

PROJECT MANAGEMENT TEAM MEETING

RECORD OF MEETING NO. 13

DATE: February 25, 2010 (Thursday)

LOCATION: GoToMeeting On-Line Conference Call Session

START: 9:30 a.m. DRAFT DATE: March 10, 2010

ADJOURN: 3:15 p.m. APPROVAL DATE: March 25, 2010

ATTENDEES: See Attendance List (attached)

MEETING DISCUSSION

I. Approval of Previous Minutes

- To save time during the meeting, past meeting minute approvals will be done via emails. SRF will summarize status of outstanding minutes and PMT will review, comment, and approve.

II. Tasks

• Task No. 1 – Project Management and Coordination

– Debrief of Mn/DOT Geometric Design Support Unit meeting

- Draft meeting minutes have been distributed to the City and District for review. Central Office (CO) will also be asked to review and comment regarding their concerns.
- The District and staff are meeting on February 26th to discuss Mn/DOT's official position regarding the folded diamond interchange configuration.
- CO Geometrics referenced several problematic interchanges in the state and considers an off-loop on a downgrade mainline to have concerns regarding safety. CO geometrics recommend using a standard diamond configuration in this location.
- The City inquired as to how many interchange configurations have this exit loop scenario as there are a number of factors that could be influencing the crashes that are occurring at these particular sites. They questioned the statistical validity of the safety concerns.
- The District reiterated CO concerns about safety. The need for sound geometric design and application of engineering standards, along with engineering experience and judgment, need to be applied in the selection of highway design elements to address safety issues.

- The City requested that any geometric standards that are not being met be clearly identified, so that this study could address them directly.
- District staff felt CO Geometric staff made a very convincing argument that should be heeded. Kevin Jullie from SRF attended the meeting and concurred that the arguments presented were very convincing.
- The City reiterated questions regarding the influence of traffic volumes on crashes, and that these CO concerns did not appear to account for these, so the safety concern is a bit subjective. There is also a trade-off from potential loop runoffs and the severity of damages that occur in those situations versus right-angle crashes and their severity which would potentially occur in a standard diamond configuration. The City also expressed concerns about potentially recreating a heavy northbound to westbound turn movement with a standard diamond, and having the same issues that currently exist at 55th Street.
- The City suggested that a compromise would be to have a solution that encompasses several combinations. The EA document could cover a range of impacts for these combinations. Beth Bartz of SRF joined the conversation briefly to discuss the implications of such an approach. The EA could address a wide range of options initially. However, once a preferred option was settled on and before final design/construction could begin, additional documentation would need to be completed to document the final alternative to be built. MnDOT staff did not agree with this approach. They felt it would delay the ultimate decision of the interchange design and would introduce more time and costs into a contract that is already over budget and behind schedule. The public wants the answers now. Mn/DOT feels the decisions should be made now rather than delayed further.
- The District inquired as to whether or not the CORSIM model takes into account the grades in its analysis. [Subsequent note: CORSIM can be coded to have the profile grades be a part of the analysis; however, the Mn/DOT CORSIM guidelines have set thresholds where the inputting of profile information is recommended. In this particular application those thresholds were not met, so the profile information was not included in the CORSIM “light” runs that were completed.]
- The District identified the NW loop entrance configuration as a medium concern in regard to the traffic entering the mainline from the southbound on-loop; stating that traffic would likely be moving at slower speeds as it merges into mainline traffic due to the uphill grade at the loop nose. An auxiliary lane in this area may be needed to accommodate the potential speed merging issue. The District requested speed information from CORSIM to answer this question. [Subsequent Note: Detailed speed information for vehicles entering TH 52 will be available once the detailed CORSIM analysis has been completed.]

- **Task No. 5 – Initial Concepts**

- 55th Street Interchange Configuration

- Northeast Loop and Ramp concept – The PMT reviewed the sketch of this potential configuration. The loop uses a 190-foot radius (minimum allowed) with a dual radius exit. The geometries get very close to Bandel Road and will likely require the east frontage road to be shifted a bit to fit the two roadways together. This may cause additional impacts to the Sterling Bank and Home Tech Store businesses. It would also require the acquisition of the SuperAmerica.
- This loop configuration will accommodate the heavy northbound to westbound turn moves. It is likely that the loop would need to either be a free right-turn movement which would require additional width on the bridge to accommodate acceleration and merging, or a dual right-turn lane controlled by the signal.
- This northeast loop is being considered as an interim solution to help maximize the life of the existing bridge. It was noted that interim condition will be determined after a preferred solution is identified and fully approved by the PMT. It is best that interim conditions build towards the final configuration in order to minimize future “throw away” costs.

