	4:30 PM - 5:30 PM	\$ 0.20	25.7	20.4	12.9	7.5	12.8	5.4	13.67%
	5:30 PM - 6:00 PM	\$ 0.30	20.9	18.9	12.6	6.4	8.3	1.9	10.81%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	4,726	2,706	191	2,897	1,829	38.71%
Mid-Day	9:30 AM - 2:30 PM	1,988	2,004	6	2,009	-22	-1.10%
PM Peak	2:30 PM - 7:00 PM	5,990	6,423	415	6,838	-848	-14.16%
Night	7:00 PM - 6:00 AM	1,155	1,157	0	1,157	-2	-0.13%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$581,730	7.58%
Mid-Day	\$9,628	0.27%
PM Peak	\$1,554,314	9.62%
Night	\$0	0.00%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	4,263	4,802	399	5,201	-938	-21.99%
Mid-Day	9:30 AM - 2:30 PM	1,975	2,003	2	2,004	-29	-1.46%
PM Peak	2:30 PM - 7:00 PM	5,792	4,289	331	4,619	1,172	20.24%
Night	7:00 PM - 6:00 AM	984	1,001	0	1,001	-17	-1.72%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,208,505	11.05%
Mid-Day	\$3,208	0.08%
PM Peak	\$1,069,039	19.34%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 1

Segment I-35W-1

Segment # 8

Length 1.99 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$282,570
2030 Operating Cost	\$921,251
2030 Net Revenue	-\$638,681
Capital Cost *	\$16,164,150
Annual Debt Service	\$1,215,207
Net Revenue/Debt Service	-0.53

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Assumed using the HOV lane and that the project at the TH 62 Crosstown interchange with 35W has been completed.

Environmental Considerations

None noted.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	10.4	8.2	5.4	2.8	4.9	2.1	0.33%
	7:30 AM - 8:30 AM	\$ 0.50	8.5	6.5	4.5	1.9	4.0	2.1	0.43%
	8:30 AM - 9:30 AM	\$ 0.30	2.8	2.5	2.1	0.4	0.7	0.4	1.40%
PM	3:30 PM - 4:30 PM	\$ 0.20	2.0	2.3	2.4	-0.1	-0.4	-0.3	1.78%
	4:30 PM - 5:30 PM	\$ 0.30	2.3	2.5	2.5	0.0	-0.2	-0.2	1.88%
	5:30 PM - 6:00 PM	\$ 0.30	2.5	2.6	2.4	0.2	0.1	-0.1	3.06%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	1.7	2.5	2.5	0.0	-0.8	-0.8	0.99%
	7:30 AM - 8:30 AM	\$ 0.20	1.8	2.5	2.5	0.0	-0.7	-0.7	1.14%
	8:30 AM - 9:30 AM	\$ 0.20	1.7	2.1	2.1	0.0	-0.4	-0.4	1.38%
PM	3:30 PM - 4:30 PM	\$ 0.30	6.2	5.0	2.5	2.5	3.7	1.2	2.27%
	4:30 PM - 5:30 PM	\$ 0.30	11.4	9.9	3.2	6.7	8.2	1.4	3.27%
	5:30 PM - 6:00 PM	\$ 0.30	8.4	7.6	2.3	5.3	6.1	0.8	5.01%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	2,785	1,843	331	2,175	610	21.92%
Mid-Day	9:30 AM - 2:30 PM	447	475	17	492	-44	-9.94%
PM Peak	2:30 PM - 7:00 PM	564	609	168	777	-213	-37.73%
Night	7:00 PM - 6:00 AM	229	245	0	245	-16	-6.89%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$48,028	1.43%
Mid-Day	\$12,027	1.61%
PM Peak	\$46,736	1.98%
Night	\$0	0.00%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	246	457	121	577	-332	-135.09%
Mid-Day	9:30 AM - 2:30 PM	470	514	24	538	-68	-14.44%
PM Peak	2:30 PM - 7:00 PM	3,095	2,500	195	2,695	400	12.93%
Night	7:00 PM - 6:00 AM	390	431	10	440	-50	-12.89%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$16,488	1.07%
Mid-Day	\$18,111	2.29%
PM Peak	\$134,363	4.94%
Night	\$6,816	2.16%

MnPASS System Evaluation Summary

System 1

Segment I-35W-2

Segment # 9

Length 5.92 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$1,041,167
2030 Operating Cost	\$2,117,523
2030 Net Revenue	-\$1,076,356
Capital Cost *	\$1,612,800
Annual Debt Service	\$121,249
Net Revenue/Debt Service	-8.88

Infrastructure/Operational Considerations

Assumed using the HOV lane and that the project at the TH 62 Crosstown interchange with 35W has been completed.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	31.6	30.6	21.4	9.2	10.2	1.0	0.31%
	7:30 AM - 8:30 AM	\$ 0.50	26.2	24.7	18.6	6.1	7.5	1.5	0.39%
	8:30 AM - 9:30 AM	\$ 0.30	8.5	8.0	6.3	1.8	2.3	0.5	1.43%
PM	3:30 PM - 4:30 PM	\$ 0.30	7.4	8.6	8.5	0.1	-1.1	-1.2	1.27%
	4:30 PM - 5:30 PM	\$ 0.30	9.4	10.5	9.4	1.1	0.0	-1.1	1.74%
	5:30 PM - 6:00 PM	\$ 0.30	10.1	9.7	8.7	1.0	1.4	0.5	3.03%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	6.6	10.0	8.8	1.1	-2.2	-3.4	0.32%
	7:30 AM - 8:30 AM	\$ 0.50	7.0	9.7	9.6	0.0	-2.7	-2.7	0.45%
	8:30 AM - 9:30 AM	\$ 0.40	5.8	6.5	6.3	0.1	-0.6	-0.7	0.86%
PM	3:30 PM - 4:30 PM	\$ 0.30	18.0	17.0	9.2	7.8	8.8	1.0	2.28%
	4:30 PM - 5:30 PM	\$ 0.50	33.0	32.2	12.4	19.9	20.6	0.8	1.52%
	5:30 PM - 6:00 PM	\$ 0.30	23.3	23.3	7.3	16.0	16.0	-0.1	5.20%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	10,429	9,717	1,395	11,112	-683	-6.54%
Mid-Day	9:30 AM - 2:30 PM	1,814	1,738	51	1,789	25	1.38%
PM Peak	2:30 PM - 7:00 PM	2,963	3,354	688	4,042	-1,079	-36.43%
Night	7:00 PM - 6:00 AM	846	831	0	831	16	1.84%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$174,514	1.26%
Mid-Day	\$35,996	1.30%
PM Peak	\$199,068	1.78%
Night	\$0	0.00%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	1,470	2,486	525	3,011	-1,542	-104.90%
Mid-Day	9:30 AM - 2:30 PM	1,963	1,844	78	1,921	42	2.12%
PM Peak	2:30 PM - 7:00 PM	11,590	10,737	825	11,562	28	0.24%
Night	7:00 PM - 6:00 AM	1,490	1,409	27	1,436	54	3.60%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$69,713	0.47%
Mid-Day	\$60,356	2.09%
PM Peak	\$483,425	3.93%
Night	\$18,094	1.82%

MnPASS System Evaluation Summary

System 1

Segment I-35W-3

Segment # 10

Length 4.55 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$1,006,690
2030 Operating Cost	\$1,028,598
2030 Net Revenue	-\$21,908
Capital Cost *	\$806,400
Annual Debt Service	\$60,624
Net Revenue/Debt Service	-0.36

Infrastructure/Operational Considerations

Assumed using the HOV lane and that the project at the TH 62 Crosstown interchange with 35W has been completed.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	19.4	9.9	10.2	-0.3	9.2	9.5	1.04%
	7:30 AM - 8:30 AM	\$ 0.50	16.4	9.4	9.0	0.4	7.4	7.0	0.99%
	8:30 AM - 9:30 AM	\$ 0.50	7.5	5.0	4.8	0.3	2.7	2.4	1.43%
PM	3:30 PM - 4:30 PM	\$ 0.50	10.7	7.4	6.5	1.0	4.2	3.3	0.80%
	4:30 PM - 5:30 PM	\$ 0.50	16.1	10.7	9.6	1.1	6.5	5.4	1.41%
	5:30 PM - 6:00 PM	\$ 0.50	12.8	9.5	6.4	3.0	6.4	3.4	2.34%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	16.6	9.6	13.6	-4.0	3.0	7.0	0.47%
	7:30 AM - 8:30 AM	\$ 0.50	14.9	8.8	9.8	-1.0	5.1	6.1	0.60%
	8:30 AM - 9:30 AM	\$ 0.40	7.2	5.1	5.0	0.1	2.3	2.1	1.17%
PM	3:30 PM - 4:30 PM	\$ 0.50	13.0	8.0	6.9	1.1	6.1	5.0	1.64%
	4:30 PM - 5:30 PM	\$ 0.50	20.0	12.8	9.6	3.2	10.4	7.2	2.67%
	5:30 PM - 6:00 PM	\$ 0.30	13.5	10.0	5.4	4.6	8.1	3.4	6.24%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	6,212	2,949	603	3,552	2,660	42.82%
Mid-Day	9:30 AM - 2:30 PM	1,984	1,429	17	1,446	538	27.14%
PM Peak	2:30 PM - 7:00 PM	5,493	3,550	611	4,161	1,333	24.26%
Night	7:00 PM - 6:00 AM	1,029	728	0	728	301	29.22%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$162,392	1.13%
Mid-Day	\$24,116	0.66%
PM Peak	\$214,708	1.23%
Night	\$0	0.00%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	4,596	2,695	782	3,477	1,119	24.34%
Mid-Day	9:30 AM - 2:30 PM	2,096	1,610	38	1,648	449	21.40%
PM Peak	2:30 PM - 7:00 PM	6,489	4,199	638	4,837	1,651	25.45%
Night	7:00 PM - 6:00 AM	1,126	827	2	830	296	26.30%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$87,417	0.64%
Mid-Day	\$56,075	1.60%
PM Peak	\$460,742	4.61%
Night	\$1,239	0.23%

MnPASS System Evaluation Summary

System 1

Segment I-394-2

Segment # 11

Length 2.50 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$473,507
2030 Operating Cost	\$0
2030 Net Revenue	\$473,507
Capital Cost *	\$0
Annual Debt Service	\$0
Net Revenue/Debt Service	#DIV/0!

Infrastructure/Operational Considerations

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Environmental Considerations

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* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries =

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	13.1	16.2	13.3	2.9	-0.2	-3.2	0.08%
	7:30 AM - 8:30 AM	\$ 0.50	11.0	15.8	10.3	5.5	0.7	-4.8	0.14%
	8:30 AM - 9:30 AM	\$ 0.50	5.1	6.4	3.8	2.6	1.3	-1.3	0.69%
PM	3:30 PM - 4:30 PM	\$ 0.10	9.9	11.8	N/A	N/A	N/A	-1.9	N/A
	4:30 PM - 5:30 PM	\$ 0.10	13.7	15.7	N/A	N/A	N/A	-2.0	N/A
	5:30 PM - 6:00 PM	\$ 0.10	11.3	12.3	N/A	N/A	N/A	-1.0	N/A

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	8.9	10.0	N/A	N/A	N/A	-1.1	N/A
	7:30 AM - 8:30 AM	\$ 0.10	7.5	9.3	N/A	N/A	N/A	-1.8	N/A
	8:30 AM - 9:30 AM	\$ 0.10	3.2	3.8	N/A	N/A	N/A	-0.6	N/A
PM	3:30 PM - 4:30 PM	\$ 0.50	5.3	7.3	6.2	1.1	-0.9	-2.1	0.18%
	4:30 PM - 5:30 PM	\$ 0.50	8.1	9.9	8.4	1.5	-0.4	-1.8	0.23%
	5:30 PM - 6:00 PM	\$ 0.50	4.3	5.3	5.1	0.2	-0.8	-1.0	0.86%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	No-Build vs. Build (total)	
						VHT	%
AM Peak	6:00 AM - 9:30 AM	3,662	5,025	1,558	6,583	-2,921	-79.76%
Mid-Day	9:30 AM - 2:30 PM	1,103	830	96	926	177	16.01%
PM Peak	2:30 PM - 7:00 PM	4,576	5,245	N/A	5,245	-669	-14.62%
Night	7:00 PM - 6:00 AM	436	419	3	422	14	3.11%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$154,258	2.18%
Mid-Day	\$113,503	4.96%
PM Peak	N/A	N/A
Night	\$12,787	0.87%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	No-Build vs. Build (total)	
						VHT	%
AM Peak	6:00 AM - 9:30 AM	2,366	3,010	N/A	3,010	-645	-27.25%
Mid-Day	9:30 AM - 2:30 PM	768	776	23	799	-31	-4.06%
PM Peak	2:30 PM - 7:00 PM	2,457	3,278	1,080	4,357	-1,900	-77.33%
Night	7:00 PM - 6:00 AM	495	479	51	530	-35	-7.07%

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$28,776	1.22%
PM Peak	\$120,501	1.93%
Night	\$43,683	9.16%

MnPASS System Evaluation Summary

System 1

Segment I-394-1

Segment # 12

Length 5.70 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$1,018,075
2030 Operating Cost	\$0
2030 Net Revenue	\$1,018,075
Capital Cost *	\$0
Annual Debt Service	\$0
Net Revenue/Debt Service	#DIV/0!

Infrastructure/Operational Considerations

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Environmental Considerations

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* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries =

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	16.6	24.4	45.7	-21.4	-29.1	-7.8	0.24%
	7:30 AM - 8:30 AM	\$ 0.50	15.6	21.0	34.9	-13.9	-19.3	-5.4	0.30%
	8:30 AM - 9:30 AM	\$ 0.50	7.6	7.9	9.8	-1.9	-2.2	-0.3	0.89%
PM	3:30 PM - 4:30 PM	\$ 0.40	9.5	7.2	7.5	-0.3	1.9	2.3	1.10%
	4:30 PM - 5:30 PM	\$ 0.50	13.7	9.7	11.2	-1.5	2.5	4.0	0.98%
	5:30 PM - 6:00 PM	\$ 0.50	11.5	8.4	8.1	0.3	3.4	3.0	2.56%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	18.4	10.8	13.4	-2.6	4.9	7.5	0.21%
	7:30 AM - 8:30 AM	\$ 0.50	16.1	11.5	11.7	-0.2	4.4	4.5	0.31%
	8:30 AM - 9:30 AM	\$ 0.20	8.5	6.9	6.3	0.6	2.2	1.6	2.35%
PM	3:30 PM - 4:30 PM	\$ 0.50	16.1	22.1	20.4	1.7	-4.3	-6.0	0.60%
	4:30 PM - 5:30 PM	\$ 0.50	26.9	33.3	30.5	2.8	-3.6	-6.4	0.82%
	5:30 PM - 6:00 PM	\$ 0.50	18.2	21.1	16.1	5.0	2.1	-2.9	1.81%

Vehicle Hours Evaluation

EastBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	5,316	8,357	4,101	12,458	-7,142	-134.37%
Mid-Day	9:30 AM - 2:30 PM	1,735	1,470	70	1,540	194	11.21%
PM Peak	2:30 PM - 7:00 PM	4,429	3,037	765	3,803	626	14.14%
Night	7:00 PM - 6:00 AM	926	813	5	818	108	11.70%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$188,340	0.93%
Mid-Day	\$56,037	2.21%
PM Peak	\$224,953	1.25%
Night	\$425	0.94%

WestBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	3,423	2,024	842	2,866	557	16.27%
Mid-Day	9:30 AM - 2:30 PM	1,626	1,308	82	1,390	236	14.50%
PM Peak	2:30 PM - 7:00 PM	6,311	8,551	2,986	11,537	-5,226	-82.80%
Night	7:00 PM - 6:00 AM	1,009	910	12	923	87	8.57%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$51,176	0.73%
Mid-Day	\$131,808	3.06%
PM Peak	\$332,670	3.97%
Night	\$32,665	1.34%

System 2

Travel Demand Segment Summaries

MnPASS System Evaluation Summary

System 2

Segment I-494-1

Segment # 1

Length 8.11 miles (toll) HOVs Pay toll

Financial Evaluation

2030 Revenue	\$4,072,611
2030 Operating Cost	\$750,867
2030 Net Revenue	\$3,321,744
Capital Cost *	\$65,885,608
Annual Debt Service	\$4,953,223
Net Revenue/Debt Service	0.67

Infrastructure/Operational Considerations

Direct connection to I394 is possible, however the center median on I-394 needs to be wider so the connection can tie into the lanes on I-394.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

Eastbound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	10.0	9.8	8.8	1.1	1.2	0.2	17.45%
	7:30 AM - 8:30 AM	\$ 0.20	10.4	10.3	8.4	2.0	2.0	0.0	9.90%
	8:30 AM - 9:30 AM	\$ 0.20	7.6	8.0	8.2	-0.2	-0.5	-0.4	3.86%
PM	3:30 PM - 4:30 PM	\$ 0.30	16.4	18.5	8.6	10.0	7.8	-2.1	11.13%
	4:30 PM - 5:30 PM	\$ 0.30	29.1	31.5	9.9	21.6	19.2	-2.4	15.77%
	5:30 PM - 6:00 PM	\$ 0.30	21.8	23.3	9.1	14.2	12.7	-1.5	14.68%

Westbound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	24.9	30.4	9.1	21.3	15.8	-5.5	13.00%
	7:30 AM - 8:30 AM	\$ 0.30	21.8	25.4	8.9	16.4	12.9	-3.6	12.83%
	8:30 AM - 9:30 AM	\$ 0.30	8.6	9.7	8.2	1.5	0.4	-1.1	5.46%
PM	3:30 PM - 4:30 PM	\$ 0.20	11.0	11.2	8.3	2.8	2.6	-0.2	8.96%
	4:30 PM - 5:30 PM	\$ 0.30	13.3	14.0	8.5	5.6	4.8	-0.8	10.26%
	5:30 PM - 6:00 PM	\$ 0.40	11.4	12.4	8.4	4.0	3.0	-1.0	8.63%

Vehicle Hours Evaluation

Eastbound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	1,723	1,706	180	1,887	-164	-9.50%
Mid-Day	9:30 AM - 2:30 PM	1,320	1,397	7	1,404	-84	-6.36%
PM Peak	2:30 PM - 7:00 PM	6,125	7,038	397	7,435	-1,310	-21.39%
Night	7:00 PM - 6:00 AM	823	851	2	853	-30	-3.63%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$375,562	10.25%
Mid-Day	\$17,359	0.51%
PM Peak	\$1,630,971	11.01%
Night	\$6,325	0.44%

Westbound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	5,036	6,494	301	6,795	-1,759	-34.93%
Mid-Day	9:30 AM - 2:30 PM	1,340	1,430	0	1,430	-90	-6.74%
PM Peak	2:30 PM - 7:00 PM	2,945	3,139	174	3,313	-368	-12.50%
Night	7:00 PM - 6:00 AM	633	681	0	681	-48	-7.55%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,288,519	10.28%
Mid-Day	\$775	0.02%
PM Peak	\$753,100	18.22%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 2

Segment I-494-2

Segment # 2

Length 14.14 miles (toll) HOVs Pay toll

Financial Evaluation

2030 Revenue	\$9,295,341
2030 Operating Cost	\$1,787,784
2030 Net Revenue	\$7,507,557
Capital Cost *	\$86,251,279
Annual Debt Service	\$6,484,296
Net Revenue/Debt Service	1.16

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Assumed all bridges going over the freeway will allow the fourth lane needed for the express lane in the current Design / Build section.

