Listing

A Duly Authenticated Report from an Approved Agency

Report No: 2205-03

Issue Date: August 8, 2022

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Subject to Renewal: October 1, 2027

TrimJoist® Properties

Trade Secret Report Holder:

TrimJoist Corporation

Phone: 800-844-8281 Website: trimjoist.com Email: info@trimjoist.com

CSI Designations:

DIVISION: 06 00 00 - WOOD, PLASTICS AND COMPOSITES

Section: 06 11 00 - Wood Framing

Section: 06 17 00 - Shop-Fabricated Structural Wood

Section: 06 17 33 - Wood I-joists

Section: 06 17 53 - Shop-Fabricated Wood Trusses

1 Innovative Product Evaluated[1]

1.1 TrimJoist

2 Product Description and Materials

2.1 The innovative product evaluated in this report is shown in **Figure 1**.



Figure 1. TrimJoist

2.2 TrimJoist is an open web, prefabricated, metal plate connected, trimmable end, wood floor truss designed and manufactured in accordance with ANSI/TPI 1-2022: National Design Standard for Metal Plate Connected Wood Truss Construction.

2.2.1 Standard width of the flanges is $3^{1}/_{2}$".

2.2.2 TrimJoist is available in the following depths:

2.2.2.1 $11^{7}/_{8}$" (J12 Series)

2.2.2.2 14" (J14 Series)

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2.2.2.3 16" (J16 Series)

2.2.2.4 18" (J18 Series)

2.2.2.5 20" (J20 Series)

2.2.3 Each TrimJoist has a 12" trimmable region at each end of the product.

2.2.4 TrimJoist is available in the following lengths (product comes in two-foot incremental lengths):

2.2.4.1 J12 Series: 4 ft to 24 ft

2.2.4.2 J14 Series: 4 ft to 26 ft

2.2.4.3 J16 Series: 4 ft to 28 ft

2.2.4.4 J18 Series: 4 ft to 30 ft

2.2.4.5 J20 Series: 4 ft to 32 ft

2.3 Proprietary metal connector plates are used to transmit forces from one wood member to one or more wood members where wood members are connected using integral teeth formed from the metal plate and subsequently embedded into each wood member at a truss joint.

2.4 Commodity lumber design values (E, E_{min}, $F_{c\perp}$, and F_v), specified in the ANSI/AWC National Design Specification® (NDS) for Wood Construction, are used in all engineering mechanics-based equations.

2.4.1 Sawn lumber used for load-supporting purposes, including end-jointed, edge-glued, machine stress rated, or machine evaluated lumber, shall be identified by the Grade mark of a lumber grading or inspection agency that has been approved by an Accreditation Body, and that complies with the latest edition of the DOC PS 20 American Softwood Lumber Standard, or equivalent.

2.4.2 TrimJoist relies on each lumber manufacturer to provide building code conforming design values, conditions of use, quality and repair requirements, as well as compliance to DOC PS 20 and the NDS Supplement, as relevant.

2.5 Truss member axial forces, bending moments, and effective buckling lengths are based on a mathematical model of the truss that closely approximates the geometry and properties of the truss members and connections.

2.6 As needed, review material properties for design in **Section 6**.

3 Definitions[2]

3.1 New Materials[3] are defined as building materials, equipment, appliances, systems, or methods of construction, not provided for by prescriptive and/or legislatively adopted regulations, known as alternative materials.[4] The design strength and permissible stresses shall be established by tests[5] and/or engineering analysis.[6]

3.2 Duly authenticated reports[7] and research reports[8] are test reports and related engineering evaluations that are written by an approved agency[9] and/or an approved source.[10]

3.2.1 This report utilizes intellectual property and/or trade secrets to create public domain material properties for commercial end-use.

3.2.1.1 This report protects confidential Intellectual Property and trade secrets under the regulation, 18.US.Code.90, also known as Defend Trade Secrets Act of 2016 (DTSA).[11]

3.3 An approved agency is *"approved"* when it is ANAB ISO/IEC 17065 accredited. DrJ Engineering, LLC (DrJ) is accredited and listed in the ANAB directory.

