MiTek®

MiTek, Inc.
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

RE: B240153 - Lot 9 CB

**Site Information:**

Project Customer: Summit Homes Project Name:
Lot/Block: 9 Subdivision: Cobey Creek
Model: Cherry Blossom - Farmhouse
Address: 3445 SE Corbin Dr.
City: Lee's Summit State: MO

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: IRC2018/TPI2014
Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Design Method: Components/Cladding ASCE 7-16
Roof Load: 40.0 psf
Floor Load: N/A psf

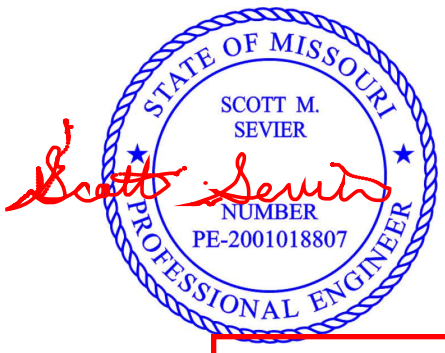
Mean Roof Height (feet): 20
Exposure Category: B

| No. | Seal# | Truss Name | Date |
|---|---|---|---|
| 1 | I67451622 | A1 | 8/12/24 |
| 2 | I67451623 | A2 | 8/12/24 |
| 3 | I67451624 | A3 | 8/12/24 |
| 4 | I67451625 | A4 | 8/12/24 |
| 5 | I67451626 | A5 | 8/12/24 |
| 6 | I67451627 | A6 | 8/12/24 |
| 7 | I67451628 | A7 | 8/12/24 |
| 8 | I67451629 | A8 | 8/12/24 |
| 9 | I67451630 | A9 | 8/12/24 |
| 10 | I67451631 | A10 | 8/12/24 |
| 11 | I67451632 | B1 | 8/12/24 |
| 12 | I67451633 | B2 | 8/12/24 |
| 13 | I67451634 | C1 | 8/12/24 |
| 14 | I67451635 | C2 | 8/12/24 |
| 15 | I67451636 | C3 | 8/12/24 |
| 16 | I67451637 | D1 | 8/12/24 |
| 17 | I67451638 | J1 | 8/12/24 |
| 18 | I67451639 | J2 | 8/12/24 |
| 19 | I67451640 | J3 | 8/12/24 |
| 20 | I67451641 | J4 | 8/12/24 |
| 21 | I67451642 | LAY1 | 8/12/24 |
| 22 | I67451643 | LAY2 | 8/12/24 |
| 23 | I67451644 | LAY3 | 8/12/24 |
| 24 | I67451645 | V1 | 8/12/24 |
| 25 | I67451646 | V2 | 8/12/24 |
| 26 | I67451647 | V3 | 8/12/24 |
| 27 | I67451648 | V4 | 8/12/24 |
| 28 | I67451649 | V5 | 8/12/24 |
| 29 | I67451650 | V6 | 8/12/24 |
| 30 | I67451651 | V7 | 8/12/24 |

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Sevier, Scott
My license renewal date for the state of Missouri is December 31, 2025.

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



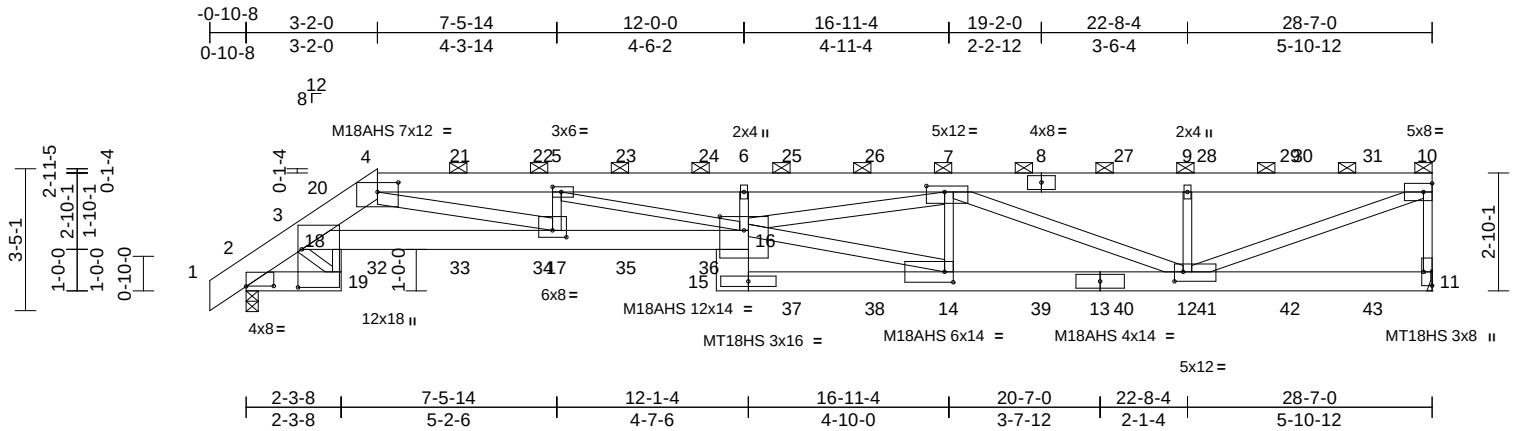

August 12,2024
Sevier, Scott

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | A1 | Half Hip Girder | 1 | 1 | Job Reference (optional) | I67451622 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Apr 25 2024 Print: 8.730 E Apr 25 2024 MiTek Industries, Inc. Mon Aug 12 10:26:07 ID:KH2YD5xXkeH8NflZIE5QrVypcze-q3o0Gl51eJnSYktWzZuhLROzTUS26fMAxAdD4oyod1m






Scale = 1:55.5

Plate Offsets (X, Y): [2:0-8-0,0-0-2], [4:0-6-0,0-2-12], [5:0-2-8,0-1-8], [7:0-5-4,0-1-12], [11:Edge,0-2-8], [12:0-2-8,0-2-12], [14:0-2-8,0-3-0], [16:0-7-0,0-4-0], [17:0-4-0,0-2-0], [18:0-11-0,0-1-1]

| 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 | 0.69 | Vert(LL) | -0.65 | 16-17 | >520 | 360 | M18AHS | 142/136 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.98 | Vert(CT) | -0.96 | 16-17 | >354 | 240 | MT20 | 197/144 |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.89 | Horz(CT) | 0.27 | 11 | n/a | n/a | MT18HS | 197/144 |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.22 | 16-17 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 182 lb | FT = 10% |

**LUMBER**

TOP CHORD 2x8 SP 2400F 2.0E *Except* 4-8:2x6 SP 2400F 2.0E, 8-10:2x6 SPF No.2

BOT CHORD 2x6 SP 2400F 2.0E *Except* 2-19:2x6 SPF No.2, 19-18:2x3 SPF No.2, 16-15:2x10 SP 2400F 2.0E

WEBS 2x3 SPF No.2 *Except* 14-16,12-7,12-10,17-4:2x4 SPF 2100F 1.8E, 16-7:2x4 SPF No.2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-10-2 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-12 max.): 4-10.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=1692/0-3-8, 11=1530/ Mechanical
Max Horiz 2=-72 (LC 13)
Max Uplift 2=-216 (LC 5), 11=-138 (LC 5)
Max Grav 2=2074 (LC 15), 11=2140 (LC 15)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-1834/189, 3-20=-4529/411, 4-20=-4510/423, 4-21=-8614/723, 21-22=-8614/723, 5-22=-8614/723, 5-23=-9666/752, 23-24=-9666/752, 6-24=-9666/752, 6-25=-9743/765, 25-26=-9743/765, 7-26=-9743/765, 7-8=-4220/309, 8-27=-4220/309, 9-27=-4220/309, 9-28=-4220/309, 28-29=-4220/309, 29-30=-4220/309, 30-31=-4220/309, 10-31=-4220/309, 10-11=-2045/170

BOT CHORD 2-19=-32/518, 18-19=-23/552, 3-18=-338/4170, 18-32=-339/4207, 32-33=-339/4207, 33-34=-339/4207, 17-34=-339/4207, 17-35=-657/8614, 35-36=-657/8614, 16-36=-657/8614, 15-16=0/136, 15-37=-76/1324, 37-38=-76/1324, 14-38=-76/1324, 14-39=-403/6219, 13-39=-403/6219, 13-40=-403/6219, 12-40=-403/6219, 12-41=0/63, 41-42=0/63, 42-43=0/63, 11-43=0/63

WEBS 5-17=-872/59, 5-16=-31/1107, 14-16=-333/4984, 7-16=-307/3646, 7-14=-864/149, 7-12=-2163/173, 9-12=-763/143, 10-12=-294/4511, 3-19=-664/42, 4-17=-333/4626, 6-16=-389/64

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 7-5-14, Interior (1) 7-5-14 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; 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 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 11 and 216 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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.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Continued on page 2

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 135 lb down and 105 lb up at 3-2-0, 57 lb down and 42 lb up at 5-2-0, 54 lb down and 42 lb up at 7-2-0, 47 lb down and 42 lb up at 9-2-0, 47 lb down and 42 lb up at 11-2-0, 64 lb down and 64 lb up at 13-2-0, 64 lb down and 64 lb up at 15-2-0, 64 lb down and 64 lb up at 17-2-0, 64 lb down and 64 lb up at 19-2-0, 64 lb down and 64 lb up at 21-2-0, 64 lb down and 64 lb up at 23-2-0, and 66 lb down and 64 lb up at 25-2-0, and 70 lb down and 64 lb up at 27-2-0 on top chord, and 125 lb down and 62 lb up at 3-2-0, 46 lb down and 29 lb up at 5-2-0, 46 lb down and 29 lb up at 7-2-0, 46 lb down and 29 lb up at 9-2-0, 46 lb down and 29 lb up at 11-2-0, 22 lb down at 13-2-0, 22 lb down at 15-2-0, 22 lb down at 17-2-0, 22 lb down at 19-2-0, 22 lb down at 21-2-0, 22 lb down at 23-2-0, and 22 lb down at 25-2-0, and 22 lb down at 27-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

13) 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
   Uniform Loads (lb/ft)
   Vert: 1-4=-70, 4-10=-70, 2-19=-20, 16-18=-20, 11-15=-20
   Concentrated Loads (lb)
   Vert: 4=-43 (F), 8=-22 (F), 14=-12 (F), 7=-22 (F), 21=-7 (F), 22=-7 (F), 23=-7 (F), 24=-7 (F), 25=-22 (F), 26=-22 (F), 27=-22 (F), 28=-22 (F), 29=-22 (F), 31=-22 (F), 32=-114 (F), 33=-36 (F), 34=-36 (F), 35=-36 (F), 36=-36 (F), 37=-12 (F), 38=-12 (F), 39=-12 (F), 40=-12 (F), 41=-12 (F), 42=-12 (F), 43=-12 (F)

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | A2 | Half Hip | 1 | 1 | Job Reference (optional) | I67451623 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:31
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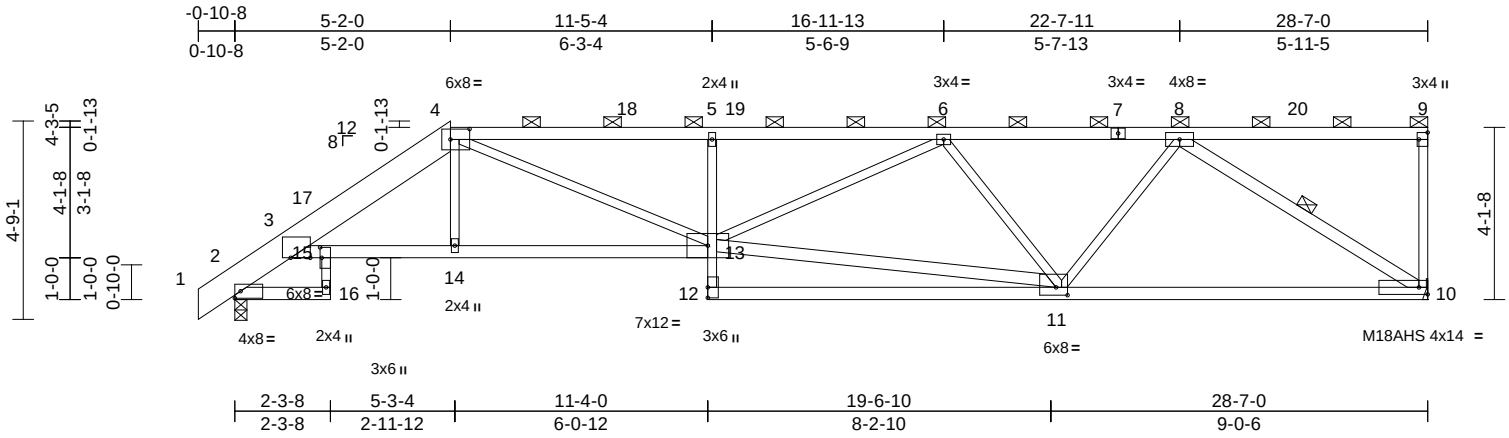


Scale = 1:55.2

Plate Offsets (X, Y): [3:0-5-10,Edge], [4:0-5-8,0-3-0], [9:Edge,0-2-8], [11:0-3-5,0-2-4], [15:0-3-0,0-0-8]

| 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 | 0.85 | Vert(LL) | -0.34 | 5 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.83 | Vert(CT) | -0.49 | 11-12 | >695 | 240 | M18AHS | 142/136 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.89 | Horz(CT) | 0.23 | 10 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.04 | 5 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 127 lb | FT = 10% |

**LUMBER**

TOP CHORD 2x8 SP 2400F 2.0E *Except* 4-7:2x4 SPF 2100F 1.8E, 7-9:2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 16-15,5-12:2x3 SPF No.2, 3-13:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 11-13,10-8:2x4 SPF No.2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-8-3 oc purlins, except end verticals, and 2-0-0 oc purlins (2-6-5 max.): 4-9.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 8-10

**REACTIONS** (size) 2=0-3-8, 10= Mechanical
Max Horiz 2=-121 (LC 13)
Max Grav 2=1665 (LC 15), 10=1993 (LC 15)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/31, 2-3=-1199/0, 3-4=-3226/0, 4-5=-4729/0, 5-6=-4682/0, 6-8=-3114/0, 8-9=-34/49, 9-10=-307/23

BOT CHORD 2-16=0/165, 15-16=0/82, 3-15=0/2637, 14-15=0/2803, 13-14=0/2812, 12-13=0/78, 5-13=-732/42, 11-12=0/266, 10-11=0/2481