Environmental Considerations

Potential environmental issues includes three parks, the Minnehaha Creek and Nine Mile Creek.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 4

Eastbound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	30.1	30.0	15.7	14.4	14.5	0.1	10.90%
	7:30 AM - 8:30 AM	\$ 0.20	28.1	28.5	15.5	13.0	12.6	-0.4	10.74%
	8:30 AM - 9:30 AM	\$ 0.20	15.2	15.4	14.4	1.0	0.8	-0.3	5.08%
PM	3:30 PM - 4:30 PM	\$ 0.30	23.2	32.4	15.2	17.2	8.0	-9.1	9.31%
	4:30 PM - 5:30 PM	\$ 0.50	35.5	53.2	15.4	37.8	20.1	-17.7	8.68%
	5:30 PM - 6:00 PM	\$ 0.50	29.6	38.3	15.0	23.3	14.7	-8.7	7.98%

Westbound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.40	30.4	44.6	15.2	29.4	15.2	-14.2	8.68%
	7:30 AM - 8:30 AM	\$ 0.40	27.9	38.4	15.1	23.4	12.9	-10.5	8.53%
	8:30 AM - 9:30 AM	\$ 0.30	14.9	17.6	14.4	3.2	0.5	-2.7	4.99%
PM	3:30 PM - 4:30 PM	\$ 0.30	25.4	24.2	14.7	9.5	10.8	1.3	7.31%
	4:30 PM - 5:30 PM	\$ 0.30	43.2	36.4	15.8	20.6	27.4	6.8	10.79%
	5:30 PM - 6:00 PM	\$ 0.40	32.3	31.5	15.1	16.4	17.2	0.7	9.34%

Vehicle Hours Evaluation

Eastbound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	7,579	7,128	424	7,553	26	0.34%
Mid-Day	9:30 AM - 2:30 PM	3,564	3,827	104	3,931	-367	-10.31%
PM Peak	2:30 PM - 7:00 PM	9,799	15,975	559	16,535	-6,736	-68.74%
Night	7:00 PM - 6:00 AM	1,637	2,152	13	2,166	-529	-32.32%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,220,890	8.64%
Mid-Day	\$162,096	2.73%
PM Peak	\$3,227,303	7.49%
Night	\$33,247	1.12%

Westbound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	7,368	11,920	425	12,345	-4,977	-67.55%
Mid-Day	9:30 AM - 2:30 PM	3,864	3,529	99	3,628	236	6.10%
PM Peak	2:30 PM - 7:00 PM	12,303	9,989	516	10,505	1,798	14.62%
Night	7:00 PM - 6:00 AM	2,098	1,697	3	1,700	398	18.98%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$2,359,540	7.42%
Mid-Day	\$154,035	2.75%
PM Peak	\$2,129,620	16.68%
Night	\$8,610	0.16%

MnPASS System Evaluation Summary

System 2

Segment I-494-3

Segment # 3

Length 7.85 miles (toll) HOVs Pay toll

Financial Evaluation

2030 Revenue	\$4,351,115
2030 Operating Cost	\$1,423,283
2030 Net Revenue	\$2,927,832
Capital Cost *	\$92,131,528
Annual Debt Service	\$6,926,368
Net Revenue/Debt Service	0.42

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Mn/DOT has been developing a new design for part of this segment. The new design was not considered to be in place since it is not in the work program. Significant retaining wall issues exist along the section.

Environmental Considerations

Potential environmental issues include the Minnesota River Valley and the US Wildlife & Recreation Area.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 3

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.40	17.8	14.1	8.5	5.6	9.3	3.7	6.62%
	7:30 AM - 8:30 AM	\$ 0.40	17.3	13.9	8.4	5.5	8.9	3.4	6.36%
	8:30 AM - 9:30 AM	\$ 0.30	8.9	8.8	8.1	0.6	0.7	0.1	6.29%
PM	3:30 PM - 4:30 PM	\$ 0.20	18.3	20.3	8.5	11.8	9.8	-2.0	7.23%
	4:30 PM - 5:30 PM	\$ 0.30	31.0	34.3	8.6	25.7	22.4	-3.3	5.81%
	5:30 PM - 6:00 PM	\$ 0.30	24.6	26.1	9.2	16.9	15.4	-1.4	7.30%

Westbound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	27.7	32.3	8.6	23.8	19.2	-4.6	8.19%
	7:30 AM - 8:30 AM	\$ 0.20	24.3	27.4	8.5	18.8	15.8	-3.1	8.64%
	8:30 AM - 9:30 AM	\$ 0.20	9.9	10.1	8.1	2.1	1.8	-0.3	6.25%
PM	3:30 PM - 4:30 PM	\$ 0.30	14.7	12.6	8.3	4.3	6.3	2.1	7.61%
	4:30 PM - 5:30 PM	\$ 0.40	20.1	18.5	8.8	9.7	11.3	1.6	7.82%
	5:30 PM - 6:00 PM	\$ 0.30	16.0	15.5	9.5	6.1	6.6	0.5	9.86%

Vehicle Hours Evaluation

EastBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	5,051	3,465	152	3,617	1,434	28.38%
Mid-Day	9:30 AM - 2:30 PM	2,727	2,485	117	2,602	125	4.59%
PM Peak	2:30 PM - 7:00 PM	10,608	11,700	320	12,020	-1,412	-13.31%
Night	7:00 PM - 6:00 AM	1,169	1,134	1	1,135	34	2.92%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$834,924	5.93%
Mid-Day	\$193,784	4.64%
PM Peak	\$1,033,088	6.63%
Night	\$7,460	0.19%

Westbound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	8,070	9,921	280	10,201	-2,131	-26.41%
Mid-Day	9:30 AM - 2:30 PM	2,639	2,456	120	2,576	62	2.37%
PM Peak	2:30 PM - 7:00 PM	6,411	5,548	278	5,826	585	9.12%
Night	7:00 PM - 6:00 AM	1,142	1,148	2	1,150	-8	-0.69%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$808,798	7.32%
Mid-Day	\$195,489	4.77%
PM Peak	\$1,269,090	18.14%
Night	\$8,482	0.15%

MnPASS System Evaluation Summary

System 2

Segment I-694-1

Segment # 5

Length 12.54 miles (toll) HOVs Pay toll

Financial Evaluation

2030 Revenue	\$4,772,990
2030 Operating Cost	\$1,264,724
2030 Net Revenue	\$3,508,266
Capital Cost *	\$74,876,268
Annual Debt Service	\$5,629,133
Net Revenue/Debt Service	0.62

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Currently new construction and would require widening new sections. Difficult to fit lanes through the interchanges near TH 94, TH 100 & TH 252.

Environmental Considerations

Potential environmental issues include Long Lake - narrow right-of-way in this location next to the lake.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 3

Eastbound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	31.3	39.0	13.8	25.2	17.5	-7.7	9.42%
	7:30 AM - 8:30 AM	\$ 0.20	29.2	34.5	13.7	20.8	15.5	-5.3	9.33%
	8:30 AM - 9:30 AM	\$ 0.20	14.2	15.0	12.7	2.2	1.5	-0.7	4.45%
PM	3:30 PM - 4:30 PM	\$ 0.20	20.6	22.3	13.0	9.3	7.7	-1.7	6.26%
	4:30 PM - 5:30 PM	\$ 0.20	31.2	34.3	13.8	20.5	17.4	-3.0	9.60%
	5:30 PM - 6:00 PM	\$ 0.20	27.0	29.6	13.7	15.9	13.3	-2.6	9.81%

Westbound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	24.7	27.3	13.3	13.9	11.4	-2.5	8.57%
	7:30 AM - 8:30 AM	\$ 0.20	24.2	25.9	13.2	12.7	11.0	-1.7	7.93%
	8:30 AM - 9:30 AM	\$ 0.10	13.4	13.8	12.8	1.0	0.7	-0.4	5.90%
PM	3:30 PM - 4:30 PM	\$ 0.20	25.4	28.3	13.1	15.2	12.3	-2.9	6.69%
	4:30 PM - 5:30 PM	\$ 0.20	38.9	45.0	14.6	30.5	24.4	-6.1	10.17%
	5:30 PM - 6:00 PM	\$ 0.20	29.6	32.8	13.8	19.0	15.8	-3.2	9.50%

Vehicle Hours Evaluation

Eastbound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	8,715	11,253	430	11,683	-2,968	-34.05%
Mid-Day	9:30 AM - 2:30 PM	3,431	3,649	15	3,664	-233	-6.79%
PM Peak	2:30 PM - 7:00 PM	9,386	10,668	446	11,115	-1,729	-18.42%
Night	7:00 PM - 6:00 AM	1,781	1,887	0	1,887	-106	-5.98%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,217,691	7.62%
Mid-Day	\$23,302	0.41%
PM Peak	\$1,176,917	6.99%
Night	\$0	0.00%

Westbound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	6,557	7,424	329	7,753	-1,196	-18.24%
Mid-Day	9:30 AM - 2:30 PM	3,601	3,788	27	3,815	-214	-5.94%
PM Peak	2:30 PM - 7:00 PM	12,408	14,624	567	15,191	-2,783	-22.43%
Night	7:00 PM - 6:00 AM	2,055	2,198	0	2,198	-143	-6.94%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$890,681	6.95%
Mid-Day	\$42,467	0.72%
PM Peak	\$1,421,932	12.76%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 2

Segment I-694-2

Segment # 6

Length 5.30 miles (toll) HOVs Pay toll

Financial Evaluation

2030 Revenue	\$3,500,941
2030 Operating Cost	\$904,439
2030 Net Revenue	\$2,596,502
Capital Cost *	\$20,788,391
Annual Debt Service	\$1,562,853
Net Revenue/Debt Service	1.66

Infrastructure/Operational Considerations

Used a flyover in the area of TH 10 and Snelling. This cost may not be needed if Mn/DOT reconstructs the interchange. The project is under study.

Environmental Considerations

Potential environmental issues include Island Lake Park.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

Eastbound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	12.7	12.9	5.8	7.1	6.9	-0.2	10.00%
	7:30 AM - 8:30 AM	\$ 0.20	11.6	11.2	6.6	4.6	4.9	0.4	14.96%
	8:30 AM - 9:30 AM	\$ 0.50	5.6	5.7	5.4	0.3	0.3	-0.1	4.56%
PM	3:30 PM - 4:30 PM	\$ 0.30	8.9	9.0	5.5	3.4	3.3	-0.1	7.64%
	4:30 PM - 5:30 PM	\$ 0.30	13.5	14.1	5.8	8.3	7.7	-0.7	9.68%
	5:30 PM - 6:00 PM	\$ 0.40	10.8	11.2	5.7	5.5	5.2	-0.3	8.99%

Westbound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	12.2	11.7	5.9	5.8	6.4	0.6	11.35%
	7:30 AM - 8:30 AM	\$ 0.20	11.6	10.4	5.8	4.5	5.8	1.3	11.50%
	8:30 AM - 9:30 AM	\$ 0.40	5.6	5.8	5.4	0.4	0.2	-0.2	5.65%
PM	3:30 PM - 4:30 PM	\$ 0.40	9.3	9.3	5.5	3.8	3.8	0.1	7.15%
	4:30 PM - 5:30 PM	\$ 0.30	12.3	12.1	6.2	5.9	6.1	0.2	12.98%
	5:30 PM - 6:00 PM	\$ 0.40	9.5	9.4	5.7	3.7	3.8	0.1	10.67%

Vehicle Hours Evaluation

Eastbound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	3,561	3,472	231	3,704	-143	-4.00%
Mid-Day	9:30 AM - 2:30 PM	1,277	1,344	2	1,346	-69	-5.43%
PM Peak	2:30 PM - 7:00 PM	4,162	4,322	189	4,511	-348	-8.37%
Night	7:00 PM - 6:00 AM	635	673	0	673	-38	-5.99%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$820,530	9.64%
Mid-Day	\$3,446	0.16%
PM Peak	\$914,722	7.06%
Night	\$0	0.00%

Westbound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	3,443	3,109	196	3,306	137	3.99%
Mid-Day	9:30 AM - 2:30 PM	1,249	1,283	3	1,286	-37	-2.95%
PM Peak	2:30 PM - 7:00 PM	3,953	3,836	225	4,060	-108	-2.72%
Night	7:00 PM - 6:00 AM	618	642	0	642	-24	-3.91%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$637,022	9.13%
Mid-Day	\$4,364	0.21%
PM Peak	\$1,120,858	15.68%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 2

Segment I-35W-2

Segment # 9

Length 5.92 miles (toll) HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$1,081,351
2030 Operating Cost	\$1,620,277
2030 Net Revenue	-\$538,926
Capital Cost *	\$1,612,800
Annual Debt Service	\$121,249
Net Revenue/Debt Service	-4.44

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Assumed using the HOV lane and that the project at the TH 62 Crosstown interchange with 35W has been completed.

Environmental Considerations

None noted.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	31.6	31.6	8.8	22.7	22.8	0.1	0.82%
	7:30 AM - 8:30 AM	\$ 0.50	26.2	25.5	11.0	14.5	15.2	0.7	0.69%
	8:30 AM - 9:30 AM	\$ 0.40	8.5	8.2	6.4	1.8	2.1	0.3	1.13%
PM	3:30 PM - 4:30 PM	\$ 0.30	7.4	9.4	8.9	0.4	-1.5	-2.0	1.51%
	4:30 PM - 5:30 PM	\$ 0.30	9.4	11.3	10.0	1.3	-0.6	-1.9	2.11%
	5:30 PM - 6:00 PM	\$ 0.40	10.1	10.3	8.9	1.4	1.2	-0.2	2.71%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	6.6	11.4	9.8	1.6	-3.2	-4.8	0.44%
	7:30 AM - 8:30 AM	\$ 0.50	7.0	10.6	12.0	-1.4	-5.1	-3.7	0.71%
	8:30 AM - 9:30 AM	\$ 0.40	5.8	6.9	6.5	0.3	-0.8	-1.1	0.93%
PM	3:30 PM - 4:30 PM	\$ 0.40	18.0	17.5	7.5	9.9	10.4	0.5	1.99%
	4:30 PM - 5:30 PM	\$ 0.40	33.0	33.1	8.9	24.1	24.1	-0.1	2.69%
	5:30 PM - 6:00 PM	\$ 0.50	23.3	23.9	7.1	16.8	16.2	-0.6	3.50%

Vehicle Hours Evaluation

NorthBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	10,429	10,189	505	10,694	-264	-2.53%
Mid-Day	9:30 AM - 2:30 PM	1,814	1,766	13	1,779	35	1.93%
PM Peak	2:30 PM - 7:00 PM	2,963	3,643	644	4,287	-1,324	-44.68%
Night	7:00 PM - 6:00 AM	846	822	0	822	25	2.93%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$198,687	0.96%
Mid-Day	\$7,069	0.26%
PM Peak	\$234,771	1.62%
Night	\$0	0.00%

SouthBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	1,470	2,886	584	3,470	-2,001	-136.12%
Mid-Day	9:30 AM - 2:30 PM	1,963	1,911	27	1,937	26	1.31%
PM Peak	2:30 PM - 7:00 PM	11,590	11,265	522	11,787	-197	-1.70%
Night	7:00 PM - 6:00 AM	1,490	1,432	0	1,432	58	3.88%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$97,024	0.63%
Mid-Day	\$18,371	0.64%
PM Peak	\$525,428	2.99%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 2

Segment I-35W-3

Segment # 10

Length 4.55 miles (toll) HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$1,418,826
2030 Operating Cost	\$990,040
2030 Net Revenue	\$428,786
Capital Cost *	\$806,400
Annual Debt Service	\$60,624
Net Revenue/Debt Service	7.07

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Assumed using the HOV lane and that the project at the TH 62 Crosstown interchange with 35W has been completed.

Environmental Considerations

None noted.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	19.4	9.0	7.2	1.8	12.2	10.4	1.42%
	7:30 AM - 8:30 AM	\$ 0.50	16.4	8.8	7.1	1.7	9.3	7.6	1.40%
	8:30 AM - 9:30 AM	\$ 0.40	7.5	5.1	4.8	0.3	2.7	2.3	1.72%
PM	3:30 PM - 4:30 PM	\$ 0.50	10.7	8.3	6.5	1.8	4.2	2.4	1.44%
	4:30 PM - 5:30 PM	\$ 0.50	16.1	11.5	8.3	3.1	7.7	4.6	1.93%
	5:30 PM - 6:00 PM	\$ 0.50	12.8	9.1	7.6	1.5	5.2	3.7	4.30%

Southbound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	16.6	11.1	17.2	-6.1	-0.6	5.5	0.74%
	7:30 AM - 8:30 AM	\$ 0.50	14.9	10.3	12.4	-2.1	2.5	4.6	1.05%
	8:30 AM - 9:30 AM	\$ 0.50	7.2	5.4	5.1	0.3	2.2	1.8	2.03%
PM	3:30 PM - 4:30 PM	\$ 0.50	13.0	7.7	6.3	1.4	6.7	5.3	2.92%
	4:30 PM - 5:30 PM	\$ 0.50	20.0	12.7	7.4	5.3	12.6	7.4	3.96%
	5:30 PM - 6:00 PM	\$ 0.50	13.5	10.0	5.2	4.8	8.2	3.4	6.15%

Vehicle Hours Evaluation

NorthBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	6,212	2,701	416	3,117	3,095	49.83%
Mid-Day	9:30 AM - 2:30 PM	1,984	1,403	14	1,416	568	28.61%
PM Peak	2:30 PM - 7:00 PM	5,493	3,854	592	4,446	1,047	19.06%
Night	7:00 PM - 6:00 AM	1,029	720	0	720	309	30.04%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$191,108	1.35%
Mid-Day	\$14,834	0.67%
PM Peak	\$353,670	1.84%
Night	\$0	0.00%

SouthBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	4,596	3,267	1,046	4,314	282	6.13%
Mid-Day	9:30 AM - 2:30 PM	2,096	1,629	29	1,658	439	20.92%
PM Peak	2:30 PM - 7:00 PM	6,489	4,147	498	4,645	1,844	28.41%
Night	7:00 PM - 6:00 AM	1,126	838	0	838	287	25.53%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$173,064	1.09%
Mid-Day	\$33,591	1.38%
PM Peak	\$652,558	5.28%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 2

Segment I-394-2

Segment # 11

Length 2.50 miles (toll) HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$502,002
2030 Operating Cost	\$0
2030 Net Revenue	\$502,002
Capital Cost *	\$0
Annual Debt Service	\$0
Net Revenue/Debt Service	#DIV/0!

