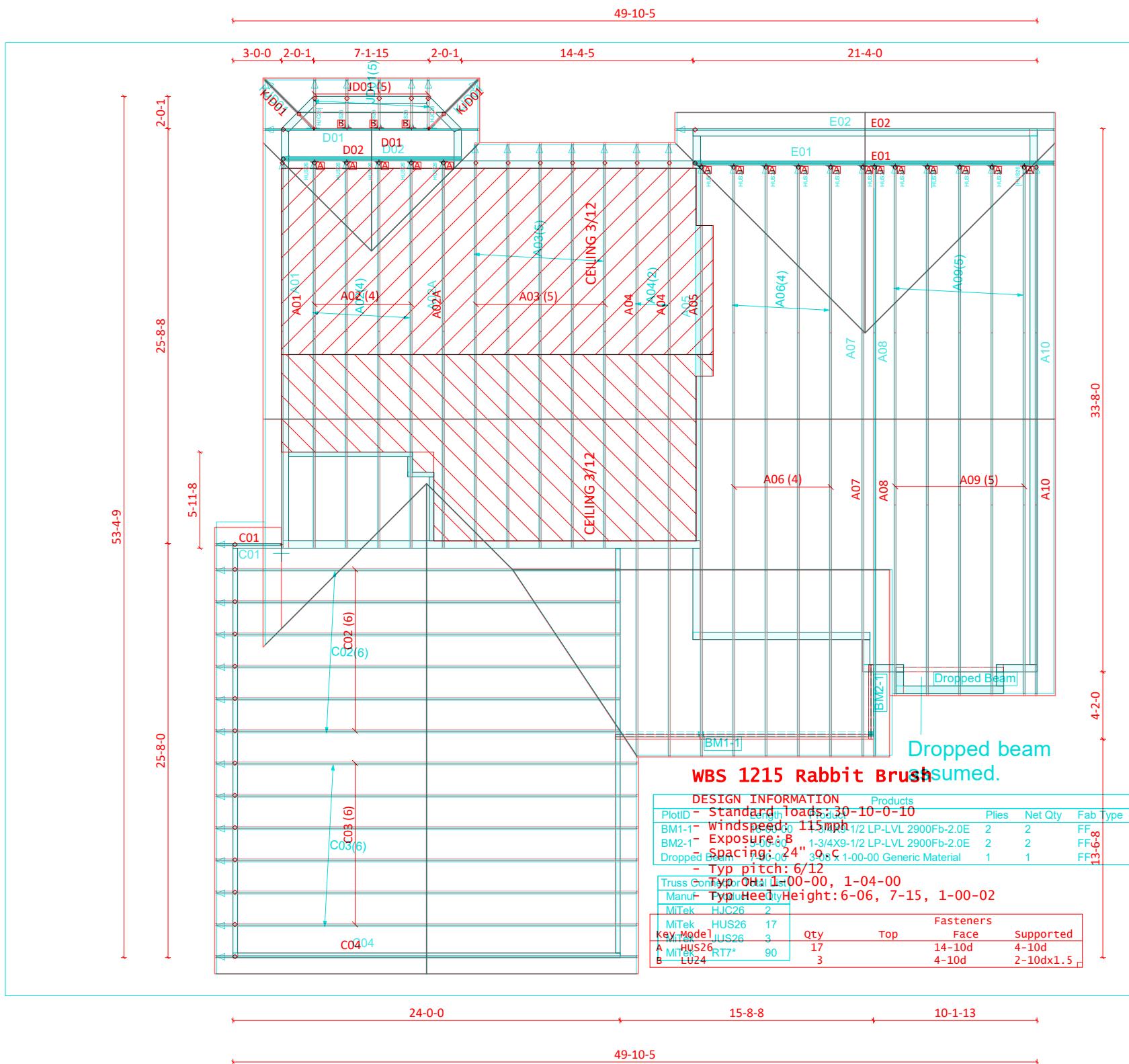


Place Your  
Logo Here



### -QUOTE LAYOUT- -NOT FOR CONSTRUCTION- -PRELIMINARY-

XX PITCH  
XX" OH  
XX HEEL

#### RT7A TIES AT ENDS OF ALL TRUSSES U.N.O.

WARNING! THE DESIGN OF TRUSS TO BEARING CONNECTIONS (HORIZONTAL TIES) IS THE RESPONSIBILITY OF THE BUILDING DESIGNER. ANY QUESTIONS OR COMMENTS REGARDING THESE CONNECTIONS SHOULD BE DIRECTED TO THE BUILDING DESIGNER. TRUSS CRAFT HAS MADE THESE RECOMMENDATIONS AFTER REVIEWING ONLY THE UPLIFT FORCES DUE TO WIND, LATERAL LOADS FROM WIND, AND SEISMIC FORCES HAVE NOT BEEN CONSIDERED. THESE RECOMMENDATIONS HAVE BEEN MADE ASSUMING A DOUBLE TOP PLATE OF SPF #2 LUMBER OR BETTER.



ARROWS ON TRUSSES ON LAYOUT INDICATE TAGGED/LEFT END HEEL PLATE OF TRUSS

PLEASE NOTE ANY SPECIAL CONDITION TAGS ON TRUSSES

Roof Plane Area: 2561.48 SQ FT  
Valley Length: 92.1 FT  
Ridge Length: 101.46 FT  
Hip Ridge Length: 6 FT  
Horiz Fascia Length: 121.66 FT  
Raked Fascia Length: 162.12 FT

**TRUSS CRAFT**  
STRUCTURAL COMPONENTS

650 Echostar  
Cheyenne, WY 82007  
PHONE: (307) 635-1635  
FAX: (307) 635-4803

#### CUSTOMER

JOB NAME: Gateway of WY  
JOB NUMBER: 2108 - 1251 Rabbit Bush Trl

SCALE NTS Job #: Q2102752

PRINTED ON 9/22/2021 ESTIMATED BY: Chris Hamilton

DESIGNED BY: Unassigned SALESMAN: J Christensen

This is a truss placement diagram only.  
These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the entire truss support structure including, but not limited to headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of wood trusses" available from the Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53179.

- NOTES:**
- 1.) REFER TO INDIVIDUAL TRUSS DRAWINGS FOR ADDITIONAL INFO.
  - 2.) DIMENSIONS SHOWN ARE FROM FACE OF STUD OF BEARING WALLS.
  - 3.) DIMENSIONAL VERIFICATION IS THE RESPONSIBILITY OF THE SITE CONTRACTOR AND/OR ARCHITECT.
  - 4.) ALL INTERIOR HEADERS TO BE DROPPED EXCEPT AS NOTED.
  - 5.) ALL TRUSSES MUST BE SPACED AT A MAXIMUM OF 24" OC UNLESS OTHERWISE NOTED.
  - 6.) \*DO NOT CUT, DRILL, OR ALTER ANY TRUSS WITHOUT WRITTEN CONSENT FROM A REGISTERED ENGINEER.

P-182

Western Building Supply

Designed By: System Administrator  
Checked By:  
Job Number:

DATE: 12 / 15 / 21	FILENAME: 1-A.tdlLayout	REVISION:
DATE: BY:	DATE: BY:	DATE: BY:
REVISION:	REVISION:	REVISION:
REVISION:	REVISION:	REVISION:



Customer: Western Building Supply

Western Building Supply

SID:

TID:

Date: 12 / 15 / 21

Page: 1 of 1

Truss Mfr. Contact: System Administrator

Job	Truss	Truss Type	Qty	Ply	2108 - 1251 Rabbit Bush Trl
Q2102752	A02	Roof Special	4	1	Job Reference (optional)

Truss Craft Structural Components LLC Cheyenne, WY 82007 Run: 8.5 S.0 Aug 16 2021 Date: 8.503.0 Aug 16 2021 MITek Industry, Inc Wed Sep 22 10:49:41 ID: 8NYFJj2z6254KrezybyPRM-529WwzZfZD6BmztWd3FQWufzEm\_A667Ayb4Z0 Page: 1



Customer: Western Building Supply

Western Building Supply

SID:

TID:

Date: 12 / 15 / 21

Page: 1 of 1

Truss Mfr. Contact: System Administrator

Job	Truss	Truss Type	Qty	Ply	2108 - 1251 Rabbit Bush Trl
Q2102752	A02A	Scissor	1	1	Job Reference (optional)

Truss Craft Structural Components LLC Cheyenne, WY 82007 Run: 8.5 S.0 Aug 16 2021 Print: 8.500 S. Aug 16 2021 Mitek Industries, Inc. Wed Sep 22 10:49:42 Page: 1

ID:c3SygNyCfj3-24-10-45ybPOX-N67VW-4-1-21-1nIDHCP9EqqshHOQuDsqgXdyb4zN

Page: 1

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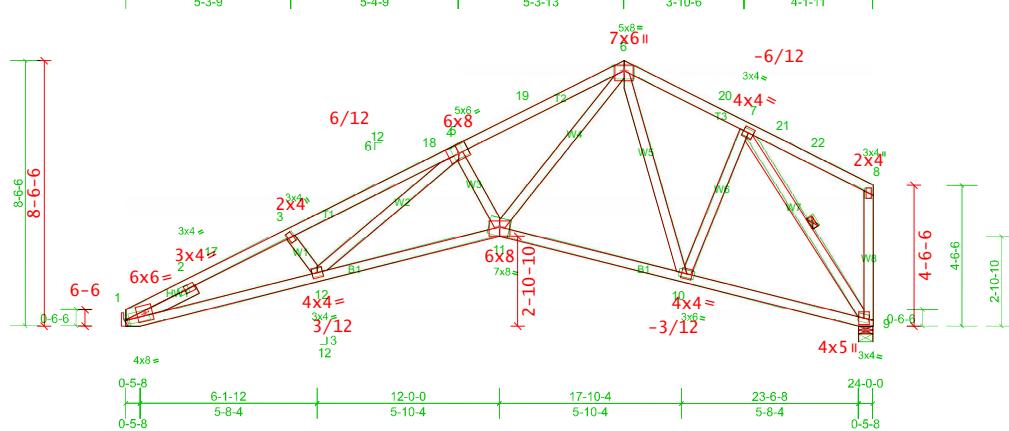


Plate Offsets (X, Y): [1:0-1:4-0-2-6]		6-1-10-2-0-3-0]	5-10-4	5-10-4	6-1-12		
Loading	TCLL	6 (psf) 30.0	Spanning Plate Grip DOL Lumber DOL	12-0-0 8 1.15 1.15	CSI TC BC	17-10-4 in 0.95 0.42 0.50	(loc) 124-0-0 999 240 >999 240 685 180 n/a n/a
TCDL	10.0	Rep Stress Incr					
BCLL	0.0	Code					
BCDL	10.0			IRC2018/TPI2014	WB 24-0-0 Matrx-MS		

Weight: 107 lb FT = 20% Truss Weight = 118.9 lb

Code/Design: IRC-2018/TPI-2014 LUMBER  
 PSF Live Dead Dur Fat Top CHORD 24.5 SPF 1650F1.55 - Snow Load Specs -  
 TC 30.0 10.0 Live Weight CHORD 24.5 SPF 1650F1.55 I Terrain Cat: B  
 BC 0.0 10.0 Lum 1.15 1.15 ESS 1.15 Lumber Spec No. 1.15  
 Total 50.0 Plt 1.15 1.15 1.15 Thermal Condition: All Others(1.0)  
 Spacing: 2-00-00 o.c. Reaction: 1 Max Hori 1-161 (LC 13) REACTIONS (lb/in):  
 Repetitive Member Increase: Yes Max Vert 1-211 (LC 14) Minimums (Pfmin): No  
 Green Lumber: No Wet Service: No Max Shear 1-0255 (RC 2019) 1193 (ED 1) Yes  
 Fab Tolerance: 20% Creep (Kcr) 2.0 Max Wind 1-0255 (RC 2019) 1193 (ED 1) Yes  
 OH Soffit Load: 2.0 psf Max Wind 1-0255 (RC 2019) 1193 (ED 1) Yes  
 TOP CHORD 1-19-1500 2-17-3825783 3-17-3594170 3-18-3481787 4-19-1092/85  
 BOT CHORD 1-19-1500 2-17-3825783 3-17-3594170 3-18-3481787 4-19-1092/85

