

MnPASS System Study

Appendix

final report

prepared for

Minnesota Department of Transportation

prepared by

Cambridge Systematics, Inc.

with

URS Corporation

final report

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date

April 8, 2005

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Capital Cost Estimates

MNPASS SYSTEM STUDY
ASSUMPTIONS ROUND 2 - CONCEPT A-2 REFINED COSTS AND SEGMENTS 04/07/05

MnPASS ROUND 2 CONCEPT A-2 - REFINED CONSTRUCTION COST AND SEGMENTS ASSUMPTIONS (\$2004) 04/07/05																
Segment	Description	MnPASS Study Assumptions and Relationship to Mn/DOT	TPP Cost Contribution (millions)	Other Considerations	10' Buffer Additional Cost to TPP	Total Roadway, Bridge, Walls, TMS COST	Total Gantries COST	System to System Connections COST	Subtotal Construction COST	Project Development Delivery 20% COST	R/W COST	Estimated Construction COST	Risk Multiplier 25% COST	Concept A-2 MnPASS Incremental COST	Concept A-2 COST	Concept A-1 "From Scratch" COST
494-a	From I-94 to TH55	There are currently 2 lanes in each direction. The TPP adds a third lane (after 2013). The third lane would become the toll lane (2+1)	\$158 to add the 3rd Lane	Major cost is the direct connections between I-694, I-94 and I-494. and the 2-10' buffers	\$16.7	\$0.0	\$1.3	\$5.1	\$23.1	\$4.6	\$0.0	\$27.8	\$6.9	\$34.7	\$192.7	\$119.7
494-b	From TH55 to I-394	3 lanes in each direction will be in place by 2008 as part of the 494 Design_Build project. The toll lane would be the fourth lane (3+1)	\$0	Major cost is the direct connections between I-494, and I-394.	\$0.0	\$38.8	\$1.3	\$46.7	\$86.9	\$17.4	\$1.8	\$106.0	\$26.5	\$132.5	\$132.5	\$132.5
494-c	From I-394 to TH100	From 394 to TH212, 3 lanes in each direction will be in place by 2008 as part of the 494 Design_Build project. From TH212 to TH100, there are 3-lanes in place now. The toll lane would be the fourth lane (3+1)	\$0	Major cost is the direct connections between I-494, and I-394.	\$0.0	\$129.6	\$4.7	\$41.7	\$176.1	\$35.2	\$1.2	\$212.5	\$53.1	\$265.6	\$265.6	\$265.6
494-d	From TH100 to TH77	Now 2-3 lanes per direction. TPP will create 4-5 lanes in each direction 'by 2030. The toll lane would be the additional 4th or 5th lane. (3+1) or (4+1)	\$628 to add the 4th or 5th Lane	R/W is the major cost in this segment which is included in the \$628 million. MnPASS assumes that buffer will be using the 26' median ditch	\$10.5	\$0.0	\$2.0	\$0.0	\$12.5	\$2.5	\$0.0	\$15.0	\$3.7	\$18.7	\$646.7	\$406.9
694-1	From I-94 to TH252	There are 3-lanes in-place, in each direction This project has just been completed and been opened to traffic. The toll lane would be the fourth lane (3+1)	\$0	Addition of two extra lanes and Bridge replacements and widening plus cost of the direct connections between I-694, I-94 and I-494. are major cost.	\$0.0	\$98.9	\$2.0	\$5.1	\$106.0	\$21.2	\$0.0	\$127.3	\$31.8	\$159.1	\$159.1	\$159.1
694-5	From TH252 to I-35W	There are 3-lanes in-place, in each direction The toll lane would be the fourth lane (3+1)	\$0	Nearby lakes cause R/W problems	\$0.0	\$70.5	\$1.3	\$22.3	\$94.1	\$18.8	\$6.5	\$119.5	\$29.9	\$149.3	\$149.3	\$149.3
694-2	From I-35W to I-35E	There are currently 2 lanes in each direction. 3 lanes in each direction will be in place by 2014 The MnPASS lane would be the 4th lane. The toll lane would be the fourth lane (3+1)	\$0	Based on the assumption that Mn/DOT has completed widening of I-694 from 4-lane to 6-lane to the outside by 2014. Mn/PASS assumes that Mn/DOT is providing room for 10' Buffer. Major cost is the long fly over needed from west of Rice Street to I-35E north of Little Canada Rd and the direct connections between I-694, and I-35W.	\$11.7	\$124.9	\$2.0	\$22.3	\$160.9	\$32.2	\$0	\$193.1	\$48.3	\$241.4	\$241.4	\$226.3
94-e	From TH 101 to I-494	There are 3-lanes in place now per direction. The toll lane would be the additional 4th lane, (3+1)	\$0	Major cost is roadway cost, and the connection cost. Widening will occur on the inside, no need to purchase R/W.	\$0.0	\$71.2	\$0.7	\$5.1	\$77.0	\$15.4	\$0.0	\$92.4	\$23.1	\$115.5	\$115.5	\$115.5
94-4	From West of Earl St. to I-694	There are 3-lanes per direction in place now. The toll lane would be the 4th lane.	\$0	Outside widening, there will be R/W that will need to be purchased	\$0.0	\$65.0	\$2.0	\$0.0	\$67.1	\$13.4	\$17.2	\$97.7	\$24.4	\$122.1	\$122.1	\$122.1