Infrastructure/Operational Considerations

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Environmental Considerations

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* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries =

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	13.1	18.4	12.5	5.9	0.5	-5.3	0.12%
	7:30 AM - 8:30 AM	\$ 0.50	11.0	15.5	12.4	3.1	-1.5	-4.5	0.17%
	8:30 AM - 9:30 AM	\$ 0.50	5.1	5.4	6.6	-1.3	-1.5	-0.3	1.15%
PM	3:30 PM - 4:30 PM	\$ 0.10	9.9	13.4	N/A	N/A	N/A	-3.5	N/A
	4:30 PM - 5:30 PM	\$ 0.10	13.7	17.3	N/A	N/A	N/A	-3.6	N/A
	5:30 PM - 6:00 PM	\$ 0.10	11.3	13.3	N/A	N/A	N/A	-2.1	N/A

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	8.9	11.8	N/A	N/A	N/A	-2.9	N/A
	7:30 AM - 8:30 AM	\$ 0.10	7.5	10.8	N/A	N/A	N/A	-3.3	N/A
	8:30 AM - 9:30 AM	\$ 0.10	3.2	4.3	N/A	N/A	N/A	-1.1	N/A
PM	3:30 PM - 4:30 PM	\$ 0.50	5.3	7.0	10.9	-3.9	-5.7	-1.7	0.25%
	4:30 PM - 5:30 PM	\$ 0.50	8.1	10.8	11.7	-0.9	-3.7	-2.7	0.28%
	5:30 PM - 6:00 PM	\$ 0.50	4.3	5.7	6.6	-0.9	-2.2	-1.4	1.29%

Vehicle Hours Evaluation

EastBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	3,662	5,328	1,843	7,171	-3,509	-95.82%
Mid-Day	9:30 AM - 2:30 PM	1,103	831	95	926	177	16.02%
PM Peak	2:30 PM - 7:00 PM	4,576	6,102	N/A	6,102	-1,526	-33.35%
Night	7:00 PM - 6:00 AM	436	420	3	423	13	2.91%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$170,125	2.27%
Mid-Day	\$110,901	4.85%
PM Peak	N/A	N/A
Night	\$12,585	0.85%

WestBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	2,366	3,735	0	3,735	-1,370	-57.90%
Mid-Day	9:30 AM - 2:30 PM	768	783	21	804	-36	-4.70%
PM Peak	2:30 PM - 7:00 PM	2,457	3,396	1,843	5,239	-2,782	-113.21%
Night	7:00 PM - 6:00 AM	495	481	51	533	-38	-7.58%

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$26,628	1.13%
PM Peak	\$138,326	1.93%
Night	\$43,436	9.13%

MnPASS System Evaluation Summary

System 2

Segment I-394-1

Segment # 12

Length 5.70 miles (toll) HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$933,243
2030 Operating Cost	\$0
2030 Net Revenue	\$933,243
Capital Cost *	\$0
Annual Debt Service	\$0
Net Revenue/Debt Service	#DIV/0!

Infrastructure/Operational Considerations

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Environmental Considerations

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* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries =

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	16.6	20.2	33.3	-13.1	-16.7	-3.6	0.14%
	7:30 AM - 8:30 AM	\$ 0.50	15.6	16.5	30.1	-13.6	-14.5	-0.9	0.18%
	8:30 AM - 9:30 AM	\$ 0.50	7.6	7.2	10.6	-3.4	-3.0	0.4	0.64%
PM	3:30 PM - 4:30 PM	\$ 0.50	9.5	7.7	7.4	0.2	2.0	1.8	0.54%
	4:30 PM - 5:30 PM	\$ 0.50	13.7	10.2	10.2	0.0	3.6	3.5	0.85%
	5:30 PM - 6:00 PM	\$ 0.50	11.5	8.6	8.1	0.6	3.4	2.8	1.78%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	18.4	11.9	15.6	-3.7	2.7	6.4	0.50%
	7:30 AM - 8:30 AM	\$ 0.50	16.1	11.3	11.1	0.2	5.0	4.8	0.59%
	8:30 AM - 9:30 AM	\$ 0.40	8.5	6.8	6.5	0.3	2.1	1.8	1.61%
PM	3:30 PM - 4:30 PM	\$ 0.50	16.1	16.8	20.8	-4.0	-4.7	-0.7	0.46%
	4:30 PM - 5:30 PM	\$ 0.50	26.9	28.0	30.7	-2.7	-3.8	-1.1	0.87%
	5:30 PM - 6:00 PM	\$ 0.50	18.2	19.2	15.1	4.1	3.1	-1.0	2.07%

Vehicle Hours Evaluation

EastBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	5,316	6,325	3,007	9,332	-4,017	-75.57%
Mid-Day	9:30 AM - 2:30 PM	1,735	1,473	71	1,544	191	10.99%
PM Peak	2:30 PM - 7:00 PM	4,429	3,195	705	3,900	529	11.94%
Night	7:00 PM - 6:00 AM	926	815	4	819	107	11.58%

WestBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	3,423	2,081	912	2,994	429	12.54%
Mid-Day	9:30 AM - 2:30 PM	1,626	1,310	80	1,391	235	14.47%
PM Peak	2:30 PM - 7:00 PM	6,311	6,782	2,472	9,254	-2,943	-46.63%
Night	7:00 PM - 6:00 AM	1,009	901	15	916	93	9.21%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$149,235	0.85%
Mid-Day	\$56,883	2.24%
PM Peak	\$163,219	0.86%
Night	\$1,220	0.83%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$87,231	0.76%
Mid-Day	\$129,891	3.02%
PM Peak	\$310,842	3.62%
Night	\$34,723	1.62%

System 3

Travel Demand Segment Summaries

MnPASS System Evaluation Summary

System 3

Segment I-494-1

Segment # 1

Length

8.00 miles

HOVs

Pay toll

Financial Evaluation

2030 Revenue	\$3,262,704
2030 Operating Cost	\$553,236
2030 Net Revenue	\$2,709,468
Capital Cost *	\$65,885,608
Annual Debt Service	\$4,953,223
Net Revenue/Debt Service	0.55

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Direct connection to I394 is possible, however the center median on I-394 needs to be wider so the connection can tie into the lanes on I-394.

Environmental Considerations

None noted.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	10.0	9.3	N/A	N/A	N/A	0.7	N/A
	7:30 AM - 8:30 AM	\$ 0.10	10.4	9.7	N/A	N/A	N/A	0.7	N/A
	8:30 AM - 9:30 AM	\$ 0.10	7.6	8.0	N/A	N/A	N/A	-0.3	N/A
PM	3:30 PM - 4:30 PM	\$ 0.20	16.4	15.7	12.9	2.7	3.5	0.7	20.29%
	4:30 PM - 5:30 PM	\$ 0.30	29.1	29.1	11.5	17.7	17.7	0.0	15.50%
	5:30 PM - 6:00 PM	\$ 0.30	21.8	21.3	9.3	12.0	12.4	0.5	14.44%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	24.9	30.4	8.5	21.9	16.4	-5.5	8.90%
	7:30 AM - 8:30 AM	\$ 0.40	21.8	23.9	8.9	15.0	12.9	-2.1	11.82%
	8:30 AM - 9:30 AM	\$ 0.20	8.6	8.9	8.4	0.5	0.2	-0.3	13.42%
PM	3:30 PM - 4:30 PM	\$ 0.10	11.0	10.5	N/A	N/A	N/A	0.5	N/A
	4:30 PM - 5:30 PM	\$ 0.10	13.3	14.6	N/A	N/A	N/A	-1.3	N/A
	5:30 PM - 6:00 PM	\$ 0.10	11.4	13.2	N/A	N/A	N/A	-1.8	N/A

Vehicle Hours Evaluation

EastBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	1,723	1,595	N/A	1,595	128	7.44%
Mid-Day	9:30 AM - 2:30 PM	1,320	1,364	1	1,364	-44	-3.34%
PM Peak	2:30 PM - 7:00 PM	6,125	6,203	623	6,825	-701	-11.44%
Night	7:00 PM - 6:00 AM	823	831	2	833	-10	-1.18%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$2,945	0.07%
PM Peak	\$1,727,518	14.18%
Night	\$5,426	0.39%

WestBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	5,036	6,278	278	6,556	-1,520	-30.18%
Mid-Day	9:30 AM - 2:30 PM	1,340	1,403	1	1,404	-64	-4.75%
PM Peak	2:30 PM - 7:00 PM	2,945	3,108	N/A	3,108	-163	-5.53%
Night	7:00 PM - 6:00 AM	633	668	0	668	-35	-5.49%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,524,439	9.95%
Mid-Day	\$2,377	0.05%
PM Peak	N/A	N/A
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 3

Segment I-35W-1

Segment # 8

Length 1.75 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$328,441
2030 Operating Cost	\$790,623
2030 Net Revenue	-\$462,182
Capital Cost *	\$16,164,150
Annual Debt Service	\$1,215,207
Net Revenue/Debt Service	-0.38

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Assumed using the HOV lane and that the project at the TH 62 Crosstown interchange with 35W has been completed.

Environmental Considerations

None noted.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	10.4	6.5	2.1	4.3	8.2	3.9	3.02%
	7:30 AM - 8:30 AM	\$ 0.30	8.5	4.7	2.3	2.5	6.2	3.8	2.71%
	8:30 AM - 9:30 AM	\$ 0.30	2.8	2.2	1.8	0.3	1.0	0.7	2.16%
PM	3:30 PM - 4:30 PM	\$ 0.30	2.0	1.9	2.1	-0.1	-0.1	0.1	1.73%
	4:30 PM - 5:30 PM	\$ 0.30	2.3	2.1	2.1	0.0	0.2	0.2	3.01%
	5:30 PM - 6:00 PM	\$ 0.30	2.5	2.2	2.0	0.1	0.5	0.4	4.77%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	1.7	2.1	2.1	0.1	-0.4	-0.5	0.32%
	7:30 AM - 8:30 AM	\$ 0.30	1.8	2.0	2.2	-0.2	-0.4	-0.2	1.44%
	8:30 AM - 9:30 AM	\$ 0.30	1.7	1.9	1.8	0.0	-0.1	-0.1	1.03%
PM	3:30 PM - 4:30 PM	\$ 0.30	6.2	3.8	2.0	1.8	4.2	2.4	3.98%
	4:30 PM - 5:30 PM	\$ 0.40	11.4	8.3	2.5	5.8	8.9	3.1	4.47%
	5:30 PM - 6:00 PM	\$ 0.40	8.4	6.3	2.0	4.3	6.4	2.1	5.60%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	% Savings
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	2,785	1,387	114	1,501	1,284	46.10%
Mid-Day	9:30 AM - 2:30 PM	447	426	13	439	8	1.87%
PM Peak	2:30 PM - 7:00 PM	564	507	137	643	-79	-14.04%
Night	7:00 PM - 6:00 AM	229	219	0	219	10	4.45%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	% Savings
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	246	359	95	454	-209	-84.97%
Mid-Day	9:30 AM - 2:30 PM	470	440	16	456	15	3.11%
PM Peak	2:30 PM - 7:00 PM	3,095	1,887	144	2,031	1,064	34.38%
Night	7:00 PM - 6:00 AM	390	365	3	369	21	5.47%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$78,322	3.15%
Mid-Day	\$5,784	0.87%
PM Peak	\$56,882	2.36%
Night	\$0	0.00%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$17,351	0.85%
Mid-Day	\$8,209	1.24%
PM Peak	\$160,388	5.22%
Night	\$1,505	0.92%

MnPASS System Evaluation Summary

System 3

Segment I-35W-2

Segment # 9

Length 6.06 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$1,490,181
2030 Operating Cost	\$1,962,655
2030 Net Revenue	-\$472,474
Capital Cost *	\$1,612,800
Annual Debt Service	\$121,249
Net Revenue/Debt Service	-3.90

Infrastructure/Operational Considerations

Assumed using the HOV lane and that the project at the TH 62 Crosstown interchange with 35W has been completed.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	31.6	27.4	8.3	19.1	23.4	4.2	1.74%
	7:30 AM - 8:30 AM	\$ 0.50	26.2	21.8	11.8	10.1	14.4	4.3	1.53%
	8:30 AM - 9:30 AM	\$ 0.30	8.5	7.7	6.4	1.3	2.1	0.8	2.19%
PM	3:30 PM - 4:30 PM	\$ 0.30	7.4	8.8	9.4	-0.6	-2.0	-1.4	1.52%
	4:30 PM - 5:30 PM	\$ 0.30	9.4	10.8	9.4	1.4	0.0	-1.4	2.42%
	5:30 PM - 6:00 PM	\$ 0.30	10.1	9.9	8.9	1.0	1.2	0.2	4.13%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	6.6	9.8	9.9	-0.2	-3.3	-3.1	0.48%
	7:30 AM - 8:30 AM	\$ 0.50	7.0	9.6	9.1	0.5	-2.1	-2.6	0.64%
	8:30 AM - 9:30 AM	\$ 0.30	5.8	6.5	6.4	0.0	-0.7	-0.7	1.25%
PM	3:30 PM - 4:30 PM	\$ 0.30	18.0	15.7	7.9	7.9	10.1	2.3	3.70%
	4:30 PM - 5:30 PM	\$ 0.50	33.0	32.0	9.9	22.1	23.1	1.0	2.89%
	5:30 PM - 6:00 PM	\$ 0.40	23.3	23.3	7.8	15.6	15.5	-0.1	5.24%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	10,429	8,261	607	8,868	1,562	14.98%
Mid-Day	9:30 AM - 2:30 PM	1,814	1,787	51	1,838	-24	-1.32%
PM Peak	2:30 PM - 7:00 PM	2,963	3,417	722	4,138	-1,175	-39.66%
Night	7:00 PM - 6:00 AM	846	846	0	846	0	0.03%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$367,181	2.49%
Mid-Day	\$27,223	0.95%
PM Peak	\$256,652	2.11%
Night	\$0	0.00%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,470	2,402	525	2,927	-1,458	-99.18%
Mid-Day	9:30 AM - 2:30 PM	1,963	1,918	72	1,990	-27	-1.37%
PM Peak	2:30 PM - 7:00 PM	11,590	10,420	680	11,100	490	4.23%
Night	7:00 PM - 6:00 AM	1,490	1,466	11	1,477	12	0.83%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$92,253	0.69%
Mid-Day	\$44,110	1.49%
PM Peak	\$697,601	4.75%
Night	\$5,160	0.75%

MnPASS System Evaluation Summary

System 3

Segment I-35W-3

Segment # 10

Length 4.60 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$1,171,012
2030 Operating Cost	\$778,617
2030 Net Revenue	\$392,394
Capital Cost *	\$806,400
Annual Debt Service	\$60,624
Net Revenue/Debt Service	6.47

Infrastructure/Operational Considerations

Assumed using the HOV lane and that the project at the TH 62 Crosstown interchange with 35W has been completed.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	19.4	10.7	7.6	3.1	11.8	8.7	2.71%
	7:30 AM - 8:30 AM	\$ 0.30	16.4	10.0	9.0	1.0	7.4	6.4	4.14%
	8:30 AM - 9:30 AM	\$ 0.30	7.5	5.3	5.0	0.3	2.5	2.2	3.05%
PM	3:30 PM - 4:30 PM	\$ 0.20	10.7	9.1	7.7	1.4	3.1	1.6	1.94%
	4:30 PM - 5:30 PM	\$ 0.50	16.1	12.9	13.3	-0.4	2.8	3.1	0.75%
	5:30 PM - 6:00 PM	\$ 0.50	12.8	10.5	8.8	1.7	4.0	2.3	1.61%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	16.6	13.6	12.0	1.6	4.6	3.0	0.23%
	7:30 AM - 8:30 AM	\$ 0.50	14.9	12.3	10.1	2.1	4.8	2.7	0.24%
	8:30 AM - 9:30 AM	\$ 0.20	7.2	5.7	5.2	0.5	2.1	1.5	2.87%
PM	3:30 PM - 4:30 PM	\$ 0.30	13.0	9.0	5.6	3.4	7.4	4.0	4.09%
	4:30 PM - 5:30 PM	\$ 0.30	20.0	14.4	8.4	6.0	11.6	5.6	5.76%
	5:30 PM - 6:00 PM	\$ 0.30	13.5	10.9	6.1	4.9	7.4	2.5	6.72%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	6,212	3,235	413	3,648	2,564	41.28%
Mid-Day	9:30 AM - 2:30 PM	1,984	1,437	31	1,467	517	26.06%
PM Peak	2:30 PM - 7:00 PM	5,493	4,467	585	5,052	441	8.04%
Night	7:00 PM - 6:00 AM	1,029	744	0	744	285	27.68%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$367,660	3.47%
Mid-Day	\$22,886	0.96%
PM Peak	\$157,434	1.32%
Night	\$0	0.00%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	4,596	4,009	551	4,560	36	0.78%
Mid-Day	9:30 AM - 2:30 PM	2,096	1,644	41	1,685	412	19.64%
PM Peak	2:30 PM - 7:00 PM	6,489	4,846	429	5,275	1,213	18.70%
Night	7:00 PM - 6:00 AM	1,126	844	1	845	281	24.93%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$58,099	0.69%
Mid-Day	\$37,033	1.50%
PM Peak	\$527,507	6.29%
Night	\$393	0.10%

MnPASS System Evaluation Summary

System 3

Segment I-394-2

Segment # 11

Length 2.50 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$484,798
2030 Operating Cost	\$0
2030 Net Revenue	\$484,798
Capital Cost *	\$0
Annual Debt Service	\$0
Net Revenue/Debt Service	#DIV/0!

