



RE: Lot 11 OS
Lot 11 OS

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Customer: Project Name: Lot 11 OS
Lot/Block:

Model:

Address:

Subdivision:

City:

State:

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.4

Wind Code: ASCE 7 - 16[Low Rise]

Wind Speed: 115 mph

Roof Load: 45.0 psf

Floor Load: N/A psf

This package includes 27 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal# | Truss Name | Date | No. | Seal# | Truss Name | Date |
|-----|-----------|------------|----------|-----|-----------|------------|----------|
| 1 | I47787250 | A1 | 9/7/2021 | 21 | I47787270 | B1 | 9/7/2021 |
| 2 | I47787251 | A2 | 9/7/2021 | 22 | I47787271 | LAY1 | 9/7/2021 |
| 3 | I47787252 | A3 | 9/7/2021 | 23 | I47787272 | LAY2 | 9/7/2021 |
| 4 | I47787253 | A4 | 9/7/2021 | 24 | I47787273 | V1 | 9/7/2021 |
| 5 | I47787254 | A5 | 9/7/2021 | 25 | I47787274 | V2 | 9/7/2021 |
| 6 | I47787255 | A6 | 9/7/2021 | 26 | I47787275 | V3 | 9/7/2021 |
| 7 | I47787256 | A7 | 9/7/2021 | 27 | I47787276 | V4 | 9/7/2021 |
| 8 | I47787257 | A8 | 9/7/2021 | | | | |
| 9 | I47787258 | A9 | 9/7/2021 | | | | |
| 10 | I47787259 | A10 | 9/7/2021 | | | | |
| 11 | I47787260 | A11 | 9/7/2021 | | | | |
| 12 | I47787261 | A12 | 9/7/2021 | | | | |
| 13 | I47787262 | A13 | 9/7/2021 | | | | |
| 14 | I47787263 | A14 | 9/7/2021 | | | | |
| 15 | I47787264 | A15 | 9/7/2021 | | | | |
| 16 | I47787265 | A16 | 9/7/2021 | | | | |
| 17 | I47787266 | A17 | 9/7/2021 | | | | |
| 18 | I47787267 | A18 | 9/7/2021 | | | | |
| 19 | I47787268 | A19 | 9/7/2021 | | | | |
| 20 | I47787269 | A20 | 9/7/2021 | | | | |

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, 2021.

Missouri COA: 001193

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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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.



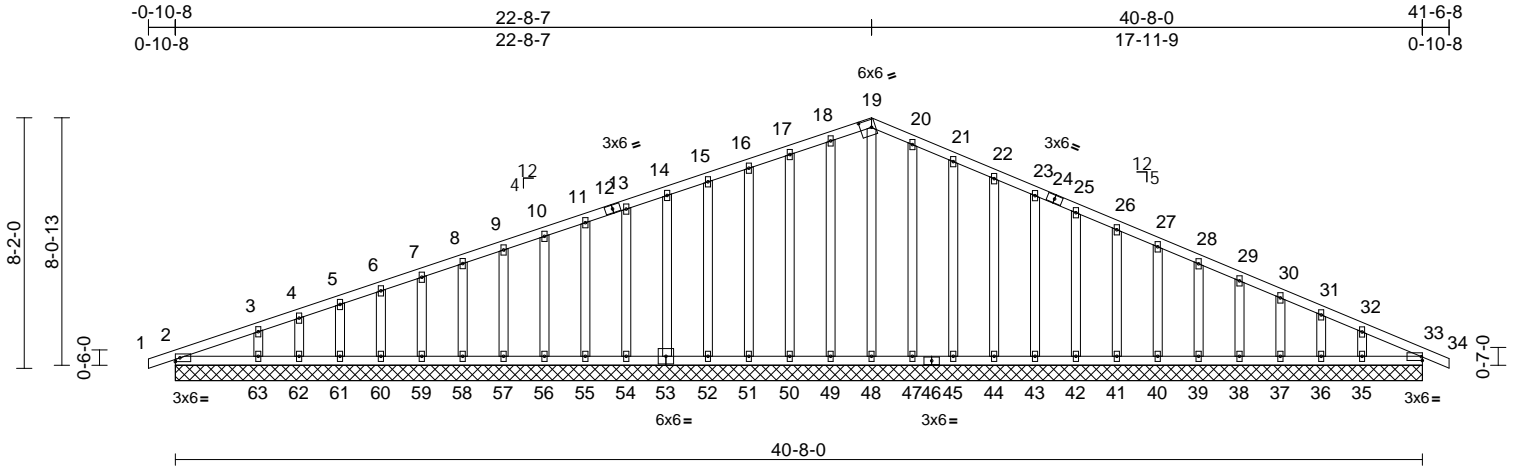
September 07, 2021

| | | | | | | |
|-----------|-------|------------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A1 | Roof Special Supported Gable | 4 | 1 | Job Reference (optional) | I47787250 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:48
ID:q6SPGwyY2XiPIHfSAmENyz6Qwt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:75.1

Plate Offsets (X, Y): [19:0-4-7,0-3-0]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|-----|--------|---------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.12 | Horz(CT) | 0.01 | 33 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | |
| Weight: 228 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

(lb/size) 2=176/40-8-0, 33=154/40-8-0,
35=155/40-8-0, 36=108/40-8-0,
37=123/40-8-0, 38=119/40-8-0,
39=120/40-8-0, 40=120/40-8-0,
41=120/40-8-0, 42=120/40-8-0,
43=120/40-8-0, 44=120/40-8-0,
45=120/40-8-0, 47=123/40-8-0,
48=109/40-8-0, 49=123/40-8-0,
50=120/40-8-0, 51=120/40-8-0,
52=121/40-8-0, 53=120/40-8-0,
54=119/40-8-0, 55=120/40-8-0,
56=120/40-8-0, 57=120/40-8-0,
58=120/40-8-0, 59=120/40-8-0,
60=118/40-8-0, 61=130/40-8-0,
62=76/40-8-0, 63=226/40-8-0
Max Horiz 2=139 (LC 8)

Max Uplift 2=19 (LC 9), 33=9 (LC 5), 35=57 (LC 9), 36=28 (LC 9), 37=32 (LC 9), 38=32 (LC 9), 39=32 (LC 9), 40=32 (LC 9), 41=32 (LC 9), 42=32 (LC 9), 43=32 (LC 9), 44=32 (LC 9), 45=38 (LC 9), 47=18 (LC 9), 49=19 (LC 8), 50=33 (LC 4), 51=28 (LC 4), 52=28 (LC 8), 53=28 (LC 4), 54=29 (LC 8), 55=28 (LC 4), 56=28 (LC 4), 57=28 (LC 8), 58=28 (LC 4), 59=28 (LC 8), 60=28 (LC 4), 61=30 (LC 8), 62=22 (LC 4), 63=65 (LC 8)