MnPASS ROUND 2 CONCEPT A-2 - REFINED CONSTRUCTION COST AND SEGMENTS ASSUMPTIONS (\$2004) 04/07/05																
Segment	Description	MnPASS Study Assumptions and Relationship to MN/DOT	TPP Cost Contribution (millions)	Other Considerations	10' Buffer Additional Cost to TPP	Total Roadway, Bridge, Walls, TMS COST	Total Gantries COST	System to System Connections COST	Subtotal Construction COST	Project Development Delivery 20%	R/W	Estimated Construction COST	Risk Multiplier 25%	Concept A-2 MnPASS Incremental COST	Concept A-2 COST	Concept A-1 "From Scratch" COST
94-5	From I-694 to TH 95	There are 3-lanes per direction in place now. The toll lane would be the 4th lane.	\$0	Major cost is roadway cost inside widening, no R/W cost No Connection cost	\$0.0	\$68.3	\$2.0	\$0.0	\$70.3	\$14.1	\$0.0	\$84.3	\$21.1	\$105.4	\$105.4	\$105.4
36-1	From I-35W to I-35E	There are 2 lanes in each direction now. The TPP would add a third lane by 2030. The toll lane would be the 3rd lane (2+1)	\$118	Major cost is buffer cost, and the connection cost. Widening will occur on the inside, no need to purchase R/W.	\$15.5	\$0.0	\$2.0	\$30.6	\$48.1	\$9.6	\$0.0	\$57.7	\$14.4	\$72.1	\$190.1	\$83.1
36-g	From I-35E to I-694	There are 2-lanes in each direction now. There are no TPP expansion plans. The toll lane would add one more lane (2+1)	\$0	Major cost is the connection cost and addressing at grade intersections.	\$0.0	\$86.7	\$0.7	\$19.3	\$106.7	\$21.3	\$10.0	\$138.1	\$34.5	\$172.6	\$172.6	\$172.6
36-5	From I-694 to TH5	There are 2-lanes in each direction now. There are no TPP expansion plans. The toll lane would add one more lane (2+1)	\$0	Major cost is the connection cost and addressing at grade intersections.	\$0.0	\$79.3	\$2.0	\$0.0	\$81.3	\$16.3	\$0.4	\$97.9	\$24.5	\$122.4	\$122.4	\$122.4
35 E-1	From TH36 to I-694	There are 2-3 lanes in each direction now. The TPP would add another lane. The toll lane would be the additional 3rd or 4th lane. (2+1) or (3+1)	\$60	Mn/DOT cost estimates was used, dated 9/23/04, Expansion of interstate 35E Segment R35E-4 from south of 36 to north of I-694 commons Major costs are the flyover and connection cost. This flyover will get connected to flyover in 694-2. Direct connection is between 35E-1 and TH36	\$10.7	\$12.5	\$0.7	\$19.3	\$43.2	\$8.6	\$0.0	\$51.8	\$13.0	\$64.8	\$124.8	\$109.3
35 E-2	From Maryland to TH36	There are 2-3 lanes in each direction now. The TPP would add another lane. The toll lane would be the additional 3rd or 4th lane. (2+1) or (3+1)	\$55	Mn/DOT cost estimates was used, dated 9/23/04, Expansion of interstate 35E Segment R35E-4 from Maryland Ave to TH36south of 36	\$11.8	\$0.0	\$0.7	\$19.3	\$31.8	\$6.4	\$0.0	\$38.1	\$9.5	\$47.7	\$102.7	\$76.0
35 W-1	From 148th ST. to TH 13	There are 2-lanes per direction now. There is no TPP project. The toll lane would be add a 3rd lane, (2+1)	\$0	Major cost is the extension of current HOV.	\$0.0	\$32.5	\$1.3	\$0.0	\$33.8	\$6.8	\$0.0	\$40.6	\$10.1	\$50.7	\$50.7	\$50.7
35 W-2	From TH 13 to I-494	Conversion of existing HOV lane to HOT	\$0	Straight conversion from HOV to HOT No roadway construction cost , except gantries	\$0.0	\$0.0	\$2.0	\$0.0	\$2.0	\$0.4	\$0.0	\$2.4	\$0.6	\$3.0	\$3.0	\$3.0
35 W-3	From I-494 to 46th St.	A project to create an HOV lane is planned for this segment within the next 10 years. The MnPASS project would convert this lane to a HOT lane.	\$0	Straight conversion from HOV to HOT No roadway construction cost , except gantries	\$0.0	\$0.0	\$1.3	\$0.0	\$1.3	\$0.3	\$0.0	\$1.6	\$0.4	\$2.0	\$2.0	\$2.0
35 W-8	From 46th St. to	The TPP has plans for an HOV/Transitway	\$309	Straight conversion from HOV to HOT	\$0.0	\$0.0	\$1.3	\$0.0	\$1.3	\$0.3	\$0.0	\$1.6	\$0.4	\$2.0	\$311.0	\$311.0