- Exhibits 5 and 6 (Interchange Critical Lane Analysis)

- Critical Lane Analysis (CLA) is used to identify which options may work better than others or perhaps even have a fatal flaw in order to make decisions about which alternatives should undergo a more detailed analysis.
- SRF has reviewed the CLA exhibits to verify the lane usage assumed for this analysis. No changes were made.
- 55th Street interchange – Alternative B and G were used to evaluate “best case” and “worst case” scenarios.
- 65th street Interchange – Alternative E and G were used to evaluate “best case” and “worst case” scenarios. The Diverging Diamond Interchange (DDI) was in the initial batch of options to be analyzed, but was removed by the PMT due to its relative newness and unfamiliarity with the operations of such configuration. After some research and review, the PMT requested the DDI be reintroduced into the exhibit for comparison.

- Evaluation Matrices

- 55th Street Interchange Matrix

- The No Build column will be identified as the existing diamond interchange.
- Additional descriptions were added to the top headings of the columns.
- Line 5 – The PMT reviewed speeds and looked at differences in speeds with each column as well as the differences between columns. The PMT agreed that the distinctions between

alternatives did not warrant grading them differently. All Build option in line 5 will be colored green. The No Build will remain red.

- Line 8 – The PMT discussed the connectivity of the frontage roads and felt the partial clover leaf caused the westerly frontage road to use an offset to Chateau Road, and that this was a significant enough difference to be identified. The partial clover leaf will be graded as poor and colored red.
- A question arose regarding the Corsim “Light” analysis. This analysis assumed that there were no auxiliary lanes and that all traffic could enter onto TH 52. Based on these inputs, the analysis shows the TH 52 mainline will operate at a Level of Service C and that auxiliary lanes may not be needed. Additional CORSIM analysis will be completed once the recommended alternative is selected in order to determine the need for auxiliary lanes along TH 52.
- The Single Point Urban Interchange (SPUI) remains as the recommended alternative.

➤ 65th Street Interchange Matrix

- The PMT reviewed that there is not a No Build alternative in this matrix as the overall study has shown that an access at 65th Street is a benefit to the overall system. Since the existing condition is an overpass without access, it needs to be converted to an interchange – therefore only Build conditions are being considered in the configuration matrix. This matrix is only comparing one interchange to the next to determine a preferred interchange design. Comparing interchange build scenarios to a no-build of an interchange in this manner would be very misleading.
- Additional descriptions were added to the top headings of the columns.
- The PMT reviewed speeds and looked at differences in speeds within each column as well as the differences between columns. It was identified that the folded diamond was the only alternative to provide speeds at all locations over 60 mph; however, the PMT agreed that the distinctions between alternatives did not warrant grading them differently. It was also discussed that the speeds shown in the matrix were for mainline traffic and did not include speeds of traffic entering the highway from the interchange ramps. All Build options in line 5 will be colored green.
- District staff stated that the 65th Street matrix did not identify the concerns about geometry of folded diamond that have been expressed by CO geometrics and FHWA in the past regarding the downgrade off-loop and sight distance issues. Even though this

design may meet design standards, engineering judgment and experience also need to be used in the selection of the preferred alternative.

- The matrix summary still indicates that the Folded Diamond Interchange is the recommended configuration.
- Mn/DOT staff, the District, and CO staffs are meeting on February 26th to establish an official position regarding the folded diamond interchange.

- **Task No. 6 – Concept Evaluation**

- Technical Memorandum 5

- The PMT reviewed the discussion item memorandum regarding the comparisons of the 2006 study versus the current study. The PMT agreed that this memorandum was an accurate reflection of the two studies and addressed/explained the differences.

- West Frontage Road Evaluation Matrix

- To date, the west frontage road discussions have considered two intersection locations on both 55th Street and 65th Street. At 55th Street, the locations are Chateau Road and Clearwater Road. At 65th Street, the locations are 34th Avenue and a point approximately 1,000 feet west of 34th Avenue.
 - The PMT agreed that most all of the interchanges work better with the west frontage road located to the west along 65th Street, and it is expected that the FHWA would prefer the frontage roads be continuous and not be offset from one another at cross streets. The westerly connection along 65th Street serves this purpose as well.
 - The 65th Street interchange matrix included costs for a relocation of 34th Avenue in order to accommodate the frontage road intersection desires.
 - The PMT requested cost estimates be placed on FTP site for review.
 - Phil Forst is the new FHWA representative for the District, and District staff will be meeting with him the week of March 1st. [Subsequent note: this meeting is rescheduled for March 19th, due to the FHWA furlough.]
 - In reviewing the draft matrix, it appears that the Clearwater Road option does not compare as well to the Chateau Road option due to the social, environmental, and economic impacts of acquiring several homes along Clearwater. However, the PMT discussed whether the impact following completion of the frontage road might be higher to the Chateau residents because they would have a high volume frontage road running through their neighborhood; versus the remaining Clearwater neighborhood could be separated from the actual frontage road via a local connection, possible noise walls, and plantings, etc.
 - Line 6 deals with the local trips on the freeway. There was much discussion here regarding what traffic numbers are really indicating.
 - In comparing the Alternative B (no 65th Street Interchange and no west frontage road) to Alternative F (65th Street interchange) and Alternative G (65th Street