Infrastructure/Operational Considerations

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Environmental Considerations

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* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries =

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	13.1	13.9	9.2	4.7	3.9	-0.9	0.48%
	7:30 AM - 8:30 AM	\$ 0.50	11.0	13.3	9.0	4.4	2.0	-2.4	0.51%
	8:30 AM - 9:30 AM	\$ 0.40	5.1	5.4	2.9	2.5	2.2	-0.3	1.48%
PM	3:30 PM - 4:30 PM	\$ 0.10	9.9	11.7	N/A	N/A	N/A	-1.8	N/A
	4:30 PM - 5:30 PM	\$ 0.10	13.7	15.9	N/A	N/A	N/A	-2.2	N/A
	5:30 PM - 6:00 PM	\$ 0.10	11.3	12.1	N/A	N/A	N/A	-0.8	N/A

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	8.9	10.4	N/A	N/A	N/A	-1.5	N/A
	7:30 AM - 8:30 AM	\$ 0.10	7.5	9.3	N/A	N/A	N/A	-1.8	N/A
	8:30 AM - 9:30 AM	\$ 0.10	3.2	3.8	N/A	N/A	N/A	-0.6	N/A
PM	3:30 PM - 4:30 PM	\$ 0.50	5.3	6.1	4.8	1.3	0.5	-0.8	0.62%
	4:30 PM - 5:30 PM	\$ 0.50	8.1	7.8	8.7	-0.9	-0.6	0.3	1.25%
	5:30 PM - 6:00 PM	\$ 0.50	4.3	4.7	4.0	0.7	0.3	-0.4	2.15%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	3,662	3,935	1,149	5,083	-1,421	-38.81%
Mid-Day	9:30 AM - 2:30 PM	1,103	866	80	945	158	14.29%
PM Peak	2:30 PM - 7:00 PM	4,576	5,175	N/A	5,175	-599	-13.08%
Night	7:00 PM - 6:00 AM	436	424	2	425	10	2.36%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	2,366	3,073	N/A	3,073	-708	-29.91%
Mid-Day	9:30 AM - 2:30 PM	768	772	21	793	-25	-3.28%
PM Peak	2:30 PM - 7:00 PM	2,457	2,403	1,047	3,450	-993	-40.41%
Night	7:00 PM - 6:00 AM	495	485	51	536	-41	-8.19%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$161,198	2.31%
Mid-Day	\$81,247	4.44%
PM Peak	N/A	N/A
Night	\$7,863	0.53%

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$22,014	0.94%
PM Peak	\$179,535	2.74%
Night	\$32,941	9.06%

MnPASS System Evaluation Summary

System 3

Segment I-394-1

Segment # 12

Length 5.93 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$811,834
2030 Operating Cost	\$0
2030 Net Revenue	\$811,834
Capital Cost *	\$0
Annual Debt Service	\$0
Net Revenue/Debt Service	#DIV/0!

Infrastructure/Operational Considerations

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Environmental Considerations

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* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries =

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	16.6	17.6	31.6	-14.0	-15.0	-1.0	0.41%
	7:30 AM - 8:30 AM	\$ 0.50	15.6	15.7	27.9	-12.2	-12.3	-0.1	0.42%
	8:30 AM - 9:30 AM	\$ 0.50	7.6	7.1	7.7	-0.6	-0.1	0.5	0.75%
PM	3:30 PM - 4:30 PM	\$ 0.50	9.5	7.7	7.8	-0.1	1.6	1.8	0.27%
	4:30 PM - 5:30 PM	\$ 0.50	13.7	10.0	10.7	-0.7	3.0	3.7	0.46%
	5:30 PM - 6:00 PM	\$ 0.50	11.5	8.9	7.8	1.0	3.6	2.6	1.32%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	18.4	12.1	14.6	-2.5	3.8	6.3	0.07%
	7:30 AM - 8:30 AM	\$ 0.50	16.1	11.4	12.7	-1.3	3.4	4.7	0.11%
	8:30 AM - 9:30 AM	\$ 0.40	8.5	6.8	6.7	0.1	1.9	1.8	0.47%
PM	3:30 PM - 4:30 PM	\$ 0.50	16.1	17.7	20.5	-2.8	-4.4	-1.6	0.75%
	4:30 PM - 5:30 PM	\$ 0.50	26.9	28.7	29.1	-0.3	-2.2	-1.8	1.30%
	5:30 PM - 6:00 PM	\$ 0.50	18.2	19.3	15.8	3.5	2.4	-1.1	2.31%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	5,316	5,830	2,687	8,518	-3,202	-60.24%
Mid-Day	9:30 AM - 2:30 PM	1,735	1,605	73	1,678	57	3.28%
PM Peak	2:30 PM - 7:00 PM	4,429	3,368	716	4,085	344	7.78%
Night	7:00 PM - 6:00 AM	926	897	5	902	24	2.62%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$199,749	1.01%
Mid-Day	\$57,088	2.06%
PM Peak	\$102,670	0.55%
Night	\$1,427	0.90%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	3,423	1,984	852	2,837	586	17.12%
Mid-Day	9:30 AM - 2:30 PM	1,626	1,332	76	1,407	219	13.46%
PM Peak	2:30 PM - 7:00 PM	6,311	6,590	2,347	8,937	-2,625	-41.60%
Night	7:00 PM - 6:00 AM	1,009	918	10	928	81	8.08%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$18,218	0.17%
Mid-Day	\$83,111	2.68%
PM Peak	\$330,897	3.54%
Night	\$18,673	1.08%

MnPASS System Evaluation Summary

System 3

Segment I-35W-4

Segment # 13

Length 5.52 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$2,466,340
2030 Operating Cost	\$248,782
2030 Net Revenue	\$2,217,558
Capital Cost *	\$61,879,102
Annual Debt Service	\$4,652,017
Net Revenue/Debt Service	0.48

Infrastructure/Operational Considerations

Potential access to downtown appears possible in the area of Franklin Ave. and in the reverse direction a "T" Ramp to Washington Ave was looked at for downtown access.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	25.5	19.1	9.9	9.2	15.6	6.5	2.43%
	7:30 AM - 8:30 AM	\$ 0.50	23.3	18.0	10.6	7.4	12.8	5.3	2.41%
	8:30 AM - 9:30 AM	\$ 0.30	10.8	8.4	6.1	2.4	4.8	2.4	3.41%
PM	3:30 PM - 4:30 PM	\$ 0.50	12.8	14.2	12.1	2.1	0.7	-1.4	2.81%
	4:30 PM - 5:30 PM	\$ 0.50	19.0	20.2	12.6	7.6	6.4	-1.2	3.02%
	5:30 PM - 6:00 PM	\$ 0.50	16.4	16.9	9.8	7.1	6.5	-0.6	3.69%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	13.4	17.3	11.0	6.3	2.4	-3.9	4.14%
	7:30 AM - 8:30 AM	\$ 0.50	13.2	14.9	10.1	4.8	3.1	-1.7	3.92%
	8:30 AM - 9:30 AM	\$ 0.30	6.9	7.4	6.0	1.5	0.9	-0.6	3.33%
PM	3:30 PM - 4:30 PM	\$ 0.30	15.8	11.5	7.0	4.5	8.8	4.3	5.79%
	4:30 PM - 5:30 PM	\$ 0.50	22.4	18.5	9.3	9.2	13.1	3.9	4.31%
	5:30 PM - 6:00 PM	\$ 0.50	15.3	13.5	6.6	6.9	8.7	1.7	4.50%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	9,911	6,846	107	6,953	2,958	29.84%
Mid-Day	9:30 AM - 2:30 PM	2,473	2,318	24	2,342	131	5.30%
PM Peak	2:30 PM - 7:00 PM	7,163	7,909	162	8,071	-908	-12.68%
Night	7:00 PM - 6:00 AM	1,229	1,186	0	1,186	43	3.50%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$445,529	2.64%
Mid-Day	\$40,715	1.13%
PM Peak	\$608,458	2.72%
Night	\$639	0.03%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	3,939	5,123	146	5,270	-1,331	-33.78%
Mid-Day	9:30 AM - 2:30 PM	2,210	2,079	34	2,113	96	4.35%
PM Peak	2:30 PM - 7:00 PM	8,385	6,284	175	6,459	1,926	22.97%
Night	7:00 PM - 6:00 AM	1,185	1,127	2	1,129	56	4.71%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$579,389	3.94%
Mid-Day	\$53,493	1.77%
PM Peak	\$735,481	8.78%
Night	\$2,637	0.13%

MnPASS System Evaluation Summary

System 3

Segment I-35W-5

Segment # 14

Length 3.46 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$3,433,263
2030 Operating Cost	\$1,248,397
2030 Net Revenue	\$2,184,866
Capital Cost *	\$41,252,412
Annual Debt Service	\$3,101,320
Net Revenue/Debt Service	0.70

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	6.6	5.0	3.7	1.3	2.9	1.6	9.02%
	7:30 AM - 8:30 AM	\$ 0.30	6.1	5.0	3.6	1.4	2.5	1.1	7.26%
	8:30 AM - 9:30 AM	\$ 0.20	3.7	3.6	3.5	0.1	0.1	0.0	4.59%
PM	3:30 PM - 4:30 PM	\$ 0.40	6.7	7.4	3.9	3.5	2.8	-0.7	11.06%
	4:30 PM - 5:30 PM	\$ 0.40	11.9	13.4	5.2	8.2	6.8	-1.4	12.42%
	5:30 PM - 6:00 PM	\$ 0.30	8.6	8.9	5.6	3.3	3.0	-0.3	15.02%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	9.8	10.5	4.0	6.6	5.9	-0.7	10.87%
	7:30 AM - 8:30 AM	\$ 0.50	9.1	9.9	3.9	6.0	5.2	-0.8	10.49%
	8:30 AM - 9:30 AM	\$ 0.30	4.4	4.7	3.7	1.0	0.7	-0.3	11.03%
PM	3:30 PM - 4:30 PM	\$ 0.30	6.0	5.3	3.6	1.7	2.4	0.7	7.65%
	4:30 PM - 5:30 PM	\$ 0.30	8.1	7.2	3.8	3.5	4.4	0.9	9.72%
	5:30 PM - 6:00 PM	\$ 0.30	7.2	6.8	3.9	2.9	3.4	0.5	11.61%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,954	1,440	82	1,522	432	22.12%
Mid-Day	9:30 AM - 2:30 PM	1,144	1,155	24	1,179	-35	-3.04%
PM Peak	2:30 PM - 7:00 PM	4,256	4,706	327	5,033	-777	-18.25%
Night	7:00 PM - 6:00 AM	684	702	0	702	-19	-2.73%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$291,707	6.59%
Mid-Day	\$37,538	2.05%
PM Peak	\$1,317,800	11.32%
Night	\$626	0.11%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	3,268	3,520	202	3,722	-454	-13.90%
Mid-Day	9:30 AM - 2:30 PM	1,132	1,131	25	1,156	-24	-2.15%
PM Peak	2:30 PM - 7:00 PM	2,876	2,468	140	2,608	267	9.30%
Night	7:00 PM - 6:00 AM	512	520	1	521	-8	-1.65%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,142,537	10.85%
Mid-Day	\$38,762	2.16%
PM Peak	\$602,915	20.14%
Night	\$1,378	0.15%

MnPASS System Evaluation Summary

System 3

Segment I-35W-6

Segment # 15

Length 3.97 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$2,663,730
2030 Operating Cost	\$1,219,837
2030 Net Revenue	\$1,443,892
Capital Cost *	\$23,189,907
Annual Debt Service	\$1,743,397
Net Revenue/Debt Service	0.83

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	4.0	3.9	4.0	-0.1	-0.1	0.0	6.40%
	7:30 AM - 8:30 AM	\$ 0.20	4.2	4.1	4.0	0.1	0.1	0.0	6.18%
	8:30 AM - 9:30 AM	\$ 0.30	3.9	3.9	4.0	-0.1	-0.1	0.0	2.83%
PM	3:30 PM - 4:30 PM	\$ 0.20	8.3	8.9	4.9	4.0	3.5	-0.6	14.53%
	4:30 PM - 5:30 PM	\$ 0.30	15.1	16.4	5.2	11.2	9.9	-1.4	12.49%
	5:30 PM - 6:00 PM	\$ 0.30	11.1	11.7	4.8	6.9	6.2	-0.6	12.97%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	11.7	14.3	4.7	9.6	7.1	-2.5	11.96%
	7:30 AM - 8:30 AM	\$ 0.30	10.3	11.9	4.5	7.4	5.8	-1.7	11.60%
	8:30 AM - 9:30 AM	\$ 0.20	5.5	6.0	4.3	1.7	1.3	-0.5	11.45%
PM	3:30 PM - 4:30 PM	\$ 0.30	4.8	4.6	4.1	0.6	0.7	0.2	7.52%
	4:30 PM - 5:30 PM	\$ 0.30	5.3	5.2	4.1	1.0	1.1	0.1	9.23%
	5:30 PM - 6:00 PM	\$ 0.30	6.1	6.0	4.3	1.7	1.8	0.2	12.11%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	875	831	42	873	2	0.19%
Mid-Day	9:30 AM - 2:30 PM	1,283	1,222	51	1,273	9	0.74%
PM Peak	2:30 PM - 7:00 PM	4,848	5,259	338	5,597	-750	-15.46%
Night	7:00 PM - 6:00 AM	980	956	19	975	5	0.50%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$114,438	4.71%
Mid-Day	\$78,812	4.07%
PM Peak	\$1,017,386	12.26%
Night	\$31,468	4.25%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	3,521	4,255	258	4,513	-991	-28.15%
Mid-Day	9:30 AM - 2:30 PM	1,209	1,175	39	1,214	-5	-0.42%
PM Peak	2:30 PM - 7:00 PM	1,762	1,659	118	1,777	-14	-0.82%
Night	7:00 PM - 6:00 AM	567	566	0	566	1	0.23%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$868,252	12.30%
Mid-Day	\$60,506	3.22%
PM Peak	\$492,470	25.64%
Night	\$398	0.05%

MnPASS System Evaluation Summary

System 3

Segment I-35W-7

Segment # 16

Length 3.10 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$2,126,903
2030 Operating Cost	\$672,313
2030 Net Revenue	\$1,454,590
Capital Cost *	\$13,216,035
Annual Debt Service	\$993,570
Net Revenue/Debt Service	1.46

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	3.2	3.0	3.1	-0.1	0.1	0.2	1.86%
	7:30 AM - 8:30 AM	\$ 0.30	3.5	3.2	3.1	0.1	0.3	0.2	4.17%
	8:30 AM - 9:30 AM	\$ 0.30	3.4	3.3	3.1	0.1	0.3	0.2	4.39%
PM	3:30 PM - 4:30 PM	\$ 0.20	9.3	9.8	3.7	6.1	5.6	-0.5	13.16%
	4:30 PM - 5:30 PM	\$ 0.30	18.7	19.3	3.8	15.6	14.9	-0.6	10.15%
	5:30 PM - 6:00 PM	\$ 0.20	14.0	13.5	6.1	7.4	7.9	0.5	15.95%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	13.4	16.0	3.5	12.6	9.9	-2.7	8.43%
	7:30 AM - 8:30 AM	\$ 0.30	11.0	12.6	3.4	9.2	7.6	-1.6	8.92%
	8:30 AM - 9:30 AM	\$ 0.30	5.5	5.7	3.2	2.4	2.2	-0.2	7.20%
PM	3:30 PM - 4:30 PM	\$ 0.30	4.5	4.0	3.2	0.8	1.3	0.4	5.83%
	4:30 PM - 5:30 PM	\$ 0.30	5.0	4.5	3.2	1.3	1.8	0.5	7.70%
	5:30 PM - 6:00 PM	\$ 0.30	6.0	5.5	3.3	2.1	2.7	0.6	10.55%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	738	673	22	694	43	5.85%
Mid-Day	9:30 AM - 2:30 PM	1,385	1,251	59	1,310	75	5.43%
PM Peak	2:30 PM - 7:00 PM	6,478	6,829	314	7,143	-665	-10.26%
Night	7:00 PM - 6:00 AM	1,093	1,016	38	1,053	39	3.61%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$96,020	3.12%
Mid-Day	\$89,964	5.05%
PM Peak	\$790,865	11.78%
Night	\$62,827	8.28%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	4,612	5,504	176	5,680	-1,068	-23.16%
Mid-Day	9:30 AM - 2:30 PM	1,427	1,230	62	1,292	135	9.43%
PM Peak	2:30 PM - 7:00 PM	1,988	1,687	90	1,777	211	10.60%
Night	7:00 PM - 6:00 AM	679	636	1	637	42	6.21%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$623,565	9.41%
Mid-Day	\$95,763	5.26%
PM Peak	\$366,968	23.27%
Night	\$932	0.11%

MnPASS System Evaluation Summary

System 3

Segment I-94-1

Segment # 17

Length 4.88 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$1,142,715
2030 Operating Cost	\$231,091
2030 Net Revenue	\$911,624
Capital Cost *	\$32,991,897
Annual Debt Service	\$2,480,302
Net Revenue/Debt Service	0.37

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

System Three called for this segment to be a reversible. Recommend if selected that a concurrent concept be used.