MnPASS ROUND 2 CONCEPT A-2 - CONSTRUCTION COST ESTIMATE (\$2004) 04/07/05

ID	Segment	Location	SECTION	LENGTH MILES	ROADWAY			BRIDGES										TOTAL SYSTEM TO SYSTEM CONNECTIONS COST	TOTAL ROADWAY BRIDGE WALLS TMS, no Buffer COST	TOTAL SYSTEM TO SYSTEM CONNECTIONS COST	CS NUMBER OF GANTRIES	GANTRY TOTAL GANTRIES COST	ESTIMATED CONSTRUCTION COST	TOTAL PROJECT DEVELOPMENT DELIVERY 20%	TOTAL RW COST	TOTAL CONSTRUCTION COST	AREA / FACILITY RISK MULTIPLIER 25%	TOTAL ESTIMATED CONSTRUCTION COST	Segment			
					COST PER MILE FOR 10' BUFFER	COST PER MILE	10' BUFFER COST TO TPP	TOTAL ROADWAY SEGMENT COST	REMAIN AS IS	WIDEN BRIDGE	RIVER CROSSING	NEW CONSTRUCTION	CONSTR. NEW	REMOVE AND RECONSTRUCT	FLY- OVER	TOTAL BRIDGE COST	RETAINING/ NOISE WALLS COST													TMS COST	TOTAL ROADWAY BRIDGE WALLS TMS, no Buffer COST	ESTIMATED CONSTRUCTION COST
1	494-a	From I-94 to TH65	2-10' BUFFERS ONLY	5.7	TPP	\$2,052,000	\$16,686,400	\$22,820,805	0	2	0	0	0	0	0	0	0	0	0	0	0	\$13,331,052	\$1,884,960	\$770,000	\$0	\$5,100,000	\$1,344,000	\$23,140,400	\$27,768,480	\$6,942,120	\$34,710,600	494-a
2	494-b	From TH55 to I-394	TYPICAL 1	2.8	\$6,150,288	\$6,150,288	\$0	\$22,820,805	0	2	0	0	0	0	0	0	0	0	0	0	0	\$13,331,052	\$1,884,960	\$770,000	\$0	\$5,100,000	\$1,344,000	\$23,140,400	\$27,768,480	\$6,942,120	\$34,710,600	494-b
3	494-c	From I-394 to TH100	TYPICAL 4	11.6	\$7,098,638	\$7,098,638	\$0	\$82,344,195	12	10	0	0	0	0	0	0	0	0	0	0	0	\$32,233,814	\$11,880,000	\$3,190,000	\$129,648,009	\$41,700,000	\$4,704,000	\$176,052,009	\$212,462,411	\$53,115,603	\$265,578,014	494-c
4	494-d	From TH100 to TH77	2-10' BUFFERS ONLY	5.1	TPP	\$2,052,000	\$10,465,200	\$10,465,200	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$2,016,000	\$12,481,200	\$14,897,440	\$18,721,800	494-d	
5	694-1	From I-94 to TH252	TYPICAL 6	8.1	\$7,625,745	\$7,625,745	\$0	\$61,788,335	2	10	0	0	0	0	0	0	0	0	0	0	0	\$31,765,103	\$3,168,000	\$2,227,500	\$88,929,138	\$5,100,000	\$2,016,000	\$106,045,138	\$127,254,165	\$31,813,541	\$159,067,706	694-1
6	694-5	From TH252 to I-35W	TYPICAL 4	5.0	\$7,098,638	\$7,098,638	\$0	\$35,493,188	1	6	1	0	0	0	0	0	0	0	0	0	0	\$20,854,129	\$12,777,600	\$1,275,000	\$70,499,916	\$22,300,000	\$1,344,000	\$94,143,916	\$119,472,699	\$29,868,775	\$149,340,874	694-5
7	694-2	From I-35W to I-35E	TYPICAL 5	5.7	\$7,064,010	\$7,064,010	\$11,895,400	\$40,264,957	0	0	0	0	0	0	0	0	0	0	0	0	0	\$84,671,061	\$0	\$0	\$124,935,916	\$22,300,000	\$2,016,000	\$160,948,316	\$193,137,981	\$48,264,955	\$241,422,476	694-2
8	94-e	From TH 101 to I-494	TYPICAL 3	9.2	\$6,458,029	\$6,458,029	\$0	\$59,413,865	8	1	0	1	2	1	0	0	0	0	0	0	0	\$9,266,763	\$0	\$2,530,000	\$71,210,627	\$5,100,000	\$672,000	\$76,982,627	\$82,379,163	\$23,094,788	\$115,473,941	94-e
9	94-4	From West of Earl St. to I-494	TYPICAL 4	4.8	\$7,098,638	\$7,098,638	\$0	\$34,073,460	0	6	0	0	2	3	0	0	0	0	0	0	0	\$13,175,089	\$16,473,600	\$1,320,000	\$65,042,149	\$0	\$2,016,000	\$67,088,149	\$97,666,778	\$24,417,445	\$122,087,223	94-4
10	94-5	From I-694 to TH 95	TYPICAL 5	9.3	\$7,064,010	\$7,064,010	\$0	\$65,695,293	5	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$2,357,500	\$68,252,793	\$0	\$2,016,000	\$70,268,793	\$84,322,552	\$21,060,538	\$105,403,190	94-5
11	36-1	From I-35W to I-35E	2-10' BUFFERS ONLY	5.1	TPP	\$2,052,000	\$15,465,200	\$15,465,200	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$30,600,000	\$2,016,000	\$48,061,200	\$57,697,440	\$14,424,360	\$72,121,800	36-1
