

Construction Codes Advisory Council Meeting
Thursday, February 11, 2016 @ 10:00 a.m.
MEETING MINUTES

Minnesota Room – Department of Labor and Industry
443 Lafayette Road North, St. Paul, MN 55155

Members:

Scott McLellan (Chair)
Mark Brunner
Tom Downs
Bill Freitag (via teleconference)
Todd Gray
Gerhard Guth
Pat Higgins
Robert Jewell
Larry Justin (Kittelsohn alternate)
Laura McCarthy
John McConnell
Larry Stevens, Jr.
Kevin McGinty (Smith alternate)
Pete Parris
Bob Bastianelli

Staff & Visitors:

Deputy Commissioner Jessica Looman – DLI
Scott McKown – DLI
Jeff Lebowski – DLI
Lyndy Lutz – DLI
Lori Herzog – DLI
Jim Lungstrom – DLI
Todd Green – DLI
Gary Thaden – MMCA
Sophie Thaden – MMCA
James Vagle – BATC
Ann Lindstrom – League of MN Cities
Adam Hanson – ABC

Members Absent:

Jim Kittelson
Jennifer DeJournett
Tom Erdman
Jim Smith
Mike Paradise

1. Call to Order

The meeting was called to order at 10:04 a.m. by Chair McLellan. Bill Freitag attended the meeting via teleconference. Housekeeping announcements were made.

2. Introductions

Members introduced themselves and a quorum was declared.

3. Approval of Minutes

A motion was made by Gray, seconded by Parris, to approve the June 18, 2015 meeting minutes as presented. The vote was unanimous; the motion carried.

4. **Division and Department Reports**

- a) Codes – fire sprinklers; plumbing code; Spanish Res code; fire code
- b) Legislation – code adoption; license fee reduction
- c) ePlan review – update
- d) 2015 Roof Collapse – department response

Looman discussed the adoption of the most recent Minnesota residential code. Among the many changes related to implementing the new code; one that was proposed by the Department and approved by the administrative law judge was a change in the residential fire sprinkler requirements for single family homes. That rulemaking was appealed to the Minnesota Court of Appeals and the Court ruled that particular portion of the rule to be invalid. The effect of the Court of Appeals ruling is that automatic fire sprinkler systems are not required to be installed in single family homes or two family dwellings. That decision was then appealed to the Minnesota Supreme Court, but the Supreme Court did not take the case. This means that the decision is now final. Although the fire sprinkler provision remains in the published rule, it has been ruled invalid by the courts and, therefore, cannot be enforced.

McLellan said that the new plumbing code went into effect on January 23, 2016. As with the other building codes, the publisher IAPMO, was able to publish it as a single Minnesota custom code integrated with Minnesota amendments. Higgins asked if there were plans to set it on a six year cycle with the international codes. McLellan said that last year's legislation established a six year adoption cycle for all codes except those adopted by the boards for Electrical, High Pressure Piping and Plumbing. McCarthy asked if there was some kind of legal action that has taken place with the plumbing code. Looman explained that the International Code Council filed suit against the Plumbing Board but the case was dismissed because of lack of standing. They are appealing that dismissal. McCarthy asked about testing backflow devices as required in the new plumbing code. McLellan said that a double check valve is now required as opposed to a single in fire sprinkler systems. Testing is also now required. Higgins asked about understanding the testing requirements of RPZ's and the city's responsibility. McLellan said it is the responsibility of the tester and/or owner to submit records of testing and maintenance to the city.

Deputy Commissioner Looman discussed the Construction Industry Conference scheduled for Feb. 18, 2016.

McLellan talked about the state fire code. The fire code was published for public comment on January 4. The public comment period ended February 5. With no comments received and no requests for public hearing, it could become effective potentially in the month of April. McGinty said the published version should be ready by May. It should be available online sooner.

McLellan showed how to navigate through the MN codes online at:
<http://www.dli.mn.gov/CCLD/codes15.asp>

Looman reported on the reduction in licensing fees by approximately \$20 per license. The entire reduction represents about \$1.5 million in licensing revenue that was possible due to efficiencies gained from our online licensing system. As a result, our costs to administer licenses have gone down.

McLellan provided an update on the electronic plan review process. Currently, it is available for Plumbing, Building and Fire Protection plan reviews.

McLellan highlighted a building failure this past year at a Minnesota waterpark where a roof collapsed without warning in the middle of the night. It reminded us that geographically, most of our state does not have building code enforcement.

Looman said that the Department has prepared a very modest legislative proposal for this year including a housekeeping bill for CCLD.

5. Roof Truss bracing failures

Thomas J. Downs, P.E. Forensic Experts, gave a presentation – **See Attachment B.**

6. Next Meeting

A tentative meeting date was set for 10:00 a.m. on June 16, 2016.

7. Adjourn

The meeting adjourned at 11:34 a.m.