WEBS 4-13=0/2097, 4-14=0/249, 11-13=0/3631, 6-13=0/911, 6-11=-1315/0, 8-11=0/1038, 8-10=-2928/0

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 9-4-15, Interior (1) 9-4-15 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; 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 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB |
|---|---|---|---|---|---|
| B240153 | A3 | Half Hip | 1 | 1 | I67451624 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:31
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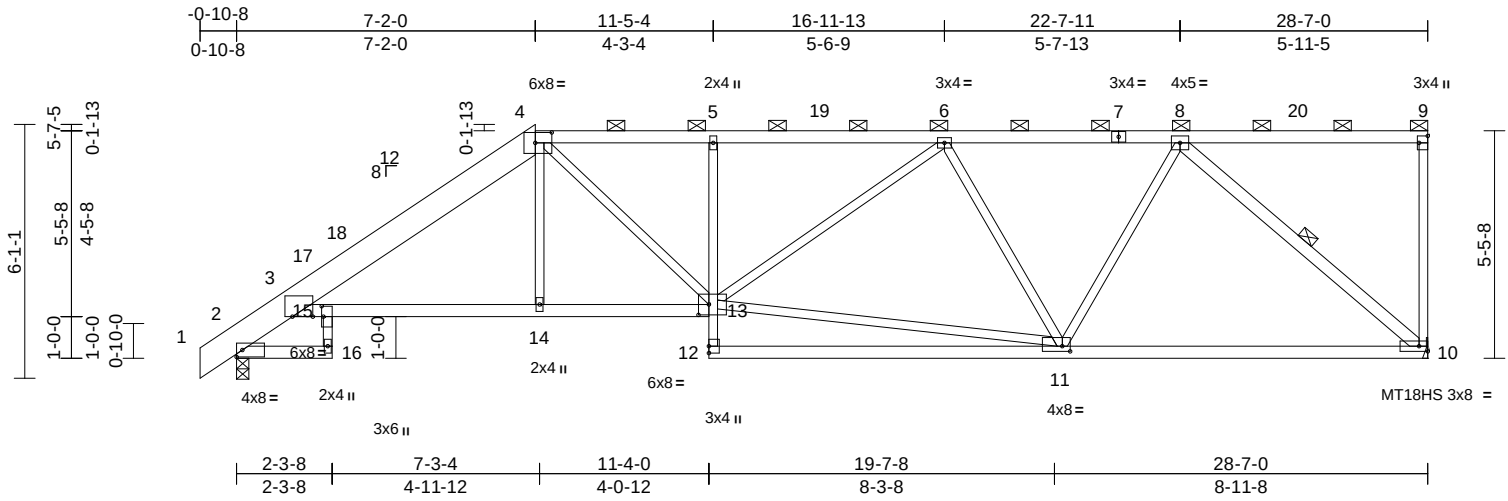


Scale = 1:55.3

Plate Offsets (X, Y): [3:0-5-14,Edge], [4:0-4-12,0-3-0], [9:Edge,0-2-8], [11:0-2-4,0-1-8], [13:0-3-0,0-3-0], [15:0-3-0,0-0-8]

| 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 | 0.82 | Vert(LL) | -0.22 | 5 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.89 | Vert(CT) | -0.35 | 11-12 | >985 | 240 | MT18HS | 197/144 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.89 | Horz(CT) | 0.22 | 10 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.04 | 14-15 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 135 lb | FT = 10% |

**LUMBER**

TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x8 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 16-15,5-12:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 10-8:2x4 SPF No.2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-8-5 max.): 4-9.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 8-10

**REACTIONS** (size) 2=0-3-8, 10= Mechanical
Max Horiz 2=-164 (LC 13)
Max Grav 2=1525 (LC 15), 10=1956 (LC 15)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/31, 2-3=-1072/17, 3-4=-2659/0, 4-5=-3033/0, 5-6=-3021/0, 6-8=-2245/0, 8-9=-20/69, 9-10=-302/27

BOT CHORD 2-16=-9/130, 15-16=0/70, 3-15=0/2127, 14-15=0/2257, 13-14=0/2262, 12-13=0/77, 5-13=-600/41, 11-12=0/225, 10-11=0/1803

WEBS 4-13=0/1071, 4-14=0/206, 11-13=0/2520, 6-13=0/419, 6-11=-1024/14, 8-11=0/905, 8-10=-2381/0

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 2-11-1, Exterior(2R) 2-11-1 to 11-5-4, Interior (1) 11-5-4 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; 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 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | A4 | Half Hip | 1 | 1 | Job Reference (optional) | I67451625 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:32 Page: 1
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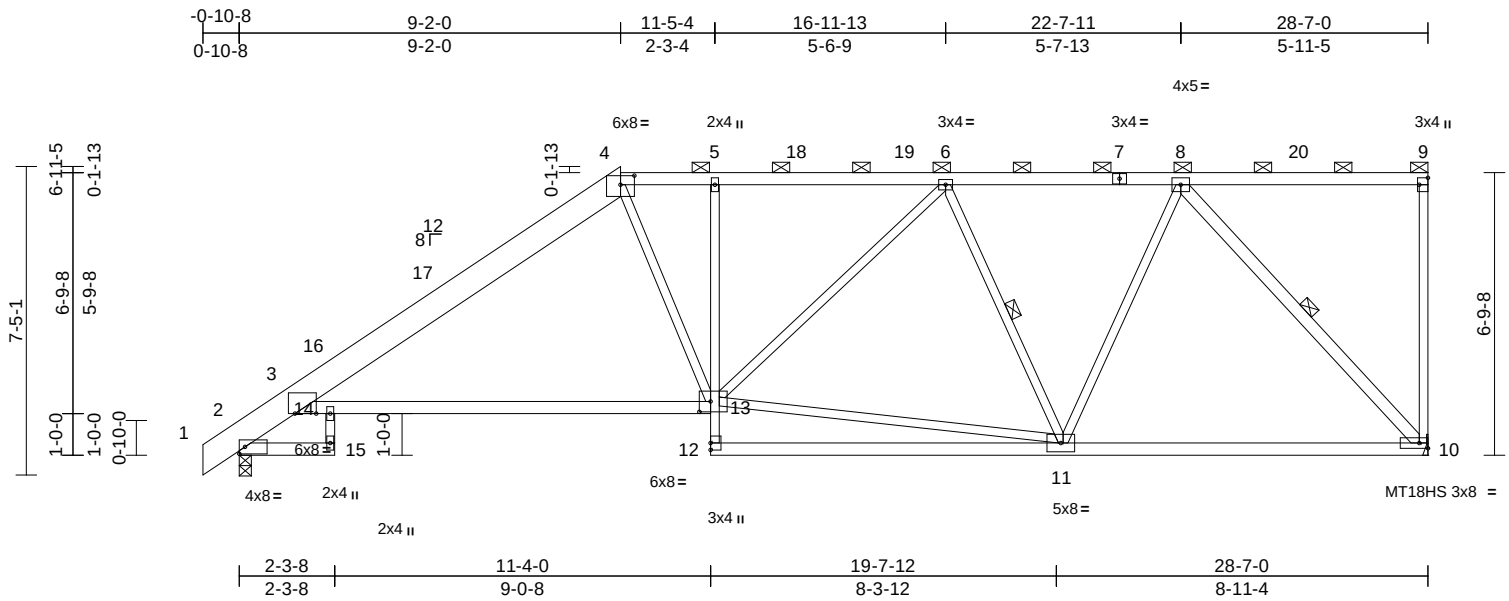



Scale = 1:55.4

Plate Offsets (X, Y): [3:0-6-2,Edge], [4:0-4-0,0-2-10], [9:Edge,0-2-8], [13:0-3-4,0-3-0]

| 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 | 0.80 | Vert(LL) | -0.29 | 13-14 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.87 | Vert(CT) | -0.65 | 13-14 | >522 | 240 | MT18HS | 197/144 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.76 | Horz(CT) | 0.23 | 10 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.06 | 13-14 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 143 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 15-14,5-12:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-8:2x4 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-11 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-11, 8-10

**REACTIONS** (size) 2=0-3-8, 10= Mechanical
Max Horiz 2=-208 (LC 13)
Max Grav 2=1579 (LC 16), 10=1905 (LC 15)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/31, 2-3=-971/64, 3-4=-2196/0, 4-5=-2166/0, 5-6=-2157/0, 6-8=-1718/0, 8-9=-14/87, 9-10=-299/31
BOT CHORD 2-15=-52/46, 14-15=-2/45, 3-14=0/1824, 13-14=0/1843, 12-13=0/74, 5-13=-453/44, 11-12=-17/37, 10-11=0/1390
WEBS 4-13=0/837, 11-13=0/2035, 6-13=0/364, 6-11=-862/17, 8-11=0/813, 8-10=-2059/0

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 4-11-1, Exterior(2R) 4-11-1 to 13-4-15, Interior (1) 13-4-15 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; 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 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard


August 12,2024



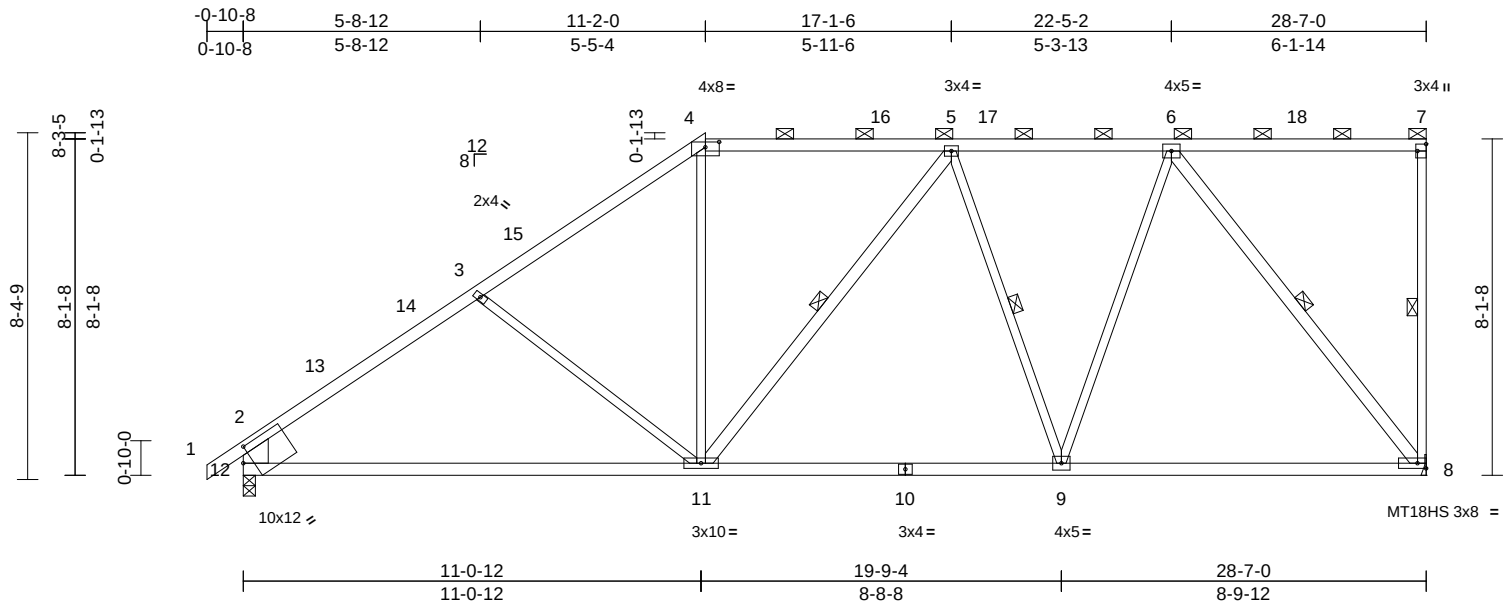
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/05/2024 2:14:30

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | A5 | Half Hip | 1 | 1 | Job Reference (optional) | I67451626 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:32 ID:SWo1Oku1gQniu1Ro3O1Uhfypczi-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f






Scale = 1:55.7

Plate Offsets (X, Y): [4:0-4-0,0-1-9], [7:Edge,0-2-8], [12:0-2-11,0-4-0]

| 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 | 0.97 | Vert(LL) | -0.17 | 9-11 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.80 | Vert(CT) | -0.31 | 11-12 | >999 | 180 | MT18HS | 197/144 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.84 | Horz(CT) | 0.06 | 8 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.05 | 8-9 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 124 lb | FT = 10% |

**LUMBER**

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 4-7:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-5,8-6:2x4 SPF No.2, 12-2:2x8 SP 2400F 2.0E

**BRACING**

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-3-7 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-8, 5-11, 5-9, 6-8

**REACTIONS** (size) 8= Mechanical, 12=0-3-8
Max Horiz 12=-243 (LC 13)
Max Grav 8=1836 (LC 15), 12=1700 (LC 16)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/81, 2-3=-2007/4, 3-4=-1613/16, 4-5=-1338/43, 5-6=-1356/37, 6-7=-11/103, 7-8=-315/37, 2-12=-1580/36
BOT CHORD 11-12=0/1467, 9-11=0/1520, 8-9=0/1127
WEBS 3-11=-458/76, 4-11=0/400, 5-11=-305/244, 5-9=-512/35, 6-9=0/711, 6-8=-1827/0

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-11-1, Exterior(2R) 6-11-1 to 15-4-15, Interior (1) 15-4-15 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; 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 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard


August 12,2024



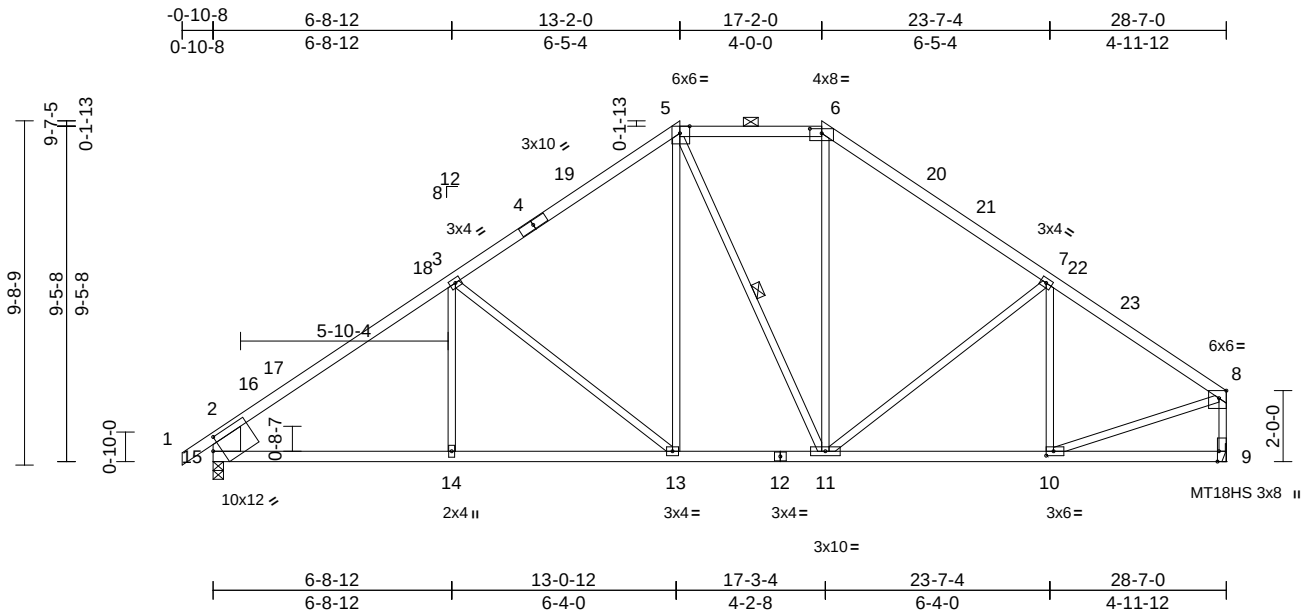
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/05/2024 2:14:31

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB |
|---|---|---|---|---|---|
| B240153 | A6 | Hip | 1 | 1 | I67451627 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:32
ID:wiMPb3vfRjvZWB0_d5YjDsypczh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f