Max Grav 2=176 (LC 1), 33=154 (LC 1), 35=156 (LC 22), 36=108 (LC 22), 37=123 (LC 1), 38=119 (LC 22), 39=120 (LC 1), 40=120 (LC 1), 41=120 (LC 1), 42=120 (LC 22), 43=120 (LC 1), 44=120 (LC 1), 45=121 (LC 22), 47=124 (LC 22), 48=140 (LC 18), 49=124 (LC 21), 50=121 (LC 21), 51=120 (LC 1), 52=121 (LC 1), 53=120 (LC 1), 54=119 (LC 21), 55=120 (LC 1), 56=120 (LC 21), 57=120 (LC 21), 58=120 (LC 1), 59=120 (LC 1), 60=118 (LC 21), 61=130 (LC 1), 62=76 (LC 21), 63=226 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension



September 7, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | |
|--------------------------|-------|------------------------------|-----|-----|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS |
| Lot 11 OS | A1 | Roof Special Supported Gable | 4 | 1 | I47787250 |
| Job Reference (optional) | | | | | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:48

Page: 2

ID:q6SPGwyY2XfiPIHfSAmENyz6Qwt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?i

BOT CHORD 2-63=-10/117, 62-63=-10/117, 61-62=-10/117,
60-61=-10/117, 59-60=-10/117,
58-59=-10/117, 57-58=-10/117,
56-57=-10/117, 55-56=-10/117,
54-55=-10/117, 52-54=-10/117,
51-52=-10/117, 50-51=-10/117,
49-50=-10/117, 48-49=-10/117,
47-48=-10/117, 45-47=-10/117,
44-45=-10/117, 43-44=-10/117,
42-43=-10/117, 41-42=-10/117,
40-41=-10/117, 39-40=-10/117,
38-39=-10/117, 37-38=-10/117,
36-37=-10/117, 35-36=-10/117,
33-35=-10/117

WEBS 19-48=-114/0, 18-49=-97/35, 17-50=-94/49,
16-51=-93/44, 15-52=-93/45, 14-53=-94/44,
13-54=-93/45, 11-55=-93/44, 10-56=-93/44,
9-57=-93/44, 8-58=-93/44, 7-59=-93/45,
6-60=-92/44, 5-61=-99/47, 4-62=-64/32,
3-63=-167/91, 20-47=-97/34, 21-45=-94/54,
22-44=-93/48, 23-43=-93/48, 25-42=-93/48,
26-41=-93/48, 27-40=-93/48, 28-39=-93/48,
29-38=-93/48, 30-37=-95/49, 31-36=-86/43,
32-35=-118/77

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 2, 9 lb uplift at joint 33, 19 lb uplift at joint 49, 33 lb uplift at joint 50, 28 lb uplift at joint 51, 28 lb uplift at joint 52, 28 lb uplift at joint 53, 29 lb uplift at joint 54, 28 lb uplift at joint 55, 28 lb uplift at joint 56, 28 lb uplift at joint 57, 28 lb uplift at joint 58, 28 lb uplift at joint 59, 28 lb uplift at joint 60, 30 lb uplift at joint 61, 22 lb uplift at joint 62, 65 lb uplift at joint 63, 18 lb uplift at joint 47, 38 lb uplift at joint 45, 32 lb uplift at joint 44, 32 lb uplift at joint 43, 32 lb uplift at joint 42, 32 lb uplift at joint 41, 32 lb uplift at joint 40, 32 lb uplift at joint 39, 32 lb uplift at joint 38, 32 lb uplift at joint 37, 28 lb uplift at joint 36 and 57 lb uplift at joint 35.
- 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

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

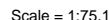
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Page: 1

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|----------------|-------|-----------------|-----------------|------------|-------------|----------|-------|--------|------|---------------|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.97 | Vert(LL) | -0.46 | 12-14 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.72 | Vert(CT) | -0.82 | 12-14 | >590 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.95 | Horz(CT) | 0.19 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.24 | 16-17 | >999 | 240 | Weight: 144 lb | FT = 10% |

- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 318 lb uplift at joint 2 and 239 lb uplift at joint 10.
- 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

| | | |
|------------------|------------|------------------------------------------------------------------------------------------------------------------------|
| REACTIONS | (lb/size) | 2=1888/0-3-8, 10=1888/0-3-8 |
| | Max Horiz | 2=139 (LC 8) |
| | Max Uplift | 2=318 (LC 4), 10=239 (LC 9) |
| | Max Grav | 2=1937 (LC 2), 10=1951 (LC 2) |
| FORCES | (lb) | - Maximum Compression/Maximum Tension |
| TOP CHORD | | 1-2=0/6, 2-3=-4773/679, 3-5=-3747/541, 5-6=-2694/392, 6-8=-2745/412, 8-9=-3708/382, 9-10=-3857/475, 10-11=0/6 |
| BOT CHORD | | 2-17=-690/4436, 16-17=-690/4436, 14-16=-450/3481, 12-14=-269/3059, 10-12=-377/3430 |
| WEBS | | 3-17=0/331, 3-16=-1014/255, 5-16=0/527, 5-14=-1243/320, 6-14=-142/1510, 8-14=-798/278, 8-12=0/536, 9-12=-244/215 |

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



September 7, 2021



WARNING - Velly design parameters and READ NOTES ON THIS AND INCLUDED WITHIN KEY EXERCISE 1 AGE MH-475 (Rev. 3/19/2020) BEFORE USE. Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