3.4 An approved source is *"approved"* when a professional engineer (i.e., Registered Design Professional, hereinafter RDP) is properly licensed to transact engineering commerce. The regulatory authority governing approved sources is the state legislature via its professional engineering regulations.[12]

3.5 Testing and/or inspections conducted for this duly authenticated report were performed by an ISO/IEC 17025 accredited testing laboratory, an ISO/IEC 17020 accredited inspection body, and/or a licensed RDP.

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3.5.1 The Center for Building Innovation (CBI) is ANAB[13] ISO/IEC 17025 and ISO/IEC 17020 accredited.

3.6 The regulatory authority shall enforce[14] the specific provisions of each legislatively adopted regulation. If there is a non-conformance, the specific regulatory section and language of the non-conformance shall be provided in writing[15] stating the nonconformance and the path to its cure.

3.7 The regulatory authority shall accept duly authenticated reports from an approved agency and/or an approved source with respect to the quality and manner of use of new materials or assemblies as provided for in regulations regarding the use of alternative materials, designs, or methods of construction.[16]

3.8 ANAB is an International Accreditation Forum (IAF) Multilateral Recognition Arrangement (MLA) signatory. Therefore, recognition of certificates and validation statements issued by conformity assessment bodies accredited by all other signatories of the IAF MLA with the appropriate scope shall be approved.[17] Thus, all ANAB ISO/IEC 17065 duly authenticated reports are approval equivalent,[18] and can be used in any country that is an MLA signatory found at this link: https://iaf.nu/en/recognised-abs/

3.9 Approval equity is a fundamental commercial and legal principle.[19]

4 Applicable Standards for the Listing[20]

4.1 *Local, State, and Federal*

4.1.1 Approved in all local jurisdictions pursuant to ISO/IEC 17065 duly authenticated report use, which includes, but is not limited to, the following featured local jurisdictions: Austin, Baltimore, Broward County, Chicago, Clark County, Dade County, Dallas, Detroit, Denver, DuPage County, Fort Worth, Houston, Kansas City, King County, Knoxville, Las Vegas, Los Angeles City, Los Angeles County, Miami, Nashville, New York City, Omaha, Philadelphia, Phoenix, Portland, San Antonio, San Diego, San Jose, San Francisco, Seattle, Sioux Falls, South Holland, St. Louis County, Texas Department of Insurance, and Wichita.[21]

4.1.2 Approved in all state jurisdictions pursuant to ISO/IEC 17065 duly authenticated report use, which includes, but is not limited to, the following featured states: California, Florida, New Jersey, Oregon, New York, Texas, Washington, and Wisconsin.[22]

4.1.3 Approved by the Code of Federal Regulations Manufactured Home Construction: Pursuant to Title 24, Subtitle B, Chapter XX, Part 3282.14[23] and Part 3280[24] pursuant to the use of ISO/IEC 17065 duly authenticated reports.

4.1.4 Approved means complying with the requirements of local, state, or federal legislation.

4.2 *Standards*

4.2.1 *ANSI/TPI 1- 2022: National Design Standard for Metal Plate Connected Wood Truss Construction*

4.2.2 *AWC TR15: Calculation of Sound Transmission Parameters for Wood-Frame Assemblies*

4.2.3 *ASTM E119: Standard Test Methods for Fire Tests of Building Construction and Materials*

4.2.4 *ASTM E413: Classification for Rating Sound Insulation*

4.2.5 *ASTM E2032: Standard Practice for Extension of Data from Fire Resistance Tests Conducted in Accordance with ASTM E119*

5 Listed[25]

5.1 Equipment, materials, products, or services included in a List published by a nationally recognized testing laboratory (e.g., CBI), an approved agency (e.g., CBI and DrJ), and/or any approved source (e.g., DrJ), or other organization(s) concerned with product evaluation (e.g., DrJ), that maintains periodic inspection (e.g., CBI) of production of listed equipment or materials, and whose listing states either that the equipment or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner.

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6 Tabulated Properties Generated from Nationally Recognized Standards

6.1 *Structural Applications*

6.1.1 TrimJoist is designed using proprietary engineering methodology that generates maximum spans and maximum reactions for each TrimJoist series as shown in **Table 1** through **Table 4**.

