



BUILDINGS BULLETIN 2012-004

OTCR

Supersedes: None

Issuer: Alan Price, P.E.
Director, Office of Technical Certification and Research

Issuance Date: March 26, 2012

Purpose: This bulletin establishes acceptance criteria for prefabricated parallel chord wood trusses in accordance with the 2008 NYC Construction Codes.

Related Code Section(s):	AC 28-113	BC Chapter 23	BC Chapter 6
	BC 1704.6.3	BC 2303	BC 714.2
	BC 1704.13	BC 2308.10.7.1	
		RCNY 101-06	

Subject(s): Wood, prefabricated parallel chord wood trusses; Conventional light-frame construction, prefabricated parallel chord wood trusses

Background: Section BC 2308.10.7.1 addresses conventional light-frame construction and permits members of wood trusses to be joined by glue. These types of trusses include prefabricated parallel chord wood trusses. However, section BC 2303 which establishes minimum standards and quality for wood trusses does not address prefabricated parallel chord wood trusses. Therefore, this bulletin establishes minimum standards for recognition of prefabricated parallel chord wood trusses.

Description: Prefabricated parallel chord wood trusses are fabricated from parallel top and bottom chords made of sawn lumber or structural composite lumber (SCL), diagonal and vertical webs made of sawn lumber or SCL web members, and both ends have vertical members made of sawn lumber, oriented strand board (OSB) or a laminated wood panel manufactured from panel sawn lumber. (See Figure 1). The web members have no intermediate finger-joints; however, each end of the web member is connected to the chords with an approved adhesive.

Restrictions:

Adhesives used in the construction of prefabricated parallel chord wood trusses shall demonstrate the ability to maintain bond throughout pyrolysis by an approved testing method. Adhesive such as melamine or phenol-resorcinol are recognized to meet such conditions.

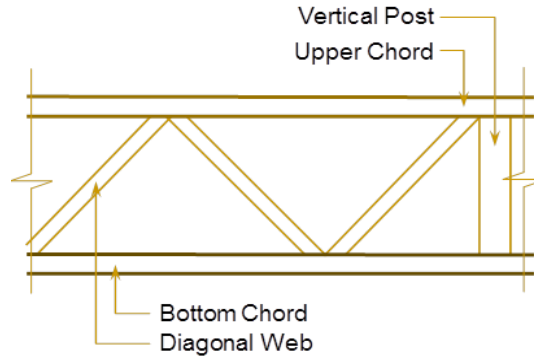


Figure 1

Uses: Prefabricated parallel chord wood trusses are used as structural repetitive members in roof or floor assemblies in conventional light-frame wood construction as described in section BC 2308.

Evaluation Scope: 2008 NYC Construction Codes

Evaluation Criteria: Pursuant to section AC 28-113, the Office of Technical Certification and Research (OTCR) recognizes prefabricated parallel chord wood trusses designed, tested and evaluated in accordance with ICC-ES AC224¹ “*Acceptance Criteria for Prefabricated Parallel Chord Wood Trusses*”. When protection of trusses are required to have a fire-resistance rating pursuant to BC chapter 6 and section BC 714.2, testing per section 3.4 (Fire-resistive Construction) of such evaluation criteria shall be required. Acceptable prefabricated parallel chord wood trusses shall have an evaluation report issued in accordance with AC224 and shall comply with the conditions of this bulletin.

Conditions of Acceptance: Prefabricated parallel chord wood trusses shall be designed, installed, inspected and manufactured in accordance with the 2008 NYC Construction Codes and other applicable provisions including but not limited to the following:

A. Design

1. Construction documents for prefabricated parallel chord wood trusses shall be prepared by a registered design professional. Design drawings shall comply with section BC 2303.4.1 as applicable.
2. Design of sheathing installed with prefabricated parallel chord wood trusses shall comply with section BC 2304.7.
3. When fire resistance rating is required by BC chapter 6, prefabricated parallel chord wood trusses shall be protected in accordance with section BC 714.2.3.
4. Bracing for prefabricated parallel chord wood trusses shall comply with their appropriate engineered design and components shall not be cut, notched, drilled, spliced or otherwise altered without written concurrence and approval of a registered design professional as per section BC 2308.10.7.

