

Report of Materials and Equipment Acceptance Division

NYC Department of Buildings 280 Broadway, New York, NY 10007 Patricia Lancaster, FAIA, Commissioner (212) 566-5000, TTY: (212) 566-4769

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

MEA 241-98-M Vol. 4

Manufacturer:	Georgia-Pacific Corporation, 310 Cypress Road, Ocala, FL
Trade Name(s):	Wood I Beam® Series Joist, WI 40, WI 60, WI 80, WI 80A and WI 85
Product:	Prefabricated Wood I-Joist
Pertinent Code Section(s):	27-133, 27-617 through 27-624, Subchapter 10 and Reference Standard RS 10.
Prescribed Test(s):	Bending and Shear, ASTM D5055
Laboratory:	APA – Engineered Wood Systems
Test Report(s):	Georgia-Pacific Corporation Report(s):
	 Shear Performance of WIF Series Joist with Web Holes, dated March 19, 1999 WIF Series Joist Vertical Load-Carrying Capacity, dated May 5, 1999. WIF Series Joist Shear, End Reaction and Intermediate Reaction Properties, ELP Report No. 0513-99 WIF Series Joist Flexural Properties, ELP Report No. 0315-99 WI 40 and 80 Series Joist Flexural and Creep Properties, ELP Report No. 0719-00 WI 40 Series Joist Vertical Load-Carrying Capacity, ELP Report No. 0609-00 WI 40 and 80 Series Joist Shear, End Reaction and Intermediate Reaction Properties, ELP Report No. 0928-00 Shear Performance of WI 40 and 80 Series Joist with Web Holes, ELP Report No. 0614-00 WI Series Joist Re-Qualification Test Report

Using New Truss Method Calculated Moment Capacities, ELP Report No. 1118-03

 Qualification on WI 40 I-joists Using Sawn Lumber Flanges for Georgia-Pacific Corporation Roxboro, NC, APA Report T2004M-27

By: Joseph H. Kaiserlik, P.E. - Colorado License No. 35663, The extrapolation of tables was sealed by Paul M. Wehner, P.E., S.E., N.Y. License No. 75012

Description – Georgia-Pacific Corporation's Wood I Beam Series joists are manufactured with several combinations of wood flanges and an OSB web as described in Tables 1 and 2. Web sections are 4 feet long with face flake orientation vertical and a web-to-web joint consisting of a modified tongue and groove. A web-to-flange connection is made by inserting the machined web edge into a machined groove in the center of the flange wide face. All Wood I Beam Series joists are manufactured to a constant depth.

Flanges: Wood I Beam Series joist flanges for the WI 40, 9-1/2" to 16" are fabricated with a 2 x 3, machine stress rated (MSR) 1650f-1.5E flange which uses a proprietary set of design values. WI 60, 9-1/2" to 16" joist use a 2 x 3, MSR, 2100f-1.8E or better flange. The WI 80, 11-7/8" to 16" joist and the WI80A, 18" and 20" joist use a 2 x 4, MSR, 2100f-1.8E or better flange. WI 80A, 9-1/2" to 16", WI 80, 18" and 20" and WI 85 joist use a 2 x 4, Southern Yellow Pine, Dense Select Structural (DSS) flange.

Webs: WI 40, 60, 80 and 80A Wood I-Beam Series joist web material is 3/8" OSB. WI 85 Series joist use a 19/32" OSB web. Both web materials meet APA Structural I (Exposure 1) grade and the Georgia-Pacific Corporation minimum web stock performance standard.

Adhesive: Adhesives used in the manufacture of Wood I-Beam Series joist are exterior-type which comply with ASTM D2559 and the Georgia-Pacific Corporation manufacturing standards.

Wood I-Beam Series joists have been tested and assigned design properties for use in wood structural applications. They are produced under continuous, daily quality inspection including monthly third-party inspection to assure product performance. Tables 1 and 2 contain the allowable design properties for the WI series joists.

Terms and Conditions: That the above product(s) be accepted on condition that:

1. All provisions of TPPN #8, 1992 and TPPN #2, 2000 for Wood I Beams that are applicable for Wood I-Beam Series shall be complied with.