Table 1. TrimJoist SP Lumber Maximum Span Table for Resistance to Uniform Loads[1] L/480 Deflection Limit

Product Series	Depth	Joist Spacing[2,3,4,5]			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
J12	11 7/8"	24' 0"	23' 3"	21' 9"	20' 2"
J14	14"	26' 0"	26' 0"	24' 7"	22' 10"
J16	16"	28' 0"	28' 0"	27' 2"	25' 1"
J18	18"	30' 0"	30' 0"	29' 7"	27' 4"
J20	20"	32' 0"	32' 0"	31' 11"	29' 6"

SI: 1 in = 25.4 mm, 1 ft = 0.305 m

1. 40-psf Live Load + 15-psf Dead Load = 55-psf Total Load.
2. Live Load Deflection based on L/480.
3. Values assume a 1 3/4" minimum bearing evenly trimmed.
4. Values are for simply supported joists and include the use of a repetitive member factor.
5. Values assume a minimum 3/4" span-rated subfloor that has been both glued and nailed.

Table 2. TrimJoist SP Lumber Maximum Span Table for Resistance to Uniform Loads[1] L/600 Deflection Limit

Product Series	Depth	Joist Spacing[2,3,4,5]			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
J12	11 7/8"	23' 8"	21' 5"	20' 2"	18' 4"
J14	14"	26' 0"	24' 3"	22' 8"	20' 2"
J16	16"	28' 0"	26' 8"	24' 11"	23' 0"
J18	18"	30' 0"	29' 1"	27' 1"	24' 8"
J20	20"	32' 0"	31' 6"	29' 4"	25' 11"

SI: 1 in = 25.4 mm, 1 ft = 0.305 m

1. 40-psf Live Load + 15-psf Dead Load = 55-psf Total Load.
2. Live Load Deflection based on L/600.
3. Values assume a 1 3/4" minimum bearing evenly trimmed.
4. Values are for simply supported joists and include the use of a repetitive member factor.
5. Values assume a minimum 3/4" span-rated subfloor that has been both glued and nailed.

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Table 3. TrimJoist DF Lumber Maximum Span Table for Resistance to Uniform Loads[1] L/480 Deflection Limit

Product Series	Depth	Joist Spacing[2,3,4,5]			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
J12	11 7/8"	24' 0"	23' 7"	22' 2"	20' 6"
J14	14"	26' 0"	26' 0"	24' 9"	23' 1"
J16	16"	28' 0"	28' 0"	27' 2"	24' 0"
J18	18"	30' 0"	30' 0"	29' 7"	25' 4"

SI: 1 in = 25.4 mm, 1 ft = 0.305 m

1. 40-psf Live Load + 15-psf Dead Load = 55-psf Total Load.
2. Live Load Deflection based on L/480.
3. Values assume a 1 3/4" minimum bearing evenly trimmed.
4. Values are for simply supported joists and include the use of a repetitive member factor.
5. Values assume a minimum 3/4" span-rated subfloor that has been both glued and nailed.

Table 4. TrimJoist DF Lumber Maximum Span Table for Resistance to Uniform Loads[1] L/600 Deflection Limit

Product Series	Depth	Joist Spacing[2,3,4,5]			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
J12	11 7/8"	24' 0"	21' 9"	20' 1"	18' 11"
J14	14"	26' 0"	24' 1"	23' 1"	21' 5"
J16	16"	28' 0"	25' 8"	24' 0"	22' 1"
J18	18"	30' 0"	28' 3"	24' 6"	23' 3"

SI: 1 in = 25.4 mm, 1 ft = 0.305 m

1. 40-psf Live Load + 15-psf Dead Load = 55-psf Total Load.
2. Live Load Deflection based on L/600.
3. Values assume a 1 3/4" minimum bearing evenly trimmed.
4. Values are for simply supported joists and include the use of a repetitive member factor.
5. Values assume a minimum 3/4" span-rated subfloor that has been both glued and nailed.

6.1.2 TrimJoist is designed using proprietary engineering methodology to generate maximum reactions as shown in **Table 5**.