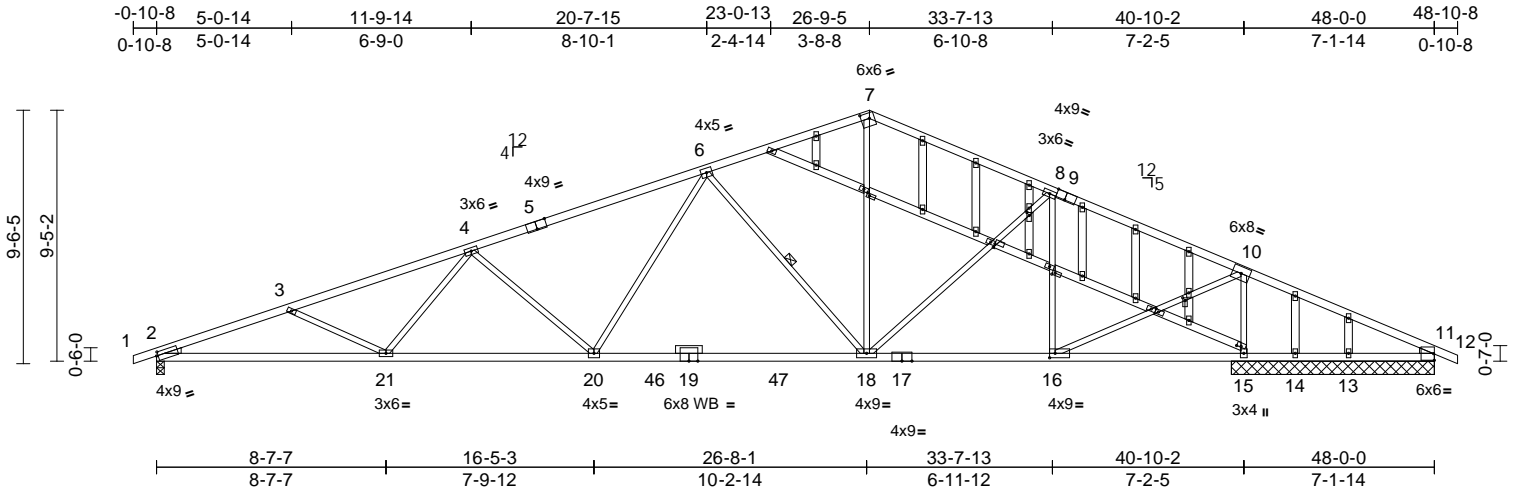
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|-------------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A3 | Roof Special Structural Gable | 4 | 1 | Job Reference (optional) | I47787252 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Aug 16 2021 Print: 8.430 E Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 11:29:47
ID:Bura03dgskim7vZQkxmNelz6Qw?3GFS3i18eYr98B9077_EYLhUrnNoShCsE4?Bgdyg1g4

Page: 1



Scale = 1:86.6

[2:0-0-12,0-1-11], [5:0-4-8,Edge], [7:0-3-12,0-2-8], [9:0-4-4,Edge], [16:0-2-8,0-2-0], [23:0-1-4,0-1-0], [24:0-0-2,0-1-12], [25:0-1-4,0-1-0], [26:0-1-8,0-1-0],

Plate Offsets (X, Y): [27:0-2-0,0-0-7], [36:0-1-6,0-1-0], [43:0-1-4,0-1-0]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.98 | Vert(LL) | -0.51 | 18-20 | >967 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.72 | Vert(CT) | -0.86 | 18-20 | >565 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.99 | Horz(CT) | 0.12 | 15 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.22 | 20-21 | >999 | 240 | Weight: 217 lb | FT = 10% |

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 5-7:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
22-23,23-24,24-25,25-26,26-27:2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE Left: 2x3 SPF No.2
Right: 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-18

REACTIONS All bearings 7-7-8. except 2=0-3-8
(lb) - Max Horiz 2=163 (LC 8)
Max Uplift All uplift 100 (lb) or less at joint(s)
13 except 2=324 (LC 4), 11=348 (LC 23), 14=147 (LC 2), 15=311 (LC 4)
Max Grav All reactions 250 (lb) or less at joint (s) 11, 13, 14 except 2=1880 (LC 2), 15=2889 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=4417/738, 3-4=4209/624, 4-5=3315/500, 5-6=3235/525, 6-7=1893/341, 7-8=1949/351, 8-9=1396/225, 9-10=1555/223, 10-11=196/1234
BOT CHORD 2-21=776/4095, 20-21=597/3670, 20-46=326/2524, 19-46=326/2524, 19-47=326/2524, 18-47=326/2524, 17-18=55/1359, 16-17=55/1359, 15-16=1037/206, 14-15=1037/206, 13-14=1037/206, 11-13=1037/206

WEBS 3-21=289/206, 4-21=0/453, 4-20=870/296, 6-20=101/1067, 6-18=1236/353, 7-18=121/976, 8-18=77/598, 8-16=921/199, 10-16=287/2632, 10-15=2565/383

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 2=324, 15=310, 11=347, 14=147.
- 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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



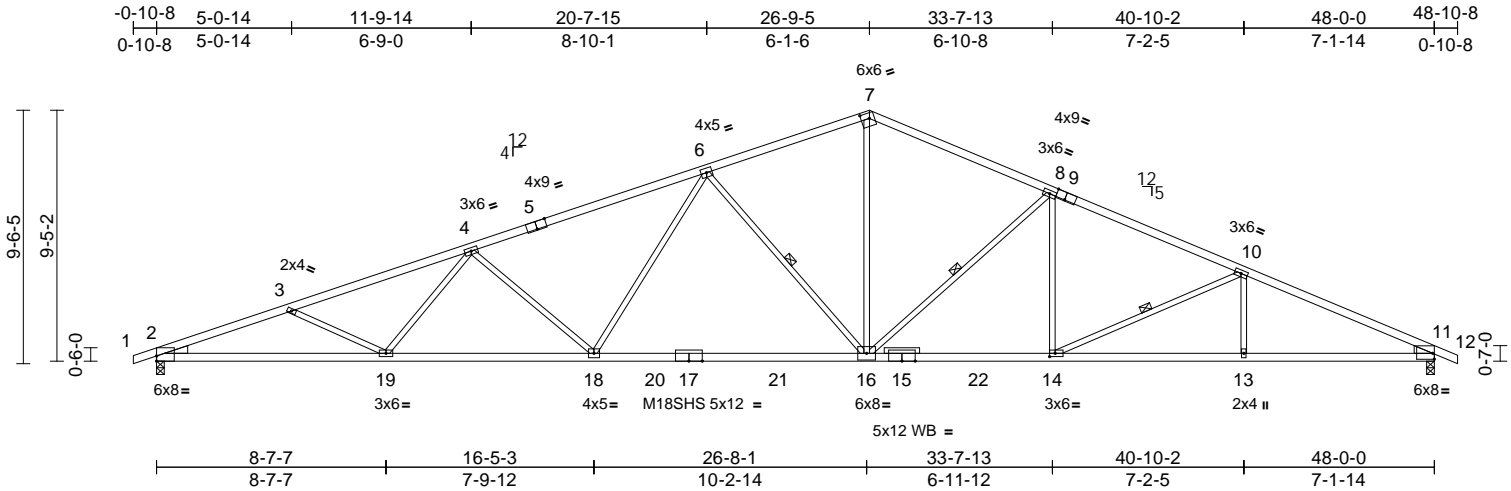
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A4 | Roof Special | 4 | 1 | Job Reference (optional) | I47787253 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:51
ID:ecYqRXa94vnWE0U4qPcprVz6Qqv-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:86.6