Scale = 1:65

Plate Offsets (X, Y): [5:0-3-5,Edge], [6:0-4-0,0-1-9], [8:0-2-8,Edge], [9:0-3-8,Edge], [10:0-2-8,0-1-8], [15:0-2-11,0-4-0]

| 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 | 1.00 | Vert(LL) | -0.21 | 13-14 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.80 | Vert(CT) | -0.33 | 13-14 | >999 | 240 | MT18HS | 197/144 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.97 | Horz(CT) | 0.05 | 9 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.04 | 13-14 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 123 lb | FT = 10% |

**LUMBER**

TOP CHORD 2x4 SPF No.2 *Except* 4-5:2x4 SPF 2100F 1.8E, 1-4:2x4 SPF 2400F 2.0E
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 12-9:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 15-2:2x10 SP 2400F 2.0E

**BRACING**

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-9-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-11

**REACTIONS** (size) 9= Mechanical, 15=0-3-8
Max Horiz 15=-59 (LC 6)
Max Grav 9=1827 (LC 19), 15=1884 (LC 19)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/84, 2-3=-2406/0, 3-5=-1806/60, 5-6=-1264/84, 6-7=-1762/62, 7-8=-1973/5, 8-9=-1782/0, 2-15=-1739/18
BOT CHORD 14-15=0/1791, 13-14=0/1791, 11-13=0/1311, 10-11=0/1541, 9-10=0/56
WEBS 3-14=0/100, 3-13=-604/26, 5-13=0/518, 5-11=-267/127, 6-11=0/414, 7-11=-346/45, 7-10=-419/54, 8-10=0/1586

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 8-11-1, Exterior(2R) 8-11-1 to 21-4-15, Interior (1) 21-4-15 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; 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 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

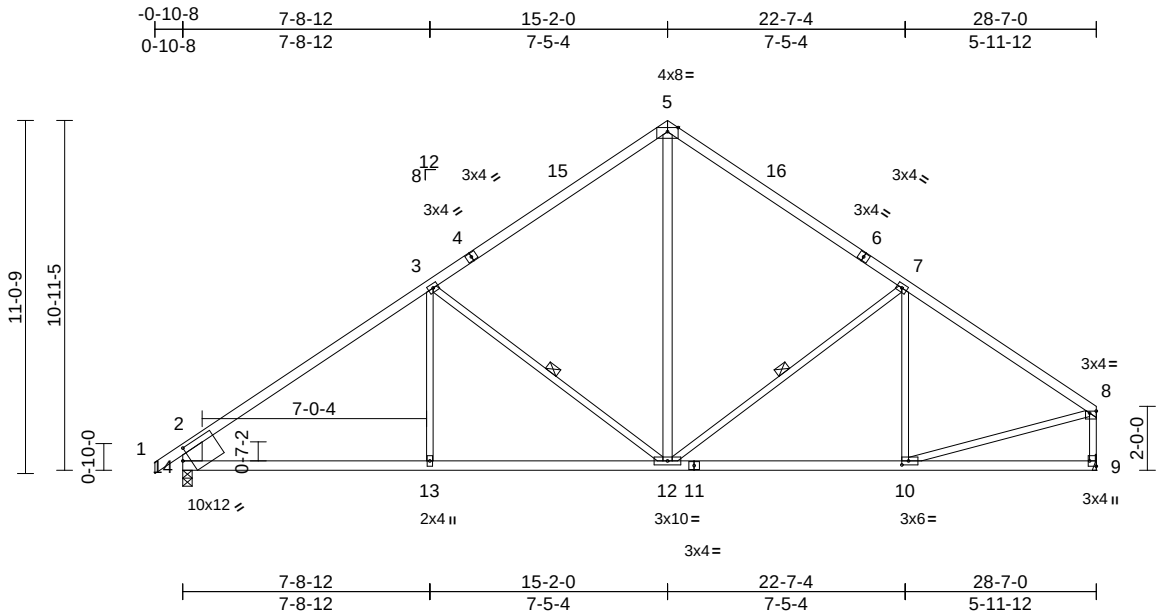
**LOAD CASE(S)** Standard


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | A7 | Common | 4 | 1 | Job Reference (optional) | I67451628 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Apr 25 2024 Print: 8.730 E Apr 25 2024 MiTek Industries, Inc. Mon Aug 12 10:28:13 Page: 1
ID:wiMPb3vfRjvZWB0_d5YjDsypczh-4hXP7WeJUevIvPg7TSBiXRho_4CY6fO0N5e_aNyod?m




Scale = 1:72.1

Plate Offsets (X, Y): [8:Edge,0-0-12], [9:Edge,0-2-8], [10:0-2-8,0-1-8], [14:0-2-11,0-4-0]

| 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 | 0.89 | Vert(LL) | -0.14 | 12-13 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.75 | Vert(CT) | -0.28 | 12-13 | >999 | 240 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.42 | Horz(CT) | 0.04 | 9 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.04 | 12-13 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 116 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2 *Except* 4-1,6-8:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-5:2x4 SPF No.2, 14-2:2x8 SP 2400F 2.0E

**BRACING**
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-12, 3-12

**REACTIONS** (lb/size) 9=1266/ Mechanical, 14=1352/0-3-8
Max Horiz 14=-60 (LC 4)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 8-9=-1214/0, 1-2=0/78, 2-3=-1697/11, 3-4=-1189/44, 4-15=-1060/68, 5-15=-1043/88, 5-16=-1049/87, 6-16=-1062/66, 6-7=-1196/42, 7-8=-1423/22, 2-14=-1245/44
BOT CHORD 13-14=0/1265, 12-13=0/1265, 11-12=0/1112, 10-11=0/1112, 9-10=0/59
WEBS 5-12=0/700, 7-12=-340/71, 7-10=-185/69, 3-12=-538/67, 3-13=0/132, 8-10=0/1114

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 12-2-0, Exterior(2R) 12-2-0 to 18-2-0, Interior (1) 18-2-0 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; 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) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
5) Refer to girder(s) for truss to truss connections.
6) 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


August 12,2024



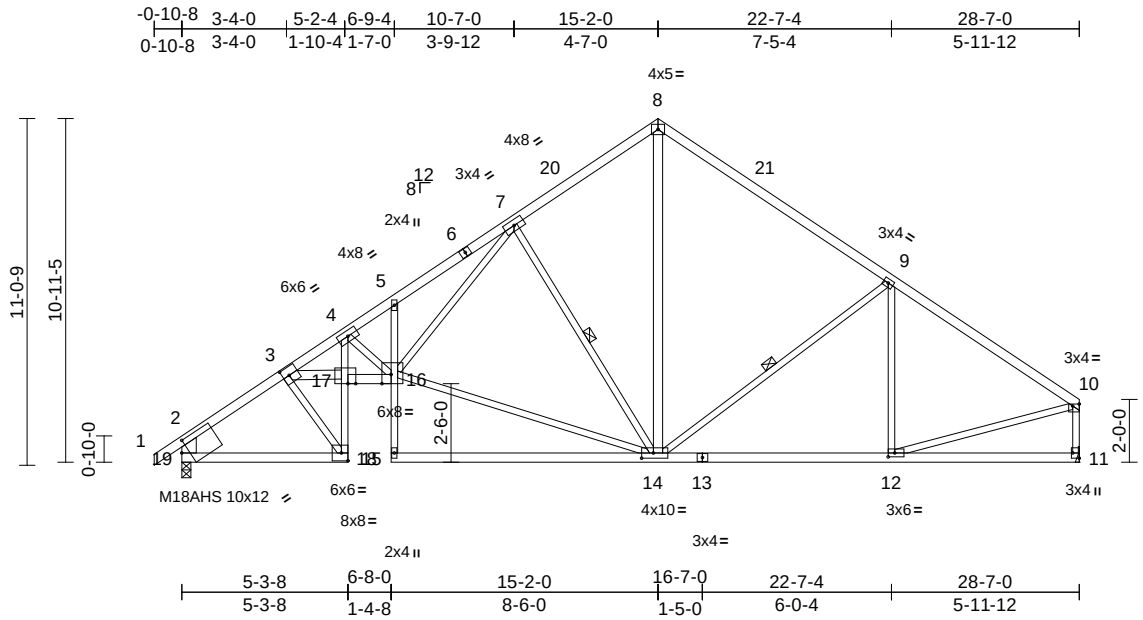
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/05/2024 2:14:31

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | A8 | Roof Special | 1 | 1 | Job Reference (optional) | I67451629 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:32
ID:5Z?8L0qurt8PnGZqGrRJ_bypczn-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f






Scale = 1:73.4

Plate Offsets (X, Y): [3:0-2-6,0-3-0], [10:Edge,0-0-12], [11:Edge,0-2-8], [12:0-2-8,0-1-8], [14:0-4-8,0-2-0], [16:0-3-8,Edge], [17:0-3-0,Edge], [19:0-2-11,0-4-0]

| 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 | 0.85 | Vert(LL) | -0.22 | 5 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.91 | Vert(CT) | -0.45 | 14-15 | >756 | 240 | M18AHS | 142/136 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.85 | Horz(CT) | 0.26 | 11 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.06 | 5 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 135 lb | FT = 10% |

**LUMBER**

TOP CHORD 2x4 SPF No.2 *Except* 1-6:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 18-4,5-15:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-8,3-17:2x4 SPF No.2, 19-2:2x6 SP 2400F 2.0E

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-14, 9-14

**REACTIONS** (size) 11= Mechanical, 19=0-3-8
Max Horiz 19=-60 (LC 4)
Max Grav 11=1270 (LC 1), 19=1350 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/73, 2-3=-1628/0, 3-4=-4123/0, 4-5=-3028/0, 5-7=-3032/0, 7-8=-1151/94, 8-9=-1195/84, 9-10=-1427/22, 2-19=-1267/29, 10-11=-1217/1
BOT CHORD 18-19=0/1179, 17-18=0/1607, 4-17=0/1286, 16-17=0/3458, 15-16=0/73, 5-16=-158/52, 14-15=0/47, 12-14=0/1115, 11-12=0/62
WEBS 4-16=-1313/0, 14-16=0/1340, 7-16=0/1934, 7-14=-924/42, 8-14=-6/796, 9-14=-344/73, 9-12=-185/66, 10-12=0/1113, 3-18=-1963/0, 3-17=0/3456

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 12-2-0, Exterior(2R) 12-2-0 to 18-2-0, Interior (1) 18-2-0 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; 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) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All plates are MT20 plates unless otherwise indicated.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
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.

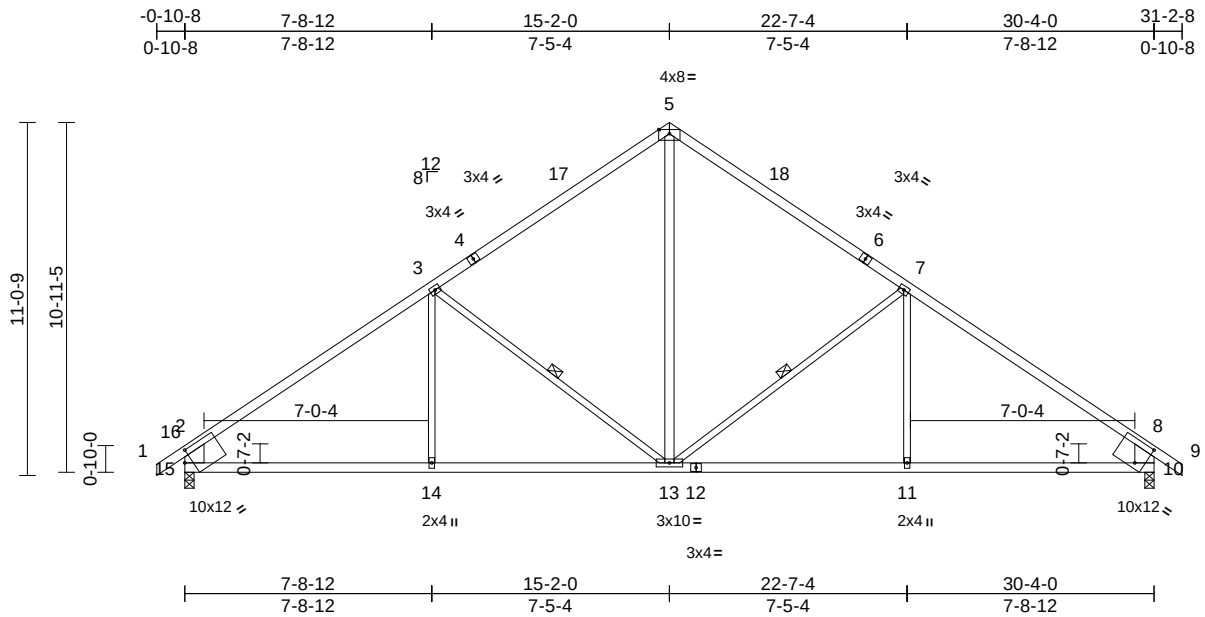
**LOAD CASE(S)** Standard


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB |
|---|---|---|---|---|---|
| B240153 | A9 | Common | 3 | 1 | I67451630 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:32 Page: 1
ID:ZlZWYMrWcBGGPQ80qYyYWpypczm-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




Scale = 1:72.1

Plate Offsets (X, Y): [10:0-3-6,0-8-1], [15:0-2-11,0-4-0]

| 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 | 0.94 | Vert(LL) | -0.19 | 11-13 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.81 | Vert(CT) | -0.37 | 11-13 | >958 | 240 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.41 | Horz(CT) | 0.07 | 10 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.05 | 13-14 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 118 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2 *Except* 1-4,6-9:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-5:2x4 SPF No.2, 15-2,10-8:2x8 SP 2400F 2.0E

**BRACING**
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-13, 3-13

**REACTIONS** (size) 10=0-3-8, 15=0-3-8
Max Horiz 15=-39 (LC 3)
Max Grav 10=1420 (LC 1), 15=1420 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/62, 2-3=-1803/8, 3-5=-1305/85, 5-7=-1305/85, 7-8=-1803/10, 8-9=0/78, 2-15=-1308/32, 8-10=-1308/42
BOT CHORD 14-15=0/1349, 13-14=0/1349, 11-13=0/1349, 10-11=0/1349
WEBS 5-13=0/812, 7-13=-519/70, 7-11=0/128, 3-13=-520/67, 3-14=0/128

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-14, Interior (1) 2-1-14 to 12-1-10, Exterior(2R) 12-1-10 to 18-2-6, Interior (1) 18-2-6 to 28-2-2, Exterior(2E) 28-2-2 to 31-2-8; cantilever left and right exposed ; end vertical left and right exposed; 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) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All bearings are assumed to be SPF No.2 .
5) 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.

