



COMPONENT DESIGN DRAWINGS & DETAILS

**Simpson Strong-Tie
Company, Inc.**

5956 W. Las Positas Blvd.
Pleasanton, CA 94588
(800) 999-5099
www.strongtie.com

Prepared for: 19 Lumber Inc
Project: P-1044 - Luke
Date: 6/25/2026 1:14 PM
Project Location: Project location has not been provided.
SST Project (TID): 322541

Paul Mark Bove, State of Florida, Professional
Engineer, License No. 97028

This item has been digitally signed and sealed
by Paul Mark Bove on the date indicated here. 2026.06.26 14:37:38-05'00'

Printed copies of this document are not
considered signed and sealed and the signature
must be verified on any electronic copies.

Notes:

1. The component design drawings referenced below have been prepared based on design criteria and requirements set forth in the Construction Documents, as communicated by the Component Manufacturer.
2. The engineer's signature on these drawings indicates professional engineering responsibility solely for the individual components to be able to resist the design loads indicated, utilizing all the design parameter and materials indicated or referenced on each individual design.
3. It is the Building Designer's responsibility to review the component design drawings to insure compatibility with the Building design, Refer to all notes on the individual component design drawings.

2 Component Design Drawing(s):

1-T01: SID 4335404

2-T02: SID 4335405



General Notes

- Each Truss Design Drawing (TDD) provided with this sheet has been prepared in conformance with ANSI/TPI 1. Refer to ANSI/TPI 1 Chapter 2 for the responsibilities of all parties involved, which include but are not limited to the responsibilities listed on this sheet, and for the definitions of all capitalized terms referenced in this document.
- TDDs should not be assumed to be to scale.
- The Contractor and Building Designer shall review and approve the Truss Submittal Package.
- The suitability and use of the component depicted on the TDD for any particular building design is the responsibility of the Building Designer.
- The Building Designer is responsible for the anchorage of the truss at all bearing locations as required to resist uplift, gravity and lateral loads, and for all Truss-to-Structural Element connections except Truss-to-Truss connections.
- The Building Designer shall ensure that the supporting structure can accommodate the vertical and/or horizontal truss deflections.
- Unless specifically stated otherwise, each Design assumes trusses will be adequately protected from the environment and will not be used in corrosive environments unless protected using an approved method. This includes not being used in locations where the sustained temperature is greater than 150°F.
- Trusses are designed to carry loads within their plane. Any out-of-plane loads must be resisted by the Permanent Building Stability Bracing.
- Design dead loads must account for all materials, including self-weight. The TDD notes will indicate the min. pitch above which the dead loads are automatically increased for pitch effects.
- Trusses installed with roof slopes less than 0.25/12 may experience (but are not designed for) ponding. The Building Designer must ensure that adequate drainage is provided to prevent ponding.
- Camber is a non-structural consideration and is the responsibility of truss fabricator.

Handling, Installing, Restraint & Bracing

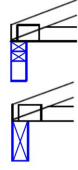
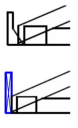
- The Contractor is responsible for the proper handling, erection, restraint and bracing of the Trusses. In lieu of job-specific details, refer to BCSI.
- ANSI/TPI 1 stipulates that for trusses spanning 60' or greater, the Owner shall contract with any Registered Design Professional for the design and inspection of the temporary and permanent truss restraint and bracing. Simpson Strong-Tie is not responsible for providing these services.
- Trusses require permanent lateral restraint to be applied to chords and certain web members (when indicated) at the locations or intervals indicated on the TDD. Web restraints are to be located at mid points, or third points of the member and chord purlins are not to exceed the spacing specified by the TDD. Chords shown without bracing indicated are assumed to be continuously braced by sheathing or drywall. Permanent lateral restraint shall be accomplished in accordance with: standard industry lateral restraint/bracing details in BCSI-B3 or BCSI-B7, supplemental bracing details referenced on the TDD, or as specified in a project-specific truss permanent bracing plan provided by the Building Designer.
- Additional building stability permanent bracing shall be installed as specified in the Construction Documents.
- Special end wall bracing design considerations may be required if a flat gable end frame is used with adjacent trusses that have sloped bottom chords (see BCSI-B3).
- Do not cut, drill, trim, or otherwise alter truss members or plates without prior written approval of an engineer, unless specifically noted on the TDD.
- Piggyback assemblies shall be braced as per BCSI-B3 unless otherwise specified in the Construction Documents.
- For floor trusses, when specified, Strongbacking shall be installed per BCSI-B7 unless otherwise specified in the Construction Documents.
- For IBC 2021 and newer, truss chords without a diaphragm require a project specific bracing design prepared by a registered design professional.