Table 5. TrimJoist SP Lumber Maximum Reaction

Width	Maximum Bearing Capacity (lb)
1 3/4"	3,000
3 1/2"	3,500
5 1/2"	4,000

SI: 1 in = 25.4 mm, 1 lb = 4.48 N

1. DF Lumber reaction not available at the time of this listing.

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6.2 *Fire-Resistance Rated Assembly*

6.2.1 The following assemblies are modified UL designs allowing for the use of TrimJoist.

6.2.2 The extension of the listings is based on ASTM E119 fire testing of the components, ASTM E2032, and generally accepted engineering principles.

6.2.3 *One-Hour Fire Rating*

6.2.3.1 UL L528

6.2.4 TrimJoist one-hour fire rated assembly is shown in **Figure 2**. Details pertaining to the TrimJoist assembly and a comparison to a UL L528 assembly are provided in **Table 6**.

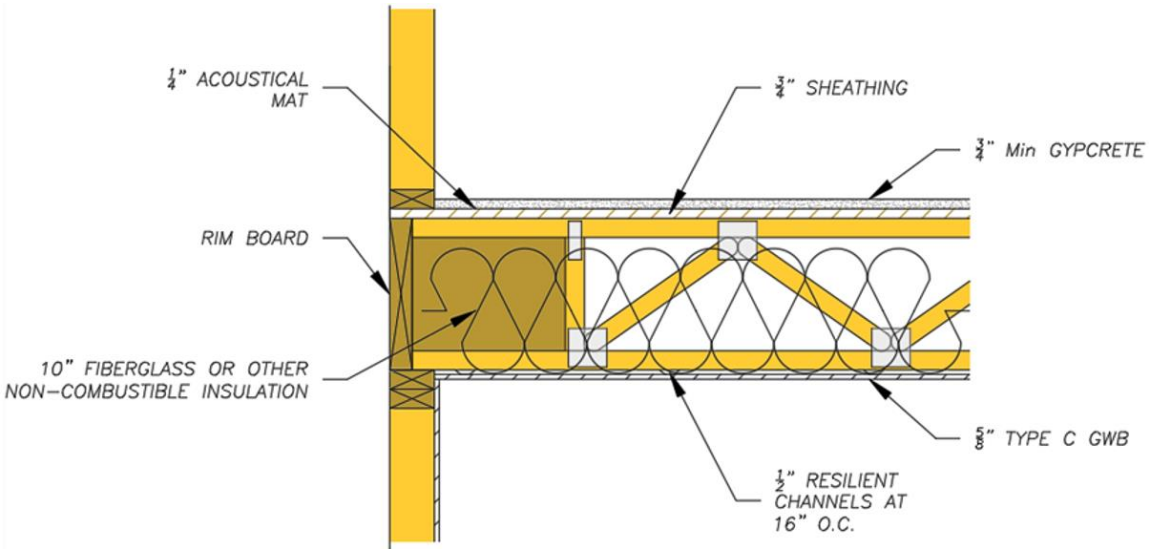


Figure 2. TrimJoist Fire Assembly

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Table 6. TrimJoist One-Hour Fire Resistance Rated Assembly

Component		TrimJoist Assembly
Flooring System	Floor Topping (underlayment)	Minimum 3/4" thick gypsum concrete layer having a minimum compressive strength of 1,000 psi.
	Acoustical Mat	1/4" sound attenuation mat
	Floor Sheathing	Minimum 23/32" Wood Structural Panel (WSP), minimum grade, *"C-D"* or *"sheathing"* with face grain of plywood or strength axis of panels installed perpendicular to the truss with joints staggered.
Structural Member	Floor Joists/Trusses	TrimJoist parallel chord truss Spaced a maximum of 24" o.c. Minimum truss depth is 12" (nominal) when a ceiling damper is not employed. Minimum truss depth is 18" when a ceiling damper is employed.
Insulation	Batt/Blanket	10" thick fitted in the concealed space, draped over the resilient channel/gypsum board ceiling membrane.
Furring Channels	Resilient Channels	1/2" deep resilient channel spaced 16" on center and installed perpendicular to trusses (minimum 25-gauge). Channels secured to each truss with 1 5/8" Type S bugle head steel screws. Channels overlapped 4" at splices.
Ceiling Membrane	Gypsum Board	Nominal 5/8" thick, 48" wide gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1" Type S bugle head steel screws spaced 8" o.c. and located a minimum of 1/2" from side joints and end joints.
SI: 1 in = 25.4mm, 1 psi = 6.89 kPa		