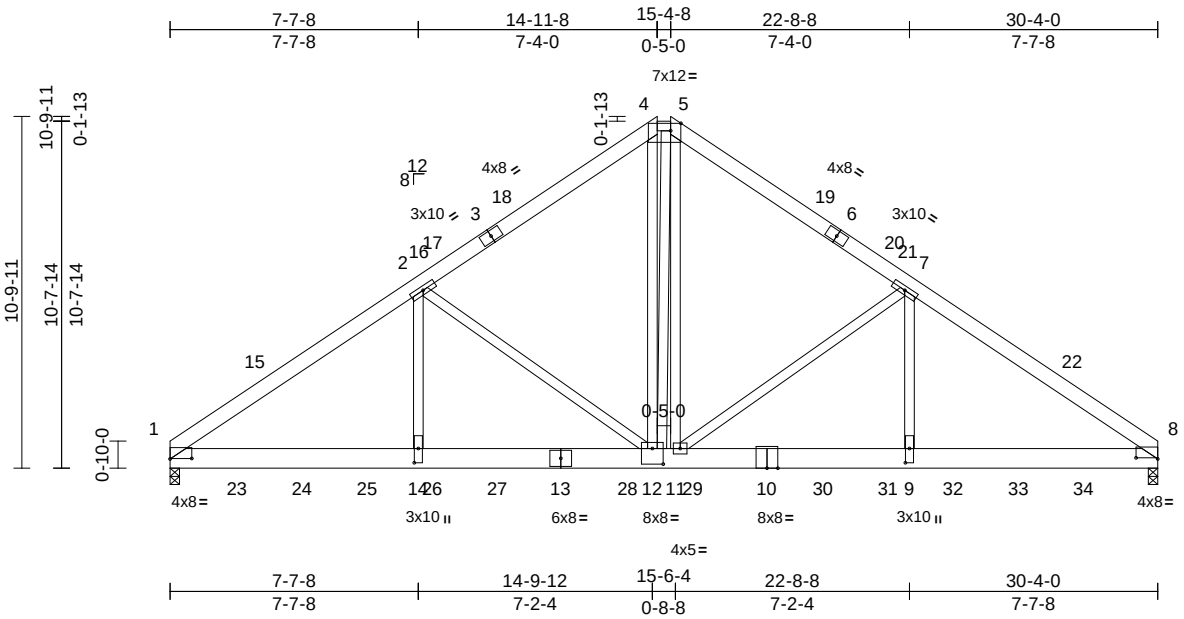
**LOAD CASE(S)** Standard


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | A10 | Hip Girder | 1 | 2 | Job Reference (optional) | I67451631 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:32 Page: 1
ID:OvwnpPwHC11Q7LbABp3ym4ypczg-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




Scale = 1:70.8

Plate Offsets (X, Y): [1:0-8-0,0-0-3], [4:0-3-12,0-2-12], [8:0-8-0,0-0-7], [9:0-5-4,0-1-8], [12:0-4-0,0-5-12], [14:0-5-4,0-1-8]

| 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 | 0.62 | Vert(LL) | -0.14 | 9-11 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.41 | Vert(CT) | -0.23 | 9-11 | >999 | 240 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.87 | Horz(CT) | 0.06 | 8 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.04 | 9-11 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 446 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x6 SPF No.2 *Except* 4-5:2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 4-6-1 oc purlins, except 2-0-0 oc purlins (4-10-14 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-8, 8=0-3-8
Max Grav 1=6408 (LC 18), 8=6994 (LC 18)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-9330/0, 2-4=-6539/0, 4-5=-5173/0, 5-7=-6455/0, 7-8=-9381/0
BOT CHORD 1-14=0/7498, 12-14=0/7498, 11-12=0/5107, 9-11=0/7543, 8-9=0/7543
WEBS 2-14=0/2603, 2-12=-2833/0, 4-12=0/2542, 5-12=0/1516, 5-11=0/2078, 7-11=-2998/0, 7-9=0/2735

**NOTES**
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-1-12 to 3-2-2, Interior (1) 3-2-2 to 10-8-0, Exterior(2R) 10-8-0 to 19-8-0, Interior (1) 19-8-0 to 27-1-14, Exterior(2E) 27-1-14 to 30-2-4; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) 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
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) All bearings are assumed to be SP 2400F 2.0E .
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 630 lb down at 2-0-12, 630 lb down at 4-0-12, 630 lb down at 6-0-12, 630 lb down at 8-0-12, 630 lb down at 10-0-12, 630 lb down at 12-0-12, 630 lb down at 14-0-12, 630 lb down at 16-0-12, 630 lb down at 18-0-12, 630 lb down at 20-0-12, 630 lb down at 22-0-12, 630 lb down at 24-0-12, 630 lb down at 26-0-12, and 630 lb down at 28-0-12, and 638 lb down at 30-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-5=-70, 5-8=-70, 1-8=-20
Concentrated Loads (lb)
Vert: 13=-630 (B), 8=-638 (B), 10=-630 (B), 23=-630 (B), 24=-630 (B), 25=-630 (B), 26=-630 (B), 27=-630 (B), 28=-630 (B), 29=-630 (B), 30=-630 (B), 31=-630 (B), 32=-630 (B), 33=-630 (B), 34=-630 (B)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | B1 | Common Structural Gable | 1 | 1 | Job Reference (optional) | I67451632 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:33 Page: 1
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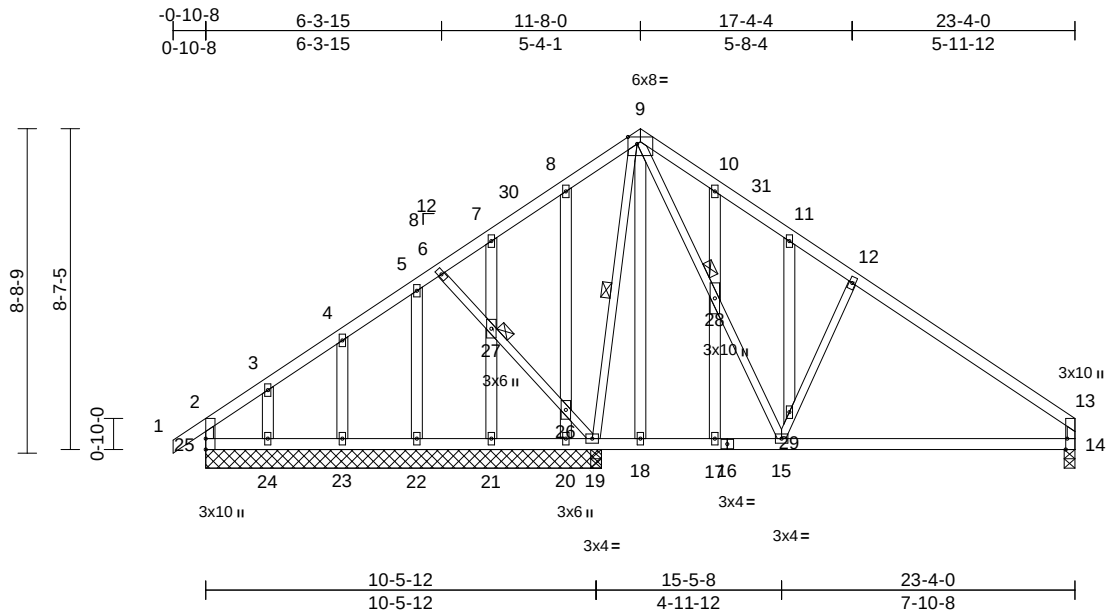


Scale = 1:61.8

Plate Offsets (X, Y): [9:0-2-15,Edge], [13:0-3-8,Edge]

| 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 | 0.45 | Vert(LL) | -0.03 | 15-17 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.30 | Vert(CT) | -0.09 | 14-15 | >999 | 240 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.41 | Horz(CT) | 0.00 | 14 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.01 | 15-17 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 129 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x4 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 14-15.
WEBS 1 Row at midpt 9-19
JOINTS 1 Brace at Jt(s): 27, 28

**REACTIONS** (size) 14=0-3-8, 19=10-7-8, 20=10-7-8, 21=10-7-8, 22=10-7-8, 23=10-7-8, 24=10-7-8, 25=10-7-8
Max Horiz 25=-19 (LC 4)
Max Uplift 20=-38 (LC 3), 21=-2 (LC 3), 23=-16 (LC 3), 24=-16 (LC 3), 25=-16 (LC 8)
Max Grav 14=502 (LC 7), 19=901 (LC 1), 20=79 (LC 7), 21=144 (LC 7), 22=83 (LC 1), 23=199 (LC 7), 24=192 (LC 7), 25=155 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/65, 2-3=-18/93, 3-4=0/99, 4-5=-29/91, 5-6=-22/87, 6-7=-9/158, 7-8=-24/185, 8-9=-54/170, 9-10=-339/127, 10-11=-362/102, 11-12=-386/78, 12-13=-525/54, 2-25=-142/22, 13-14=-428/42
BOT CHORD 24-25=-48/37, 23-24=-48/37, 22-23=-48/37, 21-22=-48/37, 20-21=-48/37, 19-20=-48/37, 18-19=-44/68, 17-18=-44/68, 15-17=-44/68, 14-15=0/346
WEBS 9-28=-17/582, 15-28=-15/611, 15-29=-377/102, 12-29=-325/85, 9-19=-656/0, 6-27=-111/35, 26-27=-112/36, 19-26=-115/36, 9-18=-22/50, 8-26=-163/42, 20-26=-159/41, 7-27=-95/29, 21-27=-93/28, 5-22=-46/1, 4-23=-161/42, 3-24=-139/32, 10-28=-88/20, 17-28=-120/18, 11-29=-58/18

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 8-6-8, Exterior(2R) 8-6-8 to 14-6-8, Interior (1) 14-6-8 to 20-2-12, Exterior(2E) 20-2-12 to 23-2-12; cantilever left and right exposed ; end vertical left and right exposed; 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) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 25, 38 lb uplift at joint 20, 2 lb uplift at joint 21, 16 lb uplift at joint 23 and 16 lb uplift at joint 24.
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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB |
|---|---|---|---|---|---|
| B240153 | B2 | Common Girder | 1 | 3 | I67451633 Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:33
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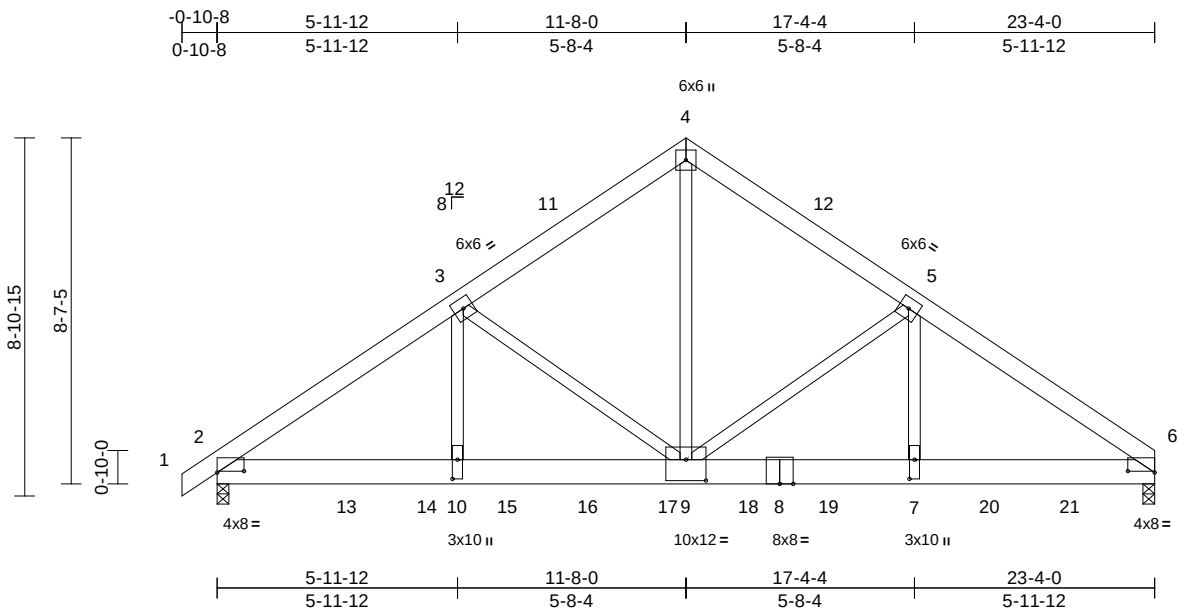


Scale = 1:57.3

Plate Offsets (X, Y): [2:0-8-0,0-0-7], [6:0-8-0,0-0-7], [7:0-5-12,0-1-8], [9:0-6-0,0-6-4], [10:0-5-12,0-1-8]

| 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 | 0.37 | Vert(LL) | -0.13 | 9-10 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.43 | Vert(CT) | -0.19 | 9-10 | >999 | 240 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.82 | Horz(CT) | 0.05 | 6 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | -0.02 | 9-10 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 472 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=11 (LC 10)
Max Grav 2=9752 (LC 1), 6=8902 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-14536/0, 3-4=-9588/0, 4-5=-9590/0, 5-6=-12989/0
BOT CHORD 2-10=0/11696, 9-10=0/11696, 7-9=0/10438, 6-7=0/10438
WEBS 4-9=0/10084, 5-7=0/3798, 3-9=-4705/0, 3-10=0/5639, 5-9=-3136/0

**NOTES**
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-5-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 8-8-0, Exterior(2R) 8-8-0 to 14-8-0, Interior (1) 14-8-0 to 20-2-4, Exterior(2E) 20-2-4 to 23-2-4; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) 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
5) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
6) All bearings are assumed to be SP 2400F 2.0E .
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.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2120 lb down and 85 lb up at 3-2-12, 1973 lb down at 5-2-12, 1936 lb down at 7-2-12, 1885 lb down at 9-2-12, 1816 lb down at 11-2-12, 1807 lb down at 13-2-12, 1241 lb down at 15-2-12, 1241 lb down at 17-2-12, and 1241 lb down at 19-2-12, and 1250 lb down at 21-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-6=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 7=-1241 (B), 13=-2120 (B), 14=-1973 (B), 15=-1936 (B), 16=-1885 (B), 17=-1816 (B), 18=-1807 (B), 19=-1241 (B), 20=-1241 (B), 21=-1250 (B)


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | C1 | Common Supported Gable | 1 | 1 | Job Reference (optional) | I67451634 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:33
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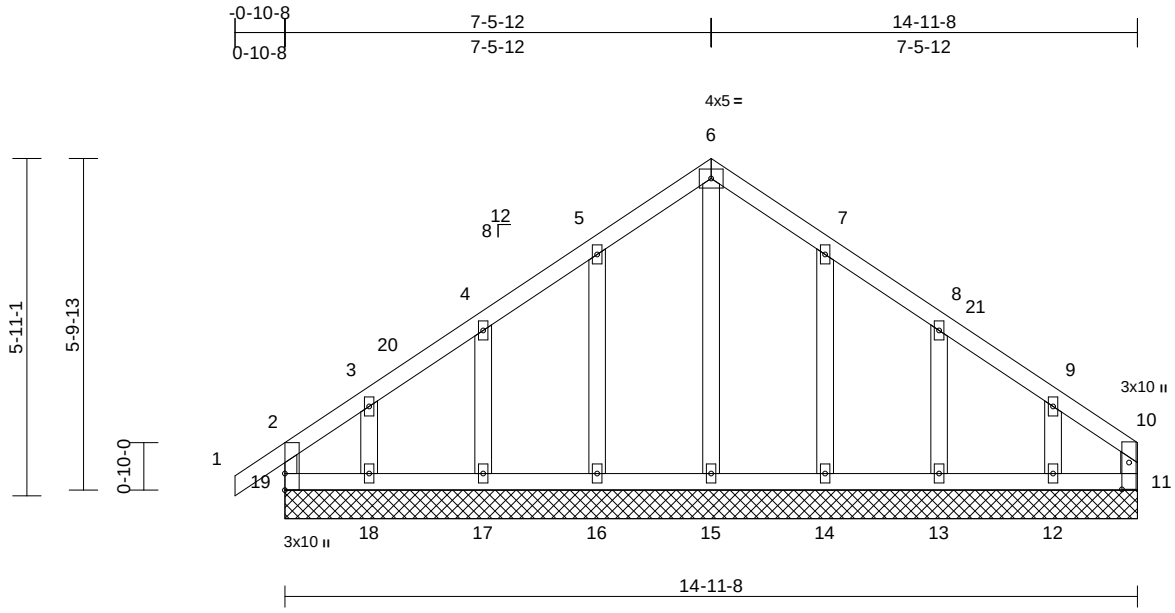


