

Standard Details

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Clear communication and written standards for fabricator-detailer relations are essential for on-time project delivery.

The AISC Quality Certification Program addresses not just a fabricator's shop procedures, but also the detailing process. "AISC Certification requires that fabricators create a written standard for detailers to follow to ensure that all personnel, both in-house and subcontractors, follow standard shop preferences," said Chris Crosby, P.E., AISC's Certification Manager.

Section 7 of AISC's new *Certification Standard for Steel Building Structures* lists how fabricators are required to manage the detailing process in order to meet AISC quality standards. As stated in the *Standard*:

"a documented procedure for preparation of shop and erection drawings shall be developed which describes: how project requirements are reviewed and incorporated; and how the fabricator coordinates, clarifies, resolves, and tracks information with the customer." (7.1.1).

The fabricator also is required to prepare detailing standards that describe the technical preferences and requirements used in the shop, such as information required on advance bills, how mill order lists are prepared and methods of drawing layout. Fabricators also must document procedures for checking and approval of shop and erection drawings.

Further, detailing management personnel must have experience in sizing connections and *"detailing and checking shop and erection drawings meeting the approval of designers for a variety of structures representative of projects the company provides."* (7.2.2.1). Detailing managers can also meet selection requirements if they are graduate engi-

neers, P.E.s or S.E.s with fabrication experience. Individual detailers and checkers must have skills and experience appropriate to the projects that they will detail. Detailers-in-training must work under the supervision of a trained detailer. Also, fabricators that subcontract personnel must have a documented qualification and selection process for subcontract workers; and fabricators and subcontractors must continue to meet the above-mentioned quality-management requirements.

"Detailing is one of the major areas covered in the new *Standard*, due to the poor quality of drawings that so many fabricators receive," Crosby said. "By having standards, you'll get the same drawings in the same format from all the detailers you use—which leads to an increase in productivity on the shop floor."

Added Bill Ashton, vice president of contract management for Egger Steel Company in Sioux Falls, SD: "Our productivity in the drafting room and the shop is highly dependent on detailing standards. When we change detailing standards, we first confer with the shop. Standards force detailers to detail in the most economical way and to produce drawings that show the most efficient way to fabricate the member."

AISC Certification works to ensure that the entire detailing process in a given fabricator's shop proceeds according to a defined and quality-driven method, rather than just testing and certifying individual detailers for the quality of isolated drawings. Under AISC Certification requirements, the detailing standards are part of a company's procedures manual.

"All of our in-house draftsmen and lead detailers get copies of our standards," Ashton said. "All our mill orders are sent through the lead detailer—his job is to take our detailing standards and make sure the preliminary drawings comply with our detailer standards. If they don't we send them back."

New detailing software and technology make it easier for some fabricators to apply detailing standards. "It's pretty well implemented now that everyone is using a CAD system," said Stephen Porter, president of Indiana Steel Fabricating, Inc., in Indianapolis, IN. "Prior to that, we had manuals, sheets and copies. Now, all the detailers we work with can program their systems to have the same defaults as ours."

Another key is the review process. "Almost every drawing is reviewed in one form or another," Porter explained. "We require them [subcontracted detailers] to produce checked shop drawings. We then sit down and do a cursory check of our own. It's our customer, and we're ultimately responsible, so we don't delegate everything to the detailer."

By documenting procedures to manage the detailing process, fabricators can create positive relationships with in-house and subcontract detailers. The AISC certification standard reinforces the importance of a quality detailing process, and ensures that employing detailers involves more than just reviewing resumés or certificates.

The AISC *Certification Standard for Steel Building Structures* is available at www.aisc.org/qualitystandard. ★