Environmental Considerations

None noted.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	4.9	12.5	5.9	6.6	-1.1	-7.7	16.02%
	7:30 AM - 8:30 AM	\$ 0.20	4.9	10.1	5.3	4.8	-0.4	-5.2	12.86%
	8:30 AM - 9:30 AM	\$ 0.20	4.9	5.4	4.9	0.4	0.0	-0.5	4.50%
PM	3:30 PM - 4:30 PM	\$ 0.10	5.9	5.3	N/A	N/A	N/A	0.5	N/A
	4:30 PM - 5:30 PM	\$ 0.10	8.7	6.1	N/A	N/A	N/A	2.7	N/A
	5:30 PM - 6:00 PM	\$ 0.10	7.4	6.5	N/A	N/A	N/A	0.9	N/A

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	6.8	4.6	N/A	N/A	N/A	2.2	N/A
	7:30 AM - 8:30 AM	\$ 0.10	6.1	4.8	N/A	N/A	N/A	1.4	N/A
	8:30 AM - 9:30 AM	\$ 0.10	5.0	4.8	N/A	N/A	N/A	0.2	N/A
PM	3:30 PM - 4:30 PM	\$ 0.20	5.1	8.7	5.2	3.5	0.0	-3.5	10.32%
	4:30 PM - 5:30 PM	\$ 0.20	5.4	15.1	5.9	9.2	-0.5	-9.7	14.81%
	5:30 PM - 6:00 PM	\$ 0.30	5.6	13.0	5.0	8.1	0.6	-7.5	3.43%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	910	2,881	213	3,094	-2,185	-240.15%
Mid-Day	9:30 AM - 2:30 PM	1,113	1,009	0	1,009	104	9.36%
PM Peak	2:30 PM - 7:00 PM	2,516	1,636	N/A	1,636	880	34.99%
Night	7:00 PM - 6:00 AM	845	598	0	598	247	29.22%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,797	816	N/A	816	980	54.56%
Mid-Day	9:30 AM - 2:30 PM	1,104	1,011	0	1,011	93	8.43%
PM Peak	2:30 PM - 7:00 PM	1,657	4,021	198	4,219	-2,561	-154.56%
Night	7:00 PM - 6:00 AM	702	726	0	726	-24	-3.43%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$579,883	10.85%
Mid-Day	\$0	0.00%
PM Peak	N/A	N/A
Night	\$0	0.00%

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$0	0.00%
PM Peak	\$562,832	8.25%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 3

Segment I-94-2

Segment # 18

Length 4.22 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$1,092,926
2030 Operating Cost	\$229,286
2030 Net Revenue	\$863,640
Capital Cost *	\$30,001,695
Annual Debt Service	\$2,255,501
Net Revenue/Debt Service	0.38

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

Potential environmental issues include several lakes and a trail.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	3.7	17.5	4.4	13.1	-0.8	-13.9	6.48%
	7:30 AM - 8:30 AM	\$ 0.20	3.7	12.8	5.2	7.7	-1.4	-9.1	14.15%
	8:30 AM - 9:30 AM	\$ 0.20	3.7	5.4	4.3	1.1	-0.6	-1.7	6.19%
PM	3:30 PM - 4:30 PM	\$ 0.10	6.1	5.0	N/A	N/A	N/A	1.1	N/A
	4:30 PM - 5:30 PM	\$ 0.10	12.3	6.4	N/A	N/A	N/A	5.8	N/A
	5:30 PM - 6:00 PM	\$ 0.10	10.0	7.3	N/A	N/A	N/A	2.7	N/A

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	8.7	4.0	N/A	N/A	N/A	4.7	N/A
	7:30 AM - 8:30 AM	\$ 0.10	7.2	4.2	N/A	N/A	N/A	2.9	N/A
	8:30 AM - 9:30 AM	\$ 0.10	4.1	4.2	N/A	N/A	N/A	-0.1	N/A
PM	3:30 PM - 4:30 PM	\$ 0.20	4.1	10.4	4.7	5.7	-0.6	-6.3	11.54%
	4:30 PM - 5:30 PM	\$ 0.30	4.6	20.2	4.4	15.7	0.1	-15.6	5.79%
	5:30 PM - 6:00 PM	\$ 0.20	5.1	13.7	5.2	8.5	-0.1	-8.6	13.61%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	585	4,577	165	4,742	-4,157	-710.69%
Mid-Day	9:30 AM - 2:30 PM	821	1,120	0	1,120	-299	-36.38%
PM Peak	2:30 PM - 7:00 PM	3,352	1,896	N/A	1,896	1,456	43.44%
Night	7:00 PM - 6:00 AM	610	638	0	638	-28	-4.63%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$515,214	8.17%
Mid-Day	\$39	0.00%
PM Peak	N/A	N/A
Night	\$0	0.00%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	2,087	806	N/A	806	1,281	61.39%
Mid-Day	9:30 AM - 2:30 PM	800	1,157	0	1,157	-356	-44.51%
PM Peak	2:30 PM - 7:00 PM	1,264	6,077	183	6,260	-4,996	-395.40%
Night	7:00 PM - 6:00 AM	448	859	0	859	-411	-91.77%

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$0	0.00%
PM Peak	\$577,673	7.31%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 3

Segment I-94-3

Segment # 19

Length 3.49 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$3,460,284
2030 Operating Cost	\$980,050
2030 Net Revenue	\$2,480,234
Capital Cost *	\$39,342,217
Annual Debt Service	\$2,957,714
Net Revenue/Debt Service	0.84

Infrastructure/Operational Considerations

Because of the tunnel design and the left hand exits to I-35W, it was concluded not to run I-94 through the downtown segment. The section between TH 280 and Dale St is short but could be accomplished.
The significantly complex area of the Capital approach was deleted from consideration. Having an elevated section would be too obtrusive and extremely expensive.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.40	7.9	4.5	3.7	0.9	4.2	3.4	8.36%
	7:30 AM - 8:30 AM	\$ 0.40	7.6	4.5	3.7	0.8	4.0	3.1	7.94%
	8:30 AM - 9:30 AM	\$ 0.50	4.3	3.6	3.5	0.0	0.7	0.7	4.05%
PM	3:30 PM - 4:30 PM	\$ 0.40	7.7	6.1	3.7	2.4	4.0	1.6	8.00%
	4:30 PM - 5:30 PM	\$ 0.40	12.2	10.1	4.1	5.9	8.0	2.1	10.63%
	5:30 PM - 6:00 PM	\$ 0.40	9.3	7.7	4.0	3.6	5.3	1.6	10.99%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.40	10.7	8.3	3.8	4.4	6.9	2.5	8.74%
	7:30 AM - 8:30 AM	\$ 0.30	10.1	7.3	4.2	3.0	5.9	2.9	12.46%
	8:30 AM - 9:30 AM	\$ 0.50	5.0	4.2	3.6	0.6	1.3	0.7	6.92%
PM	3:30 PM - 4:30 PM	\$ 0.50	6.6	4.7	3.6	1.0	3.0	1.9	6.86%
	4:30 PM - 5:30 PM	\$ 0.40	8.9	6.1	3.9	2.2	5.0	2.8	11.26%
	5:30 PM - 6:00 PM	\$ 0.50	7.8	6.1	3.9	2.2	3.9	1.7	10.94%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	No-Build vs. Build (total) VHT	%
AM Peak	6:00 AM - 9:30 AM	2,653	1,351	81	1,432	1,222	46.04%
Mid-Day	9:30 AM - 2:30 PM	1,371	1,341	5	1,346	25	1.83%
PM Peak	2:30 PM - 7:00 PM	4,865	3,750	184	3,934	931	19.14%
Night	7:00 PM - 6:00 AM	751	753	0	753	-2	-0.28%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$502,323	6.33%
Mid-Day	\$19,703	0.38%
PM Peak	\$1,028,373	7.85%
Night	\$0	0.00%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	No-Build vs. Build (total) VHT	%
AM Peak	6:00 AM - 9:30 AM	4,249	2,973	173	3,145	1,104	25.98%
Mid-Day	9:30 AM - 2:30 PM	1,431	1,413	6	1,419	13	0.89%
PM Peak	2:30 PM - 7:00 PM	3,780	2,474	155	2,629	1,151	30.45%
Night	7:00 PM - 6:00 AM	616	631	0	631	-15	-2.43%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$883,946	8.54%
Mid-Day	\$20,113	0.43%
PM Peak	\$1,005,825	15.82%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 3

Segment I-94-4

Segment # 20

Length 5.58 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$3,750,090
2030 Operating Cost	\$788,499
2030 Net Revenue	\$2,961,590
Capital Cost *	\$34,749,231
Annual Debt Service	\$2,612,417
Net Revenue/Debt Service	1.13

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	6.0	5.4	5.6	-0.2	0.4	0.6	1.45%
	7:30 AM - 8:30 AM	\$ 0.40	6.2	5.6	5.6	0.0	0.5	0.5	2.76%
	8:30 AM - 9:30 AM	\$ 0.50	5.5	5.5	5.6	-0.1	-0.1	0.0	1.67%
PM	3:30 PM - 4:30 PM	\$ 0.30	10.7	11.4	6.2	5.2	4.5	-0.7	12.51%
	4:30 PM - 5:30 PM	\$ 0.40	19.1	20.1	7.0	13.0	12.0	-1.0	12.80%
	5:30 PM - 6:00 PM	\$ 0.30	15.2	13.7	8.0	5.7	7.2	1.5	16.37%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	14.0	19.8	6.0	13.7	8.0	-5.7	8.44%
	7:30 AM - 8:30 AM	\$ 0.40	12.1	15.1	6.4	8.7	5.7	-2.9	11.83%
	8:30 AM - 9:30 AM	\$ 0.30	6.9	6.6	5.9	0.8	1.0	0.3	11.02%
PM	3:30 PM - 4:30 PM	\$ 0.30	6.6	6.3	5.7	0.6	0.9	0.3	6.09%
	4:30 PM - 5:30 PM	\$ 0.40	7.5	7.1	5.7	1.4	1.8	0.4	6.03%
	5:30 PM - 6:00 PM	\$ 0.30	8.2	7.7	5.9	1.7	2.2	0.5	11.41%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,142	1,017	18	1,035	108	9.42%
Mid-Day	9:30 AM - 2:30 PM	1,385	1,439	23	1,462	-77	-5.58%
PM Peak	2:30 PM - 7:00 PM	5,508	5,747	374	6,121	-612	-11.12%
Night	7:00 PM - 6:00 AM	960	1,007	0	1,007	-47	-4.94%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$128,522	1.71%
Mid-Day	\$36,154	1.59%
PM Peak	\$1,584,381	11.02%
Night	\$576	0.02%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	3,746	5,291	237	5,528	-1,782	-47.57%
Mid-Day	9:30 AM - 2:30 PM	1,348	1,402	26	1,428	-80	-5.93%
PM Peak	2:30 PM - 7:00 PM	2,168	2,039	111	2,151	17	0.81%
Night	7:00 PM - 6:00 AM	694	724	3	726	-32	-4.67%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,388,496	9.24%
Mid-Day	\$52,143	1.80%
PM Peak	\$542,673	18.93%
Night	\$17,145	0.14%

MnPASS System Evaluation Summary

System 3

Segment I-94-5

Segment # 21

Length 8.92 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$1,936,790
2030 Operating Cost	\$472,048
2030 Net Revenue	\$1,464,741
Capital Cost *	\$36,130,608
Annual Debt Service	\$2,716,268
Net Revenue/Debt Service	0.54

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 3

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	8.8	9.1	8.9	0.1	-0.2	-0.3	0.41%
	7:30 AM - 8:30 AM	\$ 0.30	9.1	9.6	9.0	0.6	0.1	-0.5	1.87%
	8:30 AM - 9:30 AM	\$ 0.40	9.0	9.5	8.9	0.6	0.1	-0.5	0.99%
PM	3:30 PM - 4:30 PM	\$ 0.20	12.4	13.6	9.3	4.3	3.1	-1.2	6.87%
	4:30 PM - 5:30 PM	\$ 0.30	18.1	19.9	9.5	10.4	8.6	-1.8	7.74%
	5:30 PM - 6:00 PM	\$ 0.30	15.0	15.5	9.3	6.3	5.7	-0.5	6.92%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	13.0	15.6	9.3	6.2	3.6	-2.6	7.42%
	7:30 AM - 8:30 AM	\$ 0.30	12.0	14.1	9.2	4.9	2.8	-2.1	6.47%
	8:30 AM - 9:30 AM	\$ 0.20	9.5	10.0	9.1	0.9	0.5	-0.5	5.00%
PM	3:30 PM - 4:30 PM	\$ 0.30	10.7	11.8	9.0	2.9	1.7	-1.1	2.20%
	4:30 PM - 5:30 PM	\$ 0.30	11.7	12.9	9.0	3.9	2.6	-1.3	3.35%
	5:30 PM - 6:00 PM	\$ 0.30	11.9	13.0	9.1	3.9	2.8	-1.0	4.76%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,826	2,122	19	2,141	-316	-17.30%
Mid-Day	9:30 AM - 2:30 PM	2,027	2,366	0	2,367	-340	-16.76%
PM Peak	2:30 PM - 7:00 PM	4,897	5,648	211	5,859	-962	-19.64%
Night	7:00 PM - 6:00 AM	1,135	1,286	0	1,286	-151	-13.33%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	2,851	3,604	155	3,759	-908	-31.86%
Mid-Day	9:30 AM - 2:30 PM	1,981	2,303	0	2,303	-322	-16.26%
PM Peak	2:30 PM - 7:00 PM	3,413	4,060	77	4,137	-724	-21.21%
Night	7:00 PM - 6:00 AM	933	1,062	0	1,062	-130	-13.89%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$106,553	0.93%
Mid-Day	\$1,746	0.02%
PM Peak	\$817,263	5.50%
Night	\$0	0.00%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$652,377	5.62%
Mid-Day	\$887	0.01%
PM Peak	\$357,964	7.06%
Night	\$0	0.00%

System 4

Travel Demand Segment Summaries

MnPASS System Evaluation Summary

System 4

Segment I-494-1

Segment # 1

Length

8.37 miles

HOVs

Pay toll

Financial Evaluation

2030 Revenue	\$2,134,614
2030 Operating Cost	\$451,598
2030 Net Revenue	\$1,683,016
Capital Cost *	\$65,885,608
Annual Debt Service	\$4,953,223
Net Revenue/Debt Service	0.34

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Direct connection to I394 is possible, however the center median on I-394 needs to be wider so the connection can tie into the lanes on I-394.

Environmental Considerations

None noted.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	10.0	10.2	N/A	N/A	N/A	-0.2	N/A
	7:30 AM - 8:30 AM	\$ 0.10	10.4	11.0	N/A	N/A	N/A	-0.6	N/A
	8:30 AM - 9:30 AM	\$ 0.10	7.6	8.2	N/A	N/A	N/A	-0.6	N/A
PM	3:30 PM - 4:30 PM	\$ 0.20	16.4	18.9	8.7	10.2	7.7	-2.5	9.12%
	4:30 PM - 5:30 PM	\$ 0.20	29.1	30.9	12.6	18.3	16.5	-1.8	19.29%
	5:30 PM - 6:00 PM	\$ 0.20	21.8	22.4	10.0	12.4	11.8	-0.6	17.88%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	24.9	32.0	9.2	22.8	15.8	-7.1	10.56%
	7:30 AM - 8:30 AM	\$ 0.30	21.8	27.1	8.8	18.3	13.0	-5.3	8.58%
	8:30 AM - 9:30 AM	\$ 0.20	8.6	9.8	8.6	1.2	0.0	-1.2	8.47%
PM	3:30 PM - 4:30 PM	\$ 0.10	11.0	11.5	N/A	N/A	N/A	-0.5	N/A
	4:30 PM - 5:30 PM	\$ 0.10	13.3	15.5	N/A	N/A	N/A	-2.2	N/A
	5:30 PM - 6:00 PM	\$ 0.10	11.4	13.6	N/A	N/A	N/A	-2.2	N/A

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,723	1,763	N/A	1,763	-40	-2.34%
Mid-Day	9:30 AM - 2:30 PM	1,320	1,413	1	1,414	-93	-7.06%
PM Peak	2:30 PM - 7:00 PM	6,125	6,868	498	7,366	-1,242	-20.27%
Night	7:00 PM - 6:00 AM	823	865	1	867	-44	-5.32%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$2,120	0.05%
PM Peak	\$1,146,538	11.68%
Night	\$3,945	0.27%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	5,036	6,734	238	6,972	-1,936	-38.44%
Mid-Day	9:30 AM - 2:30 PM	1,340	1,434	0	1,434	-93	-6.97%
PM Peak	2:30 PM - 7:00 PM	2,945	3,245	N/A	3,245	-300	-10.18%
Night	7:00 PM - 6:00 AM	633	673	0	673	-40	-6.33%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$981,773	8.44%
Mid-Day	\$239	0.01%
PM Peak	N/A	N/A
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 4

Segment I-694-2

Segment # 6

Length 5.21 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$5,151,110
2030 Operating Cost	\$1,283,802
2030 Net Revenue	\$3,867,308
Capital Cost *	\$123,329,581
Annual Debt Service	\$9,271,810
Net Revenue/Debt Service	0.42

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Used a flyover in the area of TH 10 and Snelling. This cost may not be needed if Mn/DOT reconstructs the interchange. The project is under study.

Environmental Considerations

Potential environmental issues include Island Lake Park.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	12.7	14.5	5.7	8.8	7.0	-1.9	9.24%
	7:30 AM - 8:30 AM	\$ 0.40	11.6	13.0	5.9	7.2	5.7	-1.4	10.93%
	8:30 AM - 9:30 AM	\$ 0.20	5.6	5.6	5.6	0.0	0.0	0.1	14.29%
PM	3:30 PM - 4:30 PM	\$ 0.20	8.9	7.8	6.4	1.4	2.4	1.1	15.85%
	4:30 PM - 5:30 PM	\$ 0.30	13.5	11.8	7.4	4.4	6.0	1.6	15.00%
	5:30 PM - 6:00 PM	\$ 0.30	10.8	9.3	7.0	2.4	3.9	1.5	15.71%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	12.2	10.6	6.1	4.5	6.1	1.6	12.75%
	7:30 AM - 8:30 AM	\$ 0.30	11.6	9.7	5.9	3.8	5.8	2.0	11.98%
	8:30 AM - 9:30 AM	\$ 0.40	5.6	5.6	5.3	0.2	0.2	0.0	6.33%
PM	3:30 PM - 4:30 PM	\$ 0.30	9.3	9.2	5.9	3.3	3.5	0.1	12.52%
	4:30 PM - 5:30 PM	\$ 0.50	12.3	13.7	6.0	7.7	6.3	-1.4	11.31%
	5:30 PM - 6:00 PM	\$ 0.50	9.5	9.8	5.9	3.9	3.6	-0.3	12.16%

Vehicle Hours Evaluation

EastBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	3,561	4,075	240	4,316	-754	-21.19%
Mid-Day	9:30 AM - 2:30 PM	1,277	1,261	20	1,281	-4	-0.35%
PM Peak	2:30 PM - 7:00 PM	4,162	3,496	416	3,912	250	6.01%
Night	7:00 PM - 6:00 AM	635	633	0	633	1	0.18%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,271,930	10.37%
Mid-Day	\$30,725	1.46%
PM Peak	\$1,264,572	13.07%
Night	\$0	0.00%

WestBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	3,443	2,802	214	3,016	427	12.41%
Mid-Day	9:30 AM - 2:30 PM	1,249	1,235	19	1,254	-5	-0.37%
PM Peak	2:30 PM - 7:00 PM	3,953	4,105	332	4,437	-485	-12.26%
Night	7:00 PM - 6:00 AM	633	634	2	635	-2	-0.26%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$926,292	9.99%
Mid-Day	\$30,175	1.46%
PM Peak	\$1,625,013	19.68%
Night	\$2,404	0.23%

MnPASS System Evaluation Summary

System 4

Segment I-35W-1

Segment # 8

Length 1.75 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$209,642
2030 Operating Cost	\$894,793
2030 Net Revenue	-\$685,151
Capital Cost *	\$16,164,150
Annual Debt Service	\$1,215,207
Net Revenue/Debt Service	-0.56

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Assumed using the HOV lane and that the project at the TH 62 Crosstown interchange with 35W has been completed.

