

STRUCTURAL BUILDING COMPONENTS MAGAZINE

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Frequently Asked Questions

Top Ten Books for your Technical Library by Rachel Smith

Is your technical reference library up-to-date? Read about the most crucial reference guides for your design department.

The questions we receive in the technical department are not limited to those from homeowners, builders and inspectors. Component manufacturers sometimes come up with questions that have us scratching our heads. Other times, the questions are relatively simple and it is just a matter of directing callers to a specific page in one of the many industry reference materials, such as the Metal Plate Connected Wood Truss Handbook or the ANSI/TPI 1 standard. Then they might tell us they do not have a copy of either of these documents and that has us scratching our heads again.

I could be a nerd, but I am mystified as to how a truss design office can be free of truss design books. In fact, some students who attend WTCA's Truss Technician Training classes never have seen many of the most fundamental industry design resources until the class.

Casey Carrigan, P.E., of Apex Technology, an engineering firm specializing in trusses, spoke about "Retaining Technicians Through Training" at the 2002 BCMC show (full seminar program with audio available for purchase at www.wtcatko.com). Perhaps you were there and recall his recommended list of books for any truss design library. If so, I'm sure you immediately ran out the next week and stocked up. If not, I am going to make this easy for you. I have included ordering information, and brief descriptions of each book. If you're looking for a 2004 New Year's resolution, it doesn't get any easier than this.

TOP TEN BOOKS FOR YOUR TECHNICAL LIBRARY

1. Metal Plate Connected Wood Truss Handbook: This is the only textbook out there written for the truss industry. The third edition with the blue cover was updated in 2002 and contains loads of information on all aspects of truss design, manufacturing, installation details and bracing. You can order online from WTCA (www.woodtruss.com); you can also buy items one and two in a package from WTCA.

2. ANSI/TPI 1-2002 The National Design Standard for Metal Plate Connected Wood Truss Construction: As the title suggests, this is the way trusses are designed in the U.S. Your design software may know it, but if you don't you are driving a Ferrari wearing a blindfold. Individually available from the Truss Plate Institute (www.tpinst.org) or order the handbook and ANSI/TPI 1 together in a hard copy or CD package from WTCA.

- 3. ANSI/TPI/WTCA 4-2002 The National Standard and Recommended Guidelines on Responsibilities for Construction using Metal Plate Connected Wood Trusses:** Not so much a book as a document, this is the basis for a solid risk management plan. The design department must be aware what is in and what is out of their scope of work. Read it; you may be surprised at how much of others' responsibilities you are performing. Available from WTCA.
- 4. Building Codes—Local and State:** Requirements may vary from county to county and state to state even though it is the same "model code" such as the IBC, IRC or NFPA 5000. When in doubt, contact your local building department. Some may even post codes or amendments online. IBC and IRC are available from the International Codes Council (www.iccsafe.org). NFPA 5000 is available from the National Fire Protection Association (www.nfpa.org).
- 5. SEI/ASCE 7-02 Minimum Design Loads for Buildings and Other Structures:** This book describes the loading requirements for live, dead and environmental loads. Sections of this book are included in most model building codes. TTT Level II spends quite a bit of time reviewing these loading procedures. Available from the American Society of Civil Engineers (www.pubs.asce.org).
- 6. Truss Connector Catalog:** Make sure this is the most up-to-date version available. Most connector companies update these annually and have them on CD or online. Read the fine print and make sure the design department understands their load duration factors and fastener capacities.
- 7. ANSI/AF&PA NDS-2001 National Design Specification® for Wood Construction:** The NDS provides design values and equations for engineering a variety of wood products and metal fasteners. Many of the ANSI/TPI 1 design principles are derived from the NDS since trusses are a specialized case of lumber and fastener engineering. Available from the American Wood Council (www.awc.org).
- 8. The Wood Frame Construction Manual for One- and Two-Family Dwellings, 2001 Edition:** The WFCM provides engineered and prescriptive requirements for wood frame residential construction based on dead, live, snow, seismic and wind loads derived from the 2000 International Building Code (IBC). Also from the American Wood Council.
- 9. Timber Construction Manual:** This is "the handbook for heavy timber design." It includes technical data for dimension lumber, timbers and glued laminated timber and current timber design methods for beams, columns, arches and timber trusses. Another useful feature is the capacity tables for simple span beams up to 40 feet. Available from the American Institute of Timber Construction (www.aitc-glulam.org).
- 10. Lumber Guides and Span Charts for Dimensional Lumber and Engineered Wood Products:** These are important when structures mix conventional and component construction. The guides list span charts, strength properties, adjustment factors and installation details that every designer needs to consider. Most of these are available online. For lumber contact Canadian Wood Council (www.cwc.ca), Southern Pine Council (www.southernpine.com), and Western

Wood Products Association (www.wwpa.org). For EWP guides, contact the manufacturer.

To pose a question for this column, email us at faq@woodtruss.com. To view other questions visit the [WTCA website](#).

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