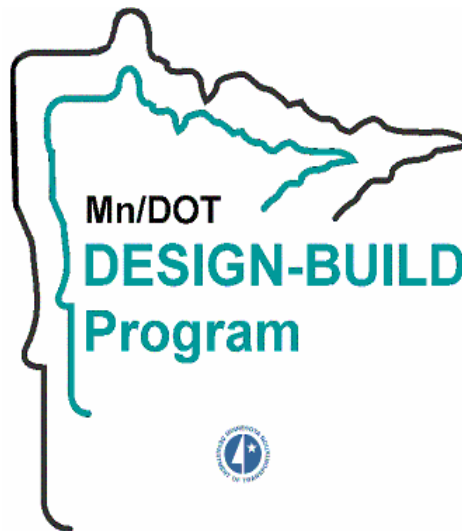


**MINNESOTA DEPARTMENT OF TRANSPORTATION
Metro Division**

**ST. ANTHONY FALLS (35W) BRIDGE DESIGN-BUILD PROJECT
S.P. 2783-120
E.R. MN 07(300)**



**Technical Review Committee
Summary of Findings**

Ames/Lunda (A-L)

Disclaimer: The strengths and weaknesses provided on the following pages represent observations from the Technical Review Committee members based upon the contents of the A-L Technical Proposal. There is no relative weight factor for each comment and more comments do not necessarily reflect a proposal that is stronger or weaker. It was up to each Technical Review Committee scoring member to determine the significance of each strength and/or weakness.

QUALITY

Strengths

- The Joint Venture members have worked together in the past.
- Lunda has experience with bridges of this size.
- Their Project Manager (PM) has Design-Build (DB) experience on major projects.
- PM has 15 years experience and authority to act on all matters.
- Their Construction Manager (CM) has relevant experience on DB projects and major river crossing projects.
- Their Quality Manager (QM) has experience as a Construction Quality Assurance Manager (CQAM) and as a Construction Quality Control Manager (CQCM) on DB projects.
- A Design Quality Control Manager is provided.
- The Lead Bridge Designer has 27 years experience.
- Evidence of some Design Quality processes was observed.
- Some evidence of Design Quality processes were discussed at the oral interview.
- Their Safety program and the enhancements committed to received very favorable comments from the Technical Subcommittee.
- The Experience Modification Ratings (EMR) rates listed were noted.
- There was a high level of assurance of a sound safety program on this project.
- The Quality Incentive Program was noted.
- The Quality Manual will be ISO 9001 compliant.
- Added a Field Utility Coordinator position.

Weaknesses

- Their PM does not have experience as a PM on a DB project.
- Their PM does not have experience as a PM on a major river crossing project.
- Their CM has not been a CM on a (DB) major river crossing project.
- Their QM does not have experience as a QM on a DB major river crossing project.
- The CQAM has not worked on a major river crossing project.
- The Lead Bridge Designer may not have relevant DB experience.

- The Lead Bridge Designer may not have worked with this team previously.
- During the interview, neither the PM, CM, or QM had ever issued a Stop Work order previously.
- Evidence of Design and Construction coordination beyond the requirements of the Quality Templates was not observed.
- The Technical Proposal provided very limited enhancements to the Quality Templates.
- Executive Level Commitment to the Quality program was not exhibited in the Technical Proposal or at the oral interview.
- There appeared to be little Design-Construction interaction post-design either included in the Technical Proposal or evidenced at the oral interview.
- The A-L quality processes did not correct flaws in the design elements of their Technical Proposal.
- No discussion of steel QC/QA in Technical Proposal or oral interview.
- Design Independent Quality Review is a good idea but not early enough in the process as a lot of design work was already accomplished.

AESTHETICS

Strengths

- Fred Gottemoeller had strong credentials as the Visual Quality Manager. He reports to the A-L Executive Committee and Mn/DOT.
- The aesthetics of the bridge girder and pier designs was viewed favorably.
- A public “open listening forum” was planned with a well thought-out list of invitees.