Referenced Standards

ANSI/TPI 1: National Design Standard for Metal Plate Connected Wood Truss Construction, a Truss Plate Institute publication (www.tpinst.org).

BCSI: Guide to Good Practice for Handling, Installing, Restraining & Bracing Metal Plate Connected Wood Trusses, a joint publication of the Truss Plate Institute (www.tpinst.org) and the Structural Building Components Association (www.sbcindustry.com).

Symbols and Nomenclature

- 5x7** Plate size; the first digit is the plate width (perp. to the slots) and the second digit is the plate length (parallel to the slots).
- 5x7-18** -18, -18S5, or -18S6 following the plate size indicates different 18 gauge plate types.
- || = > <** These symbols following the plate size indicate the direction of the plate length (and tooth slots) for square and nearly square plates.
- 10'-3-14** Dimensions are shown in feet-inches-sixteenths (for this example, the dimension is 10'-3 14/16").
-  Joints are numbered left to right, first along the top chord and then along the bottom chord. Mid-panel splice joint numbers are not shown on the drawing. Members are identified using their end joint numbers (e.g., TC 2-3).
-  When this symbol is shown, permanent lateral restraint is required. Lateral restraint may be applied to either edge of the member. See Note 3 under Handling, Installing, Restraint & Bracing for more information.
-  Bearing supports (wall, beam, etc.), locations at which the truss is required to have full bearing. Minimum required bearing width for the given reactions are reported on the TDD. Required bearing widths are based on the truss material and indicated PSI of the support material. The Building Designer is responsible for verifying that the capacity of the support material exceeds the indicated PSI, and for all other bearing design considerations.
-  Truss-to-Truss or Truss-to-Structural Element connection, which require a hanger or other structural connection (e.g., toe-nail) that has adequate capacity to resist the maximum reactions specified in the Reaction Summary. Structural connection type is not limited by type shown on TDD. Toe-nails may be used where hanger type shown where allowed by detail or other connection design information. Design of the Structural Element and the connection of the Truss to a Structural Element is by others.

Note: These symbols are for graphical interpretation only; they are not intended to give any indication of the geometry requirements of the actual item that is represented.

