

Nov. 23, 2015

Meeting Subject: SP 6284-172 I35W Metro Major Projects Committee Presentation

Meeting Date: Nov. 23, 2015

The following is a list of scoping decisions that need to be made for SP 6284-172 I35W North MNPASS. Please circle the answers you prefer.

Which base pavement alternative do you prefer?

1. Alt A - All bituminous south of CR J and concrete overlay north of CR J with ramps matching. \$127M.
2. Alt B - All concrete. \$175.1M.
3. Alt C - Concrete mainline and combination bituminous or concrete rehab ramps \$169M.
4. Alt D - Mainline is bituminous south of I694 & concrete north of I694. Ramps are concrete north of I694. \$150.3M.

What scope and cost do we accept for noise wall visual quality?

1. Full 4% install cost at \$432k using wood silhouettes of pine trees and leaves.
2. No silhouettes and standard design only.

Do we spend the full 3% on grading costs for a landscaping project \$2.7M? Yes / No.

Should we spend \$980,000 to add new continuous freeway lighting on I35W from I694 to north junction US 10?

Do you agree that spot improvement #1 at CR C must be done with the MNPASS project? Yes / No.

Should the southbound CR C bridges be paved 10 ft wider to accommodate 6-lane staging for when the related northbound bridges are replaced (add \$1.3M to project)? Yes / No.

Should we replace the northbound CR C bridges \$6.2M with MNPASS or wait until 2025 (3-years after MNPASS is completed) to rebuild those bridges?

1. Replace with MNPASS.
2. Replace in 2025.

When should we build spot improvement #4?

1. Before MNPASS using CMSP funds in 2018.
2. During MNPASS.
3. After MNPASS.

Circle the spot improvements you would do with the MNPASS project. The improvements are listed in the priority order recommended by the Project Manager.

- #1 Widen southbound at CR C \$13.1M
- #7 3<sup>rd</sup> lane on westbound US 10 west of I35W \$3.3M. Note that neighborhood next door does not get a noise wall during the MNPASS project if we don't do this item.
- #11 2-lane ramp from westbound US 10 to NB I35W with aux lane on I35W \$2.8M
- #4 with aux lane – 2-lane ramp from southbound I35W to eastbound US10. #4 only \$2.3M. Aux lane \$1.7M
- #9A & #12 together – Northbound I35W buffer lane under I694 with aux lane between I694 and CR 96. \$2.3M + \$800k = \$3.1M
- #2 & #3 together – Southbound I35W aux lane between I694 and CR E2 & CR 96 & I694. \$1M + \$700k = \$1.7M
- #10 extend 3<sup>rd</sup> lane on eastbound US 10 west of I35W \$1.4M
- #9B turbine ramp at I694 \$22.4M
- CR J northbound entrance ramp \$5M - \$7M, does not include R/W.

Do we widen CR I to include spot improvement #11 if we don't build #11 with MNPASS? Yes / No.

**I-35W NORTH CORRIDOR PRELIMINARY DESIGN PROJECT - LWD COST ESTIMATES SUMMARY (2019 LETTING YEAR)**

<b>BASE ALTERNATIVES</b>	<b>MnPASS PAVEMENT</b>	<b>PAVEMENT PRESERVATION</b>	<b>DESIGN BUILD UP-CHARGE</b>	<b>TOTAL</b>
ALTERNATIVE A (BITUMINOUS SOUTH OF CR J AND CONCRETE NORTH OF CR J)	\$78,200,000	\$27,300,000	\$21,500,000	\$127,000,000
ALTERNATIVE B (CONCRETE MAINLINE AND CONCRETE RAMPS)	\$87,700,000	\$57,700,000	\$29,700,000	\$175,100,000
ALTERNATIVE C (CONCRETE MAINLINE AND BITUMINOUS RAMPS)	\$87,700,000	\$52,600,000	\$28,700,000	\$169,000,000
ALTERNATIVE D (BITUMINOUS SOUTH OF TH 694 AND CONCRETE NORTH OF TH 694)	\$84,200,000	\$40,600,000	\$25,500,000	\$150,300,000
<b>SPOT IMPROVEMENTS</b>	<b>SPOT IMPROVEMENT PAVEMENT</b>	<b>PAVEMENT PRESERVATION</b>	<b>DESIGN BUILD UP-CHARGE</b>	<b>TOTAL</b>
SPOT IMPROVEMENT #1	\$9,800,000	\$1,100,000	\$2,200,000	\$13,100,000
SPOT IMPROVEMENT #2	\$800,000	\$0	\$200,000	\$1,000,000
SPOT IMPROVEMENT #3	\$600,000	\$0	\$100,000	\$700,000
SPOT IMPROVEMENT #4 AUX	\$1,400,000	\$0	\$300,000	\$1,700,000
SPOT IMPROVEMENT #7 - BITUMINOUS ONLY	\$2,100,000	\$600,000	\$600,000	\$3,300,000
SPOT IMPROVEMENT #9A	\$1,900,000	\$0	\$400,000	\$2,300,000
SPOT IMPROVEMENT #11	\$2,300,000	\$0	\$500,000	\$2,800,000
SPOT IMPROVEMENT #12	\$700,000	\$0	\$100,000	\$800,000
SPOT IMPROVEMENT #9B	\$18,600,000	\$0	\$3,800,000	\$22,400,000
SPOT IMPROVEMENT #10 - BITUMINOUS ONLY	\$1,200,000	\$0	\$200,000	\$1,400,000
SPOT IMPROVEMENT - COUNTY ROAD J ON-RAMP (DOES NOT INCLUDE RIGHT OF WAY ACQUISITION)	\$5,000,000-\$7,000,000	-	-	\$5,000,000 - \$7,000,000
<b>SPOT IMPROVEMENT ALTERNATIVES</b>	<b>MnPASS &amp; SPOT IMPROVEMENT PAVEMENT</b>	<b>PAVEMENT PRESERVATION</b>	<b>DESIGN BUILD UP-CHARGE</b>	<b>TOTAL</b>
ALTERNATIVE B-i (Spot Improvements #1, #9A)	\$99,400,000	\$58,800,000	\$32,300,000	\$190,500,000
ALTERNATIVE B-ii (Spot Improvements #1, #7, #11)	\$101,900,000	\$59,400,000	\$33,000,000	\$194,300,000
ALTERNATIVE B-iii (Spot Improvements #1, #9A, #7, #11, #4 Aux)	\$105,200,000	\$59,400,000	\$33,700,000	\$198,300,000
ALTERNATIVE B-iv (Spot Improvements #1, #9A, #7, #11, #4 Aux, #2, #3, #12)	\$107,300,000	\$59,400,000	\$34,100,000	\$200,800,000