12	36-g	From I-35E to I-694	TYPICAL 4	6.7	\$7,098,638	\$7,098,638	\$0	\$47,580,971	0	3	0	4	0	0	0	2	2	0	0	0	0	\$34,961,973	\$2,376,000	\$1,942,500	\$86,741,344	\$19,300,000	\$672,000	\$106,713,344	\$130,056,013	\$34,514,003	\$175,570,016	36-g
13	36-5	From I-694 to TH5	TYPICAL 5	5.5	\$7,064,010	\$7,064,010	\$0	\$38,892,065	1	0	0	0	0	0	0	0	0	0	0	0	0	\$38,892,065	\$0	\$1,512,500	\$79,257,384	\$0	\$2,016,000	\$81,273,384	\$97,929,061	\$24,482,015	\$122,410,076	36-5
14	35 E-1	From TH36 to I-694	2-10' BUFFERS ONLY	1.8	TPP	\$2,052,000	\$10,895,600	\$10,895,600	0	0	0	0	0	0	0	0	0	0	0	0	0	\$17,933,526	\$2,534,400	\$742,500	\$22,476,202	\$0	\$1,344,000	\$33,820,202	\$40,584,242	\$10,146,061	\$50,730,303	35 W-1
15	35 E-2	From Maryland to TH36	TYPICAL 2	2.3	TPP	\$2,052,000	\$11,819,600	\$11,819,600	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$19,300,000	\$672,000	\$31,791,600	\$38,149,920	\$9,537,480	\$47,687,400	35 E-2
16	35 W-1	From 146th St. to TH 13	TYPICAL 1	2.7	\$6,150,288	\$6,150,288	\$0	\$22,005,776	4	2	0	0	0	0	0	0	0	0	0	0	0	\$7,193,526	\$2,534,400	\$742,500	\$32,476,202	\$0	\$1,344,000	\$33,820,202	\$40,584,242	\$10,146,061	\$50,730,303	35 W-1
17	35 W-2	From TH 13 to I-494	HOV to HOT	6.1	\$0	\$0	\$0	\$0	10	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$2,016,000	\$403,200	\$2,419,200	\$604,800	\$3,024,000	35 W-2
18	35 W-3	From I-494 to 46th St.	HOV to HOT	4.9	\$0	\$0	\$0	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$1,612,800	\$403,200	\$2,016,000	\$403,200	\$2,419,200	35 W-3
19	35 W-8	From 46th St. to 4th Ave. R	HOV to HOT	3.3	\$0	\$0	\$0	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$1,612,800	\$403,200	\$2,016,000	\$403,200	\$2,419,200	35 W-8
20	35 W-4	From 4th St. SE to TH36	TYPICAL 4	3.6	\$7,098,638	\$7,098,638	\$0	\$25,555,095	5	12	0	0	0	0	0	0	0	0	0	0	0	\$32,998,977	\$21,162,240	\$990,000	\$80,705,912	\$11,300,000	\$1,344,000	\$93,349,912	\$112,019,895	\$28,004,974	\$140,024,868	35 W-4
21	35 W-6	From TH36 to I-694	TYPICAL 1	4.1	\$6,150,288	\$6,150,288	\$0	\$33,416,179	0	0	0	0	2	5	0	0	0	0	0	0	0	\$27,463,914	\$9,304,000	\$1,127,500	\$71,511,693	\$33,600,000	\$1,344,000	\$106,655,493	\$127,746,992	\$31,936,648	\$159,683,240	35 W-6
22	35 W-7	From I-694 to TH10	TYPICAL 1	1.9	\$6,150,288	\$6,150,288	\$0	\$26,133,503	2	1	0	0	0	0	0	0	0	0	0	0	0	\$19,022,214	\$4,752,000	\$935,500	\$50,842,717	\$32,600,000	\$672,000	\$84,114,717	\$100,937,660	\$25,234,415	\$126,172,075	35 W-7
23	10-1	Round Lake Blvd. To TH610	TYPICAL 1	7.2	\$6,150,288	\$6,150,288	\$0	\$10,647,956	1	4	0	0	0	0	0	0	0	0	0	0	0	\$22,955,914	\$316,800	\$1,980,000	\$83,934,684	\$0	\$2,016,000	\$85,950,684	\$113,140,821	\$28,285,205	\$141,426,027	10-1
24	10-2	From TH610 to TH65	TYPICAL 3	1.3	\$6,458,029	\$6,458,029	\$0	\$9,395,437	1	2	0	0	0	0	0	0	0	0	0	0	0	\$1,456,400	\$0	\$357,500	\$10,209,337	\$0	\$0	\$10,209,337	\$12,251,205	\$3,062,801	\$15,314,006	10-2
25	10-3	From TH65 to I-35W	TYPICAL 3	2.7	\$6,458,029	\$6,458,029	\$0	\$17,436,978	2	0	0	0	0	0	0	0	0	0	0	0	0	\$3,068,763	\$0	\$742,500	\$21,247,941	\$10,300,000	\$1,344,000	\$32,891,941	\$41,470,329	\$10,367,982	\$51,837,911	10-3
26	65	From north side of TH242 to TH10	TYPICAL 3	4.9	\$6,458,029	\$6,458,029	\$0	\$31,644,341	1	0	0	0	0	0	0	0	0	0	0	0	0	\$35,637,182	\$0	\$1,347,500	\$68,629,923	\$4,435,061	\$672,000	\$103,736,083	\$124,483,300	\$31,120,225	\$155,604,125	65
									55	59	1	5	13	6	11	6	15				\$441,451,163	\$86,829,600	\$26,482,500	\$1,265,384,464	\$369,035,061	\$38,976,000	\$1,740,231,924	\$2,137,378,309	\$534,344,577	\$2,671,722,887		