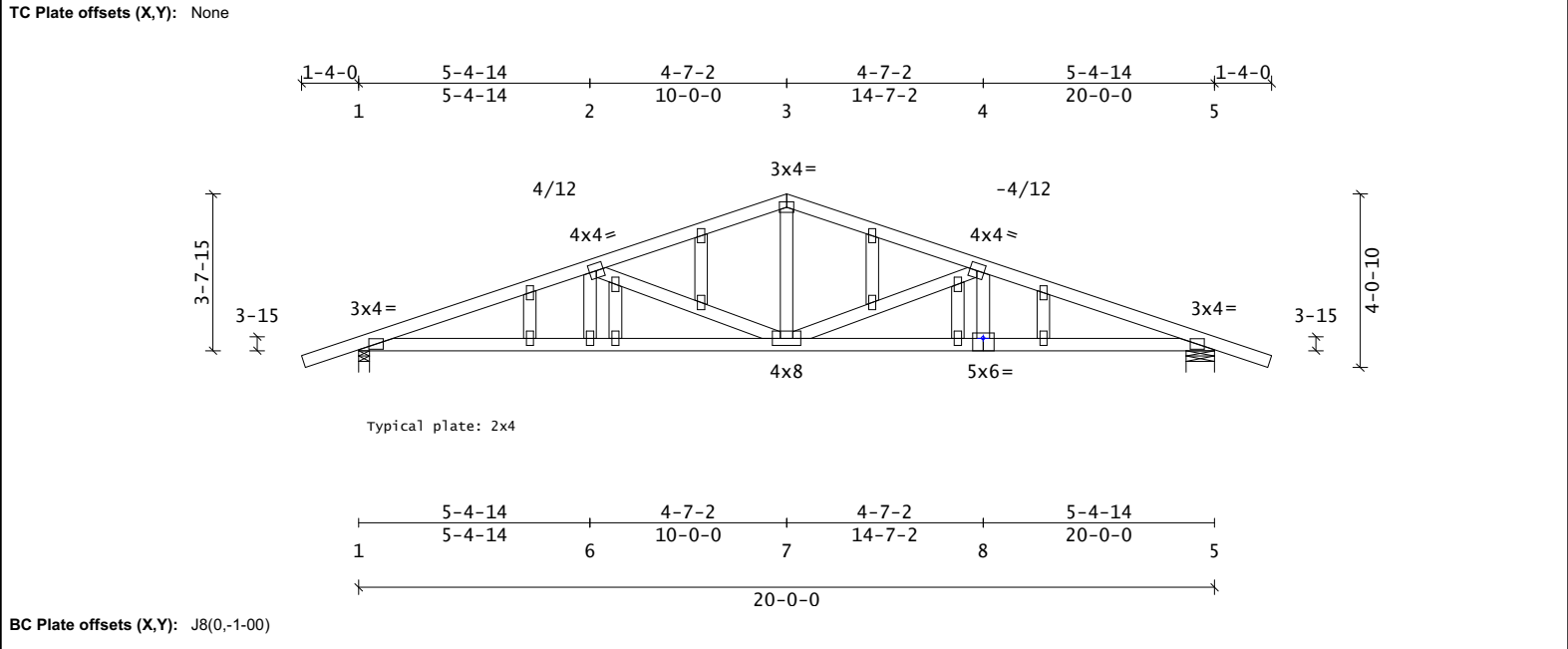
Materials and Fabrication

- Design assumes truss is manufactured in accordance with the TDD and the quality criteria in ANSI/TPI 1 Chapter 3, unless more restrictive criteria are part of the contract specifications.
- Unless specifically stated, lumber shall not exceed 19% moisture content at time of fabrication or in service.
- Design is not applicable for use with fire retardant, preservative treated or green lumber unless specifically stated on the TDD.
- Plate type, size, orientation and location indicated are based on the specified design parameters. Larger plate sizes may be substituted in accordance with ANSI/TPI, Section 3.6.3. Plates shall be embedded within ANSI/TPI 1 tolerances on both faces of the truss at each joint, unless noted otherwise.
- Truss plates shall be centered on the joint unless otherwise specified.

DSB-89 Recommended Design Specification for Temporary Bracing of Metal Plate Connected Wood Trusses, a Truss Plate Institute publication (www.tpinst.org).

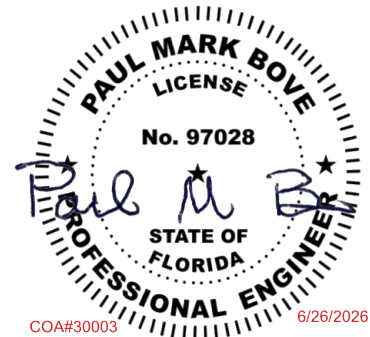
NDS: National Design Specification for Wood Construction published by American Forest & Paper Association and American Wood Council.

ESR-2762 Simpson Strong-Tie® AS Truss Plates are covered under ESR-2762 published by the International Code Council Evaluation Service (www.icc-es.org).

