TSE
Engineering

PRGA20241682

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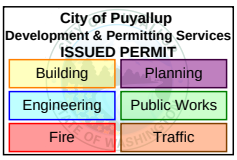
Re: J1132071A
Full Tilt Construction

The truss drawing(s) referenced below have been prepared by Tri-State Engineering under my direct supervision based on the parameters provided by The Truss Company (Sumner).

Pages or sheets covered by this seal: I15260362 thru I15260363

My license renewal date for the state of Washington is August 20, 2026.



October 29,2024

Terry Powell

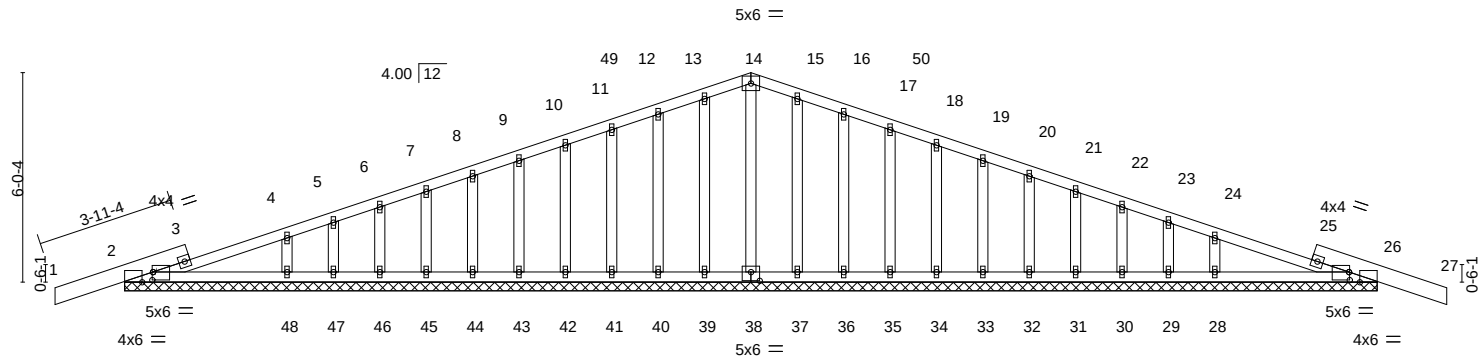
The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI 1.

Job	Truss	Truss Type	Qty	Ply	Full Tilt Construction
J1132071A	A01	COMMON SUPPORTED GAB	2	1	I15260362
					Job Reference (optional)

The Truss Company (Sumner), Sumner, WA - 98390, 8.820 s Sep 12 2024 MiTek Industries, Inc. Tue Oct 29 11:19:32 2024 Page 1
ID:auBGWx5XtUtbt80eLN7nnuyPqCo-?LdkBddPzalhaFJFwLHaIoPcf4iQcUyphGSV_HyOZrf

-2-0-0 2-0-0 | 18-0-0 18-0-0 | 36-0-0 18-0-0 | 38-0-0 2-0-0

Scale = 1:66.2



36-0-0
36-0-0

Plate Offsets (X,Y)-- [2:0-0-4,0-2-12], [2:0-3-12,Edge], [26:0-0-4,0-2-12], [26:0-3-12,Edge], [38:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	0.00	27	n/r	120	MT20	185/148
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.11	Vert(CT)	0.01	27	n/r	120		
TCDL	10.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.01	26	n/a	n/a		
BCLL	0.0 *	Code	IBC2021/TPI2014	Matrix-S							Weight: 197 lb	FT = 20%
BCDL	7.0											

LUMBER-
TOP CHORD 2x4 HF-N No.1/No.2 *Except* 1-3,25-27: 2x6 DF SS
BOT CHORD 2x4 HF-N No.1/No.2
OTHERS 2x4 DF Stud

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 36-0-0.
(lb) - Max Horz 2=-71(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28 except 2=-107(LC 8), 26=-114(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 37, 36, 35, 34, 33, 32, 31, 30, 29 except 2=483(LC 19), 26=483(LC 20), 48=484(LC 19), 28=484(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-48=-401/140, 24-28=-401/140

NOTES-
1) Wind: ASCE 7-16; Vult=110mph (3-second gust) Vasd=87mph; TCDL=4.8psf; BCDL=4.2psf; h=25ft; Cat. II; Exp B; Pr. Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -2-0-0 to 1-7-3, Exterior(2N) 1-7-3 to 14-4-13, Corner(3R) 14-4-13 to 21-7-3 , Exterior(2N) 21-7-3 to 34-4-13, Corner(3E) 34-4-13 to 38-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
6) All plates are 1.5x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 1-4-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 23.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28 except (jt=lb) 2=107, 26=114.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

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LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-14=-105(F=-35), 14-27=-105(F=-35), 2-26=-14

City of Puyallup
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ISSUED PERMIT