Cost Per Mile Includes:

13" Mainline/Express lane Concrete pavement reconstruction, both Directions, inside shoulder depth, 4" Bit, outside mainline shoulders depth 7", interchange ramps 4 @ 1000' long, 9" depth. See Typical.
 Mobilization, Removals (Salvage, Grading, Aggregate, Bituminous Paving, milling and paving (base, binder, wear and tack) and Concrete Paving,
 Drainage and Concrete Items
 Traffic Control, Turf Establishment, Erosion, Lighting, Fencing, Signing, Mailbox Supports,
 Loop detector's replacement, and Minor Signal System upgrades.

Cost Per Mile does not include:

Bridges and Box Culverts, Signal Systems, Retaining Walls, Noise walls, Traffic Incident Management Systems, Trail Systems,
 Bridge or House Removals, Additional Cost Drainage, Rail Road Agreements, Utilities Relocation, and Right-of-Way Costs.

Assumptions:

494-a, Assume 3-lanes in each direction will be in-place by 2013. Toll will be a take away Lane.
 Assume 494 Design Build is constructed.
 Assume Crosstown (CSAHE2) Project is constructed.
 Assume Unweave the Weave Project is constructed, therefore can not continue express lane in that area.
 As a result a long flyover is required.
 Assume that we will be taking a lane in each direction on the new Wakota Bridge.
 Assume Lyndale Bridge single point is constructed (494-d).
 Assume Hanson Blvd. single point is constructed (10-1).
 Connections cost include RW.