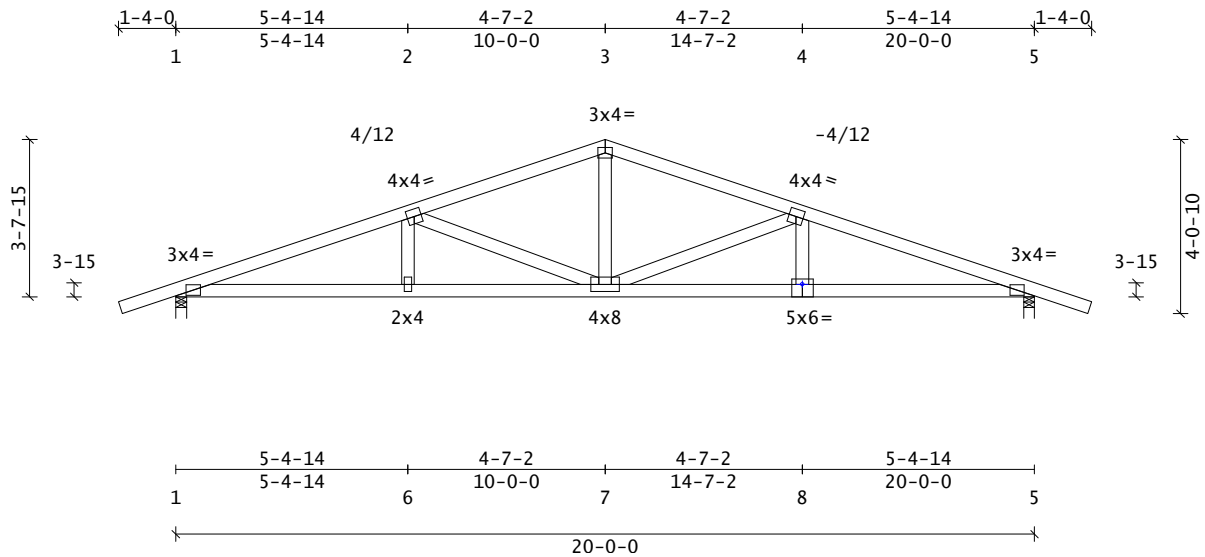


FBC-2023 ASCE7-22 TPI 1-2014 PSF Live Dead Load Duration Factors TC 20.0 10.0 Live Snow Wind BC 0.0 10.0 Lbr 1.25 N/A 1.60 Total 40.0 Plt 1.25 N/A 1.60 OH Soffit 2.0 Spacing: 2-00-00 o.c. Plies: 1 Repetitive Member Increase: Yes Green Lbr: No Temp: T ≤ 100° Treated Lbr: No Incised Lbr: No Seasoned Lbr: Yes Wet Service: No	Roof Snow Load (Pf) = N/A	Wind Speed (Vult) = 140 mph Risk Category: II (I = 1.00) Exposure Category: C Bldg Dims: L = 35.0 ft B = 22.0 ft MRH(h) = 18.0ft Kzt = 1.00 Ke = 1.00 Bldg Type: Enclosed Wind DL (psf): TC = 5.0 BC = 5.0 End Vertical Exposed: L = Yes R = Yes C&C Location: End Zone a = 3-00-00 Design: MWFRS/C&C Reactions: MWFRS Net Uplift: 0.0 psf	Additional Live Load Checks 10 psf Non-Concurrent BCLL: Yes 20 psf BCLL Limited Storage: Yes 200 lb Moving BCLL Access: No 300 lb Moving TCLL Maintenance: No 300 lb TCLL/BCLL Person Loading: No 2000 lb Moving TCLL Office: No Partial Length TCLL: Yes Plate Tolerance Checks Fabrication: 20% (Cq = 0.80), u.n.o. Rotation: +/- 10 degrees, u.n.o.
--	----------------------------------	---	--