---BRACING-Wind Load Specs---  
 ASCI TOP CHORD Wind Structural Wood-shoring directly applied or 10-0-0 Vertical Concurrent BC LL: Yes  
 RISER TOP CHORD I Wind shoring directly applied or 10-0-0 bc 1999 psf BC Limited Storage: Yes  
 Bldg dims: L = 1999 ft B = 50.79 ft 200 lb BC Accessible Ceiling: No  
 M.R.H.B. = 25. Mitek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Maintenance Load: No  
 Bldg Enclosure: Installation Guide 1-16 TC Safe Load: No  
 Wind DL(psf): TC 6.0 BC 6.0 End Vertical Exposed: L = Yes R = Yes Unbalanced TLL: Yes  
 Wind Uplift Reporting: ASCE7 MFRS

---Additional Design Checks---  
 Wind loadings directly applied or 10-0-0 Vertical Concurrent BC LL: Yes  
 RISER Wind loadings directly applied or 10-0-0 bc 1999 psf BC Limited Storage: Yes  
 Bldg dims: L = 1999 ft B = 50.79 ft 200 lb BC Accessible Ceiling: No  
 M.R.H.B. = 25. Mitek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Maintenance Load: No  
 Bldg Enclosure: Installation Guide 1-16 TC Safe Load: No  
 Wind DL(psf): TC 6.0 BC 6.0 End Vertical Exposed: L = Yes R = Yes Unbalanced TLL: Yes

**Material Summary**TC 2x4 SPF 1650/1.5  
BC 2x4 SPF 1650/1.5  
Webs 2x4 SPF #2**Member Forces Summary**

Mem...	Tens	Comp	NOTES
TC 1- 2	403	3302	1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vsd=91mph (TCDE=6.0) psf BCDL=6.0 psf, h=25ft; Cat II Exp B: Enclosed; MFRS (envelope) exterior zone and vertical left and right exposed; C-C for members and C-C & MFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2- 3	449	3486	2) TLL: ASCE 7-16; Pf=30.0 psf lum DOL=1.15 plate DOL=1.15; l=10. Rough Cat B: Partially Exp; Cat 120; Cs=1.00; Ct=1.10
3- 4	461	3341	3) Unbalanced snow loads have been considered for this design. 170 at Joint 1
4- 5	429	2706	4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5- 6	228	1107	5) Refer to girder(s) for more information.
6- 7	119	54	6) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7-OH	5	0	7) Provide mechanical connection for other types of fasteners to bearing plate capable of M10 shear strength at joint.
BC 1- 8	3134	541	8) This truss is designed in accordance with the 2018 International Residential Code sections R502.10 and R502.10.2 and referenced standard ANSI/ASCE 7-16.
8- 9	2707	434	9) Plates designed for Cg at 0.80 and Rotational Tolerance of 10.0 degrees.
9-10	1043	161	Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints.
10-11	797	168	Continuous Lateral Restraint (CLR) rows require diagonal bracing per D-WEBCLRBRAKE. Alternatively, see D-WEBREINFORCE.
11-OH	1	0	Notes
Web 1- 2	29	218	Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints.
3- 8	146	252	Continuous Lateral Restraint (CLR) rows require diagonal bracing per D-WEBCLRBRAKE. Alternatively, see D-WEBREINFORCE.
4- 8	539	136	See Loadcase Report for loading combinations and additional details.
4- 9	189	663	Dead Loads may be slope adjusted: > 12.0/12
5- 9	2061	294	Notes
5-10	63	402	Plates designed for Cg at 0.80 and Rotational Tolerance of 10.0 degrees.
6-10	514	0	Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints.
6-11	222	1434	Continuous Lateral Restraint (CLR) rows require diagonal bracing per D-WEBCLRBRAKE. Alternatively, see D-WEBREINFORCE.
7-11	73	134	Notes
		0.13	See Loadcase Report for loading combinations and additional details.

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.

**Deflection Summary**

Truss Span	Limit	Actual (in)	Location
1/240	L/999(-0.27)	8- 9	C-C
1/120	L/999(-0.19)	8- 9	Vert DL
1/180	L/616(-0.46)	8- 9	Vert CR
0.75in	( 0.17)	@Jt11	Horz LL
1.25in	( 0.28)	@Jt11	Horz CR

**Bracing Data Summary**

-----Bracing Data-----  
 Chords: continuous except where shown  
 ----- Web Bracing -- CLR -----  
 Single: 6-11  
 Continuous Restrained Bracing Req'd  
 See BCSI-B3 3.0

**Plate offsets (X, Y):**

(None unless indicated below)  
 Jnt4(-00-04,00-07), Jnt5(0,-00-13),  
 Jnt9(0,-00-10), Jnt1(-00-04,-00-02)



Component Solutions  
 Truss Studio V  
 2020.3.0.218

Customer: Western Building Supply

Western Building Supply

SID:

TID:

Date: 12 / 15 / 21

Page: 1 of 1

Job Q2102752	Truss A03	Truss Type Scissor	Qty 5	Ply 1	2108 - 1251 Rabbit Bush Trl
Run: 8.5 S 0 Aug 16 2021 Print: 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 22 10:49:42 Page: 1					

Truss Mfr. Contact: System Administrator

Run: 8.5 S 0 Aug 16 2021 Print: 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 22 10:49:42 Page: 1

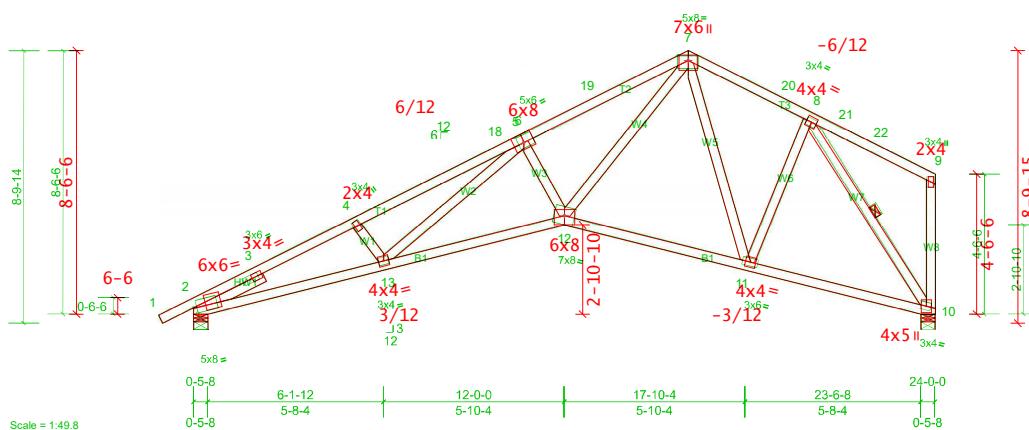


Plate Offsets (X, Y): [2:0-1:4-0-2:7], [6:0-2:0-1:4-0-2:7]		6-1-12		5-10-4		5-10-4		6-1-12	
Loading (Roof Snow = 30.0)	(psf) 30.0	Spacing 6-1-12	8	2-0-0 Plate Grip DOL TC	1 1.15	1-0-0 Vert(LL) BC	9 0.95	DEF 7-10-4 In (loc) 10 >999 240 MT20	24-5-0 Ld GRIP 11 197/144

TCLL 10.0 Lumber DOL 1.15 Rep Stress Incr YES WB Matrix-MS 24-0-0 Weight: 108 lb FT = 20% Truss Weight = 120.2 lb

Code/Design: IRC-2018/TPI-2014  
LUMBER TOP CHORD: 2x4 SPF 1650 ASCE7-16 Roof Snow (Pf) = 30.0 psf  
PSF Live Dead Top Chord: 2x4 SPF 1650 ASCE7-16 Wind: ASCE 7-16 Roof Exposure: Sheltered  
TC 30.0 10.0 Bot Chord: 2x4 SPF 1650 ASCE7 Cat: II Terrain Cat: B  
BC 0.0 10.0 Lum WEBS 1.60 2x4 SPF No.2 Roof Exposure: Sheltered  
Total 50.0 Plt SLIDER 1.60 Left 2x4 SPF No.2 2-6-9 Condition: All Others(1.0)  
Spacing: 2-00-00 o.c. REACTIONS db size: 2=12000-Sbs (min 0.20), 10=11910-P-5.8, (max 0.1-13)  
Repetitive Member Increase: Yes Max Horiz 2=1600 (LG13) Lopimum Minimums (Pfmin): No  
Green Lumber: No Wet Service Max Uplift 2=1600 (LG13) Unbalanced Snow Loads: Yes  
Fab Tolerance: 20% Creep (Kcr) Max Gray 2=1600 (LG13) Uplift: No Ice Chk: No  
OH Soffit Load: 2.0 FORCES (lb) - Max Comp Max Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2=3-1829 32, 3=4-3603/168, 4-18=3456/173, 5-18=3284/183, 5-6=2656/156  
7-20=978/103, 8-20=1089/84

BRAING -----Wind Load Specs-----  
TOP CHORD 7-16 Structural Wind Speed (V) 115 mph  
Bot Chord Cat: Rigid coupling directly applied or 10-0-0 cc bracing.  
Web Bldg Dims: Rigid mgmt 0 ft B = 8-100.0 ft 200 lb BC Limited Storage: Yes  
M.R.H(h) = MiTek recommends that stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer 1b TC Safe Load: No  
Bldg Enclosure installed during truss erection, in accordance with Stabilizer 1b TC Safe Load: No  
Wind DL(psi) 7.00 BC = 6.0 Installation Guide: 6.0 BC = 6.0 Unbalanced TLL: Yes  
End Vertical Exposed: L = Yes R = Yes  
Wind Uplift Reporting: ASCE7 MWFRS  
C&C End Zone: 4-00-00

-----Additional Design Checks-----  
Non-Concurrent BC LL: Yes  
10-0-0 cc bracing: 200 lb BC Accessible Ceiling: No  
Maintenance Load: No  
Wind DL(psi) 7.00 BC = 6.0 BC Limited Storage: Yes  
Unbalanced TLL: Yes

**Material Summary**BOT CHORD 2-13=284/247, 12-13=211/2640, 11-12=93/1092, 10-11=84/786  
WEBS 7-12=119/2013, 7-12=119/2013

NOTES

Wind: ASCE 7-16; Vult=115mph (3 second gust); Vred=9mph; FCDL=6.0psf; BDL=6.0psf; In=25ft Cat: H; Exp B; Enclosed; MWFRS (envelope) exterior zone and C+C

Webs 2x4 SPF #2 Exterior(2E)-1-0-13 to 1-1-3, Interior(1I)-1-1-3 to 16-0-0, Exterior(2R) 16-0-0 to 9-0-0, Interior(1I) 19-0-0-0 to 23-10-0 zone; cantilever left and right exposed; and vertical load and right exposed; C+C for members and forces &amp; MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

TCLL: ASCE 7-16; Pf=30.0 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

Unbalanced snow loads have been considered for this design.

This truss has been designed for a maximum live load of 16.0 psf or 1.0 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.

5) This truss has been designed for a maximum live load nonconcurrent with any other live loads.

6) Bearing at joints 2, 10 considers parallel to grain value using ANSI TPI 1.0. Single to grain formula Building designer should verify capacity of bearing surface.

7) Provide mechanical connection (by bolts) of truss to bearing plate capable of withstanding 35 lb split action 2 Full and 0.00 Reduced load

8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

9) See Loadcase Report for loading combinations and additional details.

Dead Loads may be slope adjusted: &gt; 12.0/12

...Mem... Ten Cap

1- 2 379 3.0 Bearing at joints 2, 10 considers parallel to grain value using ANSI TPI 1.0. Single to grain formula Building designer should verify capacity of bearing surface.

2- 3 429 3.0 Provide mechanical connection (by bolts) of truss to bearing plate capable of withstanding 35 lb split action 2 Full and 0.00 Reduced load

3- 4 442 3.0 This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

4- 5 424 LOAD CASE(S) 5 Standard

Plates designed for Cg 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.

Continuous Lateral Restraint (CLR) rows require diagonal bracing per

D-WEBCLRBRAKE. Alternatively, see D-WEBREINFORCE.

