

**FACTUAL SUMMARY OF INTERVIEWS WITH FORMER  
SVERDRUP & PARCEL EMPLOYEES  
TOM DILLON and WILLIAM GADDIS  
(3 pages including this cover sheet)**

Interview with: Tom Dillon and William Gaddis,  
Former employees of Sverdrup & Parcel

Interview Date: September 9, 2008

Interview Location: Jacobs Engineering  
501 North Broadway  
St. Louis, Missouri

NTSB staff present: Mark Bagnard, Office of Highway Safety  
Joe Epperson, Office of Research and Engineering  
Carl Schultheisz, Office of Research and Engineering

The following is a summary of information based on comments made during the interview of these former employees:

During the time the I-35W bridge (bridge 9340) was designed, Sverdrup & Parcel did not utilize any type of written check list to denote what work (calculations, etc.) would be included as part of a design package. Both recalled that work was performed using the normal process where the detailer's work was verified at by a checker. Their terminology, of "detailing" seemed to indicate making drawings such as the design plans. They did not seem to have any insight into how the project was managed such as determining the choice of materials, tracking necessary tasks, or interfacing with MnDOT and FHWA.

Detailer type work was done in-house and was not sub-contracted out to another company or to MnDOT. In this context detailing implied creating the design plans.

The shop drawings were not prepared by Sverdrup & Parcel but they believed that MnDOT would have reviewed them. However, it was not included as part of the contract for Sverdrup & Parcel to have reviewed the shop drawings.

Calculations were made using a "Monroe Calculator" (While this is a specific brand, not mention was made regarding the model) and in addition to this, much of the work was performed utilizing hand calculations. They did not recall using slide-rules to perform calculations

During the time period of the I-35W bridge, private design consultants had a specific way of doing business in regard to design philosophy. It is our opinion that this is still true today, as the AASHTO guidelines leave latitude for choices by the designers.

Dillon recalled that there were two earlier editions of the 1989 Detailing of Truss Joints manual, which are cited in the manual as 1964 and 1969 versions. However, he did not have copies of them and stated he could not find them in his personal items.

Dillon acknowledged that he had a lot of experience in truss design and most of his design work involved through-truss bridge designs. He also stated that while he was at Sverdrup & Parcel, the typical application was to use multiple thinner gusset plates as opposed to one very thick gusset plate. These plates were normally in the range of no more than 1-inch to 1.5-inch in thickness. Dillon preferred using multiple thinner gusset plates to provide some redundancy and prevent defects that could occur in thick sections.

According to an examination of his time sheets, Dillon recalled that he would have only performed preliminary design work on the I-35W bridge. Dillon could not specifically recall working on the I-35W project, but when asked, stated that the bridge project he remembered the most was the one in Jacksonville, Florida (Isaiah Hart Bridge). Both Dillon and Gaddis did not recall being responsible for material selection and responded that the highway department would have been responsible for dictating the final design. Additionally, neither of them had any specific recollections of any material related items

Dillon stated several times that gusset plate thickness was governed by shear across the joints. He also indicated that the calculations would have accounted for tension stress and flexure. He also made the comment that joints are typically stronger than the members.

There seemed to be some confusion regarding the dates on the plan sheets. Both stated the dates were based on the first version of the designs and were not necessarily updated if there were changes to the designs sheet at a later date. Dillon and Gaddis both said that changes were sometimes made to drawings and computations without updating the “dates” on the sheets.

Dillon appeared to be unsure about this but believed that since Colin Reuter was a relatively new employee that he (Dillon) would have been assigned as his checker. Dillon also believed that the checker would have performed much of Reuter's work to teach him the procedures. The design drawings showing the gusset plates were all drawn by Reuter and checked by Dillon. Both Dillon and Gaddis stated that it may have been possible that other engineers could have participated in doing computations for the gusset plates. And, both brought up a possible scenario that Reuter could have been provided another engineer's work from a different project so that he could use that material as an example.

Both Dillon and Gaddis were unable to remember if the office was overworked or understaffed during the period when the I-35W bridge was being designed.