Respectfully Submitted,

Lori Herzog

Lori Herzog, Executive Secretary
Construction Codes and Licensing Division
Department of Labor and Industry

CODE COMPLIANCE IN CONSTRUCTION

Presented to:
Construction Code Advisory Council
February 11, 2016

Presented by:
Thomas J. Downs P.E., FACI



Code Compliance

Code enforcement across Minnesota

- Outstate Compliance
- Outstate Enforcement
- Devils in the Details

Wood Roof Trusses

- Agricultural
- Residential
- Commercial
- Institutional

References

- Truss Plate Institute TPI – 1
 - Referenced in the IRC 2009 and IBC 2009
- Structure Magazine – August 2009

Sketches courtesy of the Truss Plate Institute and Structure Magazine

Four Components for Trusses

- The Owner
- The Design Professional
- The Truss Manufacturer/Designer
- The Contractor/Installer

Truss Plate Institute TPI - 1

Section 2.4 - Responsibilities where the Legal requirements do not Mandate a Registered Design Professional for Buildings

The Owner

2.4.1.2 – The owner shall engage a Building Designer to prepare the Construction Documents.

In the absence of an independent Building Designer, the Owner shall assume the role of Building Designer.

2.4.2.4 – The Building Designer, through the Construction Documents shall provide information sufficiently accurate and reliable to be used.....

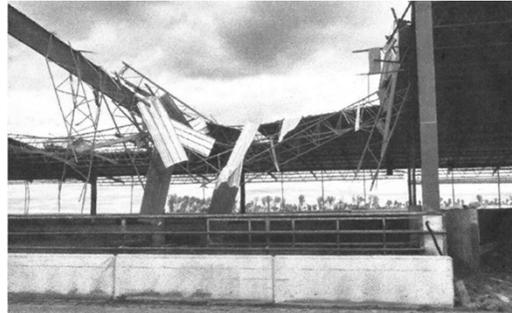
(a) All Truss and Structural Element orientations and locations.....

(e) All anchorage designs required to resist uplift, gravity and lateral loads.

Truss Manufacturer

2.4.6.5 – The Truss Manufacturer shall supply to the Contractor the Truss Submittal Package, including the Truss Design Drawings, a Truss Placement Diagram, if required by the Construction Documents or Contract, and the required Permanent Individual Truss member restraint and the method to be used per Section 2.4.3

Individual Member Bracing



The Contractor/Installer

2.4.4.5 – The Contractor shall ensure that the Building Support conditions are of sufficient strength and stability to accommodate the loads during the Truss installation process.

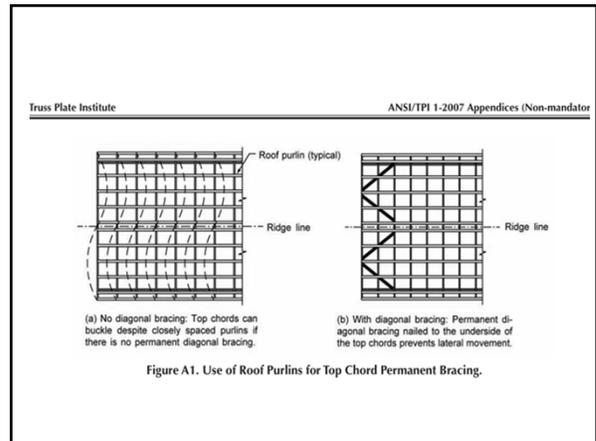
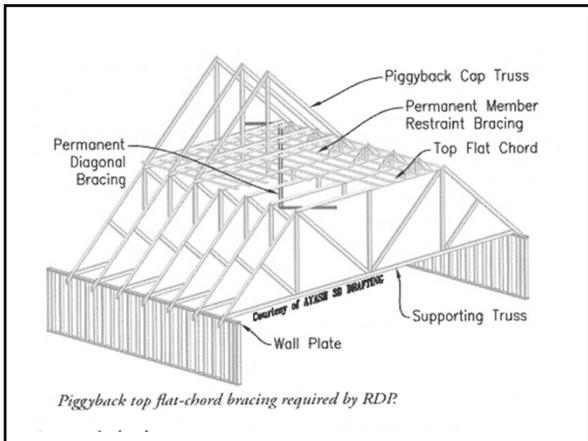
Temporary Bracing





Piggyback Trusses

- Typically used when the depth of truss exceeds roadway restrictions during transport.





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Mr. Downs is President of Forensic Experts PLLC based in Minneapolis, Minnesota. Tom has over thirty years of engineering practice specializing in industrial, commercial and residential structures. His experience includes involvement in all phases of structural design of building systems.

He is invited as a guest lecturer at the University of Minnesota, the University of South Dakota, the American Society of Civil Engineers, the Structural Stability Research Council, the American Institute of Architects, the American Institute of Steel Construction, the Minnesota Concrete Council and the International Conference of Building Officials, among others.

He received his Bachelor of Civil Engineering and Master of Science in Civil Engineering from the University of Minnesota. His registrations include: MN, FL, IA, ID, MI, MT, ND, NM, OH, SD and WI. He is a member of the American Concrete Institute, Minnesota Concrete Council, Consulting Engineers Council of Minnesota, Construction Codes Advisory Council.

