

**Position Statement on
Sealed Truss Placement Diagrams
for the State of California
(including Los Angeles)**

Overview
Revised 3/22/2017

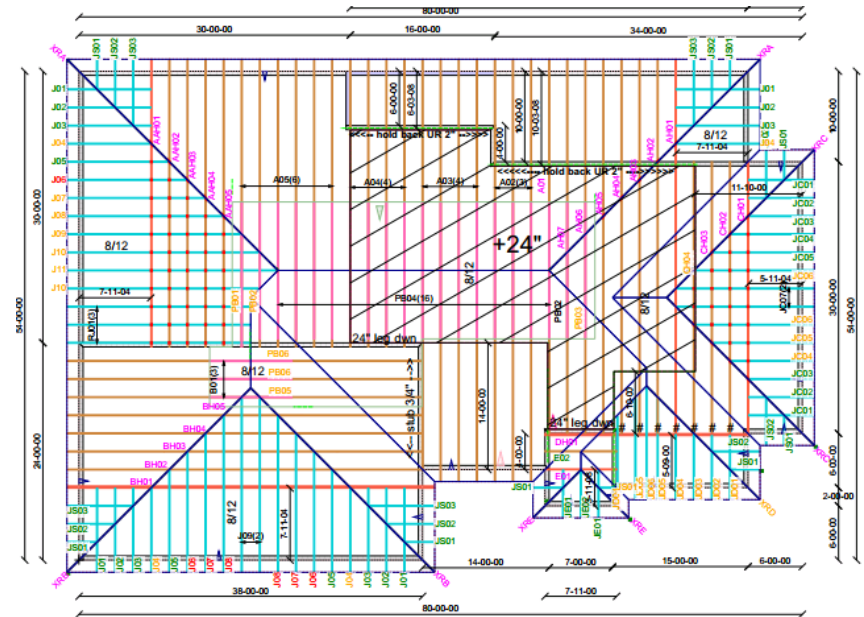


SBCA has been the voice of the structural building components industry since 1983, providing educational programs and technical information, disseminating industry news, and facilitating networking opportunities for manufacturers of roof trusses, wall panels and floor trusses. **SBCA** endeavors to expand component manufacturers' market share and enhance the professionalism of the component manufacturing industry.

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Introduction

- Do Truss Designers have the responsibility to seal a Truss Placement Diagram (TPD)?
- Short answer: NO



- All necessary engineering design information is found on the Truss Design Drawings (TDD)
- If Truss Design Engineers were to seal a TPD, they could inappropriately be held responsible for ensuring the proper flow of loads through the structure to the foundation.



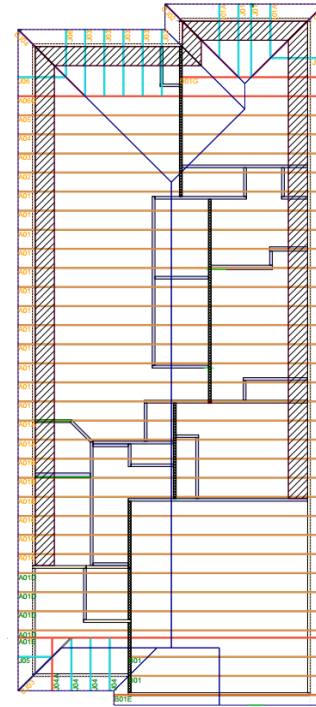
Why not seal TPDs?

- Compare a truss to a window: both are manufactured and in turn installed within a building.
- A window may be a highly engineered component of a house with specific installation specifications and instructions.
- However, there is no requirement to provide an engineer's seal on the installation instructions for windows.



Purpose of TPDs

- To assist the builder in positioning or locating the trusses and components supplied by the manufacturer.
- To serve as detailed installation instructions
- To indicate the manufacturer's assumed location for each truss and component



Background

- The code language regarding TPDs in the 2013 CBC is taken from the 2012 and 2015 IBC
- This definition was originally introduced in the 2006 *IBC* (S165-04/05)
- The proposal was intended to improve clarity in terminology and included only a definition of a TPD :
 - **2303.4.2 Truss placement diagrams.** Diagrams supplied by the truss manufacturer that identify the individually designated truss design drawings do not require the seal of a truss design engineer.

Background

- The proposal was modified during the 2006 *IBC* hearing process as follows:
 - **2303.4.1.3 Truss Placement Diagram.** The truss manufacturer shall provide a truss placement diagram that identifies the proposed location for each individually designated truss and references the corresponding truss design drawing. The truss placement diagram shall be provided as part of the truss submittal package, and with the shipment of trusses delivered to the job site. Truss placement diagrams shall not be required to bear the seal or signature of the truss designer.
 - **Exception:** When the Truss Placement Diagram is prepared under the direct supervision of a registered design professional, it is required to be signed and sealed.

Background

- In the 2009 *IBC* the definition of a TPD was revised again (S217-07/08) as proposed by the National Council of Structural Engineers Associations (NCSEA):
 - **2303.4.2 Truss placement diagram.** The truss manufacturer shall provide a truss placement diagram that identifies the proposed location for each individually designated truss and references the corresponding truss design drawing. The truss placement diagram shall be provided as part of the truss submittal package, and with the shipment of trusses delivered to the job site. Truss placement diagrams that serve only as a guide for installation and do not deviate from the permit submittal drawings shall not be required to bear the seal or signature of the truss designer.

Background

- The rationale for the change proposed by S217-07/08 is as follows:
 - The truss placement diagram is an erection diagram that replicates the information on the approved construction documents per Section 106.3. As it requires no engineering input, direct supervision and the signature and seal of a registered design professional is not required.