BC 1- 8 2966 520 0.85 Plates designed for Cg at 0.80 and Rotational Tolerance of 10.0 degrees

8- 9 2655 428 0.63 Plates located at TC pitch breaks meet the prescriptive minimum size

9-10 1028 159 0.36 requirement to transfer unblocked diaphragm loads across those joints.

10-11 790 167 0.35 Continuous Lateral Restraint (CLR) rows require diagonal bracing per

11-OH 1 0 0.00 D-WEBCLRBRAKE. Alternatively, see D-WEBREINFORCE.

Web 1- 2 33 250 0.41

3- 8 127 219 0.03

4- 8 431 86 0.10

4- 9 179 639 0.12

5- 9 2020 289 0.49

5-10 63 394 0.34

6-10 505 0 0.12

6-11 220 1420 0.37

7-11 73 134 0.13

Notes

Plates designed for Cg 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.

Continuous Lateral Restraint (CLR) rows require diagonal bracing per

D-WEBCLRBRAKE. Alternatively, see D-WEBREINFORCE.

Member Forces Summary

...Mem... Ten Cap

1- 2 379 3.0 Bearing at joints 2, 10 considers parallel to grain value using ANSI TPI 1.0. Single to grain formula Building designer should verify capacity of bearing surface.

2- 3 429 3.0 Provide mechanical connection (by bolts) of truss to bearing plate capable of withstanding 35 lb split action 2 Full and 0.00 Reduced load

3- 4 442 3.0 This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

4- 5 424 LOAD CASE(S) 5 Standard

See Loadcase Report for loading combinations and additional details.

Dead Loads may be slope adjusted: &gt; 12.0/12

Deflection Summary

Truss Span Limit Actual(in) Location

Vert LL L/240 L/999(-0.28) 8- 9

Vert CR L/120 L/999(-0.20) 8- 9

Vert CR L/180 L/599(-0.47) 8- 9

Horz LL 0.75in ( 0.17) @Jt11

Horz CR 1.25in ( 0.27) @Jt11

Ong CR 2L/180 2L/999(-0.01) 1- 1

Vert CR and Horz CR are the vertical and horizontal deflections due to live load

plus the creep component of deflection

due to dead load, computed as Defl\_LL +

(Kcr - 1) x Defl\_DL in accordance with

ANSI/TPI 1.

Bracing Data Summary

-----Bracing Data-----

Chords: continuous except where shown

----- Web Bracing -- CLR -----

Single: 6-11

Continuous Restraining Bracing Req'd

See ECSI-B3 3.0

Plate offsets (X, Y):

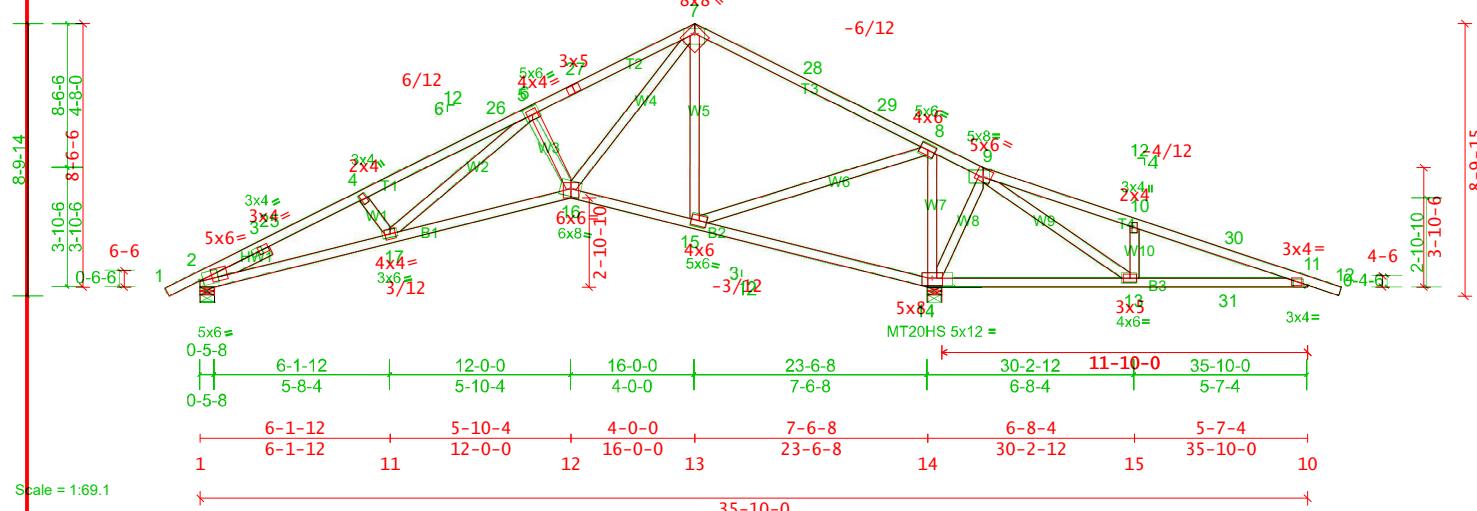
(None unless indicated below)

Jnt4(-00-04,00-07), Jnt5(0,-00-13),

Jnt9(0,-00-10)

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.

Truss Mfr. Contact: System Administrator



Loading	Design: IRC-2018/ASCE7-16	Spacing	Snow 2-0-0	CSI	-- DEFL -- Wind Load (lbs) / defl -- L/d	PLATES	GRIFFIN Design Checks
TCLF	Live Dead	Plate Grip DOL	ASCE7-16 Roof Snow (15)	TC 30.0 psf	ASCE7-16 Wind Speed (mi/h) = 115 mph	M120	Non-Concurrent BC LL: Yes
TC	30.0	10.0	Risk Cat: II Terrain: B	BC: B	Wind Speed (mi/h) = 115 mph	M120	BC Limit Storage: Yes
(Roof Snow)	0	1.0	Risk Cat: II Terrain: B	BC: B	Exposure Cat: B	M120	Wind BC Allowable Ceiling: No
TCDL	50.0	10.0	Rep Stress Inc	Thermal Condition: YES	Wind Speed (mi/h) = 130.0 mi/h	300 lb TC Maintenance Load:	No
BC	50.0	10.0	Rep Stress Inc	Unobstructed (1.0)	B = 04750.180	2000 lb TC Safe Load:	No
BC	50.0	10.0	Rep Stress Inc	IRC2018/TP12014: Matrix-MS	K = 0.79 R = Horz (CT) 250.015	Unbalanced Snow Loads: Yes	Weight: 144 lb FT = 20%
BC	50.0	10.0	Rep Stress Inc	Matrix-MS	K14 = 1/a n/a		
BC	50.0	10.0	Rep Stress Inc	Low-Slope Minimums (Plumb): No	Bldg Enclosure: Enclosed		
BC	50.0	10.0	Rep Stress Inc	Unbalanced Snow Loads: Yes	Wind DL (psf): TC = 6.0 BC = 6.0		
BC	50.0	10.0	Rep Stress Inc		End Vertical Exposed: L = Yes R = Yes		
Fab Tolerance:	20% Creep (Kcr) = 2.0				Wind Uplift Reporting: ASCE7 MWFRS		
OH	Soffit Load: 2.0 psf				C & C End Zone: 4-00-00		
LUMBER							
TOP CHORD	2x4 SPF 1650F 1.5E *Except* T3	2x4 SPF 2100F 1.8E					
WEBS	2x4 SPF 1650F 1.5E						
SLIDER	Left 2x4 SPF No. 2 - 2-6-0						
REACTIONS	(lb/size) <sup>T</sup> = 898/0.5-8, (min. 0-1-11), 14=2854/0-5-8, (min. 0-1-11)						
Member Forces Summary	Max Horiz = 2-107 (LC 18)						
Member Forces Summary	Max Uplift = 2-50 (LC 14), 14=-164 (LC 11)						
Member Forces Summary	Max Grav = 2-1128 (LC 35) 14=2854 (LC 14)						
FORCES	2 (lb) - Max Comp./Max Ten. - All forces: 250 (lb) or less except when shown						
TOP CHORD	6.0 - 1500/82, 3-25 = 2805/206, 4-25 = 2848/223, 4-26 = 2713/226, 5-26 = 2547/235, 5-6 = 1785/409, 6-27 = 1755/439,						
4-5	7-2-3 = 1649/500, 7-28 = 571/656, 28 = 575/595, 8-29 = 64/1538, 8-39 = 1047/2579, 9-10 = 421/1241, 10-30 = 472/1248.						
5-6	39/1-30 = 470/150, 0.41						
BOT CHORD	4-92-17 = 252/2583, 16-17 = 276/1851, Notes = 565/612, 14-15 = 2415/1101, 13-14 = 2175/1016, 13-31 = 1091/487,						
WEBS	2211-31 = 1091/487 0.95						
WEBS	8-9 1027-16 = 119/1601, 7-15 = 992/362, 8-15 = 486/2063, 8-14 = 2299/540, 9-13 = 854/1341, 10-18 = 602/123, 4-17 = 350/144,						
WEBS	9-10 105/16 = 105/168, 5-16 = 688/138						
NOTES	1-11 2430 0 0.66						
1)	Wind: ASCE 7-16; Volt: 916; Vult: 925 mph (3-second gust) Vasd=91 mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C 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=30.0 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 16.0 psf or 1.0 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.						
5)	All plates are MT20 plates unless otherwise indicated.						
6)	This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.						
7)	Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.						
8)	Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 2 and 164 lb uplift at joint 14.						
9)	This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.						
LOAD CASE(S)	113 Standard 26 0.28						
	9-15 112 481 0.06						

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**SIMPSON**  
**Strong-Tie**

Component Solutions  
Truss Studio V  
2020.3.0.218

Job	Truss	Truss Type	Qty	Ply	2106 - 1251 Rabbit Bush Tr
Q2102752	A05	Roof Special	1	1	

P-182 - WBS 1215 Rabbit Brush  
Truss Craft Structural Components, LLC, Cheyenne, WY, 82007

Run: 8.5 S 0 Aug 16 2021 Print: 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 22 10:49:43

Page: 1

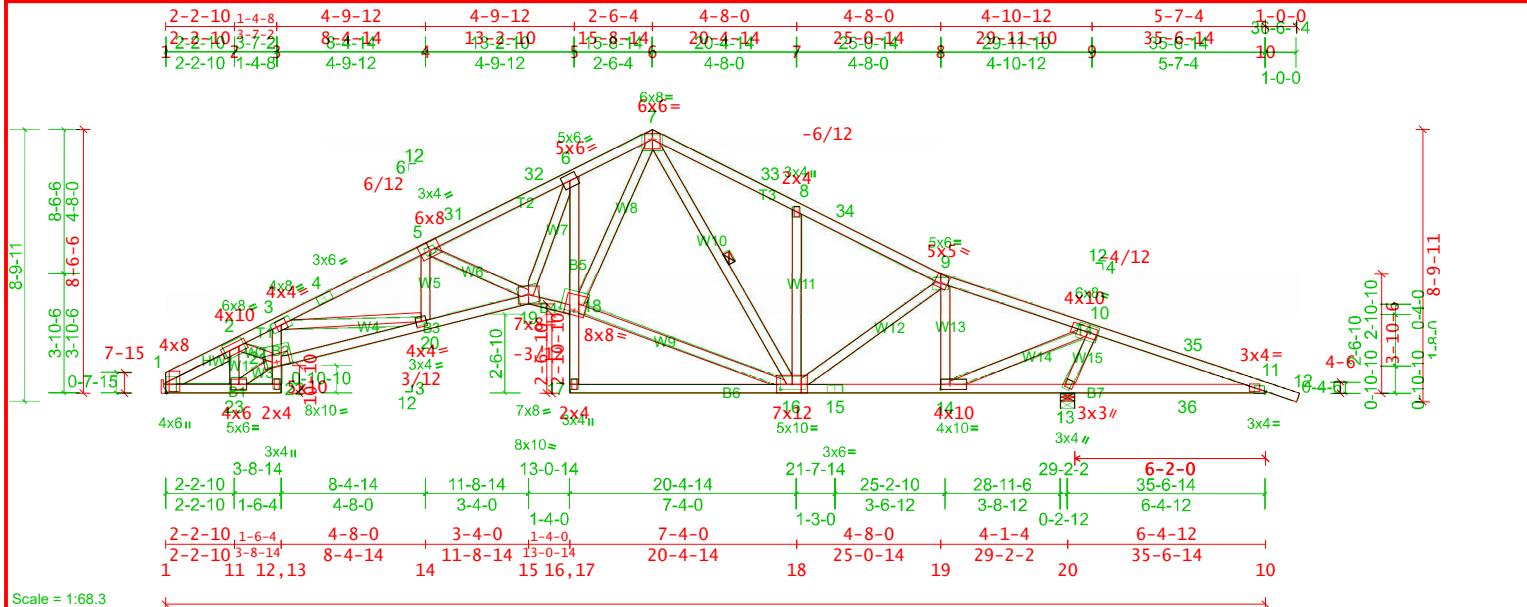
Customer: Western Building Supply

Western Building Supply

SD

Truss Mfr. Contact: System Administrator

TID:  
Date: 12 / 15 / 21  
Page: 1 of 1



Scale = 1:68.3

35-6-14

Plate Offsets (X, Y): [1:0-3-4,0-0-2], [11:0-0-4,Edge], [14:0-3-8,0-2-0], [16:0-4-8,0-2-0], [18:0-6-8,0-4-0], [21:0-7-0,0-4-12]