Plate Offsets (X, Y): [2:Edge,0-2-5], [5:0-4-8,Edge], [7:0-3-12,0-2-8], [9:0-4-4,Edge], [11:Edge,0-2-10], [14:0-2-8,0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.95 | Vert(LL) | -0.68 | 16-18 | >840 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.92 | Vert(CT) | -1.17 | 16-18 | >489 | 240 | M18SHS | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.98 | Horz(CT) | 0.26 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.30 | 18 | >999 | 240 | Weight: 173 lb | FT = 10% |

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2
WEDGE Left: 2x4 SP No.3
Right: 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-4-4 oc bracing.

WEBS 1 Row at midpt 6-16, 8-16, 10-14

REACTIONS (lb/size) 2=2218/0-3-8, (req. 0-3-10), 11=2218/0-3-8, (req. 0-3-10)
Max Horiz 2=163 (LC 8)
Max Uplift 2=-368 (LC 4), 11=-278 (LC 9)
Max Grav 2=2318 (LC 2), 11=2324 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-5618/858, 3-4=-5477/754, 4-6=-4640/660, 6-7=-3241/478, 7-8=-3324/490, 8-10=-4088/477, 10-11=-4797/510, 11-12=0/6

BOT CHORD 2-19=-878/5214, 18-19=-723/4908, 16-18=-453/3790, 14-16=-294/3701, 13-14=-381/4282, 11-13=-381/4282

WEBS 6-16=-1218/351, 7-16=-217/1929, 8-16=-974/284, 8-14=-8/521, 10-14=-677/205, 10-13=0/315, 3-19=-223/194, 4-19=0/410, 4-18=-858/296, 6-18=-102/1051

NOTES

- 1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) WARNING: Required bearing size at joint(s) 2, 11 greater than input bearing size.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 368 lb uplift at joint 2 and 278 lb uplift at joint 11.
- 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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

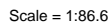
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:52 Page: 1
ID:m6qk9 kJ0uQal? a5eLtfZ6Qai-RfC?PsB70Hg3NSaPanL8w3uITXBGKWRCDoi7J4zJC?f



| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|----------------|-------|-----------------|-----------------|------------|------|-------------|-------|-------|--------|-----|----------------|-------------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.95 | Vert(LL) | -0.67 | 20 | >849 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.82 | Vert(CT) | -1.21 | 18-19 | >472 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.97 | Horz(CT) | 0.53 | 12 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.48 | 20 | >999 | 240 | Weight: 202 lb | FT = 10% |

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
II; Exp C; Enclosed; MWFRS (envelope) exterior zone:
cantilever left and right exposed ; end vertical left and
right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3'-06-00 tall by 2'-00-00 wide will fit between the bottom
chord and any other members.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 368 lb uplift at
joint 2 and 278 lb uplift at joint 12.
- 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.

NOTES

1) Unbalanced roof live loads have been considered for this design.



September 7, 2021



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MH-7473 (REV. 3/19/2020) BEFORE USE.

Design valid for use only with MiTEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personnel injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Code**

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

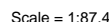
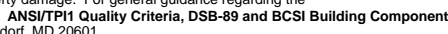
Page: 1

Plate Offsets (X, Y): [2:Edge.0-2-5], [5:0-4-8.Edge], [7:0-3-12.0-2-8], [8:0-4-7.Edge], [13:0-8-8.0-2-8], [15:0-2-8.0-1-8], [16:0-2-8.0-1-8]

September 7, 2021



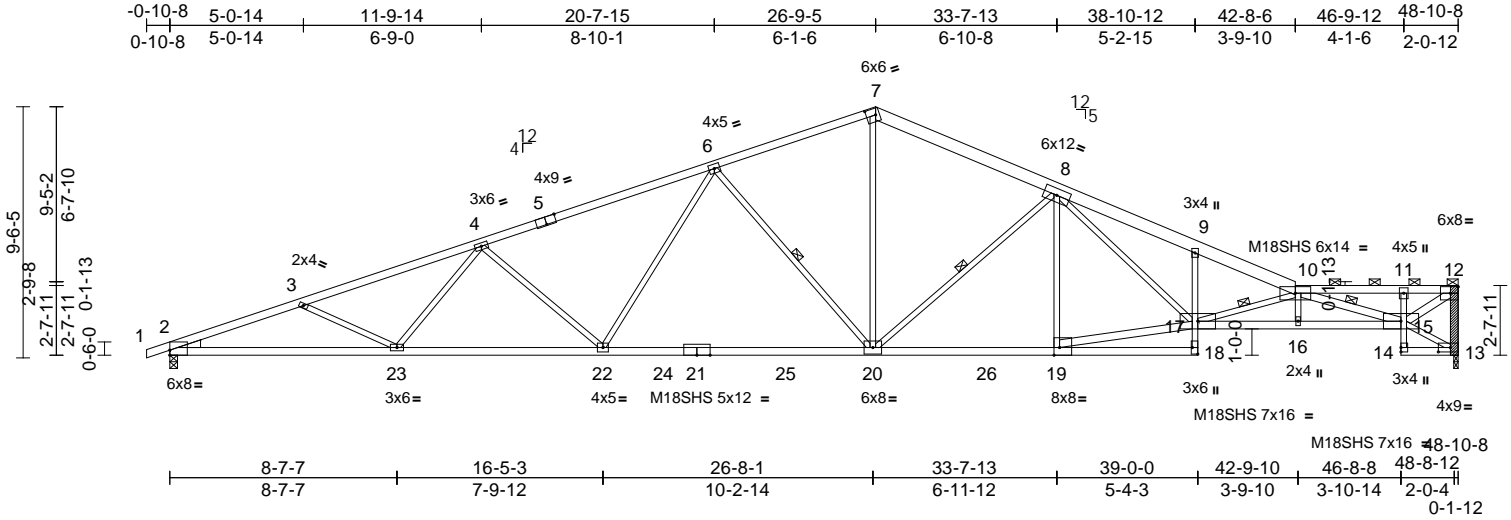
| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A7 | Roof Special | 2 | 1 | Job Reference (optional) | I47787256 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:54

Page: 1

ID:YkQT6ze_7F_tPhoBYbjhyGz6QpW-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRcDoi7J4zJC?f



Scale = 1:87.4

APPLY 2 X 4 SPF/DF/SP NO.2 SCAB TO ONE FACE OF TRUSS AS SHOWN. ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 3'S - 1 ROW, 2 X 4'S - 2 ROWS, 2 X 6'S AND LARGER - 3 ROWS: SPACED @ 2" O.C. USE 2" MEMBER END DISTANCE.

