

Proceedings for PRG-320 Committee on Cross-Laminated Timber

Note: These proceedings were approved by the committee on September 30, 2010.

A webinar meeting of the PRG-320 Committee on Cross Laminated Timber (CLT) was held on June 29, 2010. There were 27 members and observers in attendance, as listed below:

Members	Company	Category	Attendance
Darryl Byle	Montana Sustainable Building Systems	Manufacturer	✓
Dan Cheney	iLevel by Weyerhaeuser	Supplier	
Kevin Cheung	Western Wood Products Association	Supplier	✓
Don DeVisser	West Coast Lumber Inspection Bureau	Supplier	✓
Bruno Di Lenardo	Canadian Construction Materials Centre	General Interest	✓
Julie Frappier	Nordic Engineered Wood	Manufacturer	✓
Bill Gareis	Ashland Inc.	Supplier	
Ron Goff	American Institute of Timber Construction	Manufacturer	
Werner Hofstätter	Canadian Timber Towers Ltd.	User	✓
Jon Howard	Rosboro LLC	Manufacturer	
Crispin Howes	Halcrow Yolles	User	✓
Dave Kretschmann	USDA Forest Products Lab	General Interest	✓
Frank Lam	University of British Columbia	General Interest	✓
Ken Lau	Ainsworth Lumber Company	General Interest	
William Love	Tembec Forest Products	Supplier	
Conroy Lum	FPInnovations	General Interest	
Robert Malczyk	Equilibrium Consulting Inc.	User	✓
Norbert Milota	Hexion Specialty Chemicals	Supplier	✓
David Moses	Moses Structural Engineers Inc.	User	✓
Scott Nyseth	Miyamoto International, Inc.	User	✓
Sheldon Shi	Mississippi State Univ.	General Interest	
Robert Speed	NC Dept. of Insurance	General Interest	✓
Kurt Stochlia	ICC-ES	General Interest	
Brian Tolley	Akzo Nobel Coatings, Inc.	Supplier	
Steve Wendler	Arclin	Supplier	✓
Chris Whelan	Henkel Corporation	Supplier	✓
Tom Williamson	T.Williamson-Timber Engineering LLC	General Interest	✓
B.J. Yeh	APA	Manufacturer	✓
Cory Zurell	Blackwell Bowick Partnership Ltd	User	✓
Observers (Non-Voting)			
Pat Clark	Montana Sustainable Building Systems	Manufacturer	✓
Sylvain Gagnon	FPInnovations	General Interest	✓
Stefan Gerber	Purbond	Supplier	✓
Mikhail Gershfeld	California State Polytechnic University	General Interest	
Michelle Kam-Biron	WoodWorks	General Interest	✓
Patrick McMahon	Farnsworth Group	General Interest	✓
M. Mohammad	FPInnovations	General Interest	✓
Mathias Oberholzer	Nordic Engineered Wood	Manufacturer	
Ciprian Pirvu	FPInnovations	General Interest	✓
Marjan Popovski	FPInnovations	General Interest	✓
Michael Schlueter	Michael Weinig, Inc.	General Interest	

1. Welcome and Introduction

Chairman Williamson called the meeting to order at 9:00AM (PDT) on June 29, 2010. He welcomed committee members and observers, and thanked everyone for their attendance. Mr. Yeh then conducted a roll call.

2. Antitrust Limitations

Mr. Williamson referred everyone to the Statement of Antitrust Compliance and requested that all discussions be governed accordingly.

3. Approval of Meeting Minutes of March 11, 2010

The March 11, 2010 meeting minutes, as included in the webinar package, were reviewed. Mr. Di Lenardo raised a question of should the design of fasteners be included in this ANSI standard since this is an important part of CLT. It was decided to discuss this issue as a new business item at the end of the meeting.

After some discussion, the meeting minutes of March 11, 2010 were approved unanimously as distributed in the webinar package.

4. North American CLT Activities

4.1 FPInnovations Working Group for CLT Standard

Mr. Mohammad reviewed the CLT activities in Canada with a PowerPoint presentation, which was e-mailed to the Committee before the webinar (*Secretariat Note: This presentation is available at www.apawood.org/standards*). He updated the progress of NRCan sponsored CLT demonstration projects, NSERC NewBuild consortium, CLT Steering Committee, NLGA Standard Committee, and the CWC and CSA O86 efforts. He also reported that the CLT seminar organized by FPInnovations on May 25 and 26, 2010 in Quebec was well attended. He also noted that a CLT Handbook was being assembled by FPInnovations and should be available by the end of 2010.