Material Summary TC 2x4 SYP #2 BC 2x4 SYP #2 Webs 2x4 SYP #2	Reaction Summary (lb) Jnt XLocation Model Maximum LDF Minimum LDF Brg_Width Req_Width Type Mat PSI 1 01-08 Pin 875 1.25 -267 1.60 03-00 01-08 Wall SPF 531~ 5 19-08-00 HRoll 894 1.25 -272 1.60 08-00 01-08 Wall SPF 425~ Horizontal @ Jnt 1: 48 1.60 -48 1.60 ~ Includes adjustment for Bearing Area Factor, Cb.	Deflection Summary Creep (Kcr) = 2.00 TrussSpan Limit Actual(in) Location Vert LL L/240 L/999(-0.08) 7- 8 Vert DL L/120 L/999(-0.09) 7- 8 Vert CR L/180 L/999(-0.17) 7- 8 Horz LL 0.75in (0.03) @Jt 5 Horz CR 1.25in (0.05) @Jt 5 Ohng CR 2L/180 2L/999(0.01) 1- 1 Ohng CR 2L/180 2L/999(0.01) 5- 5
Member Forces Summary (lb) Max CSI in TC PANEL 1 - 2 0.38 Max CSI in BC PANEL 8 - 5 0.48 Max CSI in Web 2 - 7 0.24	Loads Summary • User-defined unbalanced Top Chord Live Loads (TCLL) occurring at 10-00-00 are based on 1.00 full and 0.00 reduced load factors. • See Loadcase Report for load combinations and additional details.	Bracing Summary Top Chord: Structural Wood Sheathing Bot Chord: Gypsum Board Sheathing Web(s): None;
Design Notes • Plates designed for Cq at 0.80 and Rotational Tolerance of 10.0 degrees. • Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints.	Installation Notes • If this truss is exposed to wind load perpendicular to the plane of the truss, gable studs must be braced according to the Construction Documents, BCSI-B3, or a gable stud bracing detail matching the design wind speed shown. Lateral bracing of the truss itself to resist out-of-plane wind load must be in accordance with the Construction Documents. • The maximum rake overhang length is 12.0". • Gable requires 7/16" OSB sheathing on front from 0-00-00 to 20-00-00; connection details to be provided by the Building Designer.	



TC Plate offsets (X,Y): None



BC Plate offsets (X,Y): J8(0,-1-00)

FBC-2023 | ASCE7-22 | TPI 1-2014

PSF	Live	Dead	Load	Duration	Factors
TC	20.0	10.0	Live	Snow	Wind
BC	0.0	10.0	Lbr	1.25	N/A
Total	40.0	Plt	1.25	N/A	1.60
OH Soffit	2.0				
Spacing:	2-00-00 o.c.	Plies:	1		
Repetitive Member Increase:	Yes				
Green Lbr:	No	Temp:	T ≤ 100°		
Treated Lbr:	No	Incised Lbr:	No		
Seasoned Lbr:	Yes	Wet Service:	No		

Roof Snow Load (Pf) = N/A

Wind Speed (Vult) = 140 mph

Risk Category: II (I = 1.00)
Exposure Category: C
Bldg Dims: L = 35.0 ft B = 22.0 ft
MRH(h) = 18.0 ft Kzt = 1.00 Ke = 1.00
Bldg Type: Enclosed
Wind DL (psf): TC = 5.0 BC = 5.0
End Vertical Exposed: L = Yes R = Yes
C&C Location: End Zone | a = 3-00-00
Design: MWFRS/C&C | Reactions: MWFRS
Net Uplift: 0.0 psf

Additional Live Load Checks

10 psf Non-Concurrent BCLL:	Yes
20 psf BCLL Limited Storage:	Yes
200 lb Moving BCLL Access:	No
300 lb Moving TCLL Maintenance:	No
300 lb TCLL/BCLL Person Loading:	No
2000 lb Moving TCLL Office:	No
Partial Length TCLL:	Yes

Plate Tolerance Checks

Fabrication: 20% (Cq = 0.80), u.n.o.
Rotation: +/- 10 degrees, u.n.o.