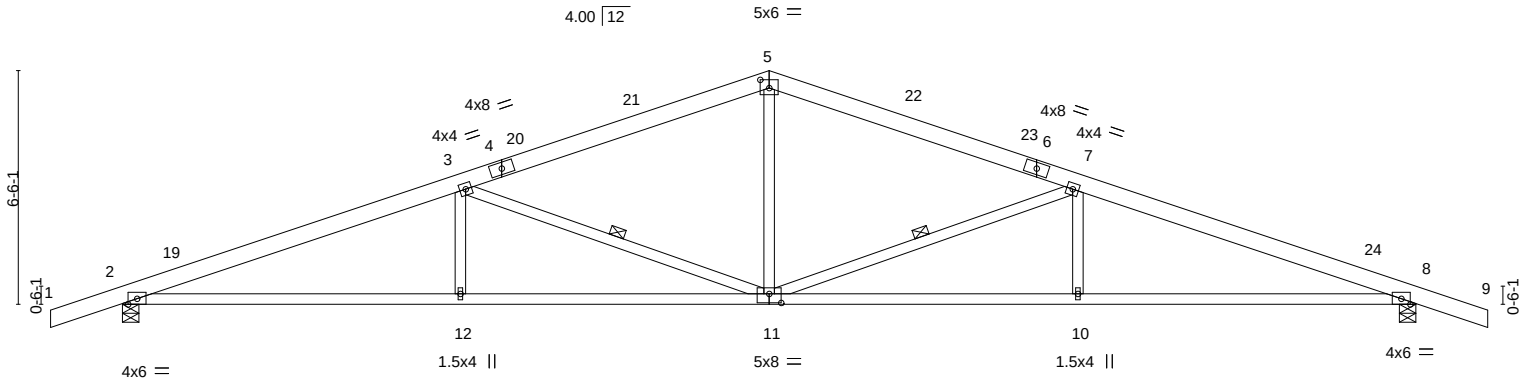
Building	Planning
Engineering	Public Works
Fire	Traffic

Job	Truss	Truss Type	Qty	Ply	Full Tilt Construction
J1132071A	A02	COMMON	20	1	I15260363
					Job Reference (optional)

The Truss Company (Sumner), Sumner, WA - 98390, 8.820 s Sep 12 2024 MiTek Industries, Inc. Tue Oct 29 11:19:33 2024 Page 1
ID:auBGWx5XtUtbt80eLN7nnuyPqCo-TXB6Oye1kutYCOuSU3opq?ylNUuiLrkywwB3WjyOZre

-2-0-0	9-4-14	18-0-0	26-7-2	36-0-0	38-0-0
2-0-0	9-4-14	8-7-2	8-7-2	9-4-14	2-0-0

Scale: 3/16"=1'



9-4-14	18-0-0	26-7-2	36-0-0
9-4-14	8-7-2	8-7-2	9-4-14

Plate Offsets (X,Y)-- [5:0-3-0,0-2-12], [11:0-4-0,0-3-0]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.22	11-12	>999	360	MT20	185/148
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.42	11-12	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.16	8	n/a	n/a		
BCLL	0.0 *	Code	IBC2021/TPI2014	Matrix-MS								
BCDL	7.0										Weight: 174 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 DF SS
BOT CHORD 2x4 HF-N No.1/No.2
WEBS 2x4 DF Stud *Except*
7-11,3-11: 2x4 HF-N No.1/No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-5-9 oc bracing.
WEBS 1 Row at midpt 7-11, 3-11

REACTIONS. (size) 2=0-5-8, 8=0-5-8
Max Horz 2=-76(LC 13)
Max Uplift 2=-299(LC 8), 8=-299(LC 9)
Max Grav 2=1652(LC 1), 8=1652(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3598/690, 3-5=-2483/539, 5-7=-2483/539, 7-8=-3598/690
BOT CHORD 2-12=-550/3331, 11-12=-550/3331, 10-11=-550/3331, 8-10=-550/3331
WEBS 5-11=-113/938, 7-11=-1311/302, 7-10=0/294, 3-11=-1311/301, 3-12=0/294

NOTES-
1) Wind: ASCE 7-16; Vult=110mph (3-second gust) Vasd=87mph; TCDL=4.8psf; BCDL=4.2psf; h=25ft; Cat. II; Exp B; Pr. Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-7-3, Interior(1) 1-7-3 to 14-4-13, Exterior(2R) 14-4-13 to 21-7-3, Interior(1) 21-7-3 to 34-4-13, Exterior(2E) 34-4-13 to 38-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 23.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=299, 8=299.

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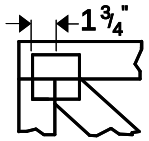
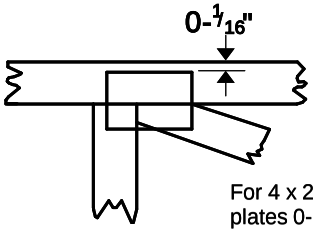
Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

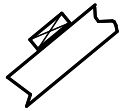
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

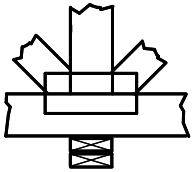
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T, I or Eliminator bracing if indicated.

BEARING

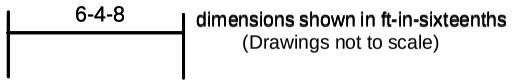


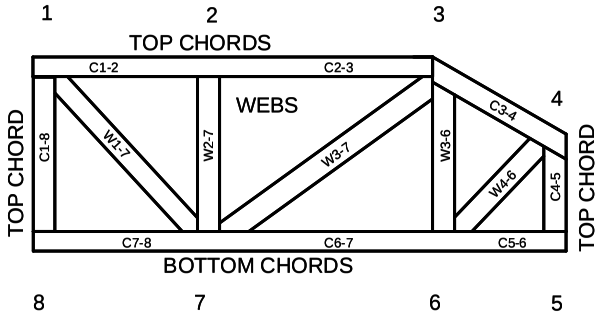
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI1: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System





JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ER-5243, 9604B,
9730, 95-43, 96-31, 9667A
NER-487, NER-561
95110, 84-32, 96-67, ER-3907, 9432A

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI1.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T, I, or Eliminator bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.