MnPASS ROUND 2 CONCEPT A-1 "From Scratch" - CONSTRUCTION COST ESTIMATE (\$2004) 04/07/05																													
ID	Segment	Location	TYPE	SECTION	ROADWAY		BRIDGES										GANTRY		ESTIMATED CONSTRUCTION COST	TOTAL PROJECT DELIVERY 20%	TOTAL ROW COST	TOTAL CONSTRUCTION COST	AREA / FACILITY RISK MULTIPLIER 25%	TOTAL ESTIMATED CONSTRUCTION COST	Segment				
					LENGTH MILES	COST PER MILE (\$)	TOTAL ROADWAY SEGMENT COST	REMAIN AS IS	WIDEN BRIDGE	WIDEN RIVER CROSSING	CONST. NEW INTERSTATE	REMOVE AND RECONSTRUCT LOCAL STREET	SPUI	RR	FLY-OVER	SYSTEM TO SYSTEM CONNECTIONS	TOTAL BRIDGE COST	RETAINING/NOISE WALLS COST								TMS COST	NUMBER OF GANTRIES	TOTAL GANTRIES COST	
1	494-a	From I-94 to TH55	Lane Each Direction	TYPICAL 1	5.7	\$8,150,288	\$46,456,639	0	0	0	1	7	2	0	0	2	0	0	0	0	0	\$1,367,500	\$2,217,600	\$1,367,500	\$23,940,719	\$95,762,877	\$1,000,000	\$119,703,597	494-a
2	494-b	From TH55 to I-394	Lane Each Direction	TYPICAL 1	2.8	\$8,150,288	\$22,820,805	0	2	0	0	0	4	0	0	0	0	0	0	0	0	\$770,000	\$1,884,960	\$770,000	\$106,020,980	\$132,526,225	\$1,800,000	\$132,526,225	494-b
3	494-c	From I-394 to TH100	Lane Each Direction	TYPICAL 4	11.6	\$7,096,638	\$82,344,185	12	10	0	0	6	5	0	0	0	0	0	0	0	0	\$3,190,000	\$11,880,000	\$3,190,000	\$212,462,411	\$265,578,014	\$1,200,000	\$265,578,014	494-c
4	494-d	From TH100 to TH77	Lane Each Direction	TYPICAL 4	6.1	\$7,096,638	\$43,203,091	2	2	0	0	2	7	1	1	1	0	0	0	0	0	\$1,402,500	\$10,929,600	\$1,402,500	\$325,526,670	\$406,906,337	\$20,000,000	\$406,906,337	494-d
5	694-1	From I-94 to TH252	Lane Each Direction	TYPICAL 6	8.1	\$7,025,745	\$56,766,535	2	10	0	0	1	8	0	0	0	0	0	0	0	0	\$2,227,500	\$3,168,000	\$2,227,500	\$127,254,165	\$159,067,706	\$0	\$159,067,706	694-1
6	694-5	From TH252 to I-35W	Lane Each Direction	TYPICAL 4	5.0	\$7,096,638	\$35,493,188	1	6	1	0	0	3	0	2	0	0	0	0	0	0	\$1,275,000	\$12,777,600	\$1,275,000	\$119,472,699	\$149,340,874	\$6,500,000	\$149,340,874	694-5
7	694-2	From I-35W to I-38E	Lane Each Direction	TYPICAL 5	5.7	\$7,064,010	\$40,264,857															\$1,367,500	\$0	\$1,367,500	\$181,028,301	\$226,285,376	\$0	\$226,285,376	694-2
8	94-e	From TH 101 to I-494	Lane Each Direction	TYPICAL 3	9.2	\$6,458,029	\$59,413,865	8	1	0	1	2	1	0	0	0	0	0	0	0	0	\$2,330,000	\$0	\$2,330,000	\$92,379,153	\$115,473,941	\$0	\$115,473,941	94-e
9	94-4	From West of Earl St. to I-494	Lane Each Direction	TYPICAL 4	4.8	\$7,096,638	\$34,073,460	0	6	0	0	2	3	0	2	0	0	0	0	0	0	\$1,320,000	\$16,473,600	\$1,320,000	\$97,669,778	\$122,087,223	\$17,200,000	\$122,087,223	94-4
10	94-5	From I-694 to TH 95	Lane Each Direction	TYPICAL 5	9.3	\$7,064,010	\$65,695,293	5	0	0	0	0	0	0	0	0	0	0	0	0	0	\$2,357,500	\$0	\$2,357,500	\$84,322,652	\$105,403,190	\$0	\$105,403,190	94-5
11	36-1	From I-35W to I-35E	Lane Each Direction	TYPICAL 5	6.1	\$7,064,010	\$36,026,451															\$1,402,500	\$11,860,000	\$1,402,500	\$66,444,281	\$83,065,352	\$400,000	\$83,065,352	36-1
12	36-g	From I-35E to I-694	Lane Each Direction	TYPICAL 4	6.7	\$7,096,638	\$47,560,871	0	3	0	4	0	4	0	2	2	0	0	0	0	0	\$1,942,500	\$2,376,000	\$1,942,500	\$138,066,013	\$172,570,016	\$10,000,000	\$172,570,016	36-2