Scale = 1:40.4

Plate Offsets (X, Y): [10:0-5-10,0-1-8]

| 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 | 0.11 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 11 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 64 lb | FT = 10% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 10-11:2x4 SPF No.2 |
| OTHERS | 2x4 SPF No.2 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing. |

**REACTIONS** (size) 11=14-11-8, 12=14-11-8, 13=14-11-8, 14=14-11-8, 15=14-11-8, 16=14-11-8, 17=14-11-8, 18=14-11-8, 19=14-11-8
Max Horiz 19=-23 (LC 4)
Max Uplift 12=-80 (LC 3), 13=-51 (LC 3), 14=-44 (LC 3), 16=-44 (LC 3), 17=-49 (LC 3), 18=-54 (LC 3), 19=-43 (LC 3)
Max Grav 11=46 (LC 1), 12=175 (LC 7), 13=192 (LC 7), 14=195 (LC 7), 15=161 (LC 1), 16=194 (LC 7), 17=194 (LC 7), 18=160 (LC 7), 19=176 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension

| | |
|---|---|
| TOP CHORD | 2-19=-161/57, 1-2=0/65, 2-3=-39/24, 3-4=-44/52, 4-5=-65/107, 5-6=-87/158, 6-7=-87/158, 7-8=-65/107, 8-9=-45/51, 9-10=-24/31, 10-11=-37/0 |
| BOT CHORD | 18-19=-9/44, 17-18=-9/44, 16-17=-9/44, 15-16=-9/44, 14-15=-9/44, 13-14=-9/44, 12-13=-9/44, 11-12=-9/44 |
| WEBS | 6-15=-126/22, 5-16=-155/67, 4-17=-153/75, 3-18=-122/66, 7-14=-155/67, 8-13=-151/78, 9-12=-137/89 |

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 4-5-12, Corner(3R) 4-5-12 to 10-5-12, Exterior(2N) 10-5-12 to 11-9-12, Corner(3E) 11-9-12 to 14-9-12; cantilever left and right exposed ; end vertical left and right exposed; 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) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 19, 44 lb uplift at joint 16, 49 lb uplift at joint 17, 54 lb uplift at joint 18, 44 lb uplift at joint 14, 51 lb uplift at joint 13 and 80 lb uplift at joint 12.
11) 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


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB |
|---|---|---|---|---|---|
| B240153 | C2 | Scissor | 15 | 1 | I67451635 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:33 Page: 1
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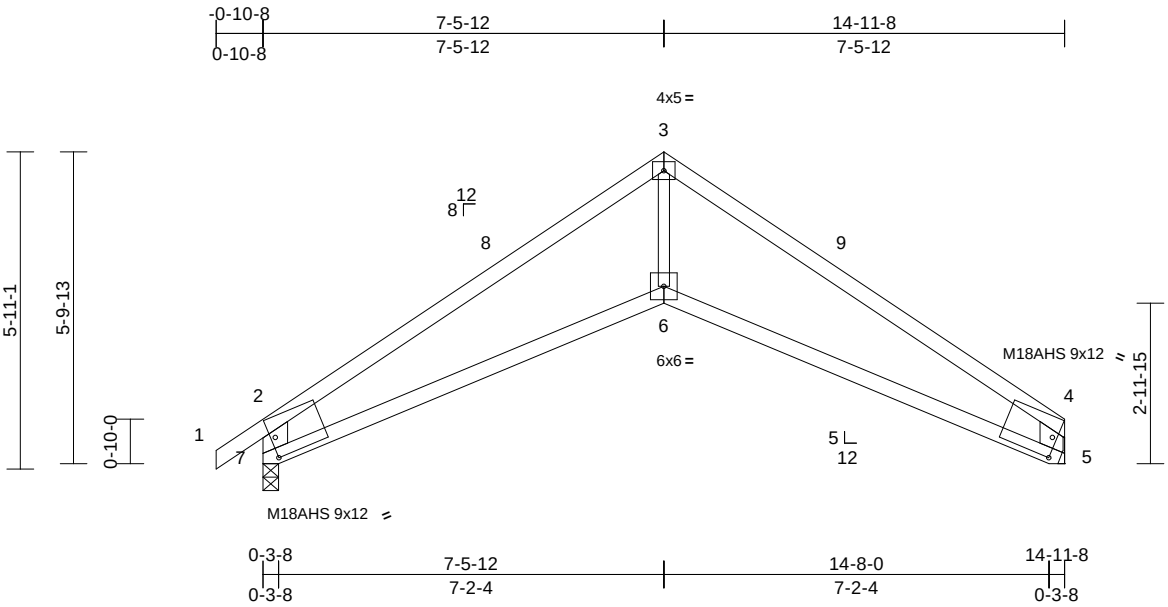


Scale = 1:43

Plate Offsets (X, Y): [4:0-1-0,0-4-8], [7:0-1-0,0-4-8]

| 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 | 0.94 | Vert(LL) | -0.20 | 6 | >857 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.70 | Vert(CT) | -0.38 | 6 | >458 | 240 | M18AHS | 142/136 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.30 | Horz(CT) | 0.35 | 5 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-R | | Wind(LL) | -0.02 | 6-7 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 45 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SP 2400F 2.0E *Except* 6-3:2x3 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=-22 (LC 4)
Max Uplift 5=-8 (LC 3), 7=-38 (LC 3)
Max Grav 5=650 (LC 1), 7=733 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-1330/0, 3-4=-1320/0, 2-7=-1033/50, 4-5=-937/20
BOT CHORD 6-7=0/1053, 5-6=0/1048
WEBS 3-6=0/877

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 4-5-12, Exterior(2R) 4-5-12 to 10-5-12, Interior (1) 10-5-12 to 11-8-12, Exterior(2E) 11-8-12 to 14-8-12; cantilever left and right exposed ; end vertical left and right exposed; 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) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All plates are MT20 plates unless otherwise indicated.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 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 38 lb uplift at joint 7 and 8 lb uplift at joint 5.
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)** Standard


August 12,2024



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/05/2024 2:14:31

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | C3 | Common Supported Gable | 1 | 1 | Job Reference (optional) | I67451636 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:33 Page: 1
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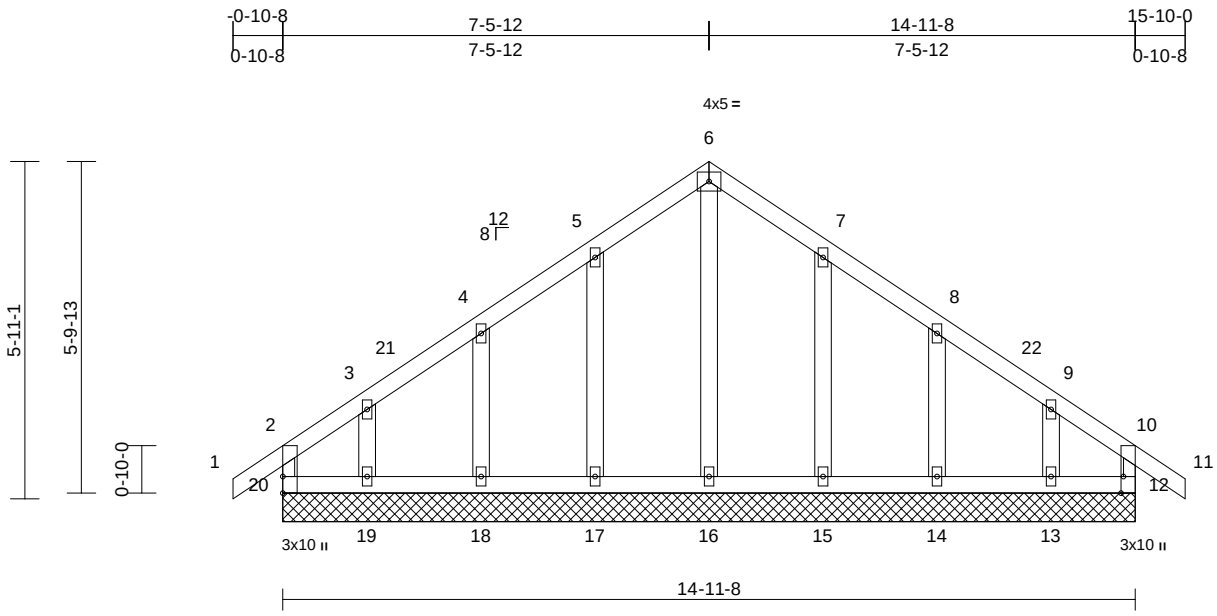


Scale = 1:40.4

Plate Offsets (X, Y): [12:0-3-8,Edge]

| 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 | 0.11 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 12 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 65 lb | FT = 10% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 |
| OTHERS | 2x4 SPF No.2 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing. |

**REACTIONS** (size) 12=14-11-8, 13=14-11-8, 14=14-11-8, 15=14-11-8, 16=14-11-8, 17=14-11-8, 18=14-11-8, 19=14-11-8, 20=14-11-8
Max Horiz 20=-30 (LC 4)
Max Uplift 12=-43 (LC 3), 13=-59 (LC 3), 14=-48 (LC 3), 15=-44 (LC 3), 17=-44 (LC 3), 18=-49 (LC 3), 19=-50 (LC 3), 20=-51 (LC 3)
Max Grav 12=161 (LC 5), 13=157 (LC 7), 14=194 (LC 7), 15=195 (LC 7), 16=171 (LC 1), 17=195 (LC 7), 18=193 (LC 7), 19=164 (LC 7), 20=161 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension

| | |
|---|---|
| TOP CHORD | 2-20=-150/64, 1-2=0/65, 2-3=-29/33, 3-4=-36/60, 4-5=-57/115, 5-6=-79/166, 6-7=-79/166, 7-8=-57/115, 8-9=-36/61, 9-10=-29/31, 10-11=0/65, 10-12=-150/60 |
| BOT CHORD | 19-20=-21/67, 18-19=-21/67, 17-18=-21/67, 16-17=-21/67, 15-16=-21/67, 14-15=-21/67, 13-14=-21/67, 12-13=-21/67 |
| WEBS | 6-16=-134/18, 5-17=-155/67, 4-18=-153/75, 3-19=-124/64, 7-15=-155/67, 8-14=-153/75, 9-13=-121/68 |

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 4-5-12, Corner(3R) 4-5-12 to 10-5-12, Exterior(2N) 10-5-12 to 12-10-0, Corner(3E) 12-10-0 to 15-10-0; cantilever left and right exposed ; end vertical left and right exposed; 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) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 20, 43 lb uplift at joint 12, 44 lb uplift at joint 17, 49 lb uplift at joint 18, 50 lb uplift at joint 19, 44 lb uplift at joint 15, 48 lb uplift at joint 14 and 59 lb uplift at joint 13.
11) 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


August 12,2024



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/05/2024 2:14:31

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | D1 | Common Supported Gable | 1 | 1 | Job Reference (optional) | I67451637 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:33
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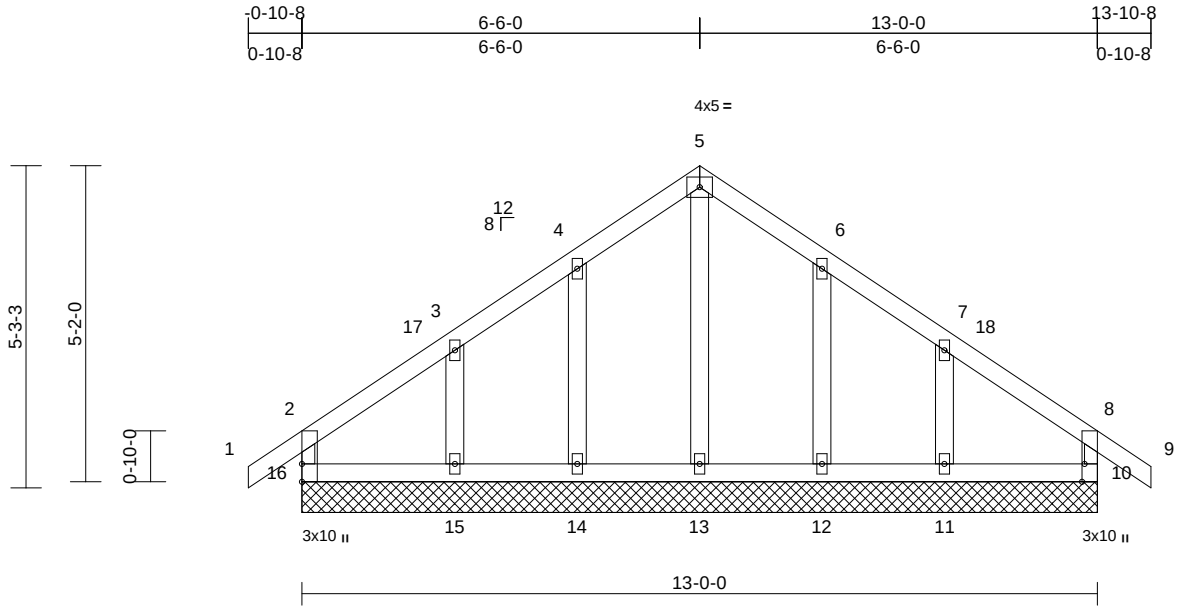


Scale = 1:37.7

Plate Offsets (X, Y): [10:0-3-8,Edge]

| 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 | 0.11 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 10 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 53 lb | FT = 10% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 |
| OTHERS | 2x4 SPF No.2 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing. |

**REACTIONS** (size) 10=13-0-0, 11=13-0-0, 12=13-0-0, 13=13-0-0, 14=13-0-0, 15=13-0-0, 16=13-0-0
Max Horiz 16=-30 (LC 4)
Max Uplift 10=-81 (LC 3), 11=-75 (LC 3), 12=-45 (LC 3), 14=-47 (LC 3), 15=-69 (LC 3), 16=-86 (LC 3)
Max Grav 10=185 (LC 1), 11=222 (LC 7), 12=189 (LC 7), 13=157 (LC 3), 14=187 (LC 7), 15=226 (LC 7), 16=185 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

| | |
|---|---|
| TOP CHORD | 2-16=-163/101, 1-2=0/65, 2-3=-62/50, 3-4=-77/116, 4-5=-97/168, 5-6=-98/168, 6-7=-77/116, 7-8=-62/49, 8-9=0/65, 8-10=-163/99 |
| BOT CHORD | 15-16=-24/54, 14-15=-24/54, 13-14=-24/54, 12-13=-24/54, 11-12=-24/54, 10-11=-24/54 |
| WEBS | 5-13=-133/24, 4-14=-151/70, 3-15=-175/94, 6-12=-152/70, 7-11=-172/97 |