Truss Weight = 206.7 lb

Loading	Spacing	Snow Long Span	CSI	DEFI	Wind Load Specs	PLATES	GRIFFIN
TCLL Live Dead 30.0 10.0	30.0 Plate Grip DOL	ASCE17-16 Roof Snow 115 TC 30.0 psf	0.66 Vert(LL) 0.27 19-20 mph	ASCE7 Wind Spread(100 1/2) 240	Additional Design Checks		
TCDL 50.0 Lum 1.15 1 Lumber DOL	Live Wind 1.15 Risk Cat: II Terrain Cat: B	Risk Cat: II	0.66 Vert(LL) 0.27 19-20 mph	Wind Exposure Cat: B	BCLL: Yes	M20 psf Non-Concurrent BCLL: Yes	197/144
TCR 100.0 1 Rep Stress Incremental Condition: YES	Wind 1.15 DOL	Roof Exposure: Sheltered BC	0.66 Vert(LL) = 0.44 19-20 B >8020.480	Wind Speed(100 1/2) 240	BC Limited Storage: Yes	200 lb BC Accessible Ceiling: No	
BCCL 200-0-0 o.c. 0.6 Code	Unobstructed Glazing 1.00	Unobstructed Glazing 1.00	0.70 Horz(GT) 0.25 Kz13= 1.0 n/a	Wind DL(ps): TC = 6.0 BC = 6.0	300 lb TC Maintenance Load: No	2000 lb TC Safe Load: No	
BCDL Green Lumber: No Wet Service: No	0.60	Low-Slope Minimums(Plumb): No	Bldg Enclosure: Enclosed	Wind End Vertical Exposed: L = Yes R = Yes	2000 lb TC Safe Load: No	Unbalanced TCL: Weight: 170 lb FT = 20%	
Fab Tolerance: 20% Creep (Kcr) = 2.0	Rain Surgeon: No Ice Dam Chk: No	Unbalanced Snow Loads: Yes	Wind Uplift Reporting: ASCE7 MWFRS				
SOH Soffit Load: 2.0 psf	Lu(max) = 20-11-02		C&C End Zone: 4-00-00				
LUMBER							
TOP CHORD 2x4 SPF 1650F 1.5E							

Material Summary	Reaction Summary	BRACING	Deflection Summary
TWELBS 2x4 2x4 SPF No.2 Except* W10:2x4 SPF-1650F 1.5E	--Reaction Summary(Lbs)	TOP CHORD	Structural wood sheathing directly applied or 3-1/2 oc purlins.
SLIDER 2x4 SPF 1650F 1.5E	Jnt --x-Loc- React -Up- --Width- -Reqd -Mat PSI 6-0-0 oc bracing: 11-13.	Rigid ceiling directly applied or	Deflection Summary
Web 2x4 SPF #2	DFL 4254 Row at midpt		Accept:
REACTIONS (lb/size) 161#1363/ Mechanical; (min. 0-18) 13=22780-53, (min. 0-3-9) 05-08 03-06			TrussSpan Limit Actual(in) Location
Member Forces Summary			Vert LL L/240 L/999(-0.31) 15-16
...Mem. Max Sump 122 (LC 14), 13=-61 (LC 11)			Vert DL L/120 L/999(-0.19) 15-16
TC 1- 2 182 1836 0.30	This truss has been designed for the effects of an unbalanced top chord		Vert CR L/180 L/996(-0.50) 15-16
FORCES 3 252 (lb) - Max Comp./Max. Ten. - All forces 250(lb) or less except when shown using a 1.00 Full and 0.00 Reduced load	Dead Loads may be slope adjusted: > 12.0/12		Horz CR @Jt20
TOP CHORD 91-12-106752, 2-3-4283/144, 3-4-3978/76, 4-5-3823/99, 5-31-3341/53, 31-32-3224/64, 6-32-3155/76,	Dead Loads may be slope adjusted: > 12.0/12		Ohng CR 2L/180 2L/999(-0.00) 10-10
4- 5 57 107 107 11-35-1545/1135 0.44	MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer (0.28) @Jt20		Cent CR 2L/180 2L/999(-0.10) 20-10
6- 7 141 11-35-1545/1135 0.44	Installation guide.		
BOT CHORD 73 1-23=97/1930, 22-23=24/262, Notes			
WEBS-10 1062 16-18-0/1470, 7-18-68/2172, 7-16=521/7, 8-10=593/130, 9-16=200/575, 9-14=1030/235, 10-14=386/283			
10-0- 31 10-13-2319/3916 6-19=32/1575, 3-20=1677/133, 5-19=668/100, 2-23=1431/77, 21-23=97/2196, 22-21=89/1959			
BC 1-11 1787 144 0.44	Continuous Lateral Restraint (CLR) rows require diagonal bracing per		
NOTES 20 214 929 0.29	D-WEBCLBRACE. Alternatively, see D-WEBREINFORCE.		

- Wind: ASCE 97-16; Volt=115mph (3-second gust) Vsd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior Zone 1 and C-C
  - Exterior(2E) 0-3-2 to 3-10-4, Interior(1) 3-10-4 to 16-0-0, Exterior(2R) 16-0-0 to 19-6-11, Interior(1) 19-6-11 to 36-10-9 zone; cantilever left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - BCCL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.0
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 61 lb uplift at joint 13.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- | LOAD CASE(S) | 184  | 0    | 0.04 |
|--------------|------|------|------|
| 4-15         | 100  | 649  | 0.17 |
| 5-15         | 1808 | 0    | 0.44 |
| 5-16         | 50   | 1744 | 0.70 |
| 6-16         | 1950 | 1    | 0.48 |
| 6-18         | 72   | 411  | 0.11 |
| 7-18         | 94   | 592  | 0.36 |
| 8-18         | 571  | 36   | 0.14 |
| 8-19         | 89   | 1014 | 0.24 |
| 9-19         | 2663 | 97   | 0.65 |
| 9-20         | 144  | 2232 | 0.32 |
| 11-13        | 1921 | 159  | 0.47 |
| 12-13        | 55   | 0    | 0.40 |
| 16-17        | 119  | 0    | 0.13 |
| 16-18        | 1570 | 0    | 0.38 |

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**SIMPSON**  
**Strong-Tie**