6.3 *Sound Transmission*

6.3.1 Sound transmission class rating and impact insulation class rating of the TrimJoist Fire Assembly (see **Figure 2**) were determined using the empirical model described in American Wood Council Technical Report No. 15 (AWC-TR15).

6.3.1.1 To be conservative, the elements of the airborne sound and structure-borne sound analysis for the TrimJoist assembly will be:

6.3.1.1.1 One layer of 23/32" Oriented Strand Board (OSB) sheathing

6.3.1.1.2 One layer of 5/8" Gypsum Wall Board (GWB)

6.3.1.1.3 Parallel-chord metal plate connected wood trusses ≤20" deep spaced at 16" o.c or 24" o.c.

6.3.1.1.4 Minimum 3.5 minimum fiberglass batt or minimum 8.3" mineral wool batt insulation

6.3.1.1.5 Resilient channels spaced at 16" o.c.

6.3.2 The results from this calculation model did not take into account of the effects from the 3/4" gypsum concrete layer, nor the 1/4" acoustical mat layer.

6.3.2.1 These elements will provide greater resistance to sound transmission and provide a higher STC rating.

6.3.2.2 Additional calculations can be provided for specific applications.

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6.3.3 The minimum STC rating for the TrimJoist Fire Assembly is shown in **Table 7**, and the IIC rating for various floor covering is provided in **Table 8**.

Table 7. TrimJoist Assembly Sound Transmission Class (STC)

Assembly	Joist Spacing	STC Rating
TrimJoist Fire Resistance Rated Assembly	16"	52
	24"	52
SI: 1 in = 25.4 mm		

Table 8. TrimJoist Assembly Impact Insulation Class (IIC)

Assembly	Joist Spacing	Floor Covering	IIC Rating
TrimJoist Fire Resistance Rated Assembly	16"	Thin Carpet	60
		Thick Carpet	66
		Cushioned Vinyl	37
		Click Laminate	39
		Ceramic Tile	44
	24"	Thin Carpet	60
		Thick Carpet	66
		Cushioned Vinyl	41
		Click Laminate	43
		Ceramic Tile	45
SI: 1 in = 25.4 mm			

6.4 Alternative techniques shall be permitted in accordance with accepted engineering practice and experience. These provisions for the use of alternative materials, designs, and methods of construction are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed herein. This includes, but is not limited to, the following areas of engineering: mechanics of materials, structures, building science, and fire science.

7 Certified Performance[26]

7.1 All construction methods shall conform to accepted engineering practices to ensure durable, livable, and safe construction and shall demonstrate acceptable workmanship reflecting journeyman quality of work of the various trades.[27]

7.2 The strength and rigidity of the component parts and/or the integrated structure shall be determined by engineering analysis or by suitable load tests to simulate the actual loads and conditions of application that occur.[28]

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8 Installation

8.1 Installation shall comply with the approved construction documents, the manufacturer installation instructions, this report, and the applicable building code.

8.2 In the event of a conflict between the manufacturer installation instructions and this report, contact the manufacturer for counsel on the proper installation method.

9 Substantiating Data

9.1 Testing has been performed under the supervision of a professional engineer and/or under the requirements of ISO/IEC 17025 as follows:

9.1.1 Test data and span calculations from approved sources.

9.1.2 Comparative analysis of equivalent design for one-hour fire rated assembly in accordance with ASTM E2032 and generally accepted fire-engineering principles.

9.1.3 Calculation of STC and IIC ratings in accordance with AWC-TR15 by DrJ Engineering, LLC.

9.2 Information contained herein may include the result of testing and/or data analysis by sources that are approved agencies, approved sources, and/or an RDP. Accuracy of external test data and resulting analysis is relied upon.