Environmental Considerations

None noted.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	10.4	6.5	2.3	4.2	8.0	3.8	0.37%
	7:30 AM - 8:30 AM	\$ 0.20	8.5	4.9	2.7	2.2	5.8	3.6	1.54%
	8:30 AM - 9:30 AM	\$ 0.20	2.8	2.1	1.8	0.3	1.0	0.7	1.53%
PM	3:30 PM - 4:30 PM	\$ 0.20	2.0	2.1	2.2	-0.1	-0.2	-0.1	1.67%
	4:30 PM - 5:30 PM	\$ 0.20	2.3	2.2	2.2	0.0	0.1	0.1	2.77%
	5:30 PM - 6:00 PM	\$ 0.30	2.5	2.1	2.1	0.0	0.4	0.4	3.32%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	1.7	2.3	2.6	-0.3	-1.0	-0.6	0.26%
	7:30 AM - 8:30 AM	\$ 0.50	1.8	2.4	2.4	0.0	-0.6	-0.6	0.30%
	8:30 AM - 9:30 AM	\$ 0.30	1.7	1.9	1.9	0.0	-0.1	-0.1	1.16%
PM	3:30 PM - 4:30 PM	\$ 0.30	6.2	3.8	2.0	1.8	4.1	2.4	2.12%
	4:30 PM - 5:30 PM	\$ 0.30	11.4	8.1	2.6	5.4	8.7	3.3	3.10%
	5:30 PM - 6:00 PM	\$ 0.30	8.4	6.0	2.0	4.0	6.4	2.4	5.25%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	% Savings
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	2,785	1,407	148	1,555	1,230	44.18%
Mid-Day	9:30 AM - 2:30 PM	447	406	15	420	27	6.06%
PM Peak	2:30 PM - 7:00 PM	564	537	153	689	-125	-22.17%
Night	7:00 PM - 6:00 AM	229	209	0	209	19	8.50%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	% Savings
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	246	411	138	549	-303	-123.53%
Mid-Day	9:30 AM - 2:30 PM	470	419	18	437	33	7.10%
PM Peak	2:30 PM - 7:00 PM	3,095	1,825	156	1,981	1,114	36.00%
Night	7:00 PM - 6:00 AM	633	346	5	351	282	44.59%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$35,241	16.67%
Mid-Day	\$9,322	3.51%
PM Peak	\$40,348	21.66%
Night	\$0	0.00%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$12,421	23.17%
Mid-Day	\$12,044	4.33%
PM Peak	\$96,974	31.44%
Night	\$3,292	1.44%

MnPASS System Evaluation Summary

System 4

Segment I-35W-2

Segment # 9

Length 6.06 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$880,302
2030 Operating Cost	\$2,107,483
2030 Net Revenue	-\$1,227,181
Capital Cost *	\$1,612,800
Annual Debt Service	\$121,249
Net Revenue/Debt Service	-10.12

Infrastructure/Operational Considerations

Assumed using the HOV lane and that the project at the TH 62 Crosstown interchange with 35W has been completed.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	31.6	30.1	12.0	18.1	19.7	1.6	0.31%
	7:30 AM - 8:30 AM	\$ 0.50	26.2	24.2	13.7	10.5	12.4	2.0	0.29%
	8:30 AM - 9:30 AM	\$ 0.20	8.5	8.1	6.4	1.6	2.1	0.5	1.55%
PM	3:30 PM - 4:30 PM	\$ 0.40	7.4	9.7	9.4	0.3	-2.0	-2.3	0.69%
	4:30 PM - 5:30 PM	\$ 0.30	9.4	11.4	10.1	1.4	-0.6	-2.0	1.79%
	5:30 PM - 6:00 PM	\$ 0.30	10.1	10.1	8.6	1.5	1.5	0.0	2.81%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	6.6	11.3	12.7	-1.4	-6.1	-4.7	0.29%
	7:30 AM - 8:30 AM	\$ 0.50	7.0	11.0	13.7	-2.7	-6.8	-4.1	0.33%
	8:30 AM - 9:30 AM	\$ 0.30	5.8	6.6	6.7	-0.1	-0.9	-0.9	1.21%
PM	3:30 PM - 4:30 PM	\$ 0.30	18.0	16.9	7.9	9.1	10.1	1.0	1.94%
	4:30 PM - 5:30 PM	\$ 0.50	33.0	32.8	10.3	22.5	22.7	0.2	1.31%
	5:30 PM - 6:00 PM	\$ 0.30	23.3	23.7	7.5	16.2	15.7	-0.4	4.72%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	10,429	9,396	816	10,212	218	2.09%
Mid-Day	9:30 AM - 2:30 PM	1,814	1,817	53	1,870	-56	-3.11%
PM Peak	2:30 PM - 7:00 PM	2,963	3,734	769	4,502	-1,539	-51.95%
Night	7:00 PM - 6:00 AM	846	865	0	865	-19	-2.22%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$129,883	13.76%
Mid-Day	\$34,249	2.88%
PM Peak	\$188,303	17.58%
Night	\$0	0.00%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	1,470	2,874	847	3,721	-2,251	-153.20%
Mid-Day	9:30 AM - 2:30 PM	1,963	1,948	72	2,019	-56	-2.86%
PM Peak	2:30 PM - 7:00 PM	11,590	10,892	692	11,584	6	0.05%
Night	7:00 PM - 6:00 AM	633	1,474	18	1,492	-859	-135.53%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$68,291	19.33%
Mid-Day	\$48,278	3.70%
PM Peak	\$399,752	26.49%
Night	\$11,547	1.15%

MnPASS System Evaluation Summary

System 4

Segment I-35W-3

Segment # 10

Length 4.55 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$799,392
2030 Operating Cost	\$3,382,452
2030 Net Revenue	-\$2,583,060
Capital Cost *	\$2,419,200
Annual Debt Service	\$181,873
Net Revenue/Debt Service	-14.20

Infrastructure/Operational Considerations

Assumed using the HOV lane and that the project at the TH 62 Crosstown interchange with 35W has been completed.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 3

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	19.4	10.1	7.9	2.1	11.4	9.3	0.46%
	7:30 AM - 8:30 AM	\$ 0.50	16.4	9.5	8.8	0.7	7.6	6.9	0.38%
	8:30 AM - 9:30 AM	\$ 0.30	7.5	5.2	4.9	0.3	2.5	2.3	1.53%
PM	3:30 PM - 4:30 PM	\$ 0.50	10.7	8.6	8.9	-0.2	1.8	2.1	0.75%
	4:30 PM - 5:30 PM	\$ 0.50	16.1	12.0	15.5	-3.5	0.6	4.0	1.21%
	5:30 PM - 6:00 PM	\$ 0.50	12.8	9.7	9.3	0.4	3.6	3.2	2.15%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	16.6	13.0	12.9	0.1	3.7	3.6	0.48%
	7:30 AM - 8:30 AM	\$ 0.50	14.9	10.9	23.9	-12.9	-8.9	4.0	0.62%
	8:30 AM - 9:30 AM	\$ 0.50	7.2	5.4	5.5	-0.1	1.7	1.8	1.33%
PM	3:30 PM - 4:30 PM	\$ 0.50	13.0	7.9	6.9	1.0	6.0	5.1	1.47%
	4:30 PM - 5:30 PM	\$ 0.50	20.0	13.0	9.5	3.6	10.6	7.0	2.04%
	5:30 PM - 6:00 PM	\$ 0.50	13.5	9.7	6.3	3.4	7.2	3.8	4.27%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	6,212	3,024	529	3,553	2,658	42.80%
Mid-Day	9:30 AM - 2:30 PM	1,984	1,460	12	1,472	512	25.81%
PM Peak	2:30 PM - 7:00 PM	5,493	4,100	1,060	5,160	334	6.07%
Night	7:00 PM - 6:00 AM	1,029	726	0	726	303	29.46%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$81,907	15.47%
Mid-Day	\$8,118	0.82%
PM Peak	\$200,626	17.64%
Night	\$0	0.00%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	4,596	3,723	1,435	5,158	-562	-12.23%
Mid-Day	9:30 AM - 2:30 PM	2,096	1,655	25	1,680	416	19.86%
PM Peak	2:30 PM - 7:00 PM	6,489	4,217	663	4,880	1,609	24.80%
Night	7:00 PM - 6:00 AM	633	847	1	848	-215	-33.92%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$114,027	19.11%
Mid-Day	\$18,389	1.53%
PM Peak	\$375,445	32.56%
Night	\$881	0.15%

MnPASS System Evaluation Summary

System 4

Segment I-394-2

Segment # 11

Length 2.50 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$332,377
2030 Operating Cost	\$0
2030 Net Revenue	\$332,377
Capital Cost *	\$0
Annual Debt Service	\$0
Net Revenue/Debt Service	#DIV/0!

Infrastructure/Operational Considerations

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Environmental Considerations

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* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 0

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	13.1	17.2	15.0	2.2	-1.9	-4.1	0.03%
	7:30 AM - 8:30 AM	\$ 0.50	11.0	15.2	10.0	5.2	0.9	-4.2	0.03%
	8:30 AM - 9:30 AM	\$ 0.40	5.1	6.4	3.4	3.0	1.8	-1.3	0.13%
PM	3:30 PM - 4:30 PM	\$ 0.10	9.9	12.1	N/A	N/A	N/A	-2.2	N/A
	4:30 PM - 5:30 PM	\$ 0.10	13.7	16.3	N/A	N/A	N/A	-2.6	N/A
	5:30 PM - 6:00 PM	\$ 0.10	11.3	12.4	N/A	N/A	N/A	-1.1	N/A

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	8.9	11.0	N/A	N/A	N/A	-2.1	N/A
	7:30 AM - 8:30 AM	\$ 0.10	7.5	9.7	N/A	N/A	N/A	-2.3	N/A
	8:30 AM - 9:30 AM	\$ 0.10	3.2	4.3	N/A	N/A	N/A	-1.1	N/A
PM	3:30 PM - 4:30 PM	\$ 0.50	5.3	7.1	7.3	-0.2	-2.0	-1.9	0.02%
	4:30 PM - 5:30 PM	\$ 0.50	8.1	9.5	9.4	0.1	-1.4	-1.5	0.12%
	5:30 PM - 6:00 PM	\$ 0.50	4.3	4.6	5.2	-0.5	-0.8	-0.3	0.43%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	3,662	5,117	1,746	6,864	-3,202	-87.42%
Mid-Day	9:30 AM - 2:30 PM	1,103	866	79	945	158	14.33%
PM Peak	2:30 PM - 7:00 PM	4,576	5,533	N/A	5,533	-957	-20.92%
Night	7:00 PM - 6:00 AM	436	422	2	423	12	2.78%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	2,366	3,356	N/A	3,356	-990	-41.86%
Mid-Day	9:30 AM - 2:30 PM	768	791	22	813	-44	-5.79%
PM Peak	2:30 PM - 7:00 PM	2,457	3,060	1,356	4,415	-1,958	-79.68%
Night	7:00 PM - 6:00 AM	633	486	48	535	99	15.60%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$100,578	30.43%
Mid-Day	\$80,691	10.61%
PM Peak	N/A	N/A
Night	\$7,354	0.68%

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$23,433	2.77%
PM Peak	\$85,748	31.45%
Night	\$34,573	8.60%

MnPASS System Evaluation Summary

System 4

Segment I-394-1

Segment # 12

Length 6.07 miles HOVs Do NOT pay toll

Financial Evaluation

2030 Revenue	\$467,073
2030 Operating Cost	\$0
2030 Net Revenue	\$467,073
Capital Cost *	\$0
Annual Debt Service	\$0
Net Revenue/Debt Service	#DIV/0!

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

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Environmental Considerations

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Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 0

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		Build Free vs. MnPASS	No-Build vs. MnPASS	No-Build vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	16.6	18.0	37.8	-19.8	-21.2	-1.4	0.13%
	7:30 AM - 8:30 AM	\$ 0.50	15.6	15.0	25.5	-10.5	-9.9	0.6	0.08%
	8:30 AM - 9:30 AM	\$ 0.50	7.6	7.3	11.9	-4.6	-4.3	0.3	0.02%
PM	3:30 PM - 4:30 PM	\$ 0.50	9.5	7.9	8.1	-0.2	1.4	1.6	0.03%
	4:30 PM - 5:30 PM	\$ 0.50	13.7	10.3	11.0	-0.7	2.8	3.5	0.10%
	5:30 PM - 6:00 PM	\$ 0.50	11.5	9.1	7.8	1.2	3.6	2.4	0.21%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	18.4	12.6	14.6	-2.0	3.7	5.7	0.01%
	7:30 AM - 8:30 AM	\$ 0.50	16.1	12.3	15.3	-3.1	0.7	3.8	0.02%
	8:30 AM - 9:30 AM	\$ 0.20	8.5	7.2	6.6	0.5	1.9	1.4	0.10%
PM	3:30 PM - 4:30 PM	\$ 0.50	16.1	17.9	20.4	-2.5	-4.3	-1.8	0.20%
	4:30 PM - 5:30 PM	\$ 0.50	26.9	28.4	32.9	-4.5	-6.0	-1.5	0.76%
	5:30 PM - 6:00 PM	\$ 0.50	18.2	18.4	15.4	3.0	2.8	-0.2	1.07%

Vehicle Hours Evaluation

EastBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	5,316	5,871	3,042	8,913	-3,598	-67.68%
Mid-Day	9:30 AM - 2:30 PM	1,735	1,662	70	1,732	3	0.18%
PM Peak	2:30 PM - 7:00 PM	4,429	3,513	725	4,238	191	4.30%
Night	7:00 PM - 6:00 AM	926	928	5	933	-6	-0.70%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$92,785	20.81%
Mid-Day	\$53,913	3.77%
PM Peak	\$22,593	16.09%
Night	\$1,303	0.83%

WestBound

Period	Time	VHT				Savings	
		No-Build	Build			No-Build vs. Build (total)	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	3,423	2,101	936	3,037	386	11.27%
Mid-Day	9:30 AM - 2:30 PM	1,626	1,310	62	1,372	254	15.64%
PM Peak	2:30 PM - 7:00 PM	6,311	6,390	2,449	8,839	-2,527	-40.04%
Night	7:00 PM - 6:00 AM	633	896	9	905	-272	-42.92%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$2,522	26.09%
Mid-Day	\$77,099	4.86%
PM Peak	\$200,403	42.91%
Night	\$16,455	1.01%

MnPASS System Evaluation Summary

System 4

Segment I-35W-7

Segment # 16

Length 3.50 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$4,416,710
2030 Operating Cost	\$729,650
2030 Net Revenue	\$3,687,059
Capital Cost *	\$37,355,126
Annual Debt Service	\$2,808,326
Net Revenue/Debt Service	1.31

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	3.2	3.4	3.5	-0.1	-0.3	-0.1	2.71%
	7:30 AM - 8:30 AM	\$ 0.50	3.5	3.7	3.5	0.1	-0.1	-0.2	2.04%
	8:30 AM - 9:30 AM	\$ 0.20	3.4	3.6	3.5	0.1	-0.1	-0.1	1.82%
PM	3:30 PM - 4:30 PM	\$ 0.40	9.3	9.5	4.8	4.8	4.5	-0.3	15.53%
	4:30 PM - 5:30 PM	\$ 0.50	18.7	18.9	8.4	10.5	10.3	-0.2	14.86%
	5:30 PM - 6:00 PM	\$ 0.50	14.0	13.8	6.0	7.9	8.1	0.2	15.13%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	13.4	16.9	6.5	10.4	6.9	-3.6	14.45%
	7:30 AM - 8:30 AM	\$ 0.50	11.0	13.8	4.8	8.9	6.2	-2.8	13.70%
	8:30 AM - 9:30 AM	\$ 0.30	5.5	5.4	4.4	1.0	1.1	0.1	17.69%
PM	3:30 PM - 4:30 PM	\$ 0.50	4.5	4.5	3.6	1.0	0.9	-0.1	4.78%
	4:30 PM - 5:30 PM	\$ 0.40	5.0	5.1	3.6	1.5	1.4	-0.1	7.49%
	5:30 PM - 6:00 PM	\$ 0.40	6.0	6.0	3.7	2.2	2.3	0.1	10.37%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	738	704	14	718	20	2.69%
Mid-Day	9:30 AM - 2:30 PM	1,385	1,215	25	1,240	146	10.52%
PM Peak	2:30 PM - 7:00 PM	6,478	6,138	538	6,676	-198	-3.05%
Night	7:00 PM - 6:00 AM	1,093	929	40	970	123	11.23%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$65,282	1.91%
Mid-Day	\$38,482	2.18%
PM Peak	\$1,952,840	15.01%
Night	\$62,619	9.46%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	4,612	5,359	418	5,777	-1,165	-25.25%
Mid-Day	9:30 AM - 2:30 PM	1,427	1,229	30	1,260	167	11.71%
PM Peak	2:30 PM - 7:00 PM	1,988	1,756	79	1,835	153	7.70%
Night	7:00 PM - 6:00 AM	633	571	17	588	45	7.12%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,726,975	15.28%
Mid-Day	\$49,498	2.60%
PM Peak	\$494,499	29.40%
Night	\$26,514	0.60%

MnPASS System Evaluation Summary

System 4

Segment I-94-1

Segment # 17

Length 4.89 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$896,375
2030 Operating Cost	\$183,295
2030 Net Revenue	\$713,080
Capital Cost *	\$32,991,897
Annual Debt Service	\$2,480,302
Net Revenue/Debt Service	0.29

Infrastructure/Operational Considerations

System Four called for this segment to be a reversible. Recommend if selected that a concurrent concept be used.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	4.9	10.6	5.6	5.0	-0.7	-5.7	13.37%
	7:30 AM - 8:30 AM	\$ 0.20	4.9	8.9	5.3	3.6	-0.4	-4.0	11.75%
	8:30 AM - 9:30 AM	\$ 0.20	4.9	5.5	4.9	0.6	0.0	-0.6	1.71%
PM	3:30 PM - 4:30 PM	\$ 0.10	5.9	5.9	N/A	N/A	N/A	0.0	N/A
	4:30 PM - 5:30 PM	\$ 0.10	8.7	7.0	N/A	N/A	N/A	1.7	N/A
	5:30 PM - 6:00 PM	\$ 0.10	7.4	7.4	N/A	N/A	N/A	0.0	N/A

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	6.8	4.8	N/A	N/A	N/A	2.0	N/A
	7:30 AM - 8:30 AM	\$ 0.10	6.1	5.1	N/A	N/A	N/A	1.1	N/A
	8:30 AM - 9:30 AM	\$ 0.10	5.0	5.1	N/A	N/A	N/A	-0.1	N/A
PM	3:30 PM - 4:30 PM	\$ 0.20	5.1	8.2	5.0	3.2	0.1	-3.1	6.36%
	4:30 PM - 5:30 PM	\$ 0.20	5.4	13.9	5.8	8.1	-0.4	-8.5	12.91%
	5:30 PM - 6:00 PM	\$ 0.20	5.6	10.6	5.3	5.3	0.2	-5.1	11.11%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	910	2,435	156	2,591	-1,681	-184.82%
Mid-Day	9:30 AM - 2:30 PM	1,113	1,107	0	1,107	6	0.58%
PM Peak	2:30 PM - 7:00 PM	2,516	1,994	N/A	1,994	523	20.77%
Night	7:00 PM - 6:00 AM	845	588	0	588	257	30.41%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$440,459	8.77%
Mid-Day	\$0	0.00%
PM Peak	N/A	N/A
Night	\$0	0.00%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,797	992	N/A	992	805	44.80%
Mid-Day	9:30 AM - 2:30 PM	1,104	1,110	0	1,110	-6	-0.52%
PM Peak	2:30 PM - 7:00 PM	1,657	3,617	164	3,780	-2,123	-128.11%
Night	7:00 PM - 6:00 AM	633	662	0	662	-28	-4.50%

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$0	0.00%
PM Peak	\$455,915	7.08%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 4

Segment I-94-2

Segment # 18

Length 3.68 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$931,087
2030 Operating Cost	\$0
2030 Net Revenue	\$931,087
Capital Cost *	\$29,195,295
Annual Debt Service	\$2,194,877
Net Revenue/Debt Service	0.42

