

MPC and COFS Joint Meeting on Trusses Updating the 2009 IBC Language for the North Carolina Building Code

August 16, 2010

Introduction & Issue:

John Presley and Kirk Grundahl attended the following meeting:

From: Steve L. Knight, PE
Sent: Tuesday, August 10, 2010 1:57 PM
To: Kirk Grundahl; David Stuttle; Steve Knight PE; Paul Lavene; Mike Huslage; Mark Bailey; Frank Park; Dennis Williams; Dan Tingen; Dan Murray; Bob Ruffner; Bill Murchison; Barry Gupton; AL Bass; John Hitch; Betsy Bailey; Travis Caudell; Lecil Alexander; John Presley
Subject: Reminder: Joint meeting regarding engineered trusses

Just a reminder of our meeting this Thursday at 1 pm at the Department of Insurance offices on Chaponoke Road in Raleigh.

Some of you have indicated that you cannot make it; I understand the conflicts. Hopefully, the ones that can make it will have a positive impact on the outcome of the code language regarding manufactured trusses.

For those on the Standing Committee, we will have a brief meeting afterwards to address the one public comment that was received regarding another portion of the code changes for 2012.

Thank you.

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Recommendations:

After a wide ranging discussion and getting all of the background regarding the sealed placement plan issues, the group arrived at the following conclusion. The 2012 NCBC will modify the 2009 IBC as follows:

~~2303.4.1.1~~ **2303.4.1.4 Truss designer.** The individual or organization responsible for the design of trusses, *who is a registered design professional.*



Prepared with assistance from Structural Building Components Association of the Carolinas, a local chapter of SBCA.
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2303.4.1.4.1 Truss design drawings. ~~Where required by the registered design professional, the building official or the statutes of the jurisdiction in which the project is to be constructed,~~ Each individual truss design drawing shall bear the seal and signature of the truss designer.

Exceptions:

~~1. Where a cover sheet and truss index sheet are combined into a single sheet and attached to the set of truss design drawings, the single cover/truss index sheet is the only document required to be signed and sealed by the truss designer.~~

~~2. When a cover sheet and a truss index sheet are separately provided and attached to the set of truss design drawings, the cover sheet and the truss index sheet are the only documents required to be signed and sealed by the truss designer.~~

[This change is due to State of North Carolina Engineering law which requires each engineering document produced to be signed and sealed.]

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.

2303.4.3 Truss submittal package. The truss submittal package provided by the truss manufacturer shall consist of each individual truss design drawing, the truss placement diagram, the permanent individual truss member restraint/bracing method and details and any other structural details germane to the trusses; and, as applicable, the cover/truss index sheet. ~~The submittal package shall be submitted to the registered design professional in responsible charge for final approval prior to fabrication of trusses.~~

We believe that this is a very good outcome given where the group was at. It is also clear to Kirk that the working relationship we have with Barry Gupton, Bob Speed and Bill Murchison is a very good one; and while we may not always agree precisely, they are very willing to listen to the concerns that we have and work through them in a manner that looks at all points of view.

In addition, we have committed the chapter to having Steve Knight attend one of our upcoming chapter meetings to work through CMs providing the **following item** on a consistent basis as part of the truss submittal package (this is from our residential truss submittal package document):

1. **The following information shall be contained on each document comprising the Truss Submittal Package:**
 - a. Building Code used for Design
 - b. Truss manufacture's name, address and phone number
 - c. Job number assigned by the truss manufacture
 - d. Job location; either street address, city and county or lot number, block number, section or subdivision and county
 - e. **The Truss Reaction Summary Sheet shall also include the Truss ID and maximum calculated reaction for each bearing location.**
 - f. The Truss Design Drawing shall also include the Truss Design Engineer's seal, signature and date, where required by the statutes of the jurisdiction in which the project is to be constructed.
 - g. The Residential Truss Placement Diagram shall also include the name and signature of person responsible for producing the placement plan.