Plate Offsets (X, Y): [2:Edge,0-2-5], [5:0-4-8,Edge], [7:0-4-4,0-3-0], [13:0-5-8,0-2-0], [18:Edge,0-2-8], [19:0-2-8,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.89 | Vert(LL) | -0.84 | 20-22 | >692 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.92 | Vert(CT) | -1.45 | 20-22 | >403 | 240 | M18SHS | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.98 | Horz(CT) | 0.46 | 13 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.39 | 20-22 | >999 | 240 | Weight: 208 lb | FT = 10% |

| | |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LUMBER | |
| TOP CHORD | 2x4 SPF 2100F 1.8E *Except* 7-10:2x6 SPF No.2, 10-12:2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF 2100F 1.8E *Except* 18-9,11-14:2x3 SPF No.2, 17-15:2x4 SPF 2400F 2.0E, 14-13:2x4 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 12-13,19-17,15-10,15-12:2x4 SPF No.2 |
| LBR SCAB | 12-13 SPF No.2 one side |
| WEDGE | Left: 2x4 SP No.3 |
| BRACING | |
| TOP CHORD | Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-7-15 max.): 10-12. |
| BOT CHORD | Rigid ceiling directly applied or 2-2-0 oc bracing. |
| WEBS | 1 Row at midpt 6-20, 8-20, 10-17, 10-15 |
| REACTIONS (lb/size) | |
| | 2=2258/0-3-8, (req. 0-3-11), 13=2185/(0-2-0 + bearing block), (req.0-3-10) |
| | Max Horiz 2=171 (LC 12) |
| | Max Uplift 2=-370 (LC 4), 13=-268 (LC 9) |
| | Max Grav 2=2359 (LC 2), 13=2303 (LC 2) |
| FORCES (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=0/6, 2-3=-5732/863, 3-4=-5596/759, 4-6=-4765/666, 6-7=-3376/483, 7-8=-3478/496, 8-9=-6533/764, 9-10=-6606/691, 10-11=-3314/387, 11-12=-3166/369, 12-13=-2251/281 |

| | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BOT CHORD | |
| | 2-23=-897/5320, 22-23=-743/5024, 20-22=-473/3910, 19-20=-343/3974, 18-19=-15/224, 17-18=0/99, 9-17=-221/137, 16-17=-953/8651, 15-16=-948/8654, 14-15=0/32, 11-15=-322/115, 13-14=-10/35 |
| WEBS | |
| | 3-23=-218/194, 4-23=0/406, 4-22=-857/296, 6-22=-102/1050, 6-20=-1195/347, 7-20=-220/2028, 8-20=-1133/297, 8-19=-573/133, 17-19=-334/3818, 8-17=-395/2858, 10-17=-2756/344, 10-15=-5630/557, 13-15=-39/34, 12-15=-470/3853, 10-16=-32/101 |

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 2, 13 greater than input bearing size.
- Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 370 lb uplift at joint 2 and 268 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



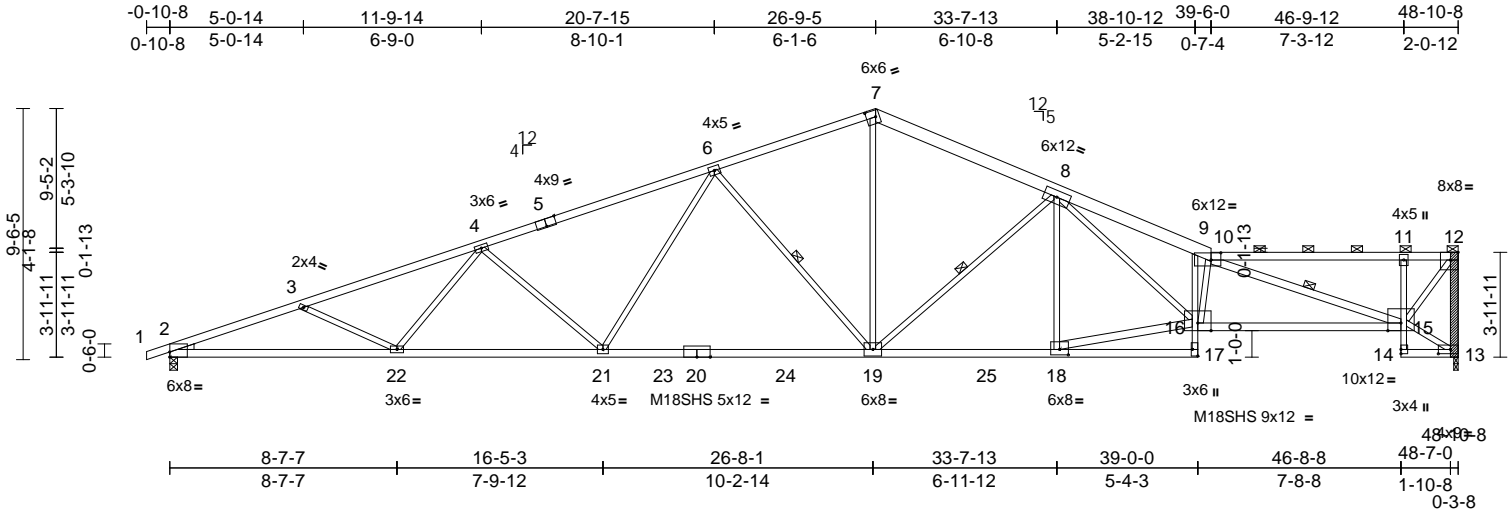
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A8 | Roof Special | 2 | 1 | Job Reference (optional) | I47787257 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Aug 16 2021 Print: 8.430 E Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 11:33:38
ID:cuL2qv13a40LFcEKQJHBF0z6Qp0-k4rXzNrHm8C5b?ToGRgtVUrKRmsoY4r9pqxLDyg1cR

Page: 1



Scale = 1:87.4

APPLY 2 X 4 SPF/DF/SP NO.2 SCAB TO ONE FACE OF TRUSS AS SHOWN. ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 x 3'S - 1 ROW, 2 x 4'S - 2 ROWS, 2 x 6'S AND LARGER - 3 ROWS: SPACED @ 2" O.C. USE 2" MEMBER END DISTANCE.