B. Installation Requirements

1. Installation requirements of prefabricated parallel chord wood trusses shall be in accordance with the manufacturer’s instructions, an applicable evaluation report, and the conditions of this bulletin.
2. Prefabricated parallel chord wood trusses shall be identified as per section 2.1.3 of ICC-ES AC224.
3. All shipments and deliveries of materials shall be accompanied by a certificate or label certifying that the materials shipped or delivered are equivalent to those tested and approved as per section AC 28-113.4.4.

C. Inspection of Installation

1. Pursuant to section BC 1704.13, the installation of prefabricated parallel chord wood trusses shall be subject to special inspection requirements of Chapter 17 of the Building Code and all Department rules covering special inspection. Special Inspectors of wood trusses shall:
 - a. Have the same qualification requirements for special inspectors of “Wood construction – Prefabricated wood I-joists and metal-plate-connected wood trusses” as established in RCNY title 1 section 101-06, Appendix A.
 - b. Have duties and responsibilities in accordance with, but not limited to, section BC 1704.6.3, Department rules covering special inspection, and in an applicable evaluation report issued for the installed product, and
 - c. Complete the statement of special inspection under “Wood – Installation of Metal Plate-connected Trusses, BC 1704.6.3” in section 3.0 of the TR1 form. *Do not complete the statement of special inspection under “Alternative Materials, BC 1704.13”.*

TR1

<input type="checkbox"/>	<input type="checkbox"/>	Wood - Installation of Metal-Plate-Connected Trusses	BC 1704.6.3	Use this line to identify wood trusses using
<input type="checkbox"/>	<input type="checkbox"/>	Wood - Installation of Prefabricated I-Joists	BC 1704.6.4	
<input type="checkbox"/>	<input type="checkbox"/>	Soils - Site Preparation	BC 1704.7.1	
<input type="checkbox"/>	<input type="checkbox"/>	Soils - Fill placement & In-Place Density	BC 1704.7.2, BC 1704.7.3	
<input type="checkbox"/>	<input type="checkbox"/>	Soils - Investigations (Borings/Test Pits)	TR4 BC 1704.7.4	
<input type="checkbox"/>	<input type="checkbox"/>	Pile Foundations & Drilled Pier Installation	TR5 BC 1704.8	
<input type="checkbox"/>	<input type="checkbox"/>	Pier Foundations	BC 1704.9	
<input type="checkbox"/>	<input type="checkbox"/>	Underpinning	BC 1704.9.1	
<input type="checkbox"/>	<input type="checkbox"/>	Wall Panels, Curtain Walls, and Veneers	BC 1704.10	Do not use this line to identify wood trusses.
<input type="checkbox"/>	<input type="checkbox"/>	Sprayed Fire-Resistant Materials	BC 1704.11	
<input type="checkbox"/>	<input type="checkbox"/>	Exterior Insulation Finish Systems (EIFS)	BC 1704.12	
<input type="checkbox"/>	<input type="checkbox"/>	Alternative Materials - OTCR Buildings Bulletin # _____	BC 1704.13	
<input type="checkbox"/>	<input type="checkbox"/>	Smoke Control Systems	BC 1704.14	

D. Manufacturing

Design of prefabricated parallel chord wood trusses shall be in accordance with an applicable evaluation report issued for the truss, the 2008 NYC Construction Codes and accepted engineering practice as per section BC 2308.10.7.

Reference Standards:

1. ICC-ES AC224 "Acceptance Criteria for Prefabricated Parallel Chord Wood Trusses", effective November 1, 2005 (<http://www.icc-es.org>)