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

Potential environmental issues include several lakes and a trail.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 0

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	3.7	11.8	3.9	7.9	-0.2	-8.1	7.49%
	7:30 AM - 8:30 AM	\$ 0.20	3.7	8.8	4.2	4.6	-0.4	-5.0	12.57%
	8:30 AM - 9:30 AM	\$ 0.20	3.7	4.8	3.7	1.1	0.0	-1.1	3.76%
PM	3:30 PM - 4:30 PM	\$ 0.10	6.1	4.2	N/A	N/A	N/A	1.9	N/A
	4:30 PM - 5:30 PM	\$ 0.10	12.3	5.1	N/A	N/A	N/A	7.2	N/A
	5:30 PM - 6:00 PM	\$ 0.10	10.0	5.8	N/A	N/A	N/A	4.2	N/A

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	8.7	3.4	N/A	N/A	N/A	5.4	N/A
	7:30 AM - 8:30 AM	\$ 0.10	7.2	3.5	N/A	N/A	N/A	3.6	N/A
	8:30 AM - 9:30 AM	\$ 0.10	4.1	3.7	N/A	N/A	N/A	0.5	N/A
PM	3:30 PM - 4:30 PM	\$ 0.20	4.1	7.5	3.8	3.7	0.3	-3.4	6.27%
	4:30 PM - 5:30 PM	\$ 0.20	4.6	13.1	5.3	7.8	-0.8	-8.6	14.33%
	5:30 PM - 6:00 PM	\$ 0.20	5.1	10.3	4.3	6.0	0.8	-5.2	12.43%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	585	3,343	128	3,471	-2,886	-493.39%
Mid-Day	9:30 AM - 2:30 PM	821	1,099	0	1,099	-278	-33.81%
PM Peak	2:30 PM - 7:00 PM	3,352	1,721	N/A	1,721	1,631	48.66%
Night	7:00 PM - 6:00 AM	610	606	0	606	4	0.65%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$431,733	7.30%
Mid-Day	\$0	0.00%
PM Peak	N/A	N/A
Night	\$0	0.00%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	2,087	710	N/A	710	1,378	66.01%
Mid-Day	9:30 AM - 2:30 PM	800	1,118	0	1,118	-317	-39.64%
PM Peak	2:30 PM - 7:00 PM	1,264	4,480	212	4,691	-3,428	-271.30%
Night	7:00 PM - 6:00 AM	633	869	0	869	-236	-37.21%

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$0	0.00%
PM Peak	\$499,314	7.88%
Night	\$40	0.00%

MnPASS System Evaluation Summary

System 4

Segment 10-1

Segment # 22

Length 7.54 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$4,088,128
2030 Operating Cost	\$732,906
2030 Net Revenue	\$3,355,222
Capital Cost *	\$96,110,264
Annual Debt Service	\$7,225,486
Net Revenue/Debt Service	0.46

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	28.5	38.0	7.9	30.1	20.6	-9.5	7.81%
	7:30 AM - 8:30 AM	\$ 0.40	24.2	29.4	8.8	20.6	15.4	-5.2	13.41%
	8:30 AM - 9:30 AM	\$ 0.30	11.1	11.2	8.2	3.0	2.9	-0.1	15.24%
PM	3:30 PM - 4:30 PM	\$ 0.10	10.0	10.5	N/A	N/A	N/A	-0.6	N/A
	4:30 PM - 5:30 PM	\$ 0.10	13.1	15.2	N/A	N/A	N/A	-2.1	N/A
	5:30 PM - 6:00 PM	\$ 0.10	14.6	17.0	N/A	N/A	N/A	-2.4	N/A

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	8.2	8.4	N/A	N/A	N/A	-0.2	N/A
	7:30 AM - 8:30 AM	\$ 0.10	8.8	9.1	N/A	N/A	N/A	-0.3	N/A
	8:30 AM - 9:30 AM	\$ 0.10	8.2	8.3	N/A	N/A	N/A	-0.1	N/A
PM	3:30 PM - 4:30 PM	\$ 0.30	20.9	21.5	9.6	11.9	11.3	-0.6	16.41%
	4:30 PM - 5:30 PM	\$ 0.40	40.9	41.6	9.7	31.8	31.2	-0.6	12.85%
	5:30 PM - 6:00 PM	\$ 0.40	34.9	35.7	8.7	27.0	26.1	-0.8	11.98%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	5,648	7,729	330	8,059	-2,411	-42.68%
Mid-Day	9:30 AM - 2:30 PM	1,901	1,824	51	1,875	26	1.37%
PM Peak	2:30 PM - 7:00 PM	2,945	3,410	N/A	3,410	-465	-15.80%
Night	7:00 PM - 6:00 AM	880	875	5	879	0	0.05%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,281	1,379	N/A	1,379	-98	-7.65%
Mid-Day	9:30 AM - 2:30 PM	1,901	1,847	21	1,868	33	1.73%
PM Peak	2:30 PM - 7:00 PM	9,423	9,559	576	10,136	-712	-7.56%
Night	7:00 PM - 6:00 AM	633	1,373	29	1,402	-769	-121.32%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,720,478	11.85%
Mid-Day	\$114,894	2.93%
PM Peak	N/A	N/A
Night	\$7,090	0.78%

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$31,828	1.21%
PM Peak	\$2,117,857	15.42%
Night	\$95,982	2.12%

MnPASS System Evaluation Summary

System 4

Segment 10-2

Segment # 23

Length 1.89 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$445,784
2030 Operating Cost	\$0
2030 Net Revenue	\$445,784
Capital Cost *	\$8,175,132
Annual Debt Service	\$614,599
Net Revenue/Debt Service	0.73

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 0

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	2.8	4.9	1.9	2.9	0.9	-2.0	7.13%
	7:30 AM - 8:30 AM	\$ 0.50	2.8	4.1	1.9	2.2	0.9	-1.3	6.61%
	8:30 AM - 9:30 AM	\$ 0.20	1.9	1.8	1.9	-0.1	0.0	0.1	13.31%
PM	3:30 PM - 4:30 PM	\$ 0.10	2.3	2.3	N/A	N/A	N/A	0.0	N/A
	4:30 PM - 5:30 PM	\$ 0.10	3.1	3.1	N/A	N/A	N/A	0.0	N/A
	5:30 PM - 6:00 PM	\$ 0.10	2.8	2.8	N/A	N/A	N/A	0.0	N/A

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	2.4	2.4	N/A	N/A	N/A	0.0	N/A
	7:30 AM - 8:30 AM	\$ 0.10	2.3	2.5	N/A	N/A	N/A	-0.2	N/A
	8:30 AM - 9:30 AM	\$ 0.10	1.8	1.8	N/A	N/A	N/A	0.0	N/A
PM	3:30 PM - 4:30 PM	\$ 0.40	2.5	3.0	1.9	1.1	0.6	-0.5	5.28%
	4:30 PM - 5:30 PM	\$ 0.50	4.1	5.6	1.9	3.7	2.2	-1.5	6.75%
	5:30 PM - 6:00 PM	\$ 0.50	3.5	4.1	1.9	2.2	1.6	-0.6	6.21%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	457	793	40	833	-376	-82.39%
Mid-Day	9:30 AM - 2:30 PM	247	219	5	224	24	9.54%
PM Peak	2:30 PM - 7:00 PM	548	557	N/A	557	-10	-1.77%
Night	7:00 PM - 6:00 AM	134	99	3	102	33	24.20%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	347	373	N/A	373	-27	-7.67%
Mid-Day	9:30 AM - 2:30 PM	243	231	2	233	10	4.31%
PM Peak	2:30 PM - 7:00 PM	724	992	41	1,033	-308	-42.54%
Night	7:00 PM - 6:00 AM	633	125	5	130	504	79.53%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$212,505	8.98%
Mid-Day	\$7,509	1.94%
PM Peak	N/A	N/A
Night	\$4,160	3.80%

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$2,710	0.68%
PM Peak	\$211,734	7.51%
Night	\$7,167	3.29%

MnPASS System Evaluation Summary

System 4

Segment 10-3

Segment # 24

Length 2.46 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$2,004,184
2030 Operating Cost	\$599,184
2030 Net Revenue	\$1,405,000
Capital Cost *	\$26,642,318
Annual Debt Service	\$2,002,946
Net Revenue/Debt Service	0.70

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	5.5	7.8	2.9	4.9	2.6	-2.3	17.06%
	7:30 AM - 8:30 AM	\$ 0.40	4.8	6.8	2.9	3.8	1.9	-2.0	18.68%
	8:30 AM - 9:30 AM	\$ 0.20	2.9	2.7	3.1	-0.4	-0.2	0.2	29.90%
PM	3:30 PM - 4:30 PM	\$ 0.10	3.2	3.1	N/A	N/A	N/A	0.0	N/A
	4:30 PM - 5:30 PM	\$ 0.10	4.0	4.2	N/A	N/A	N/A	-0.2	N/A
	5:30 PM - 6:00 PM	\$ 0.10	3.7	3.9	N/A	N/A	N/A	-0.2	N/A

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	3.3	3.2	N/A	N/A	N/A	0.1	N/A
	7:30 AM - 8:30 AM	\$ 0.10	3.3	3.3	N/A	N/A	N/A	0.0	N/A
	8:30 AM - 9:30 AM	\$ 0.10	2.6	2.5	N/A	N/A	N/A	0.1	N/A
PM	3:30 PM - 4:30 PM	\$ 0.30	3.9	4.3	3.2	1.2	0.7	-0.5	24.59%
	4:30 PM - 5:30 PM	\$ 0.40	7.1	8.0	4.6	3.4	2.6	-0.8	24.19%
	5:30 PM - 6:00 PM	\$ 0.40	6.1	5.6	3.1	2.5	2.9	0.4	22.30%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	1,013	1,446	208	1,654	-641	-63.24%
Mid-Day	9:30 AM - 2:30 PM	503	394	18	413	90	17.91%
PM Peak	2:30 PM - 7:00 PM	811	800	N/A	800	11	1.36%
Night	7:00 PM - 6:00 AM	276	188	13	201	75	27.09%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$852,552	22.17%
Mid-Day	\$28,553	4.21%
PM Peak	N/A	N/A
Night	\$19,516	9.30%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	533	501	N/A	501	32	5.95%
Mid-Day	9:30 AM - 2:30 PM	517	407	7	414	103	19.97%
PM Peak	2:30 PM - 7:00 PM	1,376	1,457	327	1,784	-408	-29.64%
Night	7:00 PM - 6:00 AM	633	246	29	275	359	56.64%

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$10,140	1.52%
PM Peak	\$1,048,794	25.33%
Night	\$44,628	9.90%

MnPASS System Evaluation Summary

System 4

Segment 169

Segment # 25

Length 4.62 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$1,839,533
2030 Operating Cost	\$418,727
2030 Net Revenue	\$1,420,807
Capital Cost *	\$54,223,200
Annual Debt Service	\$4,076,453
Net Revenue/Debt Service	0.35

Infrastructure/Operational Considerations

This cost includes adding lanes to over a mile of bridge.

Environmental Considerations

Potential environmental issues include the Minnesota River Valley.
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* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	51.5	32.8	4.6	28.2	46.9	18.7	0.36%
	7:30 AM - 8:30 AM	\$ 0.40	42.6	26.5	4.6	21.9	38.0	16.1	0.62%
	8:30 AM - 9:30 AM	\$ 0.40	12.2	8.5	4.6	3.9	7.7	3.8	1.13%
PM	3:30 PM - 4:30 PM	\$ 0.40	7.5	7.8	4.6	3.2	2.8	-0.3	4.86%
	4:30 PM - 5:30 PM	\$ 0.40	10.1	9.5	4.6	4.9	5.5	0.6	6.07%
	5:30 PM - 6:00 PM	\$ 0.40	12.8	10.4	4.6	5.8	8.2	2.4	5.39%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	5.5	6.5	4.6	1.9	0.9	-1.0	6.41%
	7:30 AM - 8:30 AM	\$ 0.40	5.8	6.6	4.6	2.0	1.1	-0.8	5.86%
	8:30 AM - 9:30 AM	\$ 0.50	5.8	4.7	4.6	0.1	1.2	1.1	4.15%
PM	3:30 PM - 4:30 PM	\$ 0.40	27.4	18.1	4.6	13.5	22.8	9.3	2.01%
	4:30 PM - 5:30 PM	\$ 0.40	50.7	37.2	4.6	32.5	46.0	13.5	2.14%
	5:30 PM - 6:00 PM	\$ 0.40	38.1	28.8	4.7	24.1	33.5	9.4	4.11%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	13,699	8,067	73	8,140	5,559	40.58%
Mid-Day	9:30 AM - 2:30 PM	1,722	1,193	136	1,329	393	22.84%
PM Peak	2:30 PM - 7:00 PM	2,254	2,159	90	2,248	5	0.23%
Night	7:00 PM - 6:00 AM	817	682	2	684	133	16.26%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$233,453	3.91%
Mid-Day	\$209,911	11.18%
PM Peak	\$409,177	6.50%
Night	\$3,036	0.43%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	707	1,032	43	1,075	-368	-52.06%
Mid-Day	9:30 AM - 2:30 PM	1,679	1,177	116	1,294	386	22.97%
PM Peak	2:30 PM - 7:00 PM	13,697	9,671	91	9,761	3,935	28.73%
Night	7:00 PM - 6:00 AM	633	978	80	1,058	-425	-67.04%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$256,586	5.06%
Mid-Day	\$179,412	9.90%
PM Peak	\$408,867	12.00%
Night	\$139,092	7.61%

MnPASS System Evaluation Summary

System 4

Segment 252

Segment # 26

Length 3.26 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$2,252,079
2030 Operating Cost	\$842,161
2030 Net Revenue	\$1,409,918
Capital Cost *	\$141,344,000
Annual Debt Service	\$10,626,119
Net Revenue/Debt Service	0.13

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

The cost included a three-lane freeway. Two free lanes and an express lane.

Environmental Considerations

Potential environmental issues include public concern of the freeway's impact on the neighborhood and local access.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	7.7	3.6	3.3	0.3	4.4	4.1	3.17%
	7:30 AM - 8:30 AM	\$ 0.20	7.8	3.6	3.3	0.3	4.5	4.2	4.99%
	8:30 AM - 9:30 AM	\$ 0.30	7.1	3.3	3.3	0.0	3.8	3.8	0.57%
PM	3:30 PM - 4:30 PM	\$ 0.20	13.6	6.0	3.8	2.2	9.8	7.6	21.01%
	4:30 PM - 5:30 PM	\$ 0.30	29.1	12.0	4.6	7.5	24.6	17.1	20.54%
	5:30 PM - 6:00 PM	\$ 0.30	21.8	9.1	3.8	5.2	17.9	12.7	18.79%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.40	16.6	12.1	3.4	8.6	13.2	4.6	10.26%
	7:30 AM - 8:30 AM	\$ 0.30	14.6	8.7	3.9	4.8	10.7	5.9	19.49%
	8:30 AM - 9:30 AM	\$ 0.30	8.5	4.2	3.4	0.8	5.1	4.3	13.90%
PM	3:30 PM - 4:30 PM	\$ 0.40	8.4	3.6	3.3	0.3	5.0	4.7	6.79%
	4:30 PM - 5:30 PM	\$ 0.30	10.3	4.1	3.4	0.7	6.9	6.2	10.70%
	5:30 PM - 6:00 PM	\$ 0.50	10.8	4.4	3.4	1.0	7.4	6.4	10.28%

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	393	511	14	525	-132	-33.61%
Mid-Day	9:30 AM - 2:30 PM	515	672	11	683	-168	-32.59%
PM Peak	2:30 PM - 7:00 PM	2,450	2,376	244	2,619	-169	-6.91%
Night	7:00 PM - 6:00 AM	356	610	8	618	-262	-73.57%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$44,948	2.80%
Mid-Day	\$89,629	1.72%
PM Peak	\$858,293	16.07%
Night	\$59,757	3.08%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	1,342	2,215	155	2,370	-1,028	-76.59%
Mid-Day	9:30 AM - 2:30 PM	579	696	14	710	-131	-22.57%
PM Peak	2:30 PM - 7:00 PM	863	860	56	916	-54	-6.22%
Night	7:00 PM - 6:00 AM	633	370	0	370	263	41.59%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$745,343	13.66%
Mid-Day	\$107,346	2.00%
PM Peak	\$346,761	26.27%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 4

Segment I-35E-1

Segment # 27

Length 1.75 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$874,613
2030 Operating Cost	\$0
2030 Net Revenue	\$874,613
Capital Cost *	\$32,518,091
Annual Debt Service	\$2,444,682
Net Revenue/Debt Service	0.36

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 0

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	6.4	8.1	1.8	6.3	4.6	-1.7	5.17%
	7:30 AM - 8:30 AM	\$ 0.40	5.8	7.0	1.8	5.1	3.9	-1.2	5.55%
	8:30 AM - 9:30 AM	\$ 0.20	2.6	2.6	1.8	0.8	0.7	-0.1	7.71%
PM	3:30 PM - 4:30 PM	\$ 0.20	2.7	3.6	1.8	1.8	0.8	-0.9	7.47%
	4:30 PM - 5:30 PM	\$ 0.30	3.4	4.5	1.8	2.7	1.6	-1.1	6.54%
	5:30 PM - 6:00 PM	\$ 0.20	3.4	3.8	1.9	2.0	1.5	-0.5	9.50%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	2.4	3.7	1.8	1.8	0.6	-1.3	8.42%
	7:30 AM - 8:30 AM	\$ 0.20	2.6	3.6	1.8	1.8	0.8	-1.0	8.35%
	8:30 AM - 9:30 AM	\$ 0.20	1.9	2.1	1.8	0.3	0.1	-0.2	4.36%
PM	3:30 PM - 4:30 PM	\$ 0.20	4.4	5.2	1.9	3.3	2.5	-0.8	9.46%
	4:30 PM - 5:30 PM	\$ 0.50	7.0	8.4	1.8	6.6	5.2	-1.4	5.13%
	5:30 PM - 6:00 PM	\$ 0.20	5.5	5.9	2.0	3.9	3.5	-0.5	11.03%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	2,024	2,640	47	2,687	-663	-32.78%
Mid-Day	9:30 AM - 2:30 PM	600	598	5	603	-3	-0.45%
PM Peak	2:30 PM - 7:00 PM	1,143	1,558	53	1,611	-468	-40.93%
Night	7:00 PM - 6:00 AM	287	289	0	289	-3	-0.88%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$266,083	5.42%
Mid-Day	\$7,972	0.90%
PM Peak	\$180,746	6.05%
Night	\$0	0.00%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	614	976	42	1,018	-404	-65.91%
Mid-Day	9:30 AM - 2:30 PM	571	563	3	566	5	0.85%
PM Peak	2:30 PM - 7:00 PM	2,335	2,890	73	2,963	-628	-26.90%
Night	7:00 PM - 6:00 AM	633	348	0	348	285	45.01%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$125,070	6.72%
Mid-Day	\$7,899	0.48%
PM Peak	\$286,843	11.10%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 4