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 3-6-0, Corner(3R) 3-6-0 to 9-6-0, Exterior(2N) 9-6-0 to 10-10-8, Corner(3E) 10-10-8 to 13-10-8; cantilever left and right exposed ; end vertical left and right exposed; 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) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 16, 81 lb uplift at joint 10, 47 lb uplift at joint 14, 69 lb uplift at joint 15, 45 lb uplift at joint 12 and 75 lb uplift at joint 11.
11) 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


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB |
|---|---|---|---|---|---|
| B240153 | J1 | Diagonal Hip Girder | 1 | 1 | I67451638 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871,

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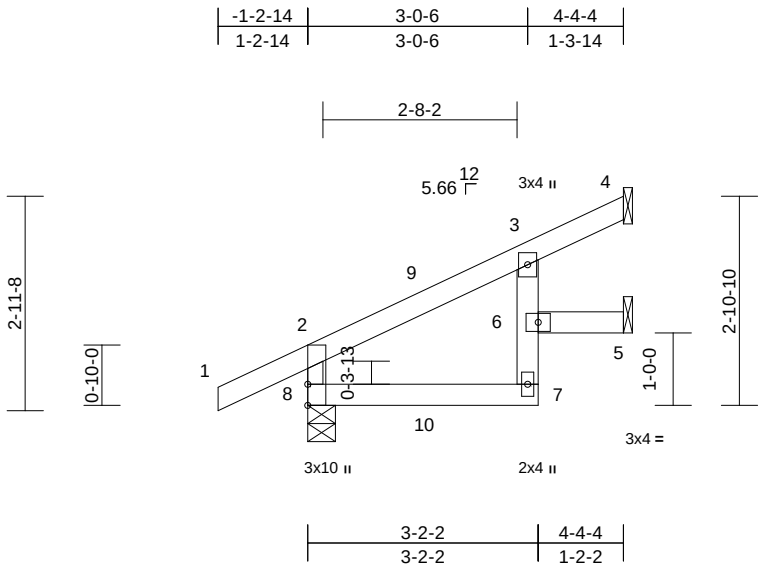


Scale = 1:31.8

| 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) | -0.02 | 6 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.24 | Vert(CT) | -0.02 | 6 | >999 | 240 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | 0.01 | 5 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-R | | Wind(LL) | 0.01 | 6 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 14 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 4-4-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 4= Mechanical, 5= Mechanical, 8=0-4-9
Max Horiz 8=125 (LC 5)
Max Uplift 4=-47 (LC 5), 5=-33 (LC 5), 8=-110 (LC 5)
Max Grav 4=135 (LC 8), 5=106 (LC 8), 8=429 (LC 8)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-398/127, 1-2=0/69, 2-3=-201/2, 3-4=-26/52
BOT CHORD 7-8=-52/102, 6-7=-2/39, 3-6=-59/46, 5-6=0/0

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Corner (3) -1-2-14 to 3-0-6, Exterior(2R) 3-0-6 to 4-3-8; cantilever left and right exposed ; end vertical left and right exposed; 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 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 8, 47 lb uplift at joint 4 and 33 lb uplift at joint 5.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 87 lb down and 31 lb up at 1-7-6, and 87 lb down and 31 lb up at 1-7-6 on top chord, and 4 lb down and 10 lb up at 1-7-6, and 4 lb down and 10 lb up at 1-7-6 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
10) 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
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 10=6 (F=3, B=3)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

August 12,2024



MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | J2 | Jack-Open | 2 | 1 | Job Reference (optional) | I67451639 |

Wheeler Lumber, Waverly, KS - 66871,

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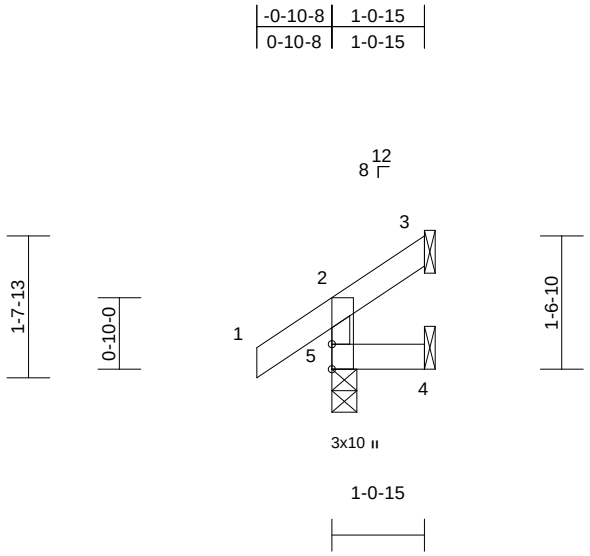


Scale = 1:26.8

| 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 | 0.08 | Vert(LL) | 0.00 | 5 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | 0.00 | 4-5 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-R | | Wind(LL) | 0.00 | 4-5 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 4 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 1-0-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=60 (LC 3)
Max Uplift 3=-42 (LC 5), 4=-9 (LC 3), 5=-48 (LC 3)
Max Grav 3=31 (LC 4), 4=14 (LC 4), 5=197 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-178/69, 1-2=0/65, 2-3=-36/16
BOT CHORD 4-5=0/0

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; 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) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 5, 9 lb uplift at joint 4 and 42 lb uplift at joint 3.
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.

**LOAD CASE(S)** Standard


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB |
|---|---|---|---|---|---|
| B240153 | J3 | Jack-Open | 5 | 1 | I67451640 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:34 Page: 1
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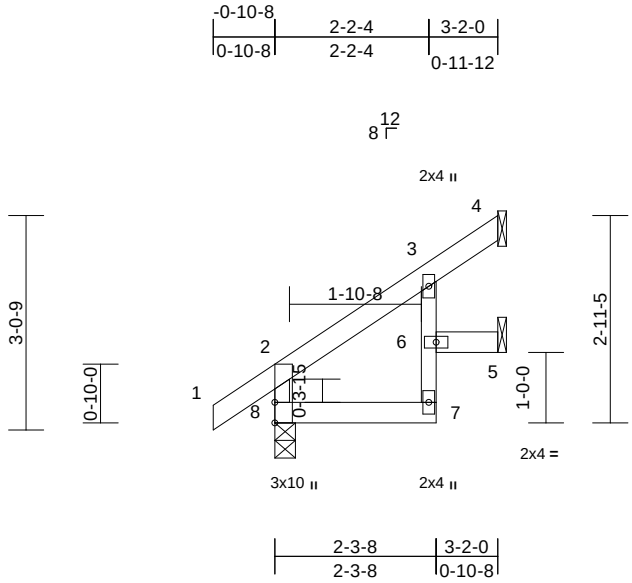


Scale = 1:32.7

| 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 | 0.11 | Vert(LL) | 0.00 | 6 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | -0.01 | 7 | >999 | 240 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-R | | Wind(LL) | 0.00 | 6 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 11 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-3:2x3 SPF No.2
WEBS 2x3 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 4= Mechanical, 5= Mechanical, 8=0-3-8
Max Horiz 8=106 (LC 3)
Max Uplift 4=-31 (LC 3), 5=-31 (LC 3), 8=-28 (LC 3)
Max Grav 4=74 (LC 7), 5=72 (LC 7), 8=215 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-193/55, 1-2=0/65, 2-3=-97/0, 3-4=-23/38
BOT CHORD 7-8=-30/47, 6-7=-2/28, 3-6=-28/40, 5-6=0/0

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; 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) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 8, 31 lb uplift at joint 4 and 31 lb uplift at joint 5.
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.

**LOAD CASE(S)** Standard


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | J4 | Jack-Open | 8 | 1 | Job Reference (optional) | I67451641 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:34
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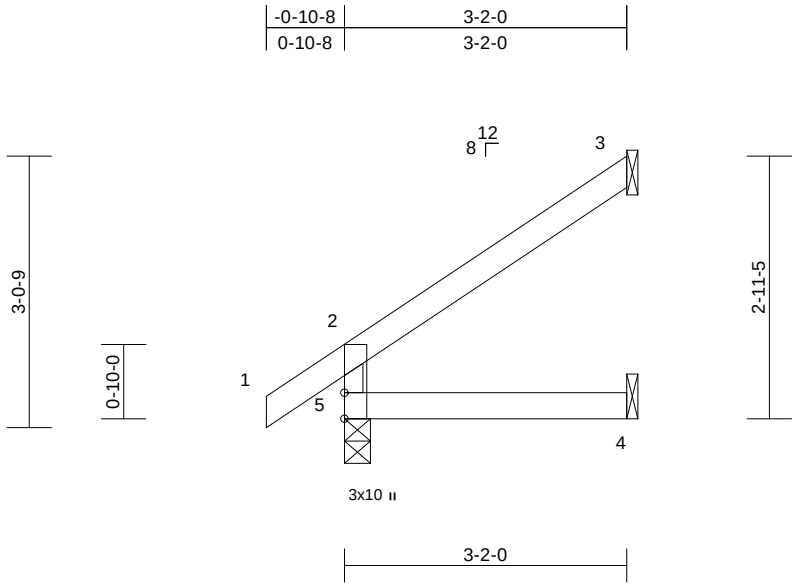



Scale = 1:25.8

| 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 | 0.12 | Vert(LL) | 0.00 | 4-5 | >999 | 360 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.06 | Vert(CT) | -0.01 | 4-5 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.01 | 3 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-R | | Wind(LL) | 0.00 | 4-5 | >999 | 240 | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 10 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=106 (LC 3)
Max Uplift 3=-67 (LC 3), 5=-28 (LC 3)
Max Grav 3=110 (LC 7), 4=37 (LC 7), 5=215 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-187/59, 1-2=0/65, 2-3=-65/51
BOT CHORD 4-5=0/0

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; 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) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 5 and 67 lb uplift at joint 3.
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.

**LOAD CASE(S)** Standard

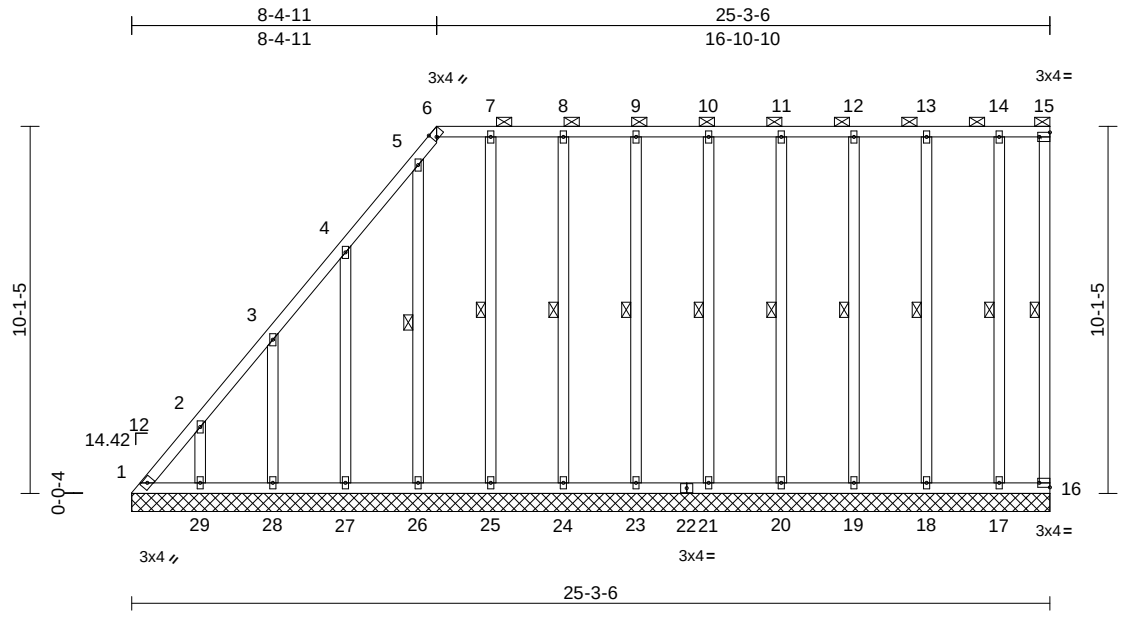

August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | LAY1 | Lay-In Gable | 1 | 1 | Job Reference (optional) | I67451642 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:34 ID:krohwdVyUzKQeqD3WzNNmVypcv2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f






Scale = 1:63.4

Plate Offsets (X, Y): [6:0-1-5,Edge], [15:Edge,0-1-8], [16:Edge,0-1-8]

| 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) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.19 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.14 | Horiz(TL) | 0.00 | 16 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 185 lb | FT = 10% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x4 SPF No.2 |
| OTHERS | 2x4 SPF No.2 |

**BRACING**

| | | |
|---|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-15. | |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. | |
| WEBS | 1 Row at midpt | 15-16, 5-26, 7-25, 8-24, 9-23, 10-21, 11-20, 12-19, 13-18, 14-17 |

**REACTIONS** (size) 1=25-3-6, 16=25-3-6, 17=25-3-6, 18=25-3-6, 19=25-3-6, 20=25-3-6, 21=25-3-6, 23=25-3-6, 24=25-3-6, 25=25-3-6, 26=25-3-6, 27=25-3-6, 28=25-3-6, 29=25-3-6

Max Horiz 1=-376 (LC 4)

Max Uplift 1=-292 (LC 4), 17=-27 (LC 3), 19=-4 (LC 3), 24=-9 (LC 3), 27=-83 (LC 3), 28=-59 (LC 3), 29=-63 (LC 3)

Max Grav 1=97 (LC 3), 16=53 (LC 6), 17=155 (LC 1), 18=202 (LC 6), 19=181 (LC 6), 20=187 (LC 6), 21=185 (LC 6), 23=187 (LC 6), 24=180 (LC 1), 25=214 (LC 6), 26=282 (LC 6), 27=223 (LC 6), 28=231 (LC 6), 29=229 (LC 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension

| | |
|---|---|
| TOP CHORD | 1-2=-128/438, 2-3=-56/366, 3-4=-54/287, 4-5=-55/218, 5-6=-56/111, 6-7=0/125, 7-8=0/125, 8-9=0/125, 9-10=0/125, 10-11=0/125, 11-12=0/125, 12-13=0/125, 13-14=0/125, 14-15=0/125, 15-16=-33/110 |
| BOT CHORD | 1-29=0/126, 28-29=0/126, 27-28=0/126, 26-27=0/126, 25-26=0/126, 24-25=0/126, 23-24=0/126, 21-23=0/126, 20-21=0/126, 19-20=0/126, 18-19=0/126, 17-18=0/126, 16-17=0/126 |
| WEBS | 2-29=-183/83, 3-28=-193/83, 4-27=-183/107, 5-26=-243/0, 7-25=-174/0, 8-24=-140/33, 9-23=-147/19, 10-21=-145/21, 11-20=-146/21, 12-19=-144/22, 13-18=-149/25, 14-17=-181/0 |