9.3 Where applicable, testing and/or engineering analysis are based upon provisions that have been codified into law through state or local adoption of regulations and standards. The developers of these regulations and standards are responsible for the reliability of published content. DrJ's engineering practice may use a regulation-adopted provision as the control. A regulation-endorsed control versus a simulation of the conditions of application to occur establishes a new material as being equivalent to the regulatory provision in terms of quality, strength, effectiveness, fire resistance, durability, and safety.

9.4 The accuracy of the provisions provided herein may be reliant upon the published properties of raw materials, which are defined by the grade mark, grade stamp, mill certificate, or duly authenticated reports from approved agencies and/or approved sources provided by the supplier. These are presumed to be minimum properties and relied upon to be accurate. The reliability of DrJ's engineering practice, as contained in this duly authenticated report, may be dependent upon published design properties by others.

9.5 *Testing and Engineering Analysis*

9.5.1 The strength, rigidity, and/or general performance of component parts and/or the integrated structure are determined by suitable tests that simulate the actual conditions of application that occur and/or by accepted engineering practice and experience.[29]

9.6 Where additional condition of use and/or regulatory compliance information is required, please search for TrimJoist on the DrJ Certification website.

10 Findings

10.1 As outlined in **Section 6**, TrimJoist has performance characteristics that were tested and/or meet applicable regulations. In addition, they are suitable for use pursuant to its specified purpose.

10.2 When used and installed in accordance with this duly authenticated report and the manufacturer installation instructions, TrimJoist shall be approved for the following applications:

10.2.1 Compliance with ANSI TPI 1-2022.

10.2.2 Use in 1-hour fire rated assemblies.

10.2.3 Use where an STC rating less than 52 is required.

10.2.4 IIC ratings per various floor coverings as shown in **Table 8**.

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10.3 Unless exempt by state statute, when TrimJoist is to be used as a structural and/or building envelope component in the design of a specific building, the design shall be performed by an RDP.

10.4 Any application specific issues not addressed herein can be engineered by an RDP. Assistance with engineering is available from TrimJoist Corporation.

10.5 IBC Section 104.2.3[30] (IRC Section R104.2.2[31] and IFC Section 104.2.3[32] are similar) in pertinent part state:

> **104.2.3 Alternative Materials, Design and Methods of Construction and Equipment.** The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative is not specifically prohibited by this code and has been approved.

10.6 **Approved:**[33] Building regulations require that the building official shall accept duly authenticated reports.[34]

10.6.1 An approved agency is *"approved"* when it is ANAB ISO/IEC 17065 accredited.

10.6.2 An approved source is *"approved"* when an RDP is properly licensed to transact engineering commerce.

10.6.3 Federal law, Title 18 US Code Section 242, requires that, where the alternative product, material, service, design, assembly, and/or method of construction is not approved, the building official shall respond in writing, stating the reasons why the alternative was not approved. Denial without written reason deprives a protected right to free and fair competition in the marketplace.

10.7 DrJ is a licensed engineering company, employs licensed RDPs and is an ANAB Accredited Product Certification Body – Accreditation #1131.

10.8 Through the IAF Multilateral Arrangement (MLA), this duly authenticated report can be used to obtain product approval in any jurisdiction or country because all ANAB ISO/IEC 17065 duly authenticated reports are equivalent.[35]

11 Conditions of Use

11.1 As defined in **Section 6**, where material and/or engineering mechanics properties are created for load resisting design purposes, the resistance to the applied load shall not exceed the ability of the defined properties to resist those loads using the principles of accepted engineering practice.

11.2 As listed herein, TrimJoist shall have:

11.2.1 Allowable maximum spans for resistance to transverse loads shall not exceed those as described in **Section 6**.

11.2.2 Allowable maximum reactions for resistance to transverse loads shall not exceed those described in **Section 6**.

11.2.3 Allowable deflection shall not exceed limits described in **Section 6**.

11.2.4 Use of the span charts shown in **Section 6** must be in accordance with footnotes herein.

11.2.5 TrimJoist has a *"top"* orientation and shall not be installed upside-down.

11.2.6 Special applications requiring concentrated loads, asymmetric continuous loads, cantilevers, or special bearing conditions are outside the scope of this report.