Component Solutions  
Truss Studio V  
2020.3.0.218

Job ID: P182 - WBS 1215 Rabbit Brush	Truss A06	Truss Type: Roof Special	Qty: 4	Ply: 1	2108 - 1251 Rabbit Bush Trl	Job Reference (optional): Qty: 4	Truss: A06																																																																																																																																																																					
Customer: Western Building Supply				Run: 8.5 S 0 Aug 16 2021 Post: 8.500 Struct: 16 2021 MiTek Industries, Inc. Wed Sep 22 10:49:44			Page: 1																																																																																																																																																																					
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<p>Truss Weight = 169.1 lb</p> <table border="1"> <thead> <tr> <th>Loading</th> <th>(psf)</th> <th>Spacing</th> <th>2-0-0</th> <th>CSI</th> <th>Defl.</th> <th>in (loc)</th> <th>l/defl</th> <th>L/d</th> <th>PLATES</th> <th>GRIP</th> </tr> </thead> <tbody> <tr> <td>TCDL</td> <td>30.0</td> <td>Plate Grip DOL</td> <td>-----</td> <td>Snow Load Specs</td> <td>Vert(LL)</td> <td>16-17 &gt;999</td> <td>240</td> <td>MT20</td> <td>197/144</td> <td>Additional Design Checks</td> </tr> <tr> <td>Live Dead</td> <td>30.0</td> <td>Dur. Roof Snow</td> <td>ASCE7-16 Roof Snow DOL</td> <td>15 BC</td> <td>Avg(L) 16</td> <td>16-17 &gt;999</td> <td>180</td> <td>10 psf Non-Concurrent BCLL: Yes</td> </tr> <tr> <td>(Roof Snow = 30.0)</td> <td>10.0</td> <td>Live Wind Snow</td> <td>Risk Cat: II</td> <td>Terrain Cat: B</td> <td>Vert(CL)</td> <td>16-17 &gt;999</td> <td>180</td> <td>20 psf BC Limited Storage: Yes</td> </tr> <tr> <td>HCDL</td> <td>0.0</td> <td>10.0 Lum 10.0</td> <td>Roof Exposure: Steep</td> <td>WB</td> <td>Risk Cat: I</td> <td>0.21</td> <td>expposure cat: B</td> <td>200 lb BC Accessible Ceiling: No</td> </tr> <tr> <td>BCLL</td> <td>50.0</td> <td>Plt 1.00 Code 1.15</td> <td>Thermal: IRC2018/TP12014/IMatrix-MS (1.0)</td> <td>Thermal: 1.00</td> <td>Hori(G)hs</td> <td>0.05</td> <td>60.0 ft n/a = n/a</td> <td>300 lb TC Maintenance Load: No</td> </tr> <tr> <td>BGDL</td> <td>2-00-00 o.c. 10.0</td> <td>Plies: 1</td> <td>Unobstructed Slippery Roof: No</td> <td></td> <td>M.R.H(h)</td> <td>= 25.0 ft</td> <td>Kzt = 1.0</td> <td>Bldg Enclosure: Enclosed</td> </tr> <tr> <td>Repetitive Member Increase: Yes</td> <td></td> <td></td> <td>Low-Slope Minimums (ft/min): No</td> <td></td> <td>Wind DI(psfl)</td> <td>TC = 6.0 BC = 6.0</td> <td>Weight: 153 lb FT = 20% safe load:</td> </tr> <tr> <td>Green Lumber: No</td> <td>Wet Service: No</td> <td>Unbalanced Snow Loads: Yes</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Unbalanced TCI: Yes</td> </tr> <tr> <td>LUMBER</td> <td>Grain: 20% Creep (Kcr) = 2.0</td> <td>Live Surcharge: No Ice Dam Chk: N</td> <td></td> <td></td> <td>End Vertical Exposed: L = Yes R = Yes</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TOP CHORD load:</td> <td>2x4 SPF 1650F 1.5E</td> <td>Lu(max): 20-11-02</td> <td></td> <td></td> <td>Wind Uplift Reporting: ASCE7 MWFRS</td> <td></td> <td></td> <td></td> </tr> <tr> <td>BOT CHORD</td> <td>2x4 SPF 1650F 1.5E</td> <td></td> <td></td> <td></td> <td>TOP CHORD TOP CHORD BOT CHORD</td> <td>Structural wood sheathing directly applied or 3-1-9 oc purlins.</td> <td></td> <td></td> </tr> <tr> <td>WEBS</td> <td>2x4 SPF No.2 Except W4,W5:2x4 SPF 1650F 1.5E</td> <td></td> <td></td> <td></td> <td></td> <td>Rigid ceiling directly applied or 4-9-8 oc bracing.</td> <td></td> <td></td> </tr> <tr> <td>SLIDER</td> <td>2x4 SPF 1650F 1.5E</td> <td>Reaction Summary</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>REACTIONS (lb/size)</td> <td>145/1363/5</td> <td>Mechanical, (min. 0-1-8) 11=2278/0-5-8 (min. 0-3-9)</td> <td>Reaction Summary (Lbs)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Webs</td> <td>2x4 SPF</td> <td>Max Horiz#1=114 (LC 15)</td> <td>1 00-12 1427 0 01-08 HGR DFL 425</td> <td>Width- -Reqd -Mat PSI</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>2x4 SPF</td> <td>Max Uplift 15=22 (LC 14), 14=61 (LC 11)</td> <td>16 29-02-02 2279 0 05-08 03-06 DFL 453</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>Max Horiz#1=1428 (LC 35), 11=2278 (LC 1)</td> <td>+128 / +96 at Joint 1</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								Loading	(psf)	Spacing	2-0-0	CSI	Defl.	in (loc)	l/defl	L/d	PLATES	GRIP	TCDL	30.0	Plate Grip DOL	-----	Snow Load Specs	Vert(LL)	16-17 >999	240	MT20	197/144	Additional Design Checks	Live Dead	30.0	Dur. Roof Snow	ASCE7-16 Roof Snow DOL	15 BC	Avg(L) 16	16-17 >999	180	10 psf Non-Concurrent BCLL: Yes	(Roof Snow = 30.0)	10.0	Live Wind Snow	Risk Cat: II	Terrain Cat: B	Vert(CL)	16-17 >999	180	20 psf BC Limited Storage: Yes	HCDL	0.0	10.0 Lum 10.0	Roof Exposure: Steep	WB	Risk Cat: I	0.21	expposure cat: B	200 lb BC Accessible Ceiling: No	BCLL	50.0	Plt 1.00 Code 1.15	Thermal: IRC2018/TP12014/IMatrix-MS (1.0)	Thermal: 1.00	Hori(G)hs	0.05	60.0 ft n/a = n/a	300 lb TC Maintenance Load: No	BGDL	2-00-00 o.c. 10.0	Plies: 1	Unobstructed Slippery Roof: No		M.R.H(h)	= 25.0 ft	Kzt = 1.0	Bldg Enclosure: Enclosed	Repetitive Member Increase: Yes			Low-Slope Minimums (ft/min): No		Wind DI(psfl)	TC = 6.0 BC = 6.0	Weight: 153 lb FT = 20% safe load:	Green Lumber: No	Wet Service: No	Unbalanced Snow Loads: Yes						Unbalanced TCI: Yes	LUMBER	Grain: 20% Creep (Kcr) = 2.0	Live Surcharge: No Ice Dam Chk: N			End Vertical Exposed: L = Yes R = Yes				TOP CHORD load:	2x4 SPF 1650F 1.5E	Lu(max): 20-11-02			Wind Uplift Reporting: ASCE7 MWFRS				BOT CHORD	2x4 SPF 1650F 1.5E				TOP CHORD TOP CHORD BOT CHORD	Structural wood sheathing directly applied or 3-1-9 oc purlins.			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<p><b>Material Summary</b></p> <p><b>Member Forces Summary</b></p> <p><b>FORCES</b>: Ten (lb) - Max Comp. Max. Ten. - All forces shown except when shown.</p> <p><b>TOP CHORD</b>: 1261-2=-983/5/2-25=240/2/58 3-25=2306/72, 3-26=2384/105, 4-26=2176/114, 4-27=&lt;176/88, 5-27=&lt;163/107, unbalanced top chord 2- 3 135-28=135/28, 6-28=&lt;149/48, 6-29=&lt;063/68, 7-29=&lt;1134/54, 7-30=&lt;1027/26, 8-30=&lt;539/1240, 9-30=&lt;544/1189. 00 Reduced load</p> <p><b>BOT CHORD</b>: 187-17=&lt;177/2099, 16-17=&lt;13/1683, 15-16=&lt;0/1141, 14-15=&lt;0/1141, 13-14=&lt;0/1299, 12-13=&lt;0/1299, 11-12=&lt;1999/713, 4-5 134-11-31=&lt;1081/545, 9-31=&lt;1081/545 See Loadcase Report for loading combinations and additional details.</p> <p><b>WEBS</b>: 6- 7 100-6-12=&lt;708/278, 7-12=&lt;453/93, 8-12=&lt;376/2657, 8-11=&lt;2334/383, 3-17=&lt;337/127, 4-17=&lt;65/510, 4-16=&lt;690/126, 7- 8 41-16=&lt;43/854, 5-14=&lt;48/468, 6-14=&lt;39/426 Notes</p> <p><b>NOTES</b>: 9 1068 202 0.64 Plates designed for Cq at 0.80 and Rotational Tolerance of 10.0 degrees</p> <p>1) Wind ASCE 7-16: Vult=115mph (3-second gust) Vadv=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat: II; Exp: B; Enclosed; MWFRS (envelope) exterior(2E) 2-3 to 3-9-3, Interior(2R) 3-9-13 to 16-0-0, Exterior(2E) 16-0-0 to 19-6-1, Interior(2R) 19-6-11 to 36-10-9 zone, cantilever left and right exposed across those 7 joints</p> <p>BC Exterior(2E) 2-3 to 3-9-3, Interior(2R) 3-9-13 to 16-0-0, Exterior(2E) 16-0-0 to 19-6-1, Interior(2R) 19-6-11 to 36-10-9 zone, cantilever left and right exposed across those 7 joints</p> <p>2) TCDL ASCE 7-16: Pf=30.0 psf (Lum DOL=1.5 Plate DOL=1.5); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10</p> <p>3) Unbalanced snow loads have been considered for this design.</p> <p>4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.</p> <p>5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.</p> <p>6) Refer to girder(s) for truss to truss connections.</p> <p>7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 61 lb uplift at joint 11.</p> <p>8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.</p>																																																																																																																																																																												
<p><b>Deflection Summary</b></p> <p>MitTek recommends that Stabilizers and vertical supports be installed during truss erection, in accordance with Stabilizer Actual(in) Location Installation guide.</p> <p>Vert LL L/240 L/999(-0.14) 10-12</p> <p>Vert DL L/120 L/999(-0.11) 10-12</p> <p>Vert CR L/180 L/999(-0.25) 10-12</p> <p>Horz LL 0.75in ( 0.04) @Jt16</p> <p>Horz CR 1.25in ( 0.06) @Jt16</p> <p>Ohng CR 2L/180 2L/999(-0.00) 9- 9</p> <p>Cant CR 2L/180 2L/993(-0.15) 16- 9</p> <p>Vert CR and Horz CR are the vertical and horizontal deflections due to live load plus the creep component of deflection due to dead load, computed as Defl_LL + (Kcr - 1) x Defl_DL in accordance with ANSI/TPI 1.</p> <p><b>Bracing Data Summary</b></p> <p>Bracing Data-----</p> <p>Chords: continuous except where shown</p> <p>Web Bracing -- None</p>																																																																																																																																																																												
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Job	Truss	Truss Type	Qty	Ply	2108 - 1251 Rabbit Bush Trl																																																																														
P182 - WBS 1215 Rabbit Brush	A07	Roof Special	1	1	Job Reference (optional)	Qty: 1																																																																													
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Truss Mfr. Contact: System Administrator																																																																																			
Plate Offsets (X, Y): [1:0-4-1,Edge], [4:0-3-0,0-3-0], [7:0-3-0,Edge] 35-6-14																																																																																			
<p><b>Loading</b></p> <table border="1"> <tr> <td>TCLL Design: IRC-2018</td><td>(psf)</td><td>30.0</td><td>Spacing</td><td>2.0</td><td>CSI</td><td>2.0</td></tr> <tr> <td>Live Dead</td><td>Dur Factor</td><td>1.0</td><td>Plate Grip DOL</td><td>ASCE7-16</td><td>Snow 1-150 Spec</td><td>1.15</td></tr> <tr> <td>(Roof Snow = 30.0)</td><td>Lumber DOL</td><td>10.0</td><td>Risk Cat: II</td><td>BC = 30.0 psf</td><td>Wind Load Spec</td><td>0.78</td></tr> <tr> <td>HCDL 0.0</td><td>Live Wind</td><td>10.0</td><td>Terrain Cat: B</td><td>Risk Cat: I</td><td>Vert(LL) 0.11</td><td>10 psf Non-Concurrent BC(LL): Yes</td></tr> <tr> <td>BGLI 50.0</td><td>Wind Show</td><td>10.0</td><td>Roof Exposure: Steep</td><td>WES WB</td><td>Vert(CT) 0.19</td><td>10 psf Non-Concurrent BC(LL): Yes</td></tr> <tr> <td>BGDLng: 2-00-00</td><td>Lum 1.0</td><td>1.0</td><td>Thermal: IRC2018/TP2014/Matrix-MS (1.0)</td><td>Unobstructed Slippery Roof: No</td><td>RISK Cat: I</td><td>20 psf BC Limited Storage: Yes</td></tr> <tr> <td>Repetitive Member Increase: Yes</td><td>Plt 1.0</td><td>Code 1.15</td><td>Low-Slope Minimums (ft/min): No</td><td>M.R.H(h) = 25.0 ft</td><td>Exposure Cat: B</td><td>200 lb BC Accessible Ceiling: No</td></tr> <tr> <td>Green Lumber: No</td><td>Wet Service: No</td><td></td><td>Unbalanced Snow Loads: Yes</td><td>Kzt = 1.0</td><td>Wind DI (psf): TC = 6.0 BC = 6.0</td><td>300 lb TC Maintenance Load: No</td></tr> <tr> <td>LUMBER Tolerance: 20% Creep (Kcr) = 2.0</td><td></td><td></td><td>Wind Uplift Reporting: ASCE7 MWFRS</td><td>Bldg Enclosure: Enclosed</td><td>Wind DI (psf): TC = 6.0 BC = 6.0</td><td>Weight: 152 lb FT = 20%afe Load: No</td></tr> <tr> <td>TOP CHORD load: 2x4 SPF 1650F 1.5E</td><td></td><td></td><td>TOP CHORD End Zon</td><td>Structural wood sheathing directly applied or 3-2-10 cc purlins.</td><td></td><td>Unbalanced TCLL: Yes</td></tr> <tr> <td>BOT CHORD 2x4 SPF 1650F 1.5E</td><td></td><td></td><td>BOT CHORD</td><td>Rigid ceiling directly applied or 5-2-5 oc bracing.</td><td></td><td></td></tr> </table> <p>Truss Weight = 164.5 lb</p>							TCLL Design: IRC-2018	(psf)	30.0	Spacing	2.0	CSI	2.0	Live Dead	Dur Factor	1.0	Plate Grip DOL	ASCE7-16	Snow 1-150 Spec	1.15	(Roof Snow = 30.0)	Lumber DOL	10.0	Risk Cat: II	BC = 30.0 psf	Wind Load Spec	0.78	HCDL 0.0	Live Wind	10.0	Terrain Cat: B	Risk Cat: I	Vert(LL) 0.11	10 psf Non-Concurrent BC(LL): Yes	BGLI 50.0	Wind Show	10.0	Roof Exposure: Steep	WES WB	Vert(CT) 0.19	10 psf Non-Concurrent BC(LL): Yes	BGDLng: 2-00-00	Lum 1.0	1.0	Thermal: IRC2018/TP2014/Matrix-MS (1.0)	Unobstructed Slippery Roof: No	RISK Cat: I	20 psf BC Limited Storage: Yes	Repetitive Member Increase: Yes	Plt 1.0	Code 1.15	Low-Slope Minimums (ft/min): No	M.R.H(h) = 25.0 ft	Exposure Cat: B	200 lb BC Accessible Ceiling: No	Green Lumber: No	Wet Service: No		Unbalanced Snow Loads: Yes	Kzt = 1.0	Wind DI (psf): TC = 6.0 BC = 6.0	300 lb TC Maintenance Load: No	LUMBER Tolerance: 20% Creep (Kcr) = 2.0			Wind Uplift Reporting: ASCE7 MWFRS	Bldg Enclosure: Enclosed	Wind DI (psf): TC = 6.0 BC = 6.0	Weight: 152 lb FT = 20%afe Load: No	TOP CHORD load: 2x4 SPF 1650F 1.5E			TOP CHORD End Zon	Structural wood sheathing directly applied or 3-2-10 cc purlins.		Unbalanced TCLL: Yes	BOT CHORD 2x4 SPF 1650F 1.5E			BOT CHORD	Rigid ceiling directly applied or 5-2-5 oc bracing.		
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Job ID: P2102752	Truss A08	Truss Type: Roof Special	Qty: 1	Ply: 1	2108 - 1251 Rabbit Bush Trl																																																																																																																																																																																																																																																																																				
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<p>Typical plate: 2x4</p> <p>Plate Offsets (X, Y): [1:0-3-9,0-0-14], [4:0-3-0,0-3-0], [7:0-3-0,Edge], [8:0-2-0,0-1-0], [9:0-2-0,Edge]</p> <p>Scale = 1:65.3</p> <p>Truss Weight = 174.8 lb</p>																																																																																																																																																																																																																																																																																									
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Job	Truss	Truss Type	Qty	Ply	2108 - 1251 Rabbit Bush Trl					
P-182 - WBS 1215 Rabbit Brush	A09	Common	5	1	Job Reference (optional)	Qty: 5	Truss: A09			
Customer	Western Building Supply	Truss Gian Structural Components Inc., Cheyenne, WY, 82007	Run: 8.5 S 0 Aug 2021 PMI: 9.500	2021 MitTek Industries, Inc. Wed Sep 22 10:49:46	Page: 1	SID:				
				ID:bbbptU37akzTYtmT2RHUIybPLS-GtN0M4_jBRGLK53ShM8aZKzoRfok86V8SqtqOyb4zJ		TID:				
						Date: 12 / 15 / 21				
						Page: 1 of 1				
Truss Mfr. Contact: System Administrator										
<p>Scale = 1:59.5</p> <p>Plate Offsets (X, Y): [10-3-9,0-0-14], [4-0-3-0,0-3-0], [6-0-3100-3-0], [9-0-4-7,Edge], [12-0-4-0,110]</p>										
Loading	↓ (psf)	Spacing	2-0-0	CSI	31-4-14	DEFL	in (loc)	Defl L/d	PLATES	GRIP
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	31-4-14	WB	Vert(LL)	-0.17 11-12 >999 240	MT20	197/144
BCDL IRC-2018/TPI-2014	10.0	Rep Stress Incr	YES	BC	0.63	Vert(CT)	-0.38 12-13 >987 180			Truss Weight = 149.0 lb
PSF Live Load	0.0	Code	ASCE7-16	IRC2018/TPI2014	Matrix-MS	WB	Horz(CT)	0.11 9 1/4 1/4		-----Additional Design Checks-----
TC 30.0	15.0	Dur Factors			= 30.0 psf					BCLL: Yes
BC 0.0	10.0	Live Wind		Risk Cat: II	ASCE7-16 Wind Speed(V) = 115 mph					Risk Cat: II Exposure Cat: B Weight: 1320 lb
Total LUMBER	Plt 1.15	1.60	1.15	Terrain Cat: B						BC Limited Storage: Yes
Spacing: TOP CHORD	2x4 SPF 1650F 1.5E	Bottom Chord								200 lb BC Accessible Ceiling: No
Repetitive: BOT CHORD	2x4 SPF 1650F 1.5E	Web								300 lb TC Maintenance Load: No
Green Lumber WEBS	2x4 SPF No.2	Top Chord								2000 lb TG Safe Load: No
Fab Tolerance SLIDER	20% Creep (Kst) = 2.0	Web								Structural wood sheathing directly applied on 3-3/7 oc purflins
REACTIONS (lb/size)	1=1568/ Mechanical, (min. 0-1-8), 9=1685/0-5-8, (min. 0-2-10)	Top Chord								Rigid ceiling directly applied on 10-0-0 oc bracing
REACTIONS (lb/size)	1=1568/ Mechanical, (min. 0-1-8), 9=1685/0-5-8, (min. 0-2-10)	Bottom Chord								Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.
Max Horiz = 114 (LC 19)										