13	36-5	From I-694 to TH5	Lane Each Direction	TYPICAL 5	6.5	\$7,064,010	\$38,852,085	1	0	0	0	0	2	0	0	0	0	0	0	0	0	\$1,512,500	\$0	\$1,512,500	\$97,928,061	\$122,410,076	\$400,000	\$122,410,076	36-5
14	35 E-1	From TH36 to I-694	Lane Each Direction	MN/DOT Plans	1.8	\$8,653,989	\$15,571,181															\$495,000	\$2,373,600	\$495,000	\$87,405,902	\$109,257,377	\$5,700,000	\$109,257,377	35 E-1
15	35 E-2	From Maryland to TH36	Lane Each Direction	TYPICAL 2	2.3	\$8,653,989	\$19,904,176															\$632,900	\$0	\$632,900	\$60,834,411	\$76,043,013	\$3,800,000	\$76,043,013	35 E-2
16	35 W-1	From I-494 to TH 13	Lane Each Direction	TYPICAL 1	2.7	\$8,150,288	\$22,005,776	4	2	0	0	0	2	0	0	0	0	0	0	0	0	\$742,500	\$2,534,400	\$742,500	\$40,594,242	\$50,730,303	\$0	\$50,730,303	35 W-1
17	35 W-2	From TH 13 to I-494	Lane Each Direction	HOV to HOT	6.1	\$0	\$0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$2,419,200	\$3,024,000	\$0	\$3,024,000	35 W-2
18	35 W-3	From I-494 to 46th St.	Lane Each Direction	HOV to HOT	4.9	\$0	\$0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$1,612,800	\$2,016,000	\$0	\$2,016,000	35 W-3
19	35 W-4	From 46th St. to 4th Ave. R	Lane Each Direction	MN/DOT Plans	3.3	\$0	\$105,000,000															\$907,900	\$42,000,000	\$907,900	\$246,895,400	\$308,619,250	\$5,000,000	\$308,619,250	35 W-4
20	35 W-1	From 4th St. SE to TH36	Lane Each Direction	TYPICAL 4	3.6	\$7,096,638	\$25,556,095	5	12	0	0	6	0	3	0	0	0	0	0	0	0	\$990,000	\$21,182,240	\$990,000	\$112,019,895	\$140,024,868	\$0	\$140,024,868	35 W-1
21	35 W-6	From TH36 to I-694	Lane Each Direction	TYPICAL 1	4.1	\$8,150,288	\$33,416,179	0	0	0	0	2	5	0	3	0	0	0	0	0	0	\$1,127,500	\$9,504,000	\$1,127,500	\$127,746,592	\$159,683,240	\$0	\$159,683,240	35 W-6
22	35 W-7	From I-694 to TH10	Lane Each Direction	TYPICAL 1	1.9	\$8,150,288	\$15,485,546	2	1	0	0	5	0	1	1	0	0	0	0	0	0	\$935,000	\$4,175,000	\$935,000	\$100,937,660	\$126,172,075	\$0	\$126,172,075	35 W-7
23	10-1	Round Lake Blvd. To TH610	Lane Each Direction	TYPICAL 1	7.2	\$8,150,288	\$58,682,070	1	4	0	0	0	5	0	2	0	0	0	0	0	0	\$1,980,000	\$316,800	\$1,980,000	\$113,140,821	\$141,426,027	\$10,000,000	\$141,426,027	10-1
24	10-2	From TH610 to TH65	Lane Each Direction	TYPICAL 3	1.3	\$6,458,029	\$8,395,437	1	2	0	0	0	0	0	0	1	0	0	0	0	0	\$357,500	\$0	\$357,500	\$12,251,205	\$15,314,006	\$0	\$15,314,006	10-2
25	10-3	From TH65 to I-35W	Lane Each Direction	TYPICAL 3	2.7	\$6,458,029	\$17,436,678	2	0	0	0	1	0	0	0	0	0	0	0	0	0	\$742,500	\$0	\$742,500	\$41,470,329	\$51,637,911	\$2,000,000	\$51,637,911	10-3
26	65	From north side of TH242 to TH10	Lane Each Direction	TYPICAL 3	4.9	\$6,458,029	\$31,644,341	1	0	0	0	0	0	0	0	0	0	0	0	0	0	\$1,347,500	\$0	\$1,347,500	\$124,483,300	\$155,604,126	\$0	\$155,604,126	65
								78	61	1	6	22	63	1	12	9	15	\$359,072,561	\$146,810,400	\$285,000,000	\$2,109,274,748	\$34,457,500	\$37,632,000	\$285,000,000	\$2,816,129,688	\$3,520,162,122		\$3,520,162,122	

