

TPI's Topics

ANSI/TPI 1-1995 READY FOR REAFFIRMATION, ANSI/TPI/WTCA 4-2000 UP NEXT: The old adage "the wheels of time grind ever so slowly" seems to be an appropriate description for TPI's standards development, adoption and implementation process. Our industry's truss design and manufacturing standard, ANSI/TPI 1-1995, took nearly 10 years to develop before it was ready to replace its code approved predecessors -TPI-85 and PCT- 80. Not surprisingly, TPI standards, along with WTCA's substantial marketing efforts, serve as the primary anchor points for our industry to effectively promote trusses as safe and proven performers.

Normally, TPI standards are revised on a much shorter schedule, however a significant portion of the extra time was consumed with standards development issues raised by BOCA's Code Development Committee in the late '80s and eventually resolved with our recognition by the American National Standards Institute as a consensus standards developer in the early '90s. Following ANSI accreditation, additional time and research was necessary to address truss quality issues, raised by WTCA, pertaining to plate embedment. This was accomplished by implementing newer quality criteria, connector plate testing and joint design methodologies. ANSI/TPI 1-1995 was approved as a voluntary American

National Standard effective February 13, 1995.

ANSI approval gave TPI the green light to submit its newly recognized consensus standard for adoption by reference in the latest edition of the model building codes. The adoption process takes approximately a year with no guarantees that the model code will accept the standard. Fortunately, ANSI/TPI 1-1995 was adopted by reference in all of the major model building codes e.g. BOCA's *National Building Code 1996*, ICBO's *Uniform Building Code 1997*, SBCCI's *Standard Building Code 1997*, International Code Council's *CABO 1 & 2 Family Dwelling Code 1998*, most of the regional codes, and ICC's *International Building Code 2000 Draft 1*.

"ANSI/TPI 1-1995 is the culmination of thousands of hours of testing and input by hundreds of dedicated people whose main purpose is to advance the technology of the wood truss industry. Since its accreditation in February of 1995, Truswal Systems has been an ardent supporter of implementing this new standard as quickly as possible. Our company is 100 percent in agreement that the adoption of ANSI/TPI 1-1995 as the state-of-the-art standard that should be adopted by everyone involved in the design of metal plate connected trusses. Truswal will continue to advise its customers, where allowed to do so by the local building code authority, to implement the new standard."

*Andy Schwitter, Chief Executive Officer and Don Scott, P.E.,
Vice President of Engineering, Truswal Systems Corporation*

Successful adoption eventually leads to implementation - which can take from one-to-three years to accomplish. All throughout the standards setting process, starting with the developers (TPI), accrediting agencies (ANSI), and adopters e.g. model building codes - users of the standard must be aware of a consistent message - that the publishing entity has no power or authority to police or enforce compliance with the contents of its respective standards or code, further, it is only the governmental body that enacts the code into law that does so. This past year, TPI's plate manufacturer members struggled with the implementation issue since not all jurisdictions (town, city, county, state) have adopted the latest edition of the above model building codes. For the most part, ANSI/TPI 1-1995 based truss designs are in use nationwide. Once implemented, I still look back with amazement as to how long the process actually takes.

In my capacity as a WTCA Board member representing TPI's interests, I will periodically report on TPI's activities for 1998 and beyond. I was surprised to learn that the so-called "standards setting grindstone" never stops turning. Per TPI's agreement with the American National Standards Institute, ANSI/TPI 1-1995 must be revised/ reaffirmed/withdrawn on a five-year cycle. TPI initiated the revision/reaffirmation process, which went into effect January 1. Vexing issues such as truss-to-truss connection specification and responsibility, tension perpendicular to grain, coil steel selection for plate testing, repetitive member

increase factors for axial design values, and scope of work for truss design will be considered and hotly debated.

"We believe that there should be uniform implementation and MiTek continues to support the TPI resolution of October 22, 1996 that was passed unanimously by TPI in a joint meeting of the TPI Board of Directors and the WTCA Executive Committee. The resolution is as follows:

1. For truss design drawings prepared after January 1, 1997, the Truss Designer and Truss Manufacturer shall comply with ANSI/TPI 1-1995.
2. For truss design drawings prepared before January 1, 1997, the Truss Designer and Truss Manufacturer shall comply with ANSI/TPI 1-1995 no later than July 1, 1997.
3. The only exception to the above is where the local code jurisdiction mandates that a particular truss design methodology be used.

Based on the above resolution, MiTek Industries, Inc. is 100 percent behind the implementation of ANSI/TPI 1-1995 as the state-of-the-art standard for truss design. We believe that the standard should be implemented by anyone involved in the design of metal plate connected trusses."

Thomas J. Manenti, Senior Vice President and Stephen W. Cabler, P.E., Vice President, Engineering, MiTek Industries, Inc.

Also, at the request of WTCA, TPI will start work developing evidence of consensus for [proposed] ANSI/TPI/WTCA 4-2000 "*Standard Responsibilities in the Design Process Involving Metal Plate Connected Wood Trusses*" formerly known as WTCA 1-1995. Once approved, [proposed] ANSI/TPI/WTCA 4-2000 stands a very good chance of becoming official policy for the state boards of professional regulation governing the practice of engineering, could be adopted by reference in the model building codes, and most importantly, can serve as a risk management tool to be integrated with your contract documentation.

We are truly grateful for the cooperation TPI receives from WTCA. Together we will ensure that our industry maintains sound engineering priorities.

Gene Toombs is the President and CEO MiTek Industries Inc., St. Louis, and the TPI Representative to WTCA's Board of Directors.