**Material Summary**

Max Uplift I=12 (LC 14), 9=30 (LC 15)

TC 2 FORCES 1650 (1.5) (lb) Max. Comp./Max. Ten. - All forces 250 (lb) or less, except when shown (lbs) -----

BC 2 TOP CHORD 1650 (1.5) 1-2-5 1022/0, 2-22-2681/35, 3-22-2587/49, 4-23-2479/34/4-23-2313/42, 4-24-1754/81/5-24-1693/98, 5-25-1692/95, 6-25-1753/78, 8-28-2264/32/27-265-2431/23/7-8-2634/48, 8-9-641/0 DFL 425

Webs 2x4 SPF #2

BOT CHORD 1-13-121/342, 12-13-1/1937, 911-12-0-1927, 9-11-0/2290 0 05-08 02-11 DFL 425

WELDING 1-12-0/1035, 3-13-326/130, 4-13-0/32, 4-12-755/93, 6-12-741/90, 6-11-0/404, 7-11-300/128

...Mem... NOTES .038

**Reaction Summary**

2- 31) Wind: ASCE7-16 Vult=150mph (3-second gust) Vest=91mph JCDL=6.0psf BCDL=6.0psf h=25ft Cat: II Exp: B Enclosed: MWFRS (envelope) exterior zone and C-C

3- 4) Exterior(2E) 0.3-2-3-13, Interior(1) 3-4-13 to 16-0-0, Exterior(2R) 16-0-0 to 19-1-11, Interior(1) 19-1-11 to 33-0-13 zone: cambered left and right exposed tendons vertical left CR are the vertical and horizontal deflections due to live load plus the creep component of deflection due to dead load, computed as Defl\_LL + DL (1) x Defl\_DL in accordance with ANSI/TPI 1.

5- 6) TCDL: ASCE7-16 Pf=30.0 psf (Lum DOL=1.15) ls=1.0 Rough Cat B: Partially Exp: Ce=1.0; Cs=1.00; Ct=1.10 See loadcase Report for loading combinations and additional details.

6- 7) Unbalanced snow loads have been considered for truss design. See loadcase Report for loading combinations and additional details.

7- 8) This truss has been designed for greater of min roof live load of 16.0 psf or 1.0 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.

8- 9) This truss has been designed for a 10.0 psf hard live load nonconcurrent with any other live loads.

9-0-H) Refer to girder(s) for truss to girder connections. Plates designed for Cg at 0.80 and Rotational Tolerance of 10.0 degrees

BC 1-107) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 30 lb uplift at joint 9. size

9-128) This truss is designed in accordance with the 2018 International Residential Code sections R502.1.1 and R802.10.2 and referenced standard ANSI/TPI 1.-----Bracing Data-----

10-11) LOAD CASE(S) 1-9 Standard 0.64

11-12) 1928 106 0.63

Web 1- 2 38 281 0.41

3-10 154 280 0.08

4-10 364 15 0.09

4-11 167 814 0.84

5-11 1127 139 0.27

6-11 152 750 0.77

6-12 291 0 0.06

7-12 120 207 0.06

8- 9 57 407 0.66

**Member Forces Summary**

...Mem... NOTES .038

**Deflection Summary**

TrussSpan Limit Actual(in) Location

Vert LL L/240 L/999(-0.23) 11-12

Vert DL L/120 L/999(-0.19) 10-11

Vert CR L/180 L/906(-0.41) 10-11

Horz LL 0.75in ( 0.10) @Jt 9

Horz CR 1.25in ( 0.15) @Jt 9

Ohng CR 2L/180 2L/999(-0.01) 9- 9

**Bracing Data Summary**

Chords: continuous except where shown

Web Bracing -- None

**Plate offsets (X, Y):**

(None unless indicated below)

Jnt4(-00-04,00-07), Jnt6(00-04,00-07), Jnt9(-00-01,0)

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**SIMPSON**  
**Strong-Tie**

Component Solutions  
Truss Studio V  
2020.3.0.218

EngDrwg: 2020r3RGT



Customer: Western Building Supply

Truss  
Q2102752Truss  
C01Truss Type  
Monopitch Supported Gable

Western Building Supply

Qty 1 Span 12'-0" Total 12'-0" Truss Type Bush Tr

Run: 8.5 S 0 Aug 16 2021 Print: 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 22 10:49:47

Page: 1 ID:12F6YQIm5GKJED2Hd4mybPKm-k4xPZQ?LmVZ7zUlgGoIN6ntlYrx3nXeN62RCQy64zI

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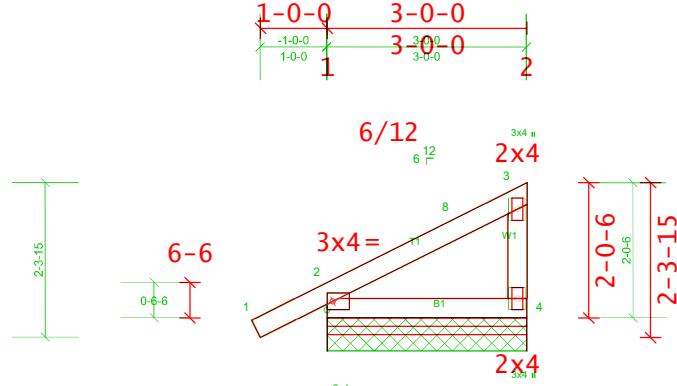
TID:

Date: 12 / 15 / 21

Page: 1 of 1

Truss Mfr. Contact: System Administrator

Truss Craft Structural Components, LLC, Cheyenne, WY, 82007



Scale = 1:21.5

3-0-0

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	999	MT20
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	999
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP						
BCDL	10.0									

3-0-0

Weight: 10 lb FT = 20%

LUMBER

TOP CHORD 2x4 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 SPF No.2

1 TOP CHORD 3 BRACING

BOT CHORD

Structural wood sheathing directly applied or 3-0-0 oc purllins, except end verticals.  
Rigid ceiling directly applied or 10-0-0 oc bracing.

Truss Weight = 11.7 lb

REACTIONS (lb/size) 2=244/3-0-0 (min. 0-1-8) 4=127/3-0-0 (min. 0-1-8)

MitTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

Code/Design: IRC-2018/TPI-2014 5=244/3-0-0 (min. 0-1-8) -----Snow Load Specs-----

PSF Live Dead Dur Max Uplift 2=53 (LC 13, 5=53 (LC 13)) Roof Snow (Pf) = 30.0 psf

TC 30.0 10.0 Live Max Cat 2=347 (LC 13, 5=347 (LC 13)) Rain Cat: B

BC 0.0 10.0 Luf FORCES 1.6(lb) - Max Comp. May 9th. Min. Allowable 350 lb. Uplift force shown.

Total 50.0 Pfl 1.15 1.60 1.15 Thermal Condition: All Others(1.0)

Spacing: 2-0-0-0 H/C Wind: FDRS 2=16 Vult:115mph (200 psf) - CDE=60 psf; BCD=60 psf; h=25ft; Cat. II; Exp B; Enclosed MWRS (Envelope) exterior zone and C-C Repetitive Member Incr: 1.00 (SE) 1=0.93 3 to 1.11-3 Endorsed (2018) 3 to 2.04 (Interior) (Interior) 1 and right N exposed , end vertical loadings proposed CIC members Sand &amp; MWRS

Green Lumber: No for reactions shown; Number DOFs 1=1 3=1 4=1 5=1 Wind Loads: Yes

Fab Tolerance: 20% CTC member tolerances for wind loads in accordance with ASCE 7-16. For loads imposed to wind normal to the face) Wind Standard: ASCE 7-16 Report End Plat as applicable Consult

OH Soffit Load: 2 .8 PHCL: ASCE 7-16 Pf=30.0 psf (Um DOL=1.15 Plate DOL=1.15, ls=1.0, Rough Cat B; Partially Exp.; 1-C, GS=1.00, OI=1.0): 4=0-0-0

4) Unbalanced snow loads have been considered for this design

5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads

6) Gable requires continuous bottom chord bearing.

7) Gable studs spaced at 2-0-0 oc

8) This truss has been designed for a 10.0 psf bottom chord live load per concurrent with any other live loads up to 150

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 2, 11 lb uplift at joint 4 and 16 lb uplift at joint 2.

10) This truss is designed in accordance with the 2018 International Residential Code Sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Jnt-Jnt React -Up --Width-

1- 4 131 0 3-0-0-0

Max Horiz = -14 / +46 at Joint 3

...Mem... Ten Comp .CSI.