Segment I-35E-2

Segment # 28

Length 3.28 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$6,190,691
2030 Operating Cost	\$895,039
2030 Net Revenue	\$5,295,652
Capital Cost *	\$27,628,845
Annual Debt Service	\$2,077,113
Net Revenue/Debt Service	2.55

Infrastructure/Operational Considerations

None noted.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	4.5	11.9	9.1	2.8	-4.5	-7.4	15.88%
	7:30 AM - 8:30 AM	\$ 0.50	4.9	10.4	6.4	3.9	-1.6	-5.5	15.29%
	8:30 AM - 9:30 AM	\$ 0.50	3.6	4.8	3.6	1.2	0.0	-1.2	11.57%
PM	3:30 PM - 4:30 PM	\$ 0.40	6.8	6.3	3.6	2.7	3.2	0.5	10.46%
	4:30 PM - 5:30 PM	\$ 0.40	11.0	7.8	4.0	3.8	7.0	3.2	12.66%
	5:30 PM - 6:00 PM	\$ 0.50	8.4	6.4	3.9	2.5	4.5	1.9	13.36%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	10.5	6.1	3.7	2.3	6.7	4.4	12.67%
	7:30 AM - 8:30 AM	\$ 0.30	9.4	5.9	3.7	2.1	5.6	3.5	13.01%
	8:30 AM - 9:30 AM	\$ 0.50	4.9	3.7	3.4	0.3	1.5	1.2	8.52%
PM	3:30 PM - 4:30 PM	\$ 0.50	5.5	7.0	3.9	3.1	1.6	-1.5	13.17%
	4:30 PM - 5:30 PM	\$ 0.50	6.9	11.1	8.4	2.7	-1.5	-4.2	16.02%
	5:30 PM - 6:00 PM	\$ 0.50	6.5	7.7	6.5	1.3	0.0	-1.2	17.21%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,311	4,163	524	4,686	-3,375	-257.37%
Mid-Day	9:30 AM - 2:30 PM	1,224	1,301	47	1,348	-124	-10.12%
PM Peak	2:30 PM - 7:00 PM	3,928	2,977	217	3,194	734	18.69%
Night	7:00 PM - 6:00 AM	694	664	0	664	30	4.37%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	3,635	1,765	152	1,917	1,718	47.26%
Mid-Day	9:30 AM - 2:30 PM	1,394	1,152	36	1,188	205	14.74%
PM Peak	2:30 PM - 7:00 PM	2,612	3,994	479	4,473	-1,861	-71.26%
Night	7:00 PM - 6:00 AM	633	690	0	690	-56	-8.89%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,984,243	14.30%
Mid-Day	\$160,993	3.68%
PM Peak	\$1,181,317	10.52%
Night	\$0	0.00%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$715,120	10.69%
Mid-Day	\$123,515	3.09%
PM Peak	\$2,025,502	21.69%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 4

Segment 36-1

Segment # 29

Length 3.59 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$2,808,852
2030 Operating Cost	\$845,569
2030 Net Revenue	\$1,963,283
Capital Cost *	\$34,603,603
Annual Debt Service	\$2,601,469
Net Revenue/Debt Service	0.75

* For detailed cost estimates, including items excluded, see Appendix C

Infrastructure/Operational Considerations

Generally has median width available, however, several areas do get narrow such as Keller Lake just west of TH 61. English Street is an at grade intersection.

Environmental Considerations

Potential environmental issues: Keller Lake Bridge would need to be widened significantly. This would have an impact that would be difficult to assess at this stage.

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 2

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	6.6	6.3	N/A	N/A	N/A	0.3	N/A
	7:30 AM - 8:30 AM	\$ 0.10	6.5	6.1	N/A	N/A	N/A	0.4	N/A
	8:30 AM - 9:30 AM	\$ 0.10	4.1	4.0	N/A	N/A	N/A	0.1	N/A
PM	3:30 PM - 4:30 PM	\$ 0.30	8.0	7.2	4.8	2.5	3.2	0.7	23.59%
	4:30 PM - 5:30 PM	\$ 0.50	14.2	13.2	4.4	8.7	9.8	1.0	18.02%
	5:30 PM - 6:00 PM	\$ 0.40	11.0	9.5	5.5	3.9	5.4	1.5	23.54%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	11.7	10.2	4.1	6.1	7.6	1.5	16.39%
	7:30 AM - 8:30 AM	\$ 0.50	9.3	9.0	3.9	5.1	5.4	0.3	14.69%
	8:30 AM - 9:30 AM	\$ 0.30	5.1	4.5	3.9	0.6	1.2	0.6	19.71%
PM	3:30 PM - 4:30 PM	\$ 0.10	5.7	5.5	2,154.0	N/A	N/A	0.2	N/A
	4:30 PM - 5:30 PM	\$ 0.10	7.2	7.0	2,154.0	N/A	N/A	0.3	N/A
	5:30 PM - 6:00 PM	\$ 0.10	6.9	6.8	2,154.0	N/A	N/A	0.2	N/A

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,148	1,070	N/A	1,070	77	6.74%
Mid-Day	9:30 AM - 2:30 PM	867	858	7	866	2	0.21%
PM Peak	2:30 PM - 7:00 PM	3,134	2,683	342	3,025	110	3.50%
Night	7:00 PM - 6:00 AM	547	550	0	550	-3	-0.47%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	2,322	2,002	198	2,200	122	5.26%
Mid-Day	9:30 AM - 2:30 PM	831	784	28	811	20	2.37%
PM Peak	2:30 PM - 7:00 PM	1,652	1,583	N/A	1,583	69	4.17%
Night	7:00 PM - 6:00 AM	633	333	0	333	301	47.46%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$23,206	0.95%
PM Peak	\$1,526,171	19.07%
Night	\$652	0.18%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,192,325	16.12%
Mid-Day	\$66,498	3.49%
PM Peak	N/A	N/A
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 4

Segment 36-2

Segment # 30

Length 1.75 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$908,381
2030 Operating Cost	\$308,547
2030 Net Revenue	\$599,834
Capital Cost *	\$18,326,958
Annual Debt Service	\$1,377,805
Net Revenue/Debt Service	0.44

Infrastructure/Operational Considerations

Generally has median width available, however, several areas do get narrow such as Keller Lake just west of TH 61. English Street is an at grade intersection.

Environmental Considerations

Potential environmental issues: Keller Lake Bridge would need to be widened significantly. This would have an impact that would be difficult to assess at this stage.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	2.4	2.1	N/A	N/A	N/A	0.3	N/A
	7:30 AM - 8:30 AM	\$ 0.10	2.3	2.0	N/A	N/A	N/A	0.3	N/A
	8:30 AM - 9:30 AM	\$ 0.10	1.6	1.6	N/A	N/A	N/A	0.0	N/A
PM	3:30 PM - 4:30 PM	\$ 0.30	2.4	2.4	1.9	0.5	0.4	0.0	18.16%
	4:30 PM - 5:30 PM	\$ 0.40	3.9	3.8	2.5	1.3	1.4	0.1	20.71%
	5:30 PM - 6:00 PM	\$ 0.40	3.0	3.1	2.1	1.0	1.0	0.0	19.16%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	3.4	3.1	1.9	1.1	1.4	0.3	15.38%
	7:30 AM - 8:30 AM	\$ 0.50	2.7	2.7	1.9	0.8	0.8	0.0	13.89%
	8:30 AM - 9:30 AM	\$ 0.20	1.7	1.7	1.8	-0.1	-0.1	0.0	16.90%
PM	3:30 PM - 4:30 PM	\$ 0.10	2.1	2.0	N/A	N/A	N/A	0.1	N/A
	4:30 PM - 5:30 PM	\$ 0.10	2.8	2.8	N/A	N/A	N/A	0.0	N/A
	5:30 PM - 6:00 PM	\$ 0.10	2.4	2.5	N/A	N/A	N/A	-0.1	N/A

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	356	292	N/A	292	65	18.11%
Mid-Day	9:30 AM - 2:30 PM	205	205	1	206	-1	-0.36%
PM Peak	2:30 PM - 7:00 PM	712	706	121	827	-115	-16.18%
Night	7:00 PM - 6:00 AM	113	115	4	118	-5	-4.54%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$1,908	0.53%
PM Peak	\$502,929	17.94%
Night	\$5,650	6.10%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total)	
				MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	543	519	67	586	-43	-7.92%
Mid-Day	9:30 AM - 2:30 PM	228	230	3	234	-6	-2.51%
PM Peak	2:30 PM - 7:00 PM	522	515	N/A	515	8	1.46%
Night	7:00 PM - 6:00 AM	633	106	2	108	525	82.96%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$389,855	14.65%
Mid-Day	\$4,966	1.23%
PM Peak	N/A	N/A
Night	\$3,073	0.58%

MnPASS System Evaluation Summary

System 4

Segment 36-3

Segment # 31

Length 12.70 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$2,615,441
2030 Operating Cost	\$519,983
2030 Net Revenue	\$2,095,457
Capital Cost *	\$79,434,755
Annual Debt Service	\$5,971,836
Net Revenue/Debt Service	0.35

Infrastructure/Operational Considerations

Mn/DOT has some plans to upgrade this to a freeway. Project would include diamond interchanges or flyovers at the intersections. The cost did include bridge cost, which could be for either.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 3

EastBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	26.3	28.3	N/A	N/A	N/A	-1.9	N/A
	7:30 AM - 8:30 AM	\$ 0.10	25.3	27.7	N/A	N/A	N/A	-2.4	N/A
	8:30 AM - 9:30 AM	\$ 0.10	21.1	25.0	N/A	N/A	N/A	-3.9	N/A
PM	3:30 PM - 4:30 PM	\$ 0.30	27.2	31.0	13.0	18.0	14.2	-3.8	21.61%
	4:30 PM - 5:30 PM	\$ 0.50	41.8	47.8	13.2	34.7	28.6	-6.1	18.53%
	5:30 PM - 6:00 PM	\$ 0.40	35.3	37.8	13.2	24.6	22.0	-2.5	22.38%

WestBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.50	31.5	37.9	13.0	24.9	18.5	-6.3	17.65%
	7:30 AM - 8:30 AM	\$ 0.40	28.5	34.1	13.1	21.0	15.4	-5.6	20.16%
	8:30 AM - 9:30 AM	\$ 0.20	21.8	25.4	13.1	12.4	8.7	-3.7	38.14%
PM	3:30 PM - 4:30 PM	\$ 0.10	25.6	28.1	N/A	N/A	N/A	-2.4	N/A
	4:30 PM - 5:30 PM	\$ 0.10	30.7	33.6	N/A	N/A	N/A	-2.9	N/A
	5:30 PM - 6:00 PM	\$ 0.10	29.0	31.7	N/A	N/A	N/A	-2.6	N/A

Vehicle Hours Evaluation

EastBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,440	1,197	N/A	1,197	243	16.87%
Mid-Day	9:30 AM - 2:30 PM	1,105	836	12	848	258	23.31%
PM Peak	2:30 PM - 7:00 PM	3,153	3,159	320	3,479	-326	-10.35%
Night	7:00 PM - 6:00 AM	754	494	47	541	213	28.27%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$15,626	2.69%
PM Peak	\$1,334,370	22.10%
Night	\$61,965	37.37%

WestBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		No-Build vs. Build (total) VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	1,983	2,117	273	2,391	-407	-20.53%
Mid-Day	9:30 AM - 2:30 PM	1,115	810	41	850	265	23.74%
PM Peak	2:30 PM - 7:00 PM	2,320	2,102	N/A	2,102	218	9.39%
Night	7:00 PM - 6:00 AM	633	390	25	416	218	34.39%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,116,537	24.91%
Mid-Day	\$53,495	8.80%
PM Peak	N/A	N/A
Night	\$39,698	4.91%

MnPASS System Evaluation Summary

System 4

Segment 610

Segment # 32

Length 4.91 miles HOVs Pay toll

Financial Evaluation

2030 Revenue	\$800,030
2030 Operating Cost	\$143,218
2030 Net Revenue	\$656,812
Capital Cost *	\$161,672,000
Annual Debt Service	\$12,154,360
Net Revenue/Debt Service	0.05

Infrastructure/Operational Considerations

Used the construction cost determined by Mn/DOT. This is a total cost for the freeway. Did not attempt to split the cost between Mn/DOT and private developer.

Environmental Considerations

None noted.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.20	N/A	8.9	5.1	3.8	N/A	N/A	10.95%
	7:30 AM - 8:30 AM	\$ 0.20	N/A	7.5	5.1	2.4	N/A	N/A	9.99%
	8:30 AM - 9:30 AM	\$ 0.10	N/A	4.7	4.9	-0.3	N/A	N/A	0.00%
PM	3:30 PM - 4:30 PM	\$ 0.40	N/A	5.1	4.9	0.2	N/A	N/A	0.97%
	4:30 PM - 5:30 PM	\$ 0.30	N/A	6.7	5.0	1.7	N/A	N/A	7.42%
	5:30 PM - 6:00 PM	\$ 0.30	N/A	6.6	5.0	1.7	N/A	N/A	4.86%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.30	N/A	5.3	5.0	0.4	N/A	N/A	7.45%
	7:30 AM - 8:30 AM	\$ 0.30	N/A	5.2	4.9	0.3	N/A	N/A	4.31%
	8:30 AM - 9:30 AM	\$ 0.10	N/A	4.4	4.9	-0.5	N/A	N/A	0.00%
PM	3:30 PM - 4:30 PM	\$ 0.20	N/A	6.7	5.0	1.7	N/A	N/A	6.27%
	4:30 PM - 5:30 PM	\$ 0.20	N/A	10.3	5.2	5.1	N/A	N/A	11.97%
	5:30 PM - 6:00 PM	\$ 0.20	N/A	8.1	5.1	3.0	N/A	N/A	9.97%

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	N/A	1,301	77	1,378	N/A	N/A
Mid-Day	9:30 AM - 2:30 PM	N/A	504	0	504	N/A	N/A
PM Peak	2:30 PM - 7:00 PM	N/A	1,083	32	1,115	N/A	N/A
Night	7:00 PM - 6:00 AM	N/A	282	0	282	N/A	N/A

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$233,090	7.68%
Mid-Day	\$0	0.00%
PM Peak	\$150,005	3.19%
Night	\$0	0.00%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	MnPASS	Total	VHT	%
AM Peak	6:00 AM - 9:30 AM	N/A	670	29	699	N/A	N/A
Mid-Day	9:30 AM - 2:30 PM	N/A	528	0	528	N/A	N/A
PM Peak	2:30 PM - 7:00 PM	N/A	1,829	94	1,923	N/A	N/A
Night	7:00 PM - 6:00 AM	633	324	0	324	N/A	N/A

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$134,044	4.15%
Mid-Day	\$0	0.00%
PM Peak	\$282,890	9.08%
Night	\$0	0.00%

MnPASS System Evaluation Summary

System 4

Segment 65

Segment # 33

Length

4.24 miles

HOVs

Pay toll

Financial Evaluation

2030 Revenue	\$2,734,326
2030 Operating Cost	\$486,620
2030 Net Revenue	\$2,247,706
Capital Cost *	\$28,088,415
Annual Debt Service	\$2,111,663
Net Revenue/Debt Service	1.06

Infrastructure/Operational Considerations

TH 65 is an expressway with a number of at grade intersections. It was assumed that some of these at-grade intersections would be closed and the express lane would go over the rest the signalized intersections. It was assumed that TH 242 would be a diamond interchange. This is a project under study now.

Environmental Considerations

Potential environmental issues include public concern for loss of access.

* For detailed cost estimates, including items excluded, see Appendix C

Travel Time Savings and Market Share by Selected Time Periods

Number of transaction gantries = 1

NorthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.10	7.2	8.2	N/A	N/A	N/A	-1.0	N/A
	7:30 AM - 8:30 AM	\$ 0.10	7.6	8.4	N/A	N/A	N/A	-0.8	N/A
	8:30 AM - 9:30 AM	\$ 0.10	7.6	8.4	N/A	N/A	N/A	-0.8	N/A
PM	3:30 PM - 4:30 PM	\$ 0.30	24.3	22.8	4.9	17.8	19.3	1.5	32.47%
	4:30 PM - 5:30 PM	\$ 0.40	54.3	54.8	5.6	49.2	48.7	-0.5	28.29%
	5:30 PM - 6:00 PM	\$ 0.30	48.6	36.9	7.7	29.2	41.0	11.7	37.01%

SouthBound

Period	Time	Toll Rate per mile	Travel Time (minutes)			Savings (minutes)			Percent choosing Toll
			No-Build	Build		vs. MnPASS	No-Build vs. MnPASS	vs. Build Free	
				Free	MnPASS				
AM	6:45 AM - 7:30 AM	\$ 0.40	41.5	38.8	4.9	33.9	36.6	2.7	27.54%
	7:30 AM - 8:30 AM	\$ 0.40	29.7	33.6	4.6	29.0	25.1	-3.9	23.46%
	8:30 AM - 9:30 AM	\$ 0.20	11.5	10.7	4.7	6.0	6.8	0.8	39.56%
PM	3:30 PM - 4:30 PM	\$ 0.10	9.5	9.7	N/A	N/A	N/A	-0.2	N/A
	4:30 PM - 5:30 PM	\$ 0.10	11.8	12.7	N/A	N/A	N/A	-0.9	N/A
	5:30 PM - 6:00 PM	\$ 0.10	15.5	16.6	N/A	N/A	N/A	-1.1	N/A

Vehicle Hours Evaluation

NorthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	447	301	N/A	301	146	32.62%
Mid-Day	9:30 AM - 2:30 PM	1,036	703	7	710	325	31.42%
PM Peak	2:30 PM - 7:00 PM	6,651	5,409	438	5,847	804	12.09%
Night	7:00 PM - 6:00 AM	965	615	40	655	310	32.16%

Toll Revenue Evaluation

Period	Annual Revenue	Percent choosing Toll
AM Peak	N/A	N/A
Mid-Day	\$11,593	2.20%
PM Peak	\$1,509,488	32.10%
Night	\$61,803	32.24%

SouthBound

Period	Time	No-Build	VHT			Savings	
			Free	Build		VHT	%
				MnPASS	Total		
AM Peak	6:00 AM - 9:30 AM	4,213	3,681	263	3,943	270	6.40%
Mid-Day	9:30 AM - 2:30 PM	1,002	691	21	712	290	28.96%
PM Peak	2:30 PM - 7:00 PM	1,384	1,210	N/A	1,210	174	12.58%
Night	7:00 PM - 6:00 AM	633	288	16	304	329	51.98%

Period	Annual Revenue	Percent choosing Toll
AM Peak	\$1,094,221	30.19%
Mid-Day	\$32,691	5.96%
PM Peak	N/A	N/A
Night	\$24,530	3.01%