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-3-12 to 3-3-12, Interior (1) 3-3-12 to 3-10-13, Exterior(2R) 3-10-13 to 12-7-13, Interior (1) 12-7-13 to 21-10-13, Exterior(2E) 21-10-13 to 25-1-13; cantilever left and right exposed ; end vertical left and right exposed; 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) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 0-0-0 oc.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 292 lb uplift at joint 1, 63 lb uplift at joint 29, 59 lb uplift at joint 28, 83 lb uplift at joint 27, 9 lb uplift at joint 24, 4 lb uplift at joint 19 and 27 lb uplift at joint 17.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB |
|---|---|---|---|---|---|
| B240153 | LAY2 | Lay-In Gable | 1 | 1 | I67451643 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:34
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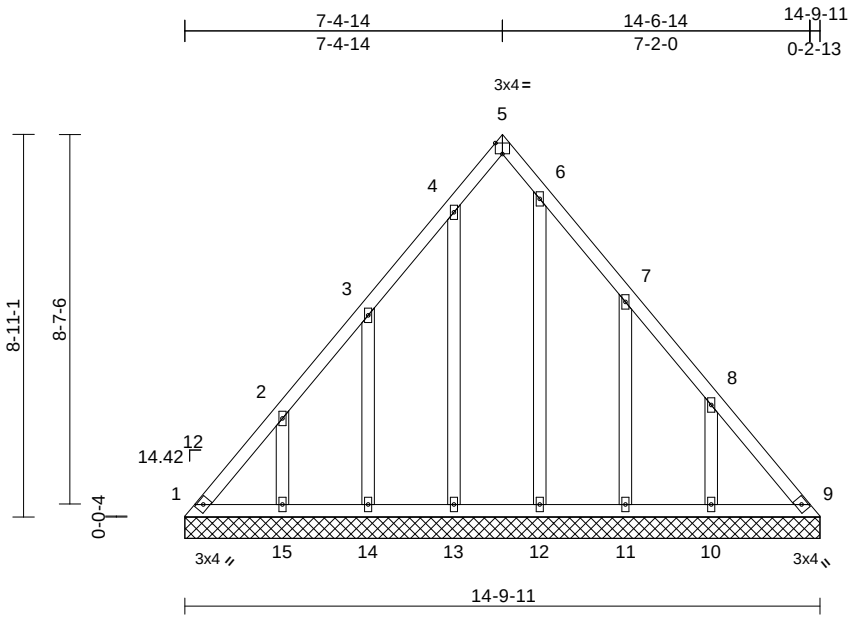


Scale = 1:53.7

Plate Offsets (X, Y): [5:Edge,0-3-1]

| 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 | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.04 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.12 | Horiz(TL) | 0.00 | 9 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 75 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=14-9-11, 9=14-9-11, 10=14-9-11, 11=14-9-11, 12=14-9-11, 13=14-9-11, 14=14-9-11, 15=14-9-11
Max Uplift 1=-95 (LC 4), 9=-84 (LC 4), 10=-83 (LC 3), 11=-82 (LC 3), 13=-15 (LC 3), 14=-82 (LC 3), 15=-77 (LC 3)
Max Grav 1=168 (LC 3), 9=164 (LC 3), 10=285 (LC 6), 11=237 (LC 6), 12=160 (LC 6), 13=178 (LC 6), 14=243 (LC 6), 15=263 (LC 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-223/202, 2-3=-129/111, 3-4=-85/28, 4-5=-77/30, 5-6=-72/27, 6-7=-85/23, 7-8=-116/98, 8-9=-218/198
BOT CHORD 1-15=-141/163, 14-15=-141/163, 13-14=-141/163, 12-13=-141/163, 11-12=-141/163, 10-11=-141/163, 9-10=-141/163
WEBS 2-15=-209/98, 3-14=-206/107, 4-13=-137/39, 6-12=-119/21, 7-11=-203/106, 8-10=-226/106

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-3-12 to 3-3-12, Interior (1) 3-3-12 to 4-3-8, Exterior(2R) 4-3-8 to 10-3-8, Interior (1) 10-3-8 to 11-6-6, Exterior(2E) 11-6-6 to 14-6-6; cantilever left and right exposed ; end vertical left and right exposed; 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 95 lb uplift at joint 1, 84 lb uplift at joint 9, 77 lb uplift at joint 15, 82 lb uplift at joint 14, 15 lb uplift at joint 13, 82 lb uplift at joint 11 and 83 lb uplift at joint 10.
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)** Standard


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB |
|---|---|---|---|---|---|
| B240153 | LAY3 | Lay-In Gable | 1 | 1 | I67451644 Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871,

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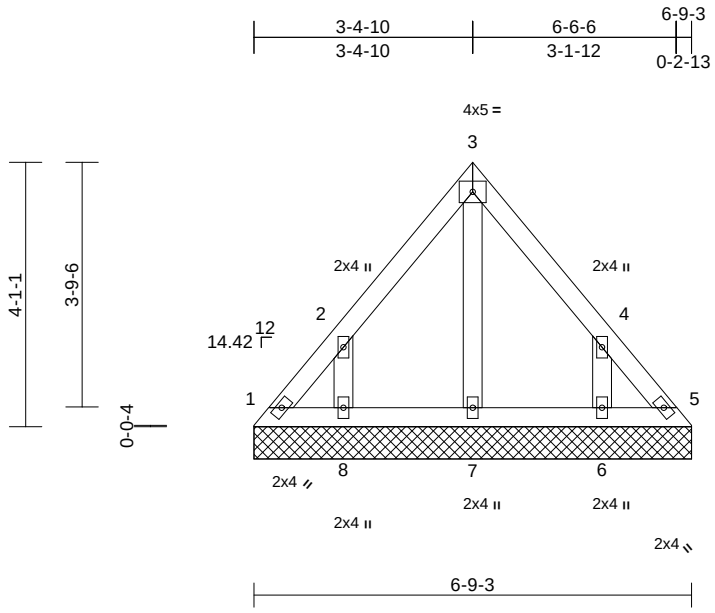


Scale = 1:35.6

| 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 | 0.05 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.02 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.02 | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 25 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=6-9-3, 5=6-9-3, 6=6-9-3, 7=6-9-3, 8=6-9-3
Max Uplift 1=-20 (LC 4), 5=-20 (LC 4), 6=-89 (LC 3), 8=-89 (LC 3)
Max Grav 1=51 (LC 3), 5=51 (LC 3), 6=245 (LC 6), 7=109 (LC 1), 8=245 (LC 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-67/60, 2-3=-107/43, 3-4=-107/43, 4-5=-67/60
BOT CHORD 1-8=-37/49, 7-8=-37/49, 6-7=-37/49, 5-6=-37/49
WEBS 3-7=-67/1, 2-8=-211/109, 4-6=-211/109

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1, 20 lb uplift at joint 5, 89 lb uplift at joint 8 and 89 lb uplift at joint 6.
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.

**LOAD CASE(S)** Standard


August 12,2024



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/05/2024 2:14:32

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | V1 | Valley | 1 | 1 | Job Reference (optional) | I67451645 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:34
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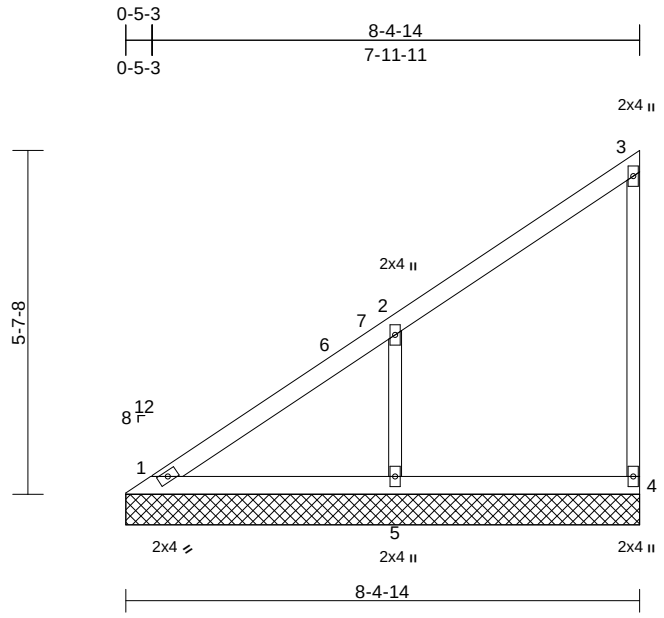



Scale = 1:37.7

| 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 | 0.36 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.09 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.08 | Horiz(TL) | 0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 27 lb | FT = 10% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 |
| OTHERS | 2x3 SPF No.2 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS** (size) 1=8-4-14, 4=8-4-14, 5=8-4-14
Max Horiz 1=-182 (LC 4)
Max Uplift 1=-14 (LC 7), 5=-109 (LC 3)
Max Grav 1=134 (LC 1), 4=163 (LC 6), 5=460 (LC 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension

| | |
|---|---|
| TOP CHORD | 1-2=-86/183, 2-3=-95/94, 3-4=-133/6 |
| BOT CHORD | 1-5=0/72, 4-5=0/72 |
| WEBS | 2-5=-362/168 |

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-5-12 to 3-5-12, Interior (1) 3-5-12 to 4-1-1, Exterior(2R) 4-1-1 to 8-4-0; cantilever left and right exposed ; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1 and 109 lb uplift at joint 5.
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.

**LOAD CASE(S)** Standard

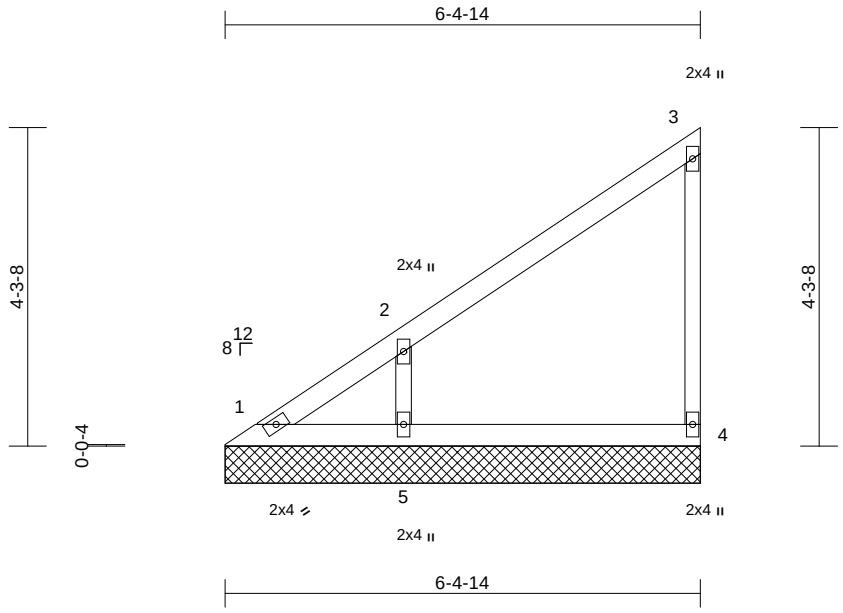

August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | V2 | Valley | 1 | 1 | Job Reference (optional) | I67451646 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:34
ID:2x6ulis8NVO71ajDOGTn30ypczl-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f






Scale = 1:31.1

| 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 | 0.19 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.07 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.05 | Horiz(TL) | 0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 19 lb | FT = 10% |

**LUMBER**

| | |
|---|---|
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 |
| OTHERS | 2x3 SPF No.2 |

**BRACING**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

**REACTIONS** (size) 1=6-4-14, 4=6-4-14, 5=6-4-14
Max Horiz 1=-143 (LC 4)
Max Uplift 1=-53 (LC 4), 4=-7 (LC 3), 5=-108 (LC 3)
Max Grav 1=49 (LC 3), 4=171 (LC 6), 5=384 (LC 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension

| | |
|---|---|
| TOP CHORD | 1-2=-94/146, 2-3=-90/89, 3-4=-140/26 |
| BOT CHORD | 1-5=0/54, 4-5=0/54 |
| WEBS | 2-5=-304/156 |

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 1, 7 lb uplift at joint 4 and 108 lb uplift at joint 5.
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.

**LOAD CASE(S)** Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | V3 | Valley | 1 | 1 | Job Reference (optional) | I67451647 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:34
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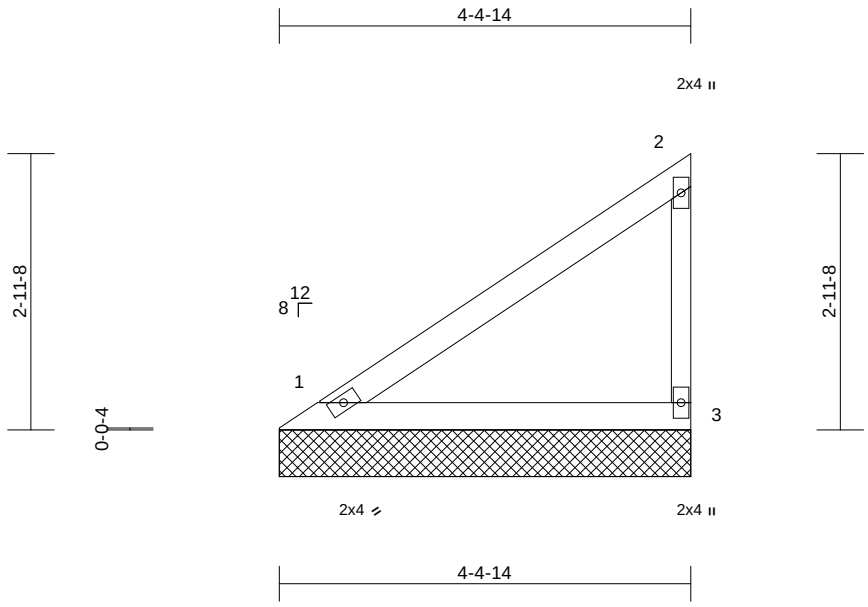


Scale = 1:24.7

| 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 | 0.28 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.10 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 12 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 4-5-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=4-4-14, 3=4-4-14
Max Horiz 1=-98 (LC 4)
Max Uplift 1=-18 (LC 3), 3=-36 (LC 3)
Max Grav 1=173 (LC 1), 3=200 (LC 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-60/93, 2-3=-162/60
BOT CHORD 1-3=0/35

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 36 lb uplift at joint 3.
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.

**LOAD CASE(S)** Standard


August 12,2024



MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB |
|---|---|---|---|---|---|
| B240153 | V4 | Valley | 1 | 1 | I67451648 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:34
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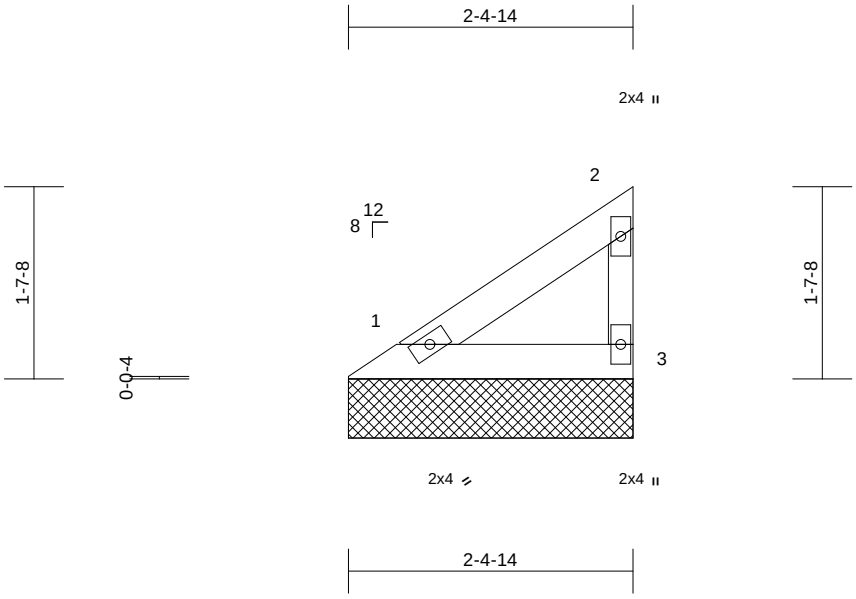



Scale = 1:19.5

| 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 | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.02 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 6 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 2-5-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=2-4-14, 3=2-4-14
Max Horiz 1=-50 (LC 4)
Max Uplift 1=-11 (LC 3), 3=-23 (LC 3)
Max Grav 1=83 (LC 1), 3=98 (LC 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-29/46, 2-3=-80/34
BOT CHORD 1-3=0/17

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 23 lb uplift at joint 3.
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.