interchange AND a west frontage road), the local trips along TH 52 from 55th Street to 75th Street are 7,000 vehicles per day (vpd), 7,700 vpd, and 5,600 vpd, respectively – meaning that the TH 52 mainline would receive more vehicular traffic without a west frontage road than under current condition for the future volumes. In other words, the west frontage road provides a benefit to the TH 52 mainline in that it reduces the number of local trips on the trunk highway system – a key concern for the DOT and FHWA.

- In comparing the two build condition (Alternatives F and G) further, between 55th Street and 65th Street – Alternative F would increase local trips on TH 52 by 1,700 vpd over Alternative G and between 65th Street and 75th Street – Alternative F would increase local trips on TH 52 by 400 vpd over Alternative G. Since Alternative B does not have an access at 65th Street, there is no comparison for these individual segments to the Build conditions. It was also discussed that the west frontage road provides a significant benefit to the local system. Alternative F, without a west frontage road, would increase local trips on 65th Street, between the west frontage road and the east ramps by 7,300 vehicles per day. This could make the difference between a 4-lane versus a 6-lane on 65th Street. SRF was asked to evaluate this future need further. Alternative F, without a west frontage road, would also increase local trips on Bandel Road by about 1,100 vehicles per day.
- The local, trip volume estimates were developed using a selected link analysis of the ROCOG travel demand forecast model.
- Line 7 addresses the ability of each option to provide aid to the overall system, not just TH 52, which line 6 addresses more specifically. Since Alternative G reduces system overloads in more segments throughout the system, it rates better than Alternative F (no west frontage road).
- Line 8 – The PMT discussed continuity of the local system and agreed that Alternative B and Alternative F should be rated at “Poor” since they do not provide a local connection between 55th Street and 65th Street. The Chateau alternatives were changed to “Fair” as they provide local connections, but it would be discontinuous due to the offset intersections from the existing west frontage road south of 55th Street over to Chateau Road north of 55th Street.
- Line 20 – The PMT discussed and agreed that either frontage road connection would cause a disruption in the local neighborhoods. Therefore, all of the Build conditions are rated as “Poor”.
- For the economic section of the matrix, SRF had estimated that each house identified as a total taking on the Clearwater options would cost about \$500,000 in acquisition and relocation costs. The PMT discussed this and felt that \$300,000 was a more appropriate figure for this planning level evaluation. Homes are early 1980’s vintage and may still have the potential for asbestos issues. Right of way costs in the matrix are to be revised.
- Costs do not include specific cost for noise mitigation (noise walls), but do have a risk/contingency factor applied that account for some of these potential costs. The more potential issues, the more risk that was applied.

- The PMT agreed to add a criterion that addresses the effects on existing tax base and the potential for new development.
 - Line 30 – The PMT felt that this criterion was not applicable to Alternative B or F, as it was intended to help compare the Build options.
 - Line 33 – The PMT discussed flexibility to potential traffic changes were not provided for in Alternative F, as it does not have a local connection (same condition as Alternative B). This rating was changed to “Poor”.
 - In general, the west frontage road appears to offer a transportation benefit to the system, but the impacts and costs still need to be evaluated as to whether the costs are more than the benefit provided. SRF will conduct a cost-benefit analysis. It is also anticipated there will continue to be public opposition to either option.
- Identification of overall System Solution
- 55th Street Interchange – Single Point Urban Interchange is the recommended long term configuration. Interim conditions will be evaluated to maximize the remaining useful life and capacity of the existing bridge and could include a Diverging Diamond Interchange, a loop in the NE quadrant, or 2-lane roundabouts.
 - 65th Street Interchange – Due to the continued discussion regarding the safety of the folded diamond interchange, the City requested Mn/DOT discuss and determine their comfort level with a SPUI at 65th street for the long-term solution, along with the potential interim condition of a DDI to maximize the existing bridge. The SPUI interchange option had been eliminated for 65th Street during the previous February 4th meeting, due to impacts to the existing bridge and high costs of construction and right-of-way. During the discussion it was brought to light that the DDI may in fact be able to handle the 2035 traffic and the future conversion to a SPUI. The PMT concurred that SRF should evaluate the DDI further to determine whether it was a reasonable short-term and/or long-term solution.
 - 55th Street west of the interchange – the 6-lane analysis to date has focused on the interchange area. The additional intersections that have been analyzed indicate a need to carry the six lanes westerly through the Members Parkway intersection.
 - Auxiliary lanes – the preliminary evaluation from “Corsim light” indicated that auxiliary lanes may not be needed, however, the HCS weave analysis indicated benefit from auxiliary lanes. A final determination will not be made until the final interchange configurations are determined and a complete CORSIM analysis can be run.
 - West Frontage Road – understanding that public opinion will likely not be in favor of any west frontage road, choosing a recommended alternative has been very difficult. Issues of benefit and cost are the primary indicators, but the District has also placed a high emphasis on the continuity of the local frontage road network, a key concern for the FHWA. Based upon the continuity component, the PMT agreed to select the Clearwater Option 1 as the