TC OH- 1 42 0 0.09

1- 2 46 94 0.10

2-OH 0 5 0.00

BC 1- 3 171 39 0.06

3- 4 26 19 0.01

4-OH 0 0 0.00

Web 2- 4 146 116 0.04

## Reaction Summary

This truss has been designed for the effects of an unbalanced top chord

live load occurring at [3-0-0-0] using a 1.00 Full and 0.00 Reduced load factor.

See Loadcase Report for loading combinations and additional details.

Dead Loads may be slope adjusted: &gt; 12.0/12

## Notes

Plates designed for Cg 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.

## Loads Summary

This truss has been designed for the effects of an unbalanced top chord

live load occurring at [3-0-0-0] using a 1.00 Full and 0.00 Reduced load factor.

See Loadcase Report for loading combinations and additional details.

Dead Loads may be slope adjusted: &gt; 12.0/12

## Deflection Summary

TrussSpan Limit Actual(in) Location

Vert LL 1/240 L/999(-0.00) 1- 3

Vert DL 1/120 L/999(-0.00) 1- 3

Vert CR 1/180 L/999(-0.00) 1- 3

Horz LL 0.75in ( 0.01) @Jt 1

Horz CR 1.25in ( 0.01) @Jt 1

Ong CR 2L/180 2L/999( 0.01) 1- 1

Vert CR and Horz CR are the vertical and horizontal deflections due to live load

plus the creep component of deflection

due to dead load, computed as Defl\_LL + (Kcr - 1) x Defl\_DL in accordance with

ANSI/TPI 1.

Bracing Data Summary

Bracing Data-----

Chords; continuous except where shown

Web Bracing -- None

Plate offsets (X, Y):

(None unless indicated below)

Jnt1(00-15,0)

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SIMPSON

Component Solutions  
Truss Studio V

2020.3.0.218

Strong-Tie

®

EngDrwg: 2020r3RGT



P-182 - WBS:1215 Rabbit Brushuss			Truss Type	Qty	Ply	2108 - 1251 Rabbit Bush Tri	Qty: 6	Truss: C03																																																																																
Customer: Q3102752	C03	Common		6	Western Building Supply (optional)			SID:																																																																																
Truss Craft Structural Components, LLC, Cheyenne, WY, 82007			Run: 8.5 S 0 Aug 16 2021 Print: 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 22 10:49:48	Page: 1	ID:7T88xPi4L9AT?rVeud8?WcybPKP-CGUmm?zXph_aeFSZ6Ocf_PJFzHoCqobmJ_lGyb4zH		TID:																																																																																	
Truss Mfr. Contact: System Administrator																																																																																								
Scale = 1:46.9																																																																																								
Table: Plate Offsets (X, Y): [2:Edge,0-0-12], [6:Edge,0-0-12] <table border="1"> <tr><td>8-0-11</td><td>7-10-10</td><td>8-0-11</td></tr> <tr><td>8-0-11</td><td>15-11-5</td><td>24-0-0</td></tr> </table>									8-0-11	7-10-10	8-0-11	8-0-11	15-11-5	24-0-0																																																																										
8-0-11	7-10-10	8-0-11																																																																																						
8-0-11	15-11-5	24-0-0																																																																																						
Table: Loading <table border="1"> <tr><td>TCLL</td><td>(psf)</td><td>30.0</td><td>Spacing</td><td>2-0-0</td><td>CS</td><td>5</td><td>DEFL</td><td>in (in)</td><td>7</td><td>I/defl</td><td>&gt;999</td><td>L/d</td><td>PLATES</td><td>GRIP</td><td>5</td></tr> <tr><td>(Roof Snow = 30.0)</td><td></td><td></td><td>Plate Grip DOL</td><td>1.15</td><td>TC</td><td>0.73</td><td>Vert(LL)</td><td>-0.15</td><td>8-10</td><td></td><td>240</td><td>MT20</td><td>197/144</td><td></td><td></td></tr> <tr><td>TCDL</td><td></td><td>10.0</td><td>Lumber DOL</td><td>1.15</td><td>BC</td><td>0.54</td><td>Vert(CT)</td><td>-0.26</td><td>8-10</td><td>&gt;999</td><td>180</td><td></td><td></td><td></td><td></td></tr> <tr><td>BCLL</td><td></td><td>0.0</td><td>Rep Stress Incr</td><td>YES</td><td>WB</td><td>0.19</td><td>Horz(CT)</td><td>0.05</td><td>6</td><td>n/a</td><td>n/a</td><td></td><td></td><td></td><td></td></tr> <tr><td>BCDL</td><td></td><td>10.0</td><td>Code</td><td>IRC2018/TPI2014</td><td>Matrix-MS</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>									TCLL	(psf)	30.0	Spacing	2-0-0	CS	5	DEFL	in (in)	7	I/defl	>999	L/d	PLATES	GRIP	5	(Roof Snow = 30.0)			Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.15	8-10		240	MT20	197/144			TCDL		10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.26	8-10	>999	180					BCLL		0.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.05	6	n/a	n/a					BCDL		10.0	Code	IRC2018/TPI2014	Matrix-MS										
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Table: Design Code/Design: IFC-2018/TPI-2014 PSF Live Dead Dur Factors ASCE7-16 Roof Snow (Pf) = 30.0 psf TC 30.0 LUMBER Live Wind Snow Risk Cat: II Terrain Cat: B BRACING BC 0.0 TOP CHORD 2x4 SPF 1650 1.5E-15 TOP CHORD BOT CHORD 2x4 SPF 1650 1.5E-15 Thermal Condition: All Others(1) Total Spacing: WEBs 2-0-0 o.c. 2x4 SPF No.1 Unobstructed Slippery Roof: No Repetitive Member Incr: 2x4 SPF No.2 Low-Slope Minimums(Pfmin): No Green Lumber: No Wet Service: No Unbalanced Snow Loads: Yes Fab Tolerances: REACTIONS: 0.1250/0.3-8. (min. 0.2-1) 0.1250/0.3-8. (min. 0.2-1) Wind Uplift Reporting: ASCE7 MWFRS OH Soffit Load: 2. Max Horiz 2=81 (LC 15) C&C End Zone: 4-0-00 Max Uplift: 2=23 (LC 14), 6=23 (LC 15) Wind Uplift Reporting: ASCE7 MWFRS Max Grav: 2=1321 (LC 21), 6=321 (LC 22) C&C End Zone: 4-0-00																																																																																								
Table: Additional Design Checks ASCE7-16 Wind Speed(V) = 115 mph 10 psf Non-Concurrent BCLL: Yes Risk Cat: II Exposure Cat: B 20 psf BC Limited Storage: Yes Structural wood sheathing already applied on 3-2-2 oc joints-lb BC Accessible Ceiling: No M.R.H. Rigid ceiling directly applied or 10-0-0 oc bracing: 300 lb TC Maintenance Load: No Bldg. MITEK recommends that stabilizers and required cross bracing be installed during truss erection in accordance with Stabilizer TC Safe Load: No Wind installed during truss erection in accordance with Stabilizer balanced TCLL: Yes End Vertical Uplift Posed: L = Yes R = Yes Wind Uplift Reporting: ASCE7 MWFRS C&C End Zone: 4-0-00																																																																																								
Table: Material Summary (lb) - Max Comp/Max. Ten. - Amax/Amix - Usable kept when shown. TC 2x8 TOP CHORD 1650/2-17-5/2144/55, 3-17=-1956/83, 3-18=-1876/88, 4-18=-1699/104, 4-19=-1687/105, 5-19=-1865/89, 5-20=-1946/84, BC 2x4 SPF 1650/20-5/2134/56 Jnt - X-Join React Up- --Width- -Reqd -Mat PSI Webs 2x8 BOT CHORD #2 2-10-128/1829, 9-10-0/1164, 8-9/0/1164, 8-8-11/180-317 0 03-08 02-01 DFL 425 Wedge 2x8 WEBSSPF #2 4-8-28/746, 5-8-581/139, 4-10-25/763, 3-10-0/137/1317 0 03-08 02-01 DFL 425																																																																																								
Table: Reaction Summary NOTES: Max Horiz = -92 / +92 at Joint 1																																																																																								
Table: Member Forces Summary ...Mem... Exterior(2E) 0-13 to 1-11-3 Interior (1) 1-11-3 TC OH- 1 and right exposed/C-C for members and forces & MWFRS for reactions shown. Lumber DOL=5.60, Plate grip DOL=5.00, an unbalanced top chord 1- 2 2) TCOLL ASCE7-16 Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15) Is=1.0, Rough Cat B, Partially Exposed, C=1.0, Cr=1.00, Cu=1.10 and 0.00 Reduced load 2- 3 3) Unbalanced snow loads have been considered for this design. 3- 4 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads. 4- 5 5) This truss has been designed for a 10.0 psf bottom chord load non-concurrent with any other live loads. 5-6 6) Provide mechanical connection(s) by others) of truss bearing plate capable of withstanding 23 lb uplift at joint 2 and 23 lb uplift at joint 6. 6- 7 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.																																																																																								
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Table: Deflection Summary Truss Span Limit Actual(in) Location Vert LL L/240 L/999(-0.21) 6- 7 Vert DL L/120 L/999(-0.12) 6- 7 Vert CR L/180 L/841(-0.34) 6- 7 Horz LL 0.75in ( 0.04) @Jt 5 Horz CR 1.25in ( 0.06) @Jt 5 Gtr CR 2L/180 2L/999(-0.01) 1- 1 Ohng CR 2L/180 2L/999(-0.01) 5- 5																																																																																								
Table: Bracing Data Summary Bracing Data																																																																																								
Table: Chords; continuous except where shown Web Bracing -- None																																																																																								
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Table: Plate offsets (X, Y): None unless indicated below) Jnt7(0,-01-00), Jnt1(02-05,01-03), Jnt5(-02-05,01-03)																																																																																								
Table: Component Solutions SIMPSON Truss Studio V 2020.3.0.218																																																																																								
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**SIMPSON**  
**Strong-Tie**

Component Solutions  
Truss Studio V  
2020.3.0.218



Customer: Western Building Supply

Western Building Supply

SID:  
TID:  
Date: 12 / 15 / 21  
Page: 1 of 1

Truss Mfr. Contact: System Administrator

For more information about the study, please contact Dr. Michael J. Hwang at (319) 356-4000 or via email at [mhwang@uiowa.edu](mailto:mhwang@uiowa.edu).