11.3 To meet the 1-hour fire resistance rating, the components of the proposed assembly shall be installed as specified in UL L528.

11.4 When required by adopted legislation and enforced by the building official, also known as the Authority Having Jurisdiction (AHJ) in which the project is to be constructed:

11.4.1 Any calculations incorporated into the construction documents shall conform to accepted engineering practice and, when prepared by an approved source, shall be approved when signed and sealed.

11.4.2 This report and the installation instructions shall be submitted at the time of permit application.

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11.4.3 At a minimum, this innovative product shall be installed per **Section 8**.

11.4.4 The review of this report by the AHJ shall comply with IBC Section 104.2.3.2 and IBC Section 105.3.1.

11.4.5 This innovative product has an internal quality control program and a third party quality assurance program in accordance with IBC Section 104.7.2, IBC Section 110.4, IBC Section 1703, IRC Section R104.7.2, and IRC Section R109.2.

11.4.6 The application of this innovative product in the context of this report is dependent upon the accuracy of the construction documents, implementation of installation instructions, inspection as required by IBC Section 110.3, IRC Section R109.2, and any other regulatory requirements that may apply.

11.5 The approval of this report by the AHJ shall comply with IBC Section 1707.1, where legislation states in part, *"the building official shall make, or cause to be made, the necessary tests and investigations; or the building official shall accept duly authenticated reports from approved agencies in respect to the quality and manner of use of new materials or assemblies as provided for in Section 104.2.3,"* all of IBC Section 104, and IBC Section 105.3.

11.6 Design loads shall be determined in accordance with the regulations adopted by the jurisdiction in which the project is to be constructed and/or by the building designer (i.e., owner or RDP).

11.7 The actual design, suitability, and use of this report for any particular building, is the responsibility of the owner or the authorized agent of the owner.

12 Identification

12.1 TrimJoist, as listed in **Section 1.1**, is identified by a label on the board or packaging material bearing the manufacturer name, product name, this report number, and other information to confirm code compliance.

12.2 Additional technical information can be found at trimjoist.com.

13 Review Schedule

13.1 This report is subject to periodic review and revision. For the latest version, visit drjcertification.org.

13.2 For information on the status of this report, please contact DrJ Certification.

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Notes

1 For more information, visit drjcertification.org or call us at 608-310-6748.

2 Capitalized terms and responsibilities are defined pursuant to the applicable building code, applicable reference standards, the latest edition of TPI 1, the NDS, AISI S202, US professional engineering law, Canadian building code, Canada professional engineering law, Qualtim External Appendix A: Definitions/Commentary, Qualtim External Appendix B: Project/Deliverables, Qualtim External Appendix C: Intellectual Property and Trade Secrets, definitions created within Design Drawings and/or definitions within Reference Sheets. Beyond this, terms not defined shall have ordinarily accepted meanings as the context implies. Words used in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

3 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1702

4 Alternative Materials, Design and Methods of Construction and Equipment: The provisions of any regulation code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by a regulation. Please review https://www.justice.gov/atr/mission and https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3

5 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1706.2:~:text=the%20design%20strengths%20and%20permissible%20stresses%20shall%20be%20established%20by%20tests

6 The design strengths and permissible stresses of any structural material shall conform to the specifications and methods of design of accepted engineering practice. https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1706.1:~:text=Conformance%20to%20Standards-,The%20design%20strengths%20and%20permissible%20stresses,-of%20any%20structural

7 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1:~:text=the%20building%20official%20shall%20make%2C%20or%20cause%20to%20be%20made%2C%20the%20necessary%20tests%20and%20investigations%3B%20or%20the%20building%20official%20shall%20accept%20duly%20authenticated%20reports%20from%20approved%20agencies%20in%20respect%20to%20the%20quality%20and%20manner%20of%20use%20of%20new%20materials%20or%20assemblies%20as%20provided%20for%20in%20Section%20104.2.3.