- 2. Structure designs using the Wood I Beam Series joist shall conform to the manufacturer's design load(s), deflection limitation(s) and other performance standards of the New York City Building Code.
- 3. The glue used shall not delaminate during a fire.
- 4. Wood I Beam Series joist shall be used indoors.
- 5. When stored out-of-doors, or exposed to wet weather conditions, during construction Wood I Beam Series joists shall be inspected by the user for flange-web separation, swelling or warping and replaced if so damaged.
- 6. The size of any cutouts in the web of the joist shall not exceed the manufacturer's recommendations.
- 7. The cutting of opening for ducts, pipes, conduits, etc. in Wood I Beam Series joists shall be subject to a controlled inspection.
- 8. Firestopping shall be provided between the ceiling and the floor or roof above and shall be divided into approximately equal areas not greater than 500 square feet.
- 9. The building permit applicant shall notify the Fire Department of the proposed installation of Wood I Beam Series joists prior to the Building Department issuance of a construction permit. Evidence of such notification shall be a certifying statement submitted on Form TR-1, Technical Report, reading as follows:

I hereby state that I have mailed a copy of this statement to the Fire Department, Bureau of Fire, Technology Management Unit, as notification of the proposed installation of WI Series Wood I Beam joists at this location.

This statement shall be placed on the reverse side of the form in the lower righthand box.

The copy of the completed Form TR-1 shall be mailed to the new address at:

Chief-In-Charge of the Bureau of Fire Prevention Fire Department Bureau of Fire Prevention Technology Management Unit 9 MetroTech Center Brooklyn, New York 11201-3857 **NOTE:** In accordance with section 27-131(d), all materials tested and accepted for use shall be subject to periodic retesting as determined by the commissioner; and any material which upon retesting is found not to comply with code requirements or the requirements set forth in the approval of the commissioner shall cease to be acceptable for the use intended. During the period for such retesting, the commissioner may require the use of such material to be restricted or discontinued if necessary to secure safety.

All shipments and deliveries of Wood I Beam Series joists shall be provided with a permanent marking suitably placed, certifying that the materials shipped or delivered is equivalent to those tested and accepted for use, as provided for in Section 27-131 of the building Code.

Final Acceptance Examined by



DEPARTMENT OF BUILDINGS

EXECUTIVE OFFICES 60 HUDSON STREET, NEW YORK, N.Y. 10013

RUDOI PH J. RINALDI, Commissioner 312-8100

RICHARD C. VISCONTI, A.I.A. Assistant Commissioner **Technical Affairs**

TECHNICAL POLICY AND PROCEDURE NOTICE # 8/92

1'0: Distribution

Richard C. Visconti, A.I.A. WWWW WITT FROM:

DATE: August 19, 1992

SUBJECT: Laminated Wood "I" Beams

PURPOSE: To interpret the requirements of the Administrative Code, Sections 27-617 and 27-620, pertaining to firestopping requirements per RS 10-8 and Inspection of Methods of Construction per Table 10-2 for laminated wood "I" beams used in fire resistance rated floor/roof-ceiling assemblies.

To establish a new administrative procedure for applicant notification to the Fire Department of proposed use of laminated wood "I" beams.

SPECIFICS:

1. Firestopping

Reference Standard RS 10-8, Section 9.2.1 - General Requirements for Firestopping states that, "the space between the ceiling and the floor or roof above shall be divided by providing firestopping where ceilings are suspended below solid joists or suspended from or attached directly to the bottom of open wood floor trusses in buildings of combustible construction."

The Department now interprets the requirement to comply with the firestopping provisions of Section 9.2.1 et seg. include laminated wood "I" beam assemblies. to Therefore, the space between the ceiling and the floor or roof above shall be divided into approximately equal areas not greater than 500 square feet.

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Firestopping is subject to controlled inspection pursuant to Section 27-345.

2. Inspection of Methods of Construction

Table 10-2 - Operations on Structural Elements that shall be Subject to Controlled Inspection, lists the "Fabrication of glue-laminated assemblies and of plywood components."

The Department now interprets the requirement to comply with the controlled inspection provision of Table 10-2 to include laminated wood "I" beams. Therefore, the cutting of openings for ducts, pipes, conduit, etc. in laminated wood "I" beams shall be considered fabrication and, therefore, subject to controlled inspection.