Resolution:

After the meeting, Chair Steve Knight sent out a thank you note to the group:

From: Steve L. Knight, PE [mailto:steveknightpe@bellsouth.net]
Sent: Friday, August 13, 2010 11:32 AM
To: Steve L. Knight, PE; Kirk Grundahl; David Stuttle; Paul Lavene; Mike Huslage; Mark Bailey; Frank Park; Dennis Williams; Dan Tingen; Dan Murray; Bob Ruffner; Bill Murchison; Barry Gupton; AL Bass; John Hitch; Betsy Bailey; Travis Caudell; Lecil Alexander; John Presley
Subject: Thank you: Joint meeting regarding engineered trusses

I just want to thank each of you that were able to participate in the engineered truss meeting yesterday. I hope all of you feel that it was a success. There was a lot of good discussion and I think everyone benefited from the shared knowledge and experience that each of us have had over the years. These shared experiences will help us all better understand the basis of our viewpoints.

The standing committee has taken action to modify the code language from what was proposed for 2012. It will now look more like the 2009 IBC.

Thank you again.

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This was followed by an email from Barry Gupton with a document that had the new *NCBC* language:

From: Gupton, Barry [mailto:Barry.Gupton@ncdoi.gov]
Sent: Friday, August 13, 2010 1:32 PM
To: Steve L. Knight, PE
Cc: Kirk Grundahl; David Stuttle; Paul Lavene; Mike Huslage; Bailey, Mark; Frank Park; Dennis Williams; Dan Tingen; Dan Murray; Bob Ruffner; Murchison, Bill; AL Bass; John Hitch; Betsy Bailey; Travis Caudell; Lecil Alexander; John Presley
Subject: RE: Thank you: Joint meeting regarding engineered trusses

Attached are the Structural Committee modifications as I understand them. Thanks. Barry

Attachment to email:

The Structural Committee met on August 12, 2010 and made the following modifications to the 2012 NC Building Code petition for rulemaking based on public comments.

SECTION 202 DEFINITIONS

REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed.

(Adopt the 2009 IBC definition without further modification. The LB was concerned that the additional sentence implied more than the Statutes allowed by exception. This modification will be made throughout the 2012 NC State Building Codes.)

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.**

(Adopt the 2009 IBC Section 2303.4.2 without further modification. The last sentence allows truss placement plans without professional seals as long as they have been coordinated with the permit submittal drawings.)

2303.4.3 Truss submittal package. The truss submittal package provided by the truss manufacturer shall consist of each individual truss design drawing, the truss placement diagram, the permanent individual truss member restraint/bracing method and details and any other structural details germane to the trusses; and, as applicable, the cover/truss index sheet. The submittal package shall be submitted to the registered design professional in responsible charge for final approval prior to fabrication of trusses.

(Adopt the 2012 NCBC Section 2303.4.3 as proposed by the Ad Hoc Committee. The last sentence is intended to encourage coordination between the project designer and the component designer.)

Section 1609.1.2, Protection of openings.

Exceptions:

1. Wood structural panels with a minimum thickness of 7/16 inch (11.1mm) and maximum panel span of 8 feet (2438 mm) shall be permitted for opening protection in buildings with a mean roof height of 45 feet (13 716 mm) or less. Panels shall be precut so that they shall be attached to the framing surrounding the opening containing the product with the glazed opening. Panels shall be secured with the attachment hardware provided. Attachments shall be designed to resist the components and cladding loads determined in accordance with the provisions of ASCE 7. Attachment in accordance with Table 1609.1.2 is permitted for buildings with a mean roof height of 45 feet (13 716 mm) or less where wind speeds do not exceed 140 mph (63 m/s).

*(Adopt the 2012 NCBC Section 1609.1.2, Exception 1 as proposed by the Ad Hoc Committee with modifications to coordinate with Table 1609.1.2. The mean roof height and maximum wind speed were increased to 45-feet and 140-mph respectively. **Note:** The Committee did not discuss the 45-foot mean roof height coordination, but it now matches the Table.)*

Summary:

We believe that we can work together well to smooth out the processing of our work with the RDPs and General Contractors (GCs). The key is good communication and ensuring that the approval process goes through the RDP for any changes that are made to the truss and wall panel system as requested by the GC, as offered by the CM for better economics, or demanded by the budget/cost structure of the project.

The core concept here is that it is very difficult to regulate out all the problems that the construction process has. There needs to be personal responsibility for implementation of the code requirements. Our goal is to have CMs take responsibility solely for what is in their control and work with those that desire to work with us to streamline the built construction process from design to permit to installation so that there is as little angst as possible. Mostly this revolves around really good communication.

Finally, we believe that our “Truss Submittal Package Compliance” document is still a framework that everyone embraces and we should continue to work on this basis in NC.

Any questions can be directed to John Presley, Anna Stamm or Kirk Grundahl.