

## Red Wing Bridge --TAC #9/PAC #6 October 17, 2013 1:00 p.m.

Red Wing Public Library -- Foot Room

Meeting Chair: Chris Hiniker

Minutes by: Mark Benson

Present: Chad Hanson, Greg Paulson, Todd Stevens, Craig Lenz, Nancy Klema, Jim Rosenow, Anthony Wagner, Amy Adrihan, Mohamed Hayek, Jay Owens, Jess Greenwood, Patty Brown, Chris Hiniker, Todd Lang, Dan Dorgan, Mark Benson, Debra Moynihan, Abbi Ginsberg, David Larson, Chris Moates, Jacob Bronder, Wendy Maves, Ben Jilk, Peter Leete, Teresa Martin, Rick Moskwa, Ted Seifert, Bradley Touchstone, Chad Johnson

**Copies to:** PAC/TAC Members

- I. Introductions Bradley Touchstone (bridge architect) joined the meeting by video call
- II. Overview of past progress
  - A. Determined the river crossing will be kept at current location
  - B. Identified and refined a preferred set of concepts for the Minnesota and Wisconsin approach roadways
  - C. Decided to proceed with a new two-lane river crossing option
  - D. Completed Bridge 9103 Rehabilitation Study
  - E. Identified three preferred river bridge types
- III. Approach roadways
  - A. Bridge 9103 rehab study status
    - 1. Minnesota approach alternatives were reviewed
      - a. Rehabilitate 9103
        - (1) Additional downtown street improvements are necessary along with this alignment to mitigate traffic impacts
        - (2) Question: would the curb changes be in the historic district? Yes
        - (3) Question: would right of way acquisition be required for these downtown street improvements? Yes, from several business.
      - b. Replace in place alternative
        - (1) The same additional downtown street improvements as the rehabilitation alternative are necessary along with this alignment to mitigate traffic impacts
      - c. Buttonhook with slip ramp
        - (1) Does best job accommodating traffic
        - (2) Question: Would this require land acquisition from ADM? No
    - 2. Evaluation of Minnesota Approach Alternatives will center on the Following:
      - a. Purpose and Need
      - b. Cost Factors

- c. Social, Economic, and Environmental Factors
- 3. Wisconsin approach status
  - a. Refinement underway
  - b. Checking vertical clearance under jug handle design
  - c. Adding compatibility with a future 4 lane expansion
  - d. Future meeting with local officials to discuss

## B. Bridge 9040

- 1. HDR report underway is evaluating final 3 bridge types
  - a. Tied Arch
    - (1) 432 foot main channel span
    - (2) 5 foot structure depth
    - (3) Accommodates bike trail
    - (4) Considering future 4 lane expansion, two side by side basket handle arches do not fit between Barn Bluff and ADM, therefore arches need to be vertical not basket handle.
    - (5) Built by floating in or by using cantilever construction with backstays
  - b. Steel Box Girder
    - (1) 432 foot main channel span
    - (2) 12 foot structure depth over piers. Less at midspan, haunched girders
    - (3) Accommodates bike trail
  - c. Concrete Segmental Box Girder
    - (1) 432 foot main channel span
    - (2) 21 foot structure depth over piers. Less at midspan, haunched girders
    - (3) Accommodates bike trail
    - (4) Requesting USCG variance for haunches near the piers
    - (5) Most cost effective
    - (6) No falsework spans would be constructed using the balanced cantilever method
    - (7) Concrete boxes would likely be cast-in-place using form travelers.
- 2. Visual quality process
  - a. Bradley Touchstone from Tallahassee, Florida is the Bridge Architect on the team
  - b. Discussed future opportunity for the City of Red Wing
  - c. Three bridge types under consideration which are either girder type or tied arch
  - d. Girder is sleek and transparent passive while driving over
  - e. Arch is an icon that grabs your attention active participation when driving
  - f. Need to determine classic/historical aesthetic theme vs. contemporary/futurist aesthetic theme
  - g. Bridge type selection is ultimately driven by several factors including cost and engineering constraints
  - h. Once bridge type is selected a much more comprehensive visual quality process will be undertaken
  - i. Question: What is additional cost for aesthetics?
    - (1) Bradley Touchstone noted that a significant visual aspect of the bridge would be the pier shapes, using forming to convey a classical or contemporary look. Since the bridge requires a pier for support, much of those costs are already incurred. The additional cost for aesthetics is limited to the form liners and forming used to shape the face of the piers.
  - j. Question: what are the cost differences by bridge type?
    - (1) Arch is more expensive than girder type bridges

- (2) However, approach costs differ due to different bridge structure depths and therefore different grade raise requirements, so a total project cost will be looked at.
- k. Very possible to get classic aesthetics with girder design. Bradley noted that this is becoming more common.
- 1. Comments from PAC members favored historic aesthetics for the City of Red Wing. Also pointed out that an overhead truss is the "brand" of Red Wing
- m. Question: what were the factors in selecting the tied arch in Hastings?
  - (1) The scale of the tied arch with added historic details fit the community. However, it was noted that MnDOT and the City of Hastings had also agreed to accept a cable-stayed bridge and the two bridge types were both put out for bids.
- n. Peter Leete, DNR cost should not be only factor time to build, cost to traffic, cost to community. In Hastings it was a signature bridge focus. Locals need input since they live with it.
- o. Todd Stevens Cost will be a major factor in decision-making. Total project cost estimates accounting for both the cost of the river bridge and approach roadway improvements will be required for the final evaluation and screening.
- p. Comment from Teresa Martin concerned with conflicts between downtown historic look and the tied arch. Icon bridge may not be appropriate, impacts view shed
- q. Question: will the various bridge types affect visibility from bridge?
  - (1) Due to the difference in required profiles due to different bridge structure depths, there will be different views
- r. Example of new I-35W bridge is a simple girder structure that allows for better view sheds
- s. What historical period would represent Red Wing? (1) the attendees noted the late 1800's is the historical period associated with the downtown area.
- t. What about night lighting? Navigation lighting, decorative lighting?
  - (1) Will be studied once bridge type is selected
- u. Are piers compatible with future 4 lane?
  - (1) Yes designs are set for that.
  - (2) What about old piling would need to be removed or offset?
- C. Next Steps in the Analysis Process
  - 1. Complete evaluation of the Minnesota approach alternatives and the three bridge types;
  - 2. Obtain public input;
  - 3. Identify the recommended Minnesota approach option and river bridge type.
  - 4. Proceed with the Environmental Assessment (EA)
- IV. Public Outreach Update
  - A. Listening Session #4 November
  - B. Open House #3 early 2014
  - C. Newsletter #3 prior to Open House #3
  - D. Project presentation opportunities
  - E. Question about Bridge 9103; will it be retained?
    - Decision has not yet been made. Currently completing a detailed evaluation of the different Minnesota approach alternatives some of which retain Bridge 9103 while others require its removal.
  - F. Project Website http://www.dot.state.mn.us/d6/projects/redwing-bridge/index.html

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- 1. Today's presentation will be posted on website
- Next Meetings V.

  - TAC November 21<sup>st</sup> cancelled PAC #7/TAC #10 December 19<sup>th</sup> 1:00 p.m. to 3:00 p.m. B.

If there are errors contained in this document, or if relevant information has been omitted, please contact Chris Hiniker at 651-490-2063.