3. Notification

The applicant shall be required to notify the Fire Department of the proposed installation of laminated wood "I" beams prior to the Department issuing a construction permit. Evidence of such notification shall be a certifying statement submitted on Form TR-1, Technical Report, reading as follows:

I hereby state that I have mailed a copy of this statement to the Fire Department, Bureau of Fire Prevention, Technology Management Unit, as notification of the proposed installation of laminated wood "I" beams at this location.

This statement shall be placed on the reverse side of the form in the lower right-hand box.

The copy of the completed Form TR-1 shall be mailed to:

Chief-in-Charge of the Bureau of Fire Prevention Fire Department Bureau of Fire Prevention Technology Management Unit 250 Livingston Street Brooklyn, NY 11201-5884

cc: Chief John Hodgens



ISSUANCE #586

DEPARTMENT OF BUILDINGS

EXECUTIVE OFFICES 60 HUDSON STREET, NEW YORK, N.Y. 10013-3394 RICHARD C. VISCONTI, R.A., Acting Commissioner Website: nyclink.org/buildings (212) 312-5000 TTY (212) 312-8188

> SATISH K. BABBAR, R.A Acting Deputy Commissioner Technical Affair (212) 312-8324 Fax (212) 312-8319

TECHNICAL POLICY AND PROCEDURE NOTICE #2/00

TO: Distribution

FROM:

Satish K. Babbar, R

DATE: July 24, 2000

SUBJECT: Semi-Controlled Inspection for Structural Light Gage Cold-Formed Steel, Plate Connected Wood Floor Trusses and Laminated Wood "I" Beams

EFFECTIVE: Immediately

SUPERCEDES: Brooklyn Borough Memorandum by Borough Superintendent George E. Berger dated August 11, 1983.

- BACKGROUND: There have been several structural failures involving lightweight floor construction. Professional inspection is needed during construction of buildings and other structures utilizing it in order to insure that the delivered members are not damaged or defective, the installation is proper and safeguards are taken to prevent failure.
- <u>PURPOSE</u>: To set forth the requirements for the semi-controlled inspection of the construction, including size, quality, framing, erection and both temporary and permanent bracing of light gage cold-formed steel structural members, plate connected wood floor trusses and laminated wood "I" beams.
- **<u>REFERENCE</u>**: Section 27-132(b) of the Administrative Code.

REQUIREMENTS: The plans submitted for approval/ acceptance/professional certification showing these members shall be complete including member sizes, positions, locations, permanent and temporary bracing, fasteners (location, type and spacing), stiffeners, connections, etc., as needed for the proper erection of the structure.

The construction of all light gage cold-formed steel structural members, plate connected wood floor trusses and laminated wood "I" beams shall be subject to semi-controlled inspection for size, quality, framing, erection and both temporary and permanent bracing, as set forth below.

- Size Profiles used structurally shall conform to the specified dimension. Care shall be taken not to stretch, bend, or otherwise distort parts of the sections unless such forming is in the integral part of the design.
- Quality All materials shall be clean, straight, and undamaged. Damaged members shall be discarded. Only BSA/MEA approved laminated wood "I" beams shall be used. Glue shall completely bond all laminated wood "I" beam surfaces being joined. Quality Control for the erection of all members shall be under the supervision of the professional designated to perform the semi-controlled inspection.
- Framing Components may be cut by slitting, shearing, sawing, or flame cutting, as appropriate, in accordance with manufacturers' instructions and the design drawings. All punched holes and sheared or flame cut edges of material in members subject to calculated stress shall be clean and free from notches and burred edges. The approved/ accepted/professionally certified drawings shall be adhered to regarding member dimensions, locations, positions, beam separators, bearing surfaces and fasteners, including shear connectors, plate connectors, screws, bolts and welds, as applicable.

- Erection Care shall be taken to avoid damage to members when erecting, loading, unloading and otherwise handling them.
- Bracing Temporary bracing, shoring, jacks, etc. shall not be removed until the registered architect or professional engineer determines that they are no longer needed. Permanent bracing, web stiffeners, bridging, wind bracing, etc. shall be installed according to the approved/accepted/professionally certified drawings.

INSPECTIONS AND REPORT TO BE SUBMITTED: These inspections are to be performed by, or under the direct supervision of, licensed professional engineers or registered architects, who shall submit form(s) TR-1 indicating the following: "Semi-controlled inspection of light gauge cold-formed steel structural members, plate connected wood floor trusses or laminated wood "I" beams (as applicable) per TPPN #2/00".

SKB:NJG:ng