Weaknesses

- Fred Gottemoeller did not appear to have worked with this team previously.
- The visual quality experience for the drivers of 35W appeared lacking.
- The alignment shift was viewed unfavorably for both the 35W drivers and the “under bridge” user’s visual experience.
- There appeared to be a significant bridge deck drainage structure installation requirement that was not addressed.
- Approach span for piers 3 and 4 does not have the same elegant effect as the river span.

- This team did not integrate the visual quality experience with the engineering aspects of this project. Roadway geometry was one engineering detriment to the visual quality aspects of this proposal.
- The landscaping commitments appeared limited to rows of trees from the north abutment of the river bridge to University Avenue and the pedestrian overlook on the south abutment with the corresponding boardwalk.
- The in-place stone retaining wall on the north bank appears to be blocked by pier 3.
- The visualization at the oral interview showed the 10th Avenue bridge view from the upstream areas, like the Guthrie, will be blocked by the profile of the new bridge.
- There were no specific commitments to any modifications to the visual quality items based on the results of the public “open listening forum.” This was reaffirmed at the oral interview.
- The public involvement process for aesthetics appeared to be very rushed.

ENHANCEMENTS

Strengths

- The increased offset for the NW University Avenue ramp.
- The 30 mph headlight sag design speed improvement for the SE University Avenue ramp.
- The reduced width of the pier footings and the pier alignments were viewed favorably.
- The inclusion of 2 security cameras and 3 additional FLIR devices was noted.

Weaknesses

- Geometric concerns with the Washington Avenue ramps.
- The Design Speed increase was not viewed favorably based on the resulting corridor inconsistency.
- The horizontal alignment shift was viewed as a weakness as it caused severe impacts to the neighborhood on the east side of 35W.
- Short vertical curves, not consistent with Mn/DOT design practices.
- No solution was provided for the sizing of the storm water pond on the north side and it appeared to be outside the Right-of-Way limits and required the closing of 8th Avenue.
- The southerly storm water pond required closing of 19th Avenue S.

- The future profile of 35W was not compatible with the future construction of interchanges at University Ave. and 4th Street SE as it required the removal of the bridges at 2nd Street SE and reconstruction of the river bridge.
- The horizontal alignment shift was viewed as a weakness, in terms of the bridge deck geometry and the potential impacts on deck roughness and life-cycle cost impacts.
- The pier within the railroad tracks was noted.
- Impacts to the University of Minnesota loading dock at the tandem accelerator building were noted.
- Bridge pier #3 may be susceptible to movement due to thermal effects.
- The future required removal or modification of the river bridges and 2nd Street SE bridges was viewed as a significant weakness to the life-cycle cost and impacts to the road users. There are significant maintenance concerns with this structure (uplift, pier 3, LRT loadings).

PUBLIC RELATIONS

Strengths

- Trudy Richter is an experienced Public Information Coordinator (PIC).
- A-L will work with the Visual Quality Advisory Team (VQAT) early in the process.
- A full-time position is provided at the project office.
- The commitment of no nighttime pile driving.
- A public project office.
- White noise machines.
- Backup alarms.
- Telescopes.

Weaknesses

- The Public Relations staff appeared too small for this size and type of project.
- The PIC responsibilities do not list coordination with the A-L Project Management Team.
- The PIC approach appears to be directed towards following Mn/DOT.
- The full-time position at the project office is not employed by a Joint Venture member and appears to be only providing coordination.

- The Public Relations efforts appear to be “rushed” at the start of the project and appeared to be limited to comment only.
- The targeted audience appeared limited and the Public Relations program appears to be based on standard projects.
- Lack of public involvement in aesthetics was significant.
- The problems with the profile were considered as potential significant public relations issues.
- Involvement of the construction staff in the public relations process was not evident at the oral interview.
- The Public Relations staff do not appear to be integrated with the rest of the team.