Background

- The Commentary to the 2012 IBC Section 2303.4.2 confirms the original intent of the code change.
 - This section describes and defines the term "truss placement diagram." It is intended to minimize the confusion that exists in the construction industry between a variety of terms that are often used interchangeably, such as "installation documents," "construction documents," "shop drawings," etc. The term "truss placement diagram" is preferred by the truss industry and is very specific. The section requires a truss placement diagram to identify the location of each truss and references the corresponding truss design drawing to facilitate inspection and proper installation.

Analysis

- The 2013 California Building Code is modeled after the 2012 IBC, and therefore many sections are identical between the two documents, including sections relevant to TPDs
- [2303.4.1.4.1 Truss design drawings](#)
- [2303.4.2 Truss placement diagram](#)
- [2303.4.3 Truss submittal package](#)

Analysis

- The 2013 California Building Code provides that the plans and specifications for a project shall be prepared by an RDP where required by the project's jurisdiction.
- The plans and specifications should in turn clearly define the scope of the work proposed by the Building Designer.
- [CBC 107.1 General \(Submittal Documents\)](#)
- [CBC 107.2.1 Information on construction documents.](#)

Analysis

- California Statutes for Professional Engineering
 - The California professional engineering law and the California Building Code provide the basis upon which to evaluate the need to provide an engineer's seal on a TPD.
 - Based on this evaluation, a TPD does not require a professional engineer's seal for any building projects, including DSA-SS, DSA-SS/CC and OSHPD.

Analysis

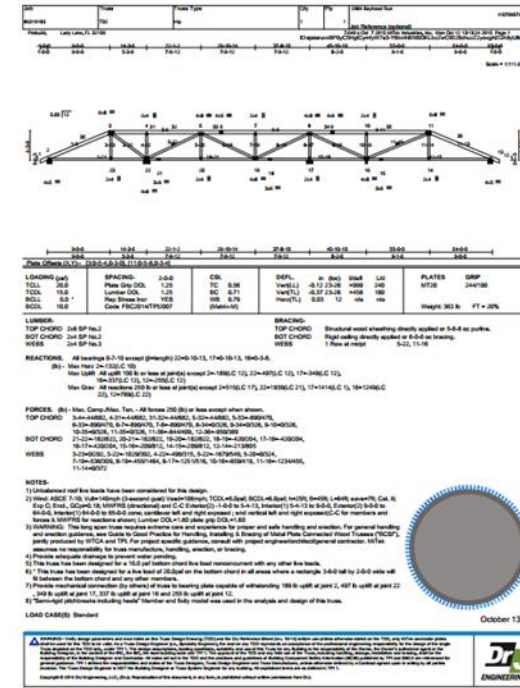
- Requiring the TPD to be sealed, where it is not prepared by an engineer or under his/her immediate personal supervision, is contrary to California law.
- Rules of the Board for Professional Engineers and Land Surveyors 411. Seal and Signature. (g)
- Professional Engineers Act 6735 Preparation, signing, and sealing of civil engineering documents (a)

Analysis

- ANSI/TPI 1-2007, referenced by the 2013 CBC, clearly states that TPDs do not require an engineer's seal when they serve only as a guide for Truss installation
- The commentary further explains the intent of the standard
- 2.3.6.4 Truss Placement Diagram. ...When the Truss Placement Diagram serves only as a guide for Truss installation and requires no engineering input, it does not require the seal of any Truss Design Engineer or Registered Design Professional.

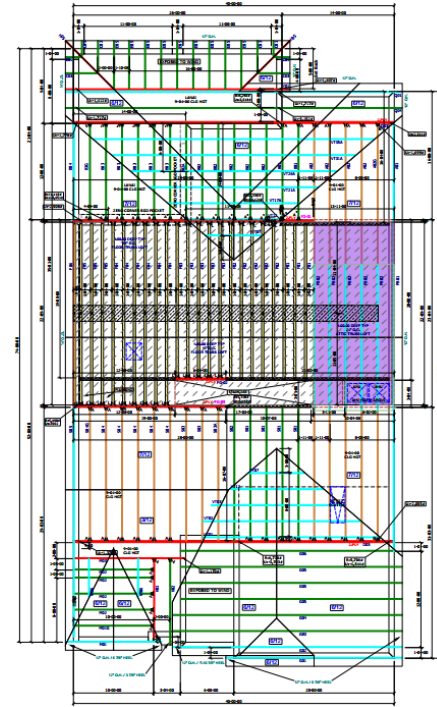
Analysis

- The Truss Designer's sole responsibility is to design the individual trusses according to information provided by the RDP or Building Designer
- The Truss Designer is therefore specifically responsible for the single truss design depicted on each TDD.



Analysis

- TPDs are typically prepared by component manufacturer personnel other than Truss Designers.
- The TPDs may not be reviewed or even seen by the Truss Designer.
- It is therefore understood that TPDs are not prepared under the Truss Designer's direct supervision.



Findings

- The 2013 California Building Code specifies in Section 2303.4.2 that a Truss Placement Plan does not require the seal of the truss designer when the TDD serves as a guide for installers.
- It is the responsibility of the Building Designer to review the TPD, if provided, and verify that it does not deviate from the permit submittal documents.

Conclusion

- Truss Design Engineers should NOT be asked by RDPs, Building Designers or Building Code Officials to seal TPDs.

References

- ANSI/ TPI, National Design Standard for Metal Plate Connected Wood Truss Construction, Truss Plate Institute, 2007
- International Building Code, International Code Council, 2006, 2009, 2012, 2015
- California Code of Regulations, Title 24 (California Building Standards Code), International Code Council, 2013.
- California Professional Engineers Act, Rules of the Board for Professional Engineers and Land Surveyors