TOP CHORD 2x SPF 16SPF 1.5E  
 BOT CHORD 2x SPF 16SPF 1.6E  
 WEBS 2x SFR No.2  
**REACTIONS** (lb/in) 1-3410-0/5-6, (min. 0-2-12), 5=38408-0/5-8, (min. 0-3-2)  
 Code/Design: IRC-2018/TPI-2014 Margin of Safety for S-10 ICC Load Specs--  
 PSF Live Dead Our Factors Margin = 38408/(10.0 \* 5.0 \* 3065) = 30.0 psf  
 TC 30.0 10.0 Live Wind FORCES Rn = Max Comp. Mem. Tens. + Min. Comp. Mem. Tens. / 2.00 except when shown  
 BC 0.0 10.0 Lum 1.15 1.60 BOT CHORD Rn = 1.33 \* 3.33 - 5.650 = 1.33 psf  
 Total 50.0 Plt 1.15 1.60 WEB#15 Rn = 1.33 \* 3.34 - 5.650 = 1.34 psf  
 Spacing: 2-00-00 o.c. Plies: NOTES Unobstructed Slippery Roof: No  
 Repetitive Member Increase: No 1/2-ply must be connected together with 10x10 or 12x12 nails as follows:  
 Green Lumber: No Wet Service: Bottom chords connected with 10x10 or 12x12  
 Fab Tolerance: 20% Creep (Kcr) Web connected as follows: 2x10 rows staggered at 0-5-0 yes  
 min. 0.050 in. 1 2 3 4 5  
 All chords are considered totally connected to all plies, except as noted from (F) or back

**Wind Load Specs**

ASCE7-16 Wind Speed ( $V$ ) = 115 mph  
Risk Cat: II Exposure Cat: B  
FBD: F-03-10352125-17-10352125-50.0 ft B = 50.0 ft  
M.R.H. = 25.0 ft Kzt = 1.0  
Bldg Enclosure: Enclosed  
Wind DL(psf):  $T_0 = 6.0$  BC = 6.0  
End Vertical Exposed: L = Yes R = Yes  
Wind End Dl(psf): ASCE7-16 MRHS

(B) face in the WIND LOAD (ASCE7) section. Ply-to-ply connections have been provided to

Truss Weight = 105.0 lb

-----Additional Design Checks-----

10 psf Non-Concurrent BCLL:	Yes
20 psf BC Limited Storage:	Yes
200 lb BC Accessible Ceiling:	No
300 lb TC Maintenance Load:	No
2000 lb TC Safe Load:	No
Unbalanced TCLL:	Yes

## Material Summary

**Material Summary**

TC	2x4	SPF	1650/1.5
BC	2x6	SPF	1650/1.5
Webs	2x4	SPF	#2

## Member Forces Summary

Member Forces Summary			
	...Mem...	Ten	Comp
TC	1- 2	0	5102
	2- 3	0	5016
	3- 4	0	5062
	4- 5	0	5150
	BC	4456	0
BC	5- 7	4508	0
	6- 7	3230	0
	Web	171	133
Web	3- 6	2371	0
	3- 7	2566	0
			0.31

4- / 166 137/ 0.01 BC 1247 29 4-00-12 Vert A02 @ 90 Deg  
BC 1247 29 6-00-12 Vert A02 @ 90 Deg  
BC 1247 29 8-00-12 Vert A02 @ 90 Deg  
BC 1247 29 10-00-12 Vert A02A @ 90 Deg

#### **2-PLY TRUSS Fastener Spacing**

Fasten each ply to the adjacent ply as follows (rows staggered):  
 TC 2x4, 1-row(s) of 10d Nails (0.120" dia. x 2-7/8" min.) @ 12.0" o.c.  
 BC 2x6, 2-row(s) of 10d Nails (0.120" dia. x 2-7/8" min.) @ 12.0" o.c.\*\*  
 WB 2x4, 1-row(s) of 10d Nails (0.120" dia. x 2-7/8" min.) @ 9.0" o.c.  
 \*\* Use additional fasteners of the same type within +/-12" of the  
 location(s) indicated (except where approved hangers are used with  
 fasteners that transfer the load to all plies).

BC:2-00-12, 5, BC:4-00-12, 5, BC:6-00-12, 5  
BC:8-00-12, 5, BC:10-00-12, 5

Notes

**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

Deflection Summary		Limit	Actual (in)	Location
TrussSpan	L/240	L/999	(-0.06)	6- 7
Vert LL	L/120	L/999	(-0.04)	6- 7
Vert CR	L/180	L/999	(-0.11)	6- 7
Horz LL	0.75in		( 0.01)	@Jt 5
Horz CR	1.25in		( 0.02)	@Jt 5

Vert CR and Horz CR are the vertical and horizontal deflections due to live load plus the creep component of deflection due to dead load, computed as  $\text{Defl\_LL} + (\text{Kcr} - 1) \times \text{Defl\_DL}$  in accordance with ANSI/TPI 1.

## Bracing Data Summary

-----Bracing Data-----  
Chords; continuous except where shown  
Web Bracing -- None

### Plate offsets (X, Y):

(None unless indicated below)  
Jnt3(0,-00-01)

**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 "S4 18", which indicates a high tensile ESR-18 gauge plate.



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The logo consists of the word "SIMPSON" in a bold, white, sans-serif font, enclosed within a red rectangular border. Below it, the words "Strong-Tie" are written in a smaller, white, italicized, sans-serif font.

Component Solutions  
Truss Studio V  
2020 3 0 218



Customer: Western Building Supply

Job#  
Q2102752Truss  
KJD01Truss Type  
Jack-ClosedQty  
2P#  
1Job Ref  
IDWestern Building Supply  
Run: 8.5 S 0 Aug 16 2021 Print: 8.500 S Aug 16 2021 M/T Industries, Inc. Wed Sep 22 10:49:51 Page: 1  
Truss Craft Structural Components, LLC, Cheyenne, WY, 82007  
ID:cUhosBk68j9ErTexX4BcaybJb-crAvPn2sqk3YR5zIxFEiJHd1puS4Z?bWEikXeMbzbzE

SID:

TID:

Date: 12 / 15 / 21

Page: 1 of 1

Truss Mfr. Contact: System Administrator

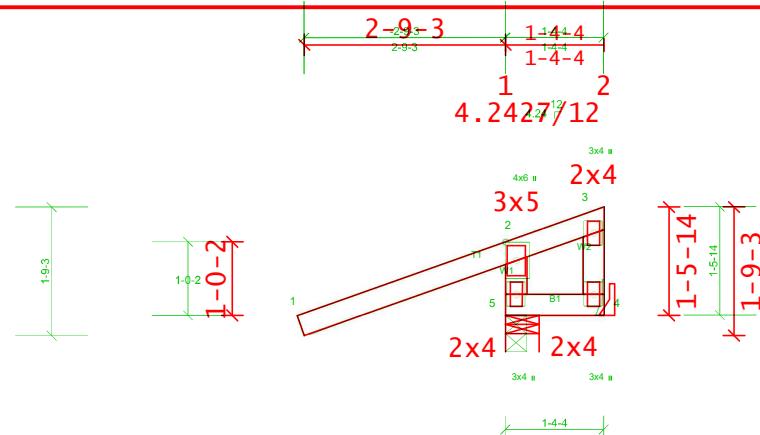


Plate Offsets (X, Y): [2:0-3-0-0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	Defl	Lid	PLATES	GRIP
TCUL	30.0	Plate Grip DOL	1.15	TC	0.80	n/a	n/a	n/a	MT20	197/144
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.08	Vert(LL)	-	n/a		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Vert(CT)	-	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Horz(CT)	n/a	n/a		
BCDL	10.0									

**LUMBER**  
 TOP CHORD 2x4 SPF 1650F 1.5E  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2

**REACTIONS (lb/size)** 4=278 Mechanical, (min. 0-1-8), 5=621/0-3-8, (min. 0-1-8)  
 Max Horiz 5=59 (LC 13)

**BRACING**  
 TOP CHORD 1-4-4  
 BOT CHORD 1-4-4  
 Structural wood sheathing directly applied or 2-8-0 oc purlins,  
 except end vertical 4  
 Rigid ceiling directly applied or 6-0-0 oc bracing.

**Wind Load Specs**  
 Wind Uplift: 5=183 (LC 10) - Snow Load Specs-----

PSF Live Dead Forces Factor: 1.0. Max Comp. Mat. Tens. - All forces 250 lb or less except when shown.  
 TC 30.0 10.0 Top Chord Wind: 4-S 640/100, 2-547/73/09 Cat: II Terrain Cat: B  
 BC 0.0 10.0 Lum Notes: 5 1.60 1.15 Roof Exposure: Sheltered

Total 50.0 Plt 11. Wind ASCE 0-16, Vult=15 mph (3 sec wind gust) TCDL=9.0 psf, BCDL=6 psf (1-29) Cat: II; Exp: B Enclosed (W) MFRS (Envelope) Exterior Zone and C+C, 0

Spacing: 2-00-00 o.c. Corner (C) zone: cantilever left and right exposed and vertical left and right exposed C+C for members and forces & MFRS for reactions shown. Lumber DOL=1.60 plate

Repetitive Member Ingr: 1.00 DOL=1.60

Load Spans: Min 1-18, Max 1-18, Wind: 1-18, No

Green Lumber: No Web Unbalanced snow loads have been balanced in this design.

Loads: Yes

Fab Tolerance: 20% Green This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

OH Soffit Load: 2.0 psf

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 395 lb uplift at joint 1 and 183 lb uplift at joint 5.

9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R801.0.2 and referenced standard ANSI/TPI 1.

Truss Weight = 10.7 lb

Code/Design: IRC-2018/TPI-2014

Max Uplift 4=395 (LC 10) - Snow Load Specs-----

PSF Live Dead Forces Factor: 1.0. Max Comp. Mat. Tens. - All forces 250 lb or less except when shown.

TC 30.0 10.0 Top Chord Wind: 4-S 640/100, 2-547/73/09 Cat: II Terrain Cat: B

BC 0.0 10.0 Lum Notes: 5 1.60 1.15 Roof Exposure: Sheltered

Total 50.0 Plt 11. Wind ASCE 0-16, Vult=15 mph (3 sec wind gust) TCDL=9.0 psf, BCDL=6 psf (1-29) Cat: II; Exp: B Enclosed (W) MFRS (Envelope) Exterior Zone and C+C, 0

Spacing: 2-00-00 o.c. Corner (C) zone: cantilever left and right exposed and vertical left and right exposed C+C for members and forces & MFRS for reactions shown. Lumber DOL=1.60 plate

Repetitive Member Ingr: 1.00 DOL=1.60

Load Spans: Min 1-18, Max 1-18, Wind: 1-18, No

Green Lumber: No Web Unbalanced snow loads have been balanced in this design.

Loads: Yes

Fab Tolerance: 20% Green This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

OH Soffit Load: 2.0 psf

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 395 lb uplift at joint 1 and 183 lb uplift at joint 5.

9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R801.0.2 and referenced standard ANSI/TPI 1.

#### Material Summary LOAD CASE(S) Standard

TC 2x4 SPF 1650/1.5  
 BC 2x4 SPF #2  
 Webs 2x4 SPF #2

#### Reaction Summary

-----Reaction Summary(Lbs)-----  
 Jnt --X-Loc- React Up- --Width- -Reqd -Mat PSI  
 3 01-12 326 76 05-08 00-08 DFL 425  
 4 1-02-08 34 152 01-08 HGR DFL 425  
 Max Horiz = 0 / +0 at Joint 3

#### Member Forces Summary

...Mem...

Ten

Comp

.CSI.

TC OH- 1

48

11

0.35

1- 2

2

6

0.23

2-OH

0

0.00

BC OH- 3

0

0

0.00

3- 4

8

39

0.08

4-OH

0

0

0.00

Web 1- 3

64

276

0.16

2- 4

102

22

0.08

#### Deflection Summary

TrussSpan Limit Actual(in) Location  
 Vert LL 1/240 L/999( 0.00) 3- 4  
 Vert DL L/120 L/999( 0.00) 3- 4  
 Vert CR L/180 L/999( 0.00) 3- 4  
 Horz LL 0.75in ( 0.00) @Jt 4  
 Horz CR 1.25in ( 0.00) @Jt 4  
 Ohng CR 2L/180 2L/633(-0.11) 1- 1

Vert CR and Horz CR are the vertical and horizontal deflections due to live load plus the creep component of deflection due to dead load, computed as Defl\_LL + (Kor - 1) x Defl\_DL in accordance with ANSI/TPI 1.

#### Bracing Data Summary

-----Bracing Data-----  
 Chords: continuous except where shown  
 Web Bracing -- None

#### Plate offsets (X, Y):

(None unless indicated below)

#### Loads Summary

Corner Girder designed to carry:

CornerJacks Side SB End SB Cant(S) Cant(E)  
 Open Auto Auto 0 0

#### Distributed Loads (plf) - Based on Live Load

Domain	Load Uplift	Start	Load Uplift	End	Dir	Description
TC	-0.0	0	-2-10-06	4.0	0	-1-05-03 Vert Standard
TC	-0.0	0	-2-10-06	80.0	-10	-09-03 Vert Standard
TC	4.0	0	-1-05-03	-0.0	0	0 Vert Standard
TC	80.0	-10	-09-03	-0.0	0	1-04-00 Vert Standard
TC	-0.0	0	1-04-15	27.1	-3	1-04-04 Vert Standard
BC	-0.0	0	1-04-15	6.8	0	1-04-04 Vert Standard

This truss has been designed for the effects of an unbalanced top chord live load occurring at [1-04-04] using a 1.00 Full and 0.00 Reduced load factor.

See Loadcase Report for loading combinations and additional details.

Dead Loads may be slope adjusted: > 12.0/12

#### Notes

Plates designed for Cg 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.

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Component Solutions  
 Truss Studio V  
 2020.3.0.218

EngDrwg: 2020r3RGT