8 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4.2

9 https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_agency

10 https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_source

11 https://www.law.cornell.edu/uscode/text/18/1832 (b) Any organization that commits any offense described in subsection (a) shall be fined not more than the greater of $5,000,000 or 3 times the value of the stolen trade secret to the organization, including expenses for research and design and other costs of reproducing the trade secret that the organization has thereby avoided. The federal government and each state have a public records act. To follow DTSA and comply state public records and trade secret legislation requires approval through ANAB ISO/IEC 17065 accredited certification bodies or approved sources. For more information, please review this website: Intellectual Property and Trade Secrets.

12 https://www.nspe.org/resources/issues-and-advocacy/professional-policies-and-position-statements/regulation-professional AND https://apassociation.org/list-of-engineering-boards-in-each-state-archive/

13 https://www.cbitest.com/accreditation/

14 https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.1:~:text=directed%20to%20enforce%20the%20provisions%20of%20this%20code

15 https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3 AND https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#105.3.1

16 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1

17 https://iaf.nu/en/about-iaf-mla/#:~:text=Once%20an%20accreditation%20body%20is%20a%20signatory%20of%20the%20IAF%20MLA%2C%20it%20is%20required%20to%20recognise%20certificates%20and%20validation%20and%20verification%20statements%20issued%20by%20conformity%20assessment%20bodies%20accredited%20by%20all%20other%20signatories%20of%20the%20IAF%20MLA%2C%20with%20the%20appropriate%20scope

18 True for all ANAB accredited product evaluation agencies and all International Trade Agreements.

19 https://www.justice.gov/crt/deprivation-rights-under-color-law AND https://www.justice.gov/atr/mission

20 Unless otherwise noted, the links referenced herein use un-amended versions of the 2024 International Code Council (ICC) 2024 International Code Council (ICC) model codes as foundation references. Mississippi versions of the IBC 2024 and the IRC 2024 are un-amended. This material, product, design, service and/or method of construction also complies with the 2000-2012 versions of the referenced codes and the standards referenced therein. As pertinent to this technical and code compliance evaluation, CBI and/or DrJ staff have reviewed any state or local regulatory amendments to assure this report is in compliance.

21 See Adoptions by Publisher for the latest adoption of a non-amended or amended model code by the local jurisdiction. https://up.codes/codes/general

22 See Adoptions by Publisher for the latest adoption of a non-amended or amended model code by state. https://up.codes/codes/general

23 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3282/subpart-A/section-3282.14

24 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280

25 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#p-3280.2(Listed%20or%20certified); https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#listed AND https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#labeled

26 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4

27 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#:~:text=All%20construction%20methods%20shall%20be%20in%20conformance%20with%20accepted%20engineering%20practices%20to%20insure%20durable%2C%20livable%2C%20and%20safe%20housing%20and%20shall%20demonstrate%20acceptable%20workmanship%20reflecting%20journeyman%20quality%20of%20work%20of%20the%20various%20trades

28 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#:~:text=The%20strength%20and%20rigidity%20of%20the%20component%20parts%20and/or%20the%20integrated%20structure%20shall%20be%20determined%20by%20engineering%20analysis%20or%20by%20suitable%20load%20tests%20to%20simulate%20the%20actual%20loads%20and%20conditions%20of%20application%20that%20occur

29 See Code of Federal Regulations (CFR) Title 24 Subtitle B Chapter XX Part 3280 for definition: https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280

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[30] 2021 IBC Section 104.11

[31] 2021 IRC Section R104.11

[32] 2018: https://up.codes/viewer/wyoming/ifc-2018/chapter/1/scope-and-administration#104.9 AND 2021: https://up.codes/viewer/wyoming/ibc-2021/chapter/1/scope-and-administration#104.11

[33] Approved is an adjective that modifies the noun after it. For example, Approved Agency means that the Agency is accepted officially as being suitable in a particular situation. This example conforms to IBC/IRC/IFC Section 201.4 (https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#201.4) where the building code authorizes sentences to have an ordinarily accepted meaning such as the context implies.

[34] https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1

[35] Multilateral approval is true for all ANAB accredited product evaluation agencies and all International Trade Agreements.

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