**NOTES:**

- LWD COST MULTIPLIERS HAVE BEEN PROVIDED BY MnDOT ESTIMATING.
- PAVEMENT SECTIONS ARE BASED ON MnDOT PROVIDED "UPDATED SCOPING MATERIALS RECOMMENDATION" MEMO DATED 11-6-15.
- COSTS FOR CONCRETE ALTERNATIVES DO NOT REFLECT COSTS FOR RECONSTRUCTION OF BITUMINOUS RAMP TIE-INS.
- COSTS FOR CONCRETE ALTERNATIVES DO NOT ACCOUNT FOR TOTAL RECONSTRUCTION OF MAINLINE PAVEMENT SEGMENTS TO MAINTAIN BRIDGE CLEARANCES.
- SRF INDEPENDENT PARAMETRIC COST ESTIMATE IS HIGHER THAN SHOWN LWD COST ESTIMATE.
- ESTIMATES DO NOT INCLUDE POTENTIAL CONTAMINATED MATERIAL CLEAN UP COSTS.
- ESTIMATES DO NOT INCLUDE ROADWAY LIGHTING COSTS.

**\*\*SEE ATTACHED NOTES FOR PROJECT AND SPOT IMPROVEMENT DESCRIPTIONS\*\***

## I-35W North Corridor – Congestion Problems & Solutions

This document provides a summary of congestion observed in the CORSIM analysis for the year 2040 MnPASS alternative. Congestion issues are organized by the corridor where poor level of service is observed to occur. Solutions to these issues may be on the congested route or may apply to connecting routes in cases where this may provide relief. For some locations multiple candidate solutions have been proposed. The attached figure shows the potential solutions and following bullets describe the problem locations and potential solutions.

- I-35W Southbound
  - 1.** Lane drop at CR C (bridges over railroad and CR C)
    - **Extend 4 lanes across bridges; tie into existing left add-lane to Cleveland**
  - 2.** Entrance from I-694 eastbound
    - **Auxiliary lane from I-694 EB entrance to CR E2 exit**
  - 3.** Exit to I-694 westbound
    - **Auxiliary lane from CSAH 96 entrance to I-694 WB exit**
  - 4.** Exit to TH 10 eastbound
    - **Expand to 2-lane exit with option lane and 2-lane connection to TH 10 EB**
  - 5.** Exit to CR I
    - **Extend parallel deceleration lane length to CR I exit loop**
  - 6.** Ramp to ramp weave from Lake Drive/CR J entrance to TH 10 westbound exit
    - **6a. Provide escape lane from auxiliary lane downstream from exit to TH 10 WB**
    - **6b. Provide 2-lane entrance from Lake Dr/CR J, add second auxiliary lane to TH 10 WB from outside lane and escape lane from inside auxiliary lane**
- I-35W Northbound
  - 7.** Exit to TH 10 westbound (queue spills back from connecting route)
    - **Auxiliary lane on TH 10 WB from I-35W SB entrance to add-lane near 93rd Lane**
  - 8.** Entrance from CSAH 96
    - **Auxiliary lane from CSAH 96 entrance to CSAH 10 exit**
  - 9.** Loop to loop weave from I-694 eastbound to I-694 westbound
    - **9a. Buffer lane through loop-to-loop weave and deceleration lane extending back to entrance from CR E2**
    - **9b. Flyover to replace northeast loop with westbound auxiliary lane to Long Lake Rd**
- TH 10 Eastbound (west)
  - 10.** Connection to I-35W southbound
    - **Auxiliary lane between 93rd Lane entrance and I-35W northbound exit**
- TH 10 Westbound (east)
  - 11.** Connection to I-35W northbound
    - **Provide 2-lane entrance to I-35W NB and carry lane to TH 10 north interchange**
- I-694 Eastbound
  - 12.** Exit to I-35W northbound (queue spills back from connecting route)
    - **Auxiliary lane along I-35W NB from I-694 WB entrance to CSAH 96 exit (see previous)**
    - **Provide extended parallel deceleration lane to I-35W NB to store queued vehicles**

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