Material Summary

TC	2x4	SYP	#2
BC	2x4	SYP	#2
Webs	2x4	SYP	#2

Member Forces Summary (lb)

Max CSI in TC PANEL	1 - 2	0.38
Max CSI in BC PANEL	1 - 6	0.48
Max CSI in Web	2 - 7	0.24

Mbr	Jnt-Jnt	Tens	Comp	CSI
TC	OH- 1	29	0	0.14
	1- 2	528	1851	0.38
	2- 3	404	1292	0.33
	3- 4	404	1292	0.33
	4- 5	528	1851	0.38
	5-OH	29	0	0.14
BC	1- 6	1718	434	0.48
	5- 8	1718	434	0.48
	6- 7	1718	434	0.42
	7- 8	1718	434	0.42
Web	2- 6	189	0	0.04
	2- 7	202	582	0.24
	3- 7	528	109	0.12
	4- 7	202	582	0.24
	4- 8	189	0	0.04

Reaction Summary (lb)

Jnt	XLocation	Model	Maximum LDF	Minimum LDF	Brg_Width	Req_Width	Type	Mat	PSI
1	01-08	Pin	885	1.25	-269	1.60	03-00	01-08	Wall SPF 531~
5	19-10-08	HRoll	885	1.25	-269	1.60	03-00	01-08	Wall SPF 531~
Horizontal @ Jnt 1: 48 1.60 -48 1.60									
~ Includes adjustment for Bearing Area Factor, Cb.									

Loads Summary

- User-defined unbalanced Top Chord Live Loads (TCLL) occurring at 10-00-00 are based on 1.00 full and 0.00 reduced load factors.
- See Loadcase Report for load combinations and additional details.

Design Notes

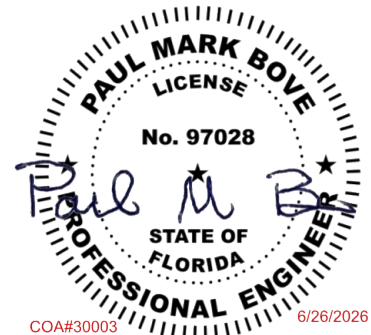
- Plates designed for Cq at 0.80 and Rotational Tolerance of 10.0 degrees.
- Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints.

Deflection Summary

Creep (Kcr) = 2.00		
TrussSpan	Limit	Actual(in) Location
Vert LL	L/240	L/999(-0.08) 6- 7
Vert DL	L/120	L/999(-0.09) 6- 7
Vert CR	L/180	L/999(-0.17) 6- 7
Horz LL	0.75in	(0.03) @Jt 5
Horz CR	1.25in	(0.06) @Jt 5
Ohng CR	2L/180	2L/999(0.01) 1- 1
Ohng CR	2L/180	2L/999(0.01) 5- 5

Bracing Summary

Top Chord: Structural Wood Sheathing
Bot Chord: Gypsum Board Sheathing
Web(s): None;



COA#30003

6/26/2026

NOTICE A copy of this design shall be furnished to the erection contractor. The design of this individual truss is based on design criteria and requirements supplied by the Truss Manufacturer and relies upon the accuracy and completeness of the information set forth by the Building Designer. A seal on this drawing indicates acceptance of professional engineering responsibility solely for the truss component design shown. See the cover page and the "Important Information & General Notes" page for additional information. All connector plates shall be manufactured by Simpson Strong-Tie Company, Inc in accordance with ESR-2762. All connector plates are 20 gauge, unless the specified plate size is followed by a "-18" which indicates an 18 gauge plate, or "S# 18", which indicates a high tension 18 gauge plate.



Component Solutions
Truss Studio V
2026.3.0.65
Helpdesk: 1-866-252-8606
CSHelp@strongtie.com