4.2 CWC Plan to Accelerate Commercialization and Use of CLT in North America

Mr. Williamson reported that CWC had prepared a comprehensive strategic plan to accelerate commercialization and use of CLT in North America. The Committee members could request a copy of the strategic plan directly through CWC on an individual basis.

4.3 Report on Exploratory Meeting with U.S. Building Professionals

Mr. Williamson reported that he and Mr. Nyseth met with designers in Portland, OR, on the use of CLT in commercial construction projects and the architects were very excited about this product. However, there are several subjects, such as floor vibration, acoustic, fire, and connection design that require additional information. The FPInnovations Handbook, as reported earlier at this webinar, would be very helpful. Overall, the main issues for wide use of CLT include a) product availability, b) design methods, and c) cost competitiveness. Mr. Williamson commented that a likely place to initiate the CLT construction technology in the U.S. might be in the City of Portland OR because their city code encourages innovated materials and construction systems. Mr. Gagnon noted that there was a CLT project under construction in South Carolina and he would share the web link with the Committee. (*Secretariat Note: The web link is <http://www.binderholz-bausysteme.com/index.php?id=245&L=1>*).

5. Task Group Reports and Discussions

5.1 Adhesive (Chair: Brain Tolley)

Mr. Whelan reported the task group activities on behalf of Mr. Tolley who was absent. He noted that the task group had met by conference call and the report of that meeting was included in the webinar package. He reported that the task group recommended the CLT products for the ANSI standard be limited to dry conditions of use with the moisture content of less than 16%. As a result, the adhesive requirements for CLT should be in accordance with CSA O112.10 in Canada and AITC 405 with modifications in the U.S. The AITC 405 modifications will include the removal of some test requirements that are specifically designed for wet conditions of use.

5.2 Lumber (Chair: Chris Whelan)

Mr. Whelan reported that the lumber task group had a conference call to review the lumber requirements for the CLT standard. The task group report was included in the webinar package. It was noted that the basic lumber requirements will be kept as broad as possible to permit the use of a wide range of species, grades and sizes. In response to a question, the Committee discussed the wane requirements. It was commented that the wane requirements would follow the standard lumber grading rules except for possible special provisions for the face plies based on the fire, durability, and or appearance considerations. Surfacing tolerances need to be finalized to assure adequate bonding for various manufacturing methods.

5.3 Layup (Chair: BJ Yeh)

Mr. Yeh reported that the task group did not meet, but had reviewed the paper prepared by Messrs. Gagnon and Popovski of FPIInnovations, which was included in the webinar package. Mr. Gagnon then made a PowerPoint presentation reviewing the layup models that had been used in Europe, which was also included in the webinar package. The Committee discussed the pros and cons for balanced and unbalanced layups for CLT. The concern on the mis-installation in the field if unbalanced layups are used was expressed. In addition, the moisture imbalance in service may exacerbate the CLT panel warping if unbalanced layups are used. However, the manufacturers expressed a desire to have further discussion on this subject. As a result, this issue will be further deliberated by the Task Group for recommendations to the Committee.

6. Task Group for Test Methods

The need for a test methods task group was discussed. It was noted that FPIInnovations was conducting rolling shear tests on CLT panels. It seemed possible that some existing standard test methods from ASTM or ISO may be referenced. As a result, the Committee decided to table the need to establish this task group until a more definite need is manifested.

7. Timeline for Draft Standard

It was agreed that the Secretariat would prepare an outline of the standard by the end of July for distribution to task groups to “fill in the blanks” whenever possible. This will form the basis for the first rough draft standard for distribution to the Committee before the next meeting.

8. Other Business

The Committee discussed the need to include fastener design information in this ANSI standard, as brought up by Mr. Di Lenardo at the beginning of the webinar. It was noted that the ANSI standard under development is intended to be a product standard with the understanding that a design standard will follow. It is expected that the design standard may be developed by the American Wood Council (Messrs. Williamson and Yeh will discuss this with the AWC staff at the AWC meeting in July) as part of the NDS. As a result, it was generally agreed that the fastener design information should be left to the design standard.

9. Adjournment/Next Meeting

It was agreed that a webinar should be held near the end of September 2010. The Secretariat will work with the Chair to survey committee members for their availability and determine the best date for the meeting accordingly. There being no further business, the meeting was adjourned at 11:00AM (PDT).

BJ Yeh
Secretariat, PRG-320
June 29, 2010