Plate Offsets (X, Y): [2:Edge,0-2-5], [5:0-4-8,Edge], [7:0-4-4,0-3-0], [10:0-4-8,0-3-4], [12:0-3-8,Edge], [13:0-5-8,0-2-0], [17:Edge,0-2-8], [18:0-4-0,0-2-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.89 | Vert(LL) | -0.79 | 19-21 | >742 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.94 | Vert(CT) | -1.35 | 19-21 | >432 | 240 | M18SHS | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.99 | Horz(CT) | 0.39 | 13 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.35 | 19-21 | >999 | 240 | Weight: 211 lb | FT = 10% |

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 7-10:2x6 SPF No.2, 10-12:2x4 SPF No.2

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 17-9,11-14:2x3 SPF No.2, 14-13:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 12-13,18-16:2x4 SPF No.2, 15-10:2x4 SPF 2100F 1.8E

LBR SCAB 13-12 SPF No.2 one side

WEDGE Left: 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-1-9 max.): 10-12.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 6-19, 8-19, 10-15

REACTIONS (lb/size) 2=2258/0-3-8, (req. 0-3-11), 13=2185/(0-2-0 + bearing block), (req.0-3-10)

Max Horiz 2=175 (LC 8)
Max Uplift 2=-368 (LC 4), 13=-272 (LC 9)
Max Grav 2=2359 (LC 2), 13=2303 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-5732/857, 3-4=-5596/752, 4-5=-4765/628, 5-6=-4684/659, 6-7=-3376/476, 7-8=-3478/489, 8-9=-6564/718, 9-10=-6856/706, 10-11=-1738/203, 11-12=-1677/197, 12-13=-2280/274

BOT CHORD 2-22=-898/5320, 21-22=-743/5024, 21-23=-473/3910, 20-23=-473/3910, 20-24=-473/3910, 19-24=-473/3910, 19-25=-391/3973, 18-25=-391/3973, 9-16=-47/503, 15-16=-721/6451, 11-15=-501/211
WEBS 4-22=0/406, 4-21=-857/296, 6-21=-102/1050, 6-19=-1194/347, 7-19=-214/2026, 8-19=-1131/281, 8-18=-573/138, 16-18=-352/3851, 8-16=-371/2895, 10-16=-1640/298, 10-15=-5020/496, 12-15=-386/2874

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 2, 13 greater than input bearing size.
- Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 368 lb uplift at joint 2 and 272 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

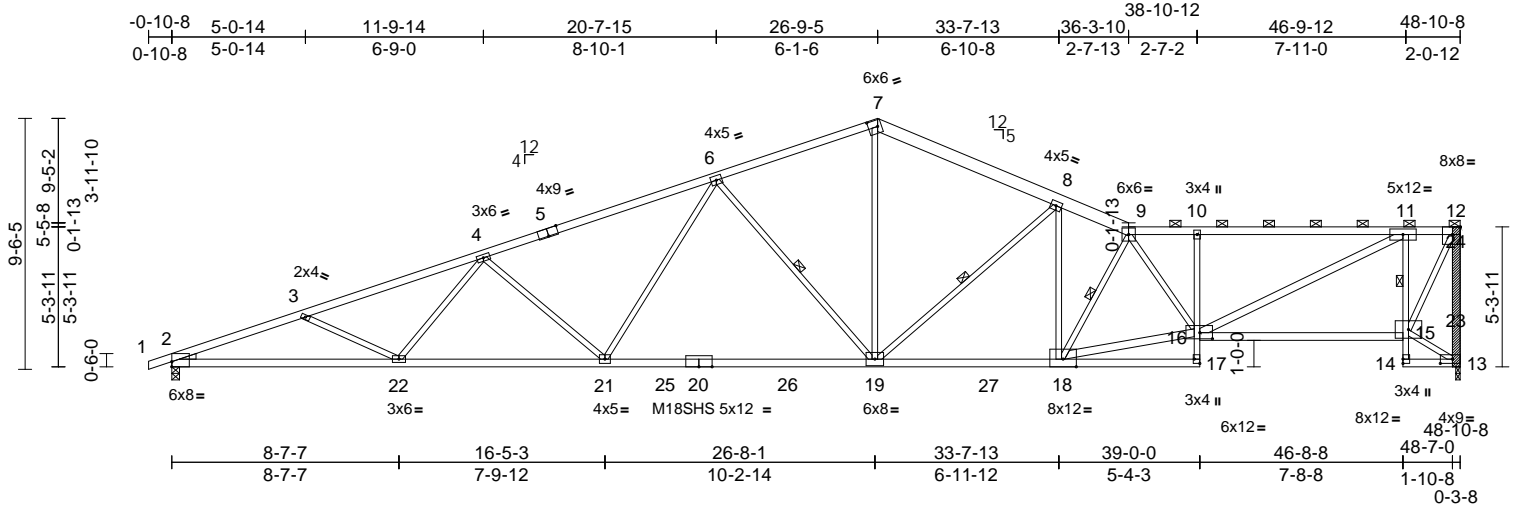
| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A9 | Roof Special | 2 | 1 | Job Reference (optional) | I47787258 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Aug 16 2021 Print: 8.430 E Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 11:34:25

Page: 1

ID:Y42cy1gl6Miq6loW1ykdvCz6QoB-s7AlqRQmia7RkDZrXp0uuOHMZivU3L34cep0UOygtbi



Scale = 1:87.4

Plate Offsets (X, Y): [2:Edge,0-2-5], [5:0-4-8,Edge], [7:0-4-4,0-3-0], [12:0-3-8,Edge], [13:0-5-8,0-2-0], [16:0-5-12,0-2-12], [17:Edge,0-2-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|-------------------------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.90 | Vert(LL) | -0.72 | 19-21 | >813 | 360 | MT20 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.84 | Vert(CT) | -1.23 | 19-21 | >474 | 240 | M18SHS 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.96 | Horz(CT) | 0.30 | 13 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.32 | 19-21 | >999 | 240 | Weight: 215 lb FT = 10% |