Cost Per Mile Includes:

13' Mainline/Express lane Concrete pavement reconstruction, both Directions, inside shoulder depth 4' Bit, outside mainline shoulders depth 7', interchange ramps 4 @ 1000' long, 9' depth. See Typical. Mobilization, Removals/Salvage, Grading, Aggregate/Bituminous Paving, milling and paving (base, binder, wear and tack) and Concrete Paving. Drainage and Concrete Items Traffic Control, Turf Establishment, Erosion, Lighting, Fencing, Signage, Mailbox Supports, Loop detectors replacement, and Minor Signal System upgrades.

Cost Per Mile does not include:

Bridges and Box Culverts, Signal Systems, Retaining Walls, Noise walls, Traffic Incident management Systems, Trail Systems, Bridge or House Renovations, Additional Cost/Drainage, Rail Road Agreements, Utilities Relocation, and Right-of-Way Costs.

Assumptions:

Assume 494 Design Build is constructed.
 Assume Crosstown (CSA/R6) Project is constructed.
 Assume Unweave the Weave Project is constructed, therefore can not continue express lane in that area.
 As a result a long flyover is required.
 Assume that we will be taking a lane in each direction on the new Wakota Bridge.
 Assume Lyndale Bridge single point is constructed (494-d).
 Assume Hanson Blvd. single point is constructed (10-1).

Connections cost include RW.