**LOAD CASE(S)** Standard

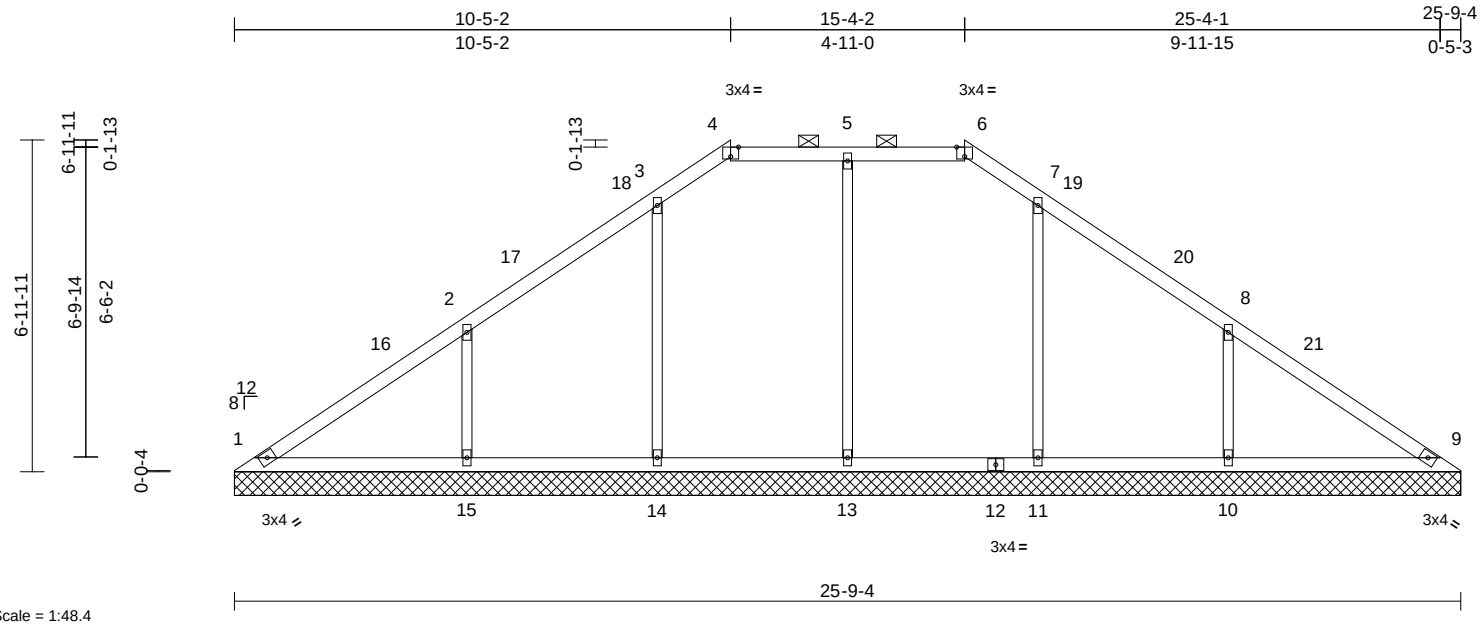
STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB |
|---|---|---|---|---|---|
| B240153 | V5 | Valley | 1 | 1 | I67451649 |
| | | | | | Job Reference (optional) |

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:34 Page: 1

ID:W8gGz2tn8oX_fkHPyz_0cEypczk-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




Scale = 1:48.4

Plate Offsets (X, Y): [4:0-2-0,Edge], [6:0-2-0,Edge]

| 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 | 0.43 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.16 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.43 | Horiz(TL) | 0.01 | 9 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 81 lb | FT = 10% |

**LUMBER**

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=25-9-4, 9=25-9-4, 10=25-9-4, 11=25-9-4, 13=25-9-4, 14=25-9-4, 15=25-9-4
Max Uplift 10=-22 (LC 5), 11=-15 (LC 5), 14=-15 (LC 5), 15=-22 (LC 5)
Max Grav 1=303 (LC 18), 9=303 (LC 18), 10=713 (LC 18), 11=446 (LC 18), 13=489 (LC 17), 14=446 (LC 18), 15=713 (LC 18)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-246/83, 2-3=-257/34, 3-4=-244/60, 4-5=-156/57, 5-6=-156/57, 6-7=-244/60, 7-8=-257/34, 8-9=-246/83
BOT CHORD 1-15=-37/152, 14-15=-37/152, 13-14=-37/152, 11-13=-37/152, 10-11=-37/152, 9-10=-37/152
WEBS 5-13=-406/25, 3-14=-377/61, 2-15=-596/75, 7-11=-377/61, 8-10=-595/75

**NOTES**

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-5-12 to 3-5-12, Interior (1) 3-5-12 to 6-2-9, Exterior(2R) 6-2-9 to 19-7-7, Interior (1) 19-7-7 to 22-4-4, Exterior(2E) 22-4-4 to 25-4-4; cantilever left and right exposed ; end vertical left and right exposed; 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) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 14, 22 lb uplift at joint 15, 15 lb uplift at joint 11 and 22 lb uplift at joint 10.
11) 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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | V6 | Valley | 1 | 1 | Job Reference (optional) | I67451650 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:34
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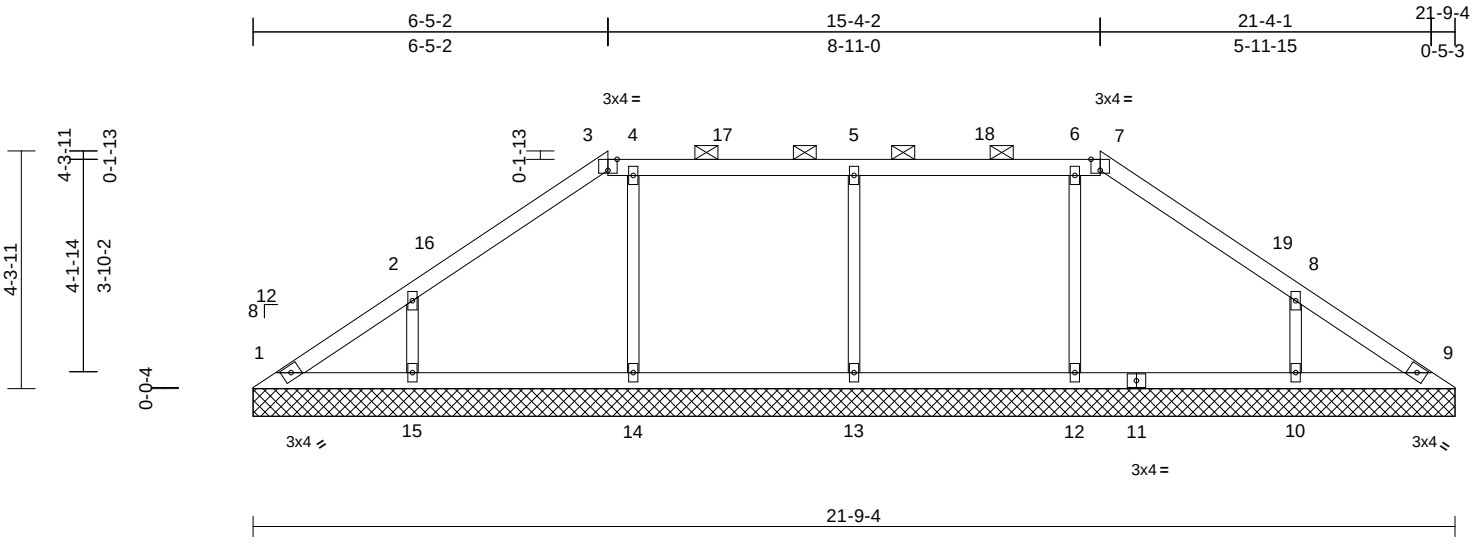


Scale = 1:41.7

Plate Offsets (X, Y): [3:0-2-0,Edge], [7:0-2-0,Edge]

| 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 | 0.37 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.08 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.21 | Horiz(TL) | 0.00 | 9 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 62 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 1=21-9-4, 9=21-9-4, 10=21-9-4, 12=21-9-4, 13=21-9-4, 14=21-9-4, 15=21-9-4
Max Uplift 10=-31 (LC 5), 13=-10 (LC 5), 15=-31 (LC 5)
Max Grav 1=197 (LC 18), 9=197 (LC 18), 10=525 (LC 18), 12=456 (LC 17), 13=623 (LC 17), 14=456 (LC 17), 15=525 (LC 18)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-198/87, 2-3=-294/92, 3-4=-146/59, 4-5=-134/58, 5-6=-134/58, 6-7=-146/59, 7-8=-294/92, 8-9=-198/87
BOT CHORD 1-15=-48/134, 14-15=-48/134, 13-14=-48/134, 12-13=-48/134, 10-12=-48/134, 9-10=-48/134
WEBS 5-13=-544/57, 4-14=-374/33, 2-15=-450/73, 6-12=-374/33, 8-10=-450/73

**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-5-12 to 3-5-12, Exterior(2R) 3-5-12 to 18-4-4, Exterior(2E) 18-4-4 to 21-4-4; cantilever left and right exposed ; end vertical left and right exposed; 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) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 13, 31 lb uplift at joint 15 and 31 lb uplift at joint 10.
11) 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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard


August 12,2024

| Job | Truss | Truss Type | Qty | Ply | Lot 9 CB | |
|---|---|---|---|---|---|---|
| B240153 | V7 | Valley | 1 | 1 | Job Reference (optional) | I67451651 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:27:35
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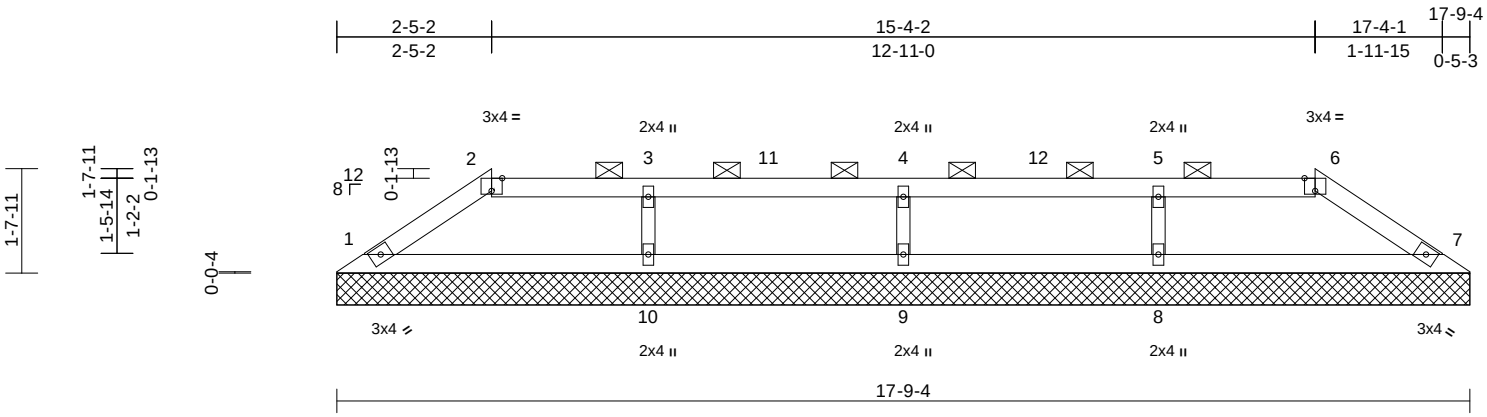



Scale = 1:36.1

Plate Offsets (X, Y): [2:0-2-0,Edge], [6:0-2-0,Edge]

| 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 | 0.32 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| (Roof Snow = 25.0) | | Lumber DOL | 1.15 | BC | 0.13 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.09 | Horiz(TL) | 0.01 | 7 | n/a | n/a | | |
| BCLL | 0.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 43 lb | FT = 10% |

**LUMBER**
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 2-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=17-9-4, 7=17-9-4, 8=17-9-4, 9=17-9-4, 10=17-9-4
Max Uplift 1=-6 (LC 5), 7=-6 (LC 5)
Max Grav 1=299 (LC 18), 7=299 (LC 18), 8=548 (LC 17), 9=583 (LC 17), 10=548 (LC 17)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-318/37, 2-3=-226/38, 3-4=-225/37, 4-5=-225/37, 5-6=-226/38, 6-7=-318/37
BOT CHORD 1-10=-12/225, 9-10=-12/225, 8-9=-12/225, 7-8=-12/225
WEBS 4-9=-512/34, 3-10=-451/46, 5-8=-451/46

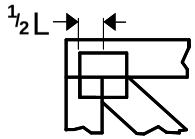
**NOTES**
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-5-12 to 2-5-8, Exterior(2R) 2-5-8 to 6-8-7, Interior (1) 6-8-7 to 11-1-9, Exterior(2R) 11-1-9 to 15-4-8, Exterior(2E) 15-4-8 to 17-4-4; cantilever left and right exposed ; end vertical left and right exposed; 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) Provide adequate drainage to prevent water ponding.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1 and 6 lb uplift at joint 7.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

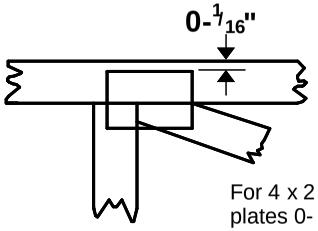

August 12,2024

# 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.

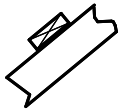
* Plate location details available in MiTek software or upon request.

## PLATE SIZE

4 x 4

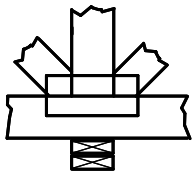
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

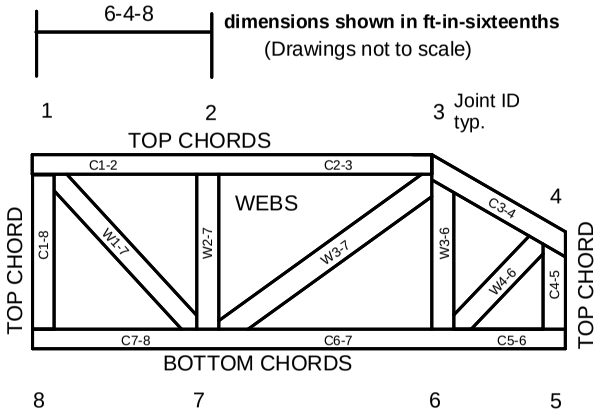


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

**Industry Standards:**

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

# Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.



MiTek®

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

# 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 BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I 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.
21. The design does not take into account any dynamic or other loads other than those expressly stated.