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 7-9:2x6 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 17-10,11-14:2x3 SPF No.2, 16-15,14-13:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-13,16-11:2x4 SPF No.2, 18-16:2x4 SPF 2100F 1.8E
LBR SCAB 13-12 SPF No.2 one side
WEDGE Left: 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-11-8 max.): 9-12.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 11-15
WEBS 1 Row at midpt 6-19, 8-19, 9-18

REACTIONS (lb/size) 2=2258/0-3-8, (req. 0-3-11), 13=2185/(0-2-0 + bearing block), (req.0-3-10)
Max Horiz 2=219 (LC 7)
Max Uplift 2=-364 (LC 4), 13=-279 (LC 9)
Max Grav 2=2360 (LC 2), 13=2304 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5734/847, 3-4=-5599/742, 4-5=-4766/618, 5-6=-4685/648, 6-7=-3379/465, 7-8=-3480/478, 8-9=-4319/461, 9-10=-4571/473, 10-11=-4595/474, 11-12=-1183/131, 13-23=-2286/288, 23-24=-2286/288, 12-24=-2286/288
BOT CHORD 2-22=-897/5322, 21-22=-741/5026, 21-25=-470/3912, 20-25=-470/3912, 20-26=-470/3912, 19-26=-470/3912, 19-27=-428/3967, 18-27=-428/3967, 10-16=-528/208, 15-16=-206/1221, 11-15=-2105/387

WEBS 4-22=-0/407, 4-21=-857/296, 6-21=-102/1048, 6-19=-1193/347, 7-19=-206/2024, 8-19=-1119/258, 8-18=-3/721, 9-18=-1580/186, 16-18=-476/4692, 9-16=-298/90, 11-16=-381/3788, 12-15=-371/2613

- NOTES**
- Attached 5-3-11 scab 12 to 13, front face(s) 2x4 SPF No.2 with 1 row(s) of 10d (0.131"x3") nails spaced 9" o.c..
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - WARNING: Required bearing size at joint(s) 2, 13 greater than input bearing size.
 - Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 364 lb uplift at joint 2 and 279 lb uplift at joint 13.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



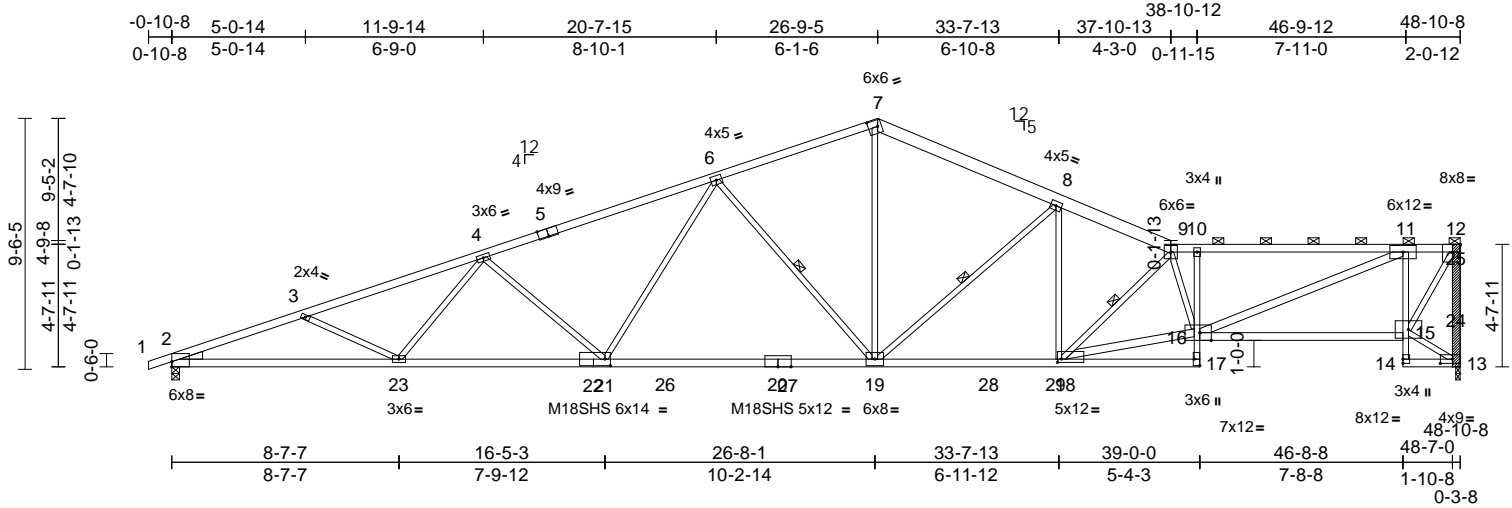
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A10 | Roof Special | 2 | 1 | Job Reference (optional) | I47787259 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:55
ID:5QY4tJ4?KV8ZppsTNqMk9z6Qng-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:87.4

Plate Offsets (X, Y): [2:Edge,0-2-5], [5:0-4-8,Edge], [7:0-4-4,0-3-0], [12:0-3-8,Edge], [13:0-5-8,0-2-0], [16:0-5-4,Edge], [17:Edge,0-2-8], [18:0-1-14,0-1-8], [22:0-2-8,0-3-0]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.90 | Vert(LL) | -0.74 | 19-21 | >791 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.85 | Vert(CT) | -1.26 | 19-21 | >461 | 240 | M18SHS | 197/144 |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.96 | Horz(CT) | 0.32 | 13 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.33 | 19-21 | >999 | 240 | Weight: 213 lb | FT = 10% |

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 7-9:2x6 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 17-10,11-14:2x3 SPF No.2, 16-15,14-13:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-13:2x4 SPF No.2, 18-16,16-11:2x4 SPF 2100F 1.8E
LBR SCAB 13-12 SPF No.2 one side
WEDGE Left: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-5-6 max.): 9-12.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-19, 8-19, 9-18
REACTIONS (lb/size) 2=2258/0-3-8, (req. 0-3-11), 13=2185/(0-2-0 + bearing block), (req.0-3-10)
Max Horiz 2=188 (LC 5)
Max Uplift 2=366 (LC 4), 13=275 (LC 9)
Max Grav 2=2359 (LC 2), 13=2302 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=5731/852, 3-4=5595/747, 4-6=4763/654, 6-7=3376/471, 7-8=3476/483, 8-9=4343/470, 9-10=5466/571, 10-11=5496/570, 11-12=1431/166, 12-13=2282/283
BOT CHORD 2-23=898/5319, 21-23=743/5023, 19-21=472/3909, 18-19=411/3959, 17-18=47/142, 16-17=0/91, 10-16=740/273, 15-16=232/1481, 14-15=0/24, 11-15=2095/379, 13-14=64/0