recommended alternative. This option goes due north from the existing west frontage road through the easterly edge of the Harborage neighborhood and works its way northwest to the westerly connection point at 65th Street. The PMT is interested in gauging the public opinion of this option before making a final decision.

- East Frontage Road – the realignment to the east remains the recommended alternative in this area.
- 65th Street west of the Interchange – based upon Technical Memorandum 4, it was identified that 65th Street has been analyzed as a future four-lane facility as the recommended alternative. The PMT reviewed previous data in this area.
 - Previously it had been identified that a four-lane facility has a capacity of 28,000 vpd, and the threshold of a three-lane facility is less than 17,000 vpd.
 - Under Alternative F (no west frontage road) the traffic volumes near the interchange are 32,700 vpd and drop to 14,400 vpd in the area to the west.
 - Under Alternative G the traffic volumes are 25,400 vpd and 13,500 vpd, respectively.
 - The west frontage road appears to provide benefit to the 65th Street corridor as well.

- **Task No. 14 – Public Involvement**

- PMT is looking at March 25, 2010 for a public meeting to present the overall recommended alternative. Final details and coordination are pending the DOT's meeting to be held tomorrow.

III. Next Meetings

- Conference Call No. 8 (Friday, March 5, 2010 (8:30 ~~9:00~~ a.m. to 10:30 a.m. ~~noon~~) – receive debrief on District meetings with CO and FHWA; plan upcoming public meeting.
- PMT Meeting 14 (Thursday, March 25, 8:30 a.m. to 12:30 p.m., District offices)
- Conference Call (Monday, April 5, 9:00 a.m. to noon)
- PMT Meeting 15 (Thursday, April 22, 9:30 a.m. to 12:30 p.m., District offices)
- Conference Call (Tuesday, May 11, 9:00 a.m. to noon)
- PMT Meeting 16 (Thursday, May 27, 9:30 a.m. to 12:30 p.m., District offices)
- Conference Call (Wednesday, June 9, 9:00 a.m. to noon)
- PMT Meeting 17 (Thursday, June 24, 9:30 a.m. to 12:30 p.m., District offices)

KAH/bls

Attachment – Attendee List

NORTHERN ROCHESTER TRANSPORTATION STUDY

Project Management Team Meeting No. 13

February 25, 2010

ATTENDEES

PMT Members		Phone	Email
X	Rhonda Prestegard, Mn/DOT D6	507-286-7511	rhonda.prestegard@state.mn.us
X	Richard Freese, City of Rochester	507-328-2426	rfreese@rochestermn.gov
X	Ken Holte, SRF Consulting Group, Inc.	763-249-6732	kholte@srfconsulting.com
PMT Member's Staff:			
X	Greg Paulson, Mn/DOT D6	507-286-7502	greg.paulson@state.mn.us
X	Michael Schweyen, Mn/DOT D6	507-286-7636	michael.schweyen@state.mn.us
X	Jeff Bunch, Mn/DOT D6	507-286-7557	jeffrey.bunch@state.mn.us
X	Gary Shannon, City of Rochester (partial)	507-328-2430	gshannon@rochestermn.gov
X	John Hagen, SRF Consulting Group, Inc.	763-249-6726	jhagen@srfconsulting.com
	Angela Bersaw, SRF Consulting Group, Inc.	763-475-0010	abersaw@srfconsulting.com
X	Kevin Jullie, SRF Consulting Group, Inc.	763-249-6711	kjullie@srfconsulting.com
Project Partners:			
	Mike Sheehan, Olmsted County	507-328-7070	sheehan.michael@co.olmsted.mn.us
	Kaye Bieniek, Olmsted County	507-328-7070	bieniek.kaye@co.olmsted.mn.us
	Charlie Reiter, ROCOG	507-328-7136	reiter.charlie@co.olmsted.mn.us
	Kevin Kleithermes, FHWA	651-291-6123	kevin.kliethermes@fhwa.dot.gov.us