WEBS
3-23=218/194, 4-23=0/407, 4-21=857/296, 6-21=102/1048, 6-19=1193/347, 7-19=210/2021, 8-19=1113/271, 8-18=11/702, 9-18=2105/263, 16-18=552/5392, 9-16=156/358, 11-16=434/4365, 13-15=24/87, 12-15=379/2730

- NOTES**
- Attached 4-7-11 scab 12 to 13, front face(s) 2x4 SPF No.2 with 1 row(s) of 10d (0.131"x3") nails spaced 9" o.c..
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - WARNING: Required bearing size at joint(s) 2, 13 greater than input bearing size.
 - Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 366 lb uplift at joint 2 and 275 lb uplift at joint 13.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

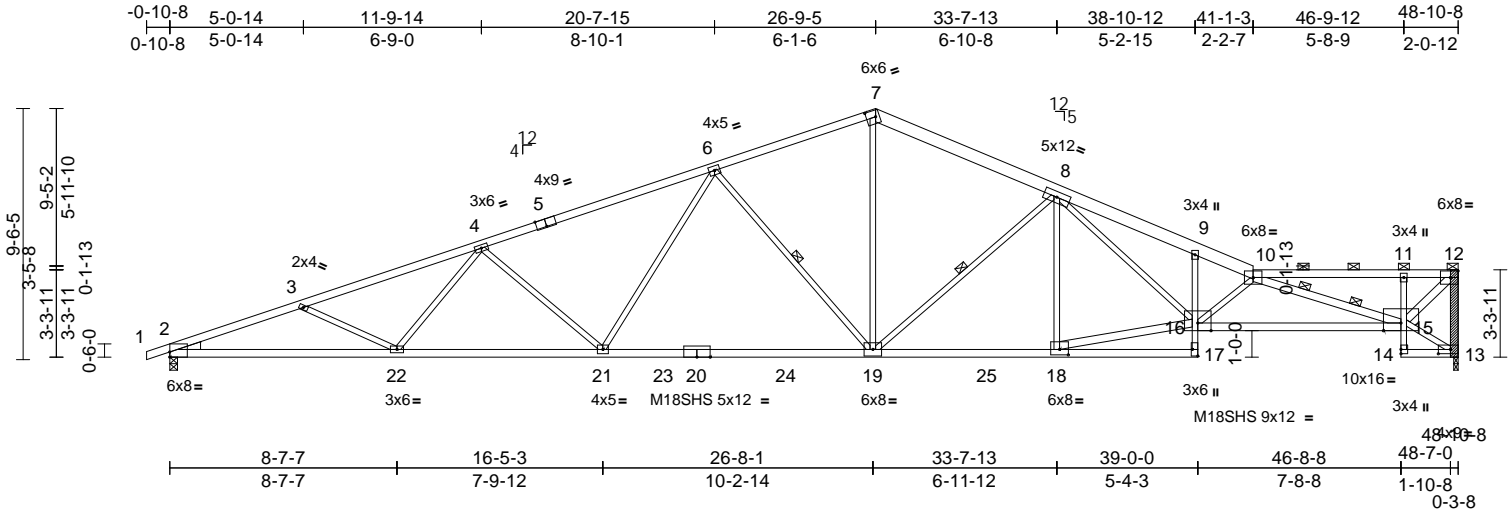
| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A11 | Roof Special | 2 | 1 | Job Reference (optional) | I47787260 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:56

Page: 1

ID:5zbX0xUKKy8Je2PPSWRK7Kz6Qn8-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?r



Scale = 1:87.4



APPLY 2 X 4 SPF/DF/SP NO.2 SCAB TO ONE FACE OF TRUSS
AS SHOWN. ATTACH WITH (0.131" X 3") NAILS PER
THE FOLLOWING NAIL SCHEDULE: 2 x 3'S - 1 ROW, 2 x 4'S - 2 ROWS.
2 x 6'S AND LARGER - 3 ROWS: SPACED @ 2" O.C. USE 2" MEMBER END DISTANCE.

Plate Offsets (X, Y): [2:Edge,0-2-5], [5:0-4-8,Edge], [7:0-4-4,0-3-0], [13:0-5-8,0-2-0], [17:Edge,0-2-8], [18:0-4-0,0-2-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.90 | Vert(LL) | -0.80 | 19-21 | >727 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.86 | Vert(CT) | -1.38 | 19-21 | >423 | 240 | M18SHS | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.97 | Horz(CT) | 0.40 | 13 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.36 | 19-21 | >999 | 240 | Weight: 209 lb | FT = 10% |

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 7-10:2x6 SPF No.2, 10-12:2x4 SPF No.2

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 17-9,11-14:2x3 SPF No.2, 16-15:2x4 SPF 2400F 2.0E, 14-13:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 12-13,18-16,15-10,15-12:2x4 SPF No.2

LBR SCAB 12-13 SPF No.2 one side
WEDGE Left: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-14 max.): 10-12.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

WEBS 1 Row at midpt 6-19, 8-19

WEBS 2 Rows at 1/3 pts 10-15

REACTIONS (lb/size) 2=2258/0-3-8, (req. 0-3-11), 13=2185/(0-2-0 + bearing block), (req.0-3-10)

Max Horiz 2=173 (LC 8)

Max Uplift 2=-369 (LC 4), 13=-270 (LC 9)

Max Grav 2=2359 (LC 2), 13=2303 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-5732/860, 3-4=-5596/756, 4-6=-4765/663, 6-7=-3376/480, 7-8=-3479/493, 8-9=-6505/730, 9-10=-6612/672, 10-11=-2269/255, 11-12=-2187/250, 12-13=-2278/273

BOT CHORD 2-22=-898/5320, 21-22=-743/5024, 19-21=-473/3910, 18-19=-369/3977, 17-18=-45/207, 16-17=0/98, 9-16=-56/86, 15-16=-831/7191, 14-15=0/27, 11-15=-402/161, 13-14=-61/0
WEBS 3-22=-218/194, 4-22=0/406, 4-21=-857/296, 6-21=-102/1050, 6-19=-1195/347, 7-19=-218/2031, 8-19=-1137/291, 8-18=-573/134, 16-18=-330/3847, 8-16=-369/2828, 10-16=-1569/273, 10-15=-5227/567, 13-15=-8/77, 12-15=-395/3162

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 2, 13 greater than input bearing size.
- Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 369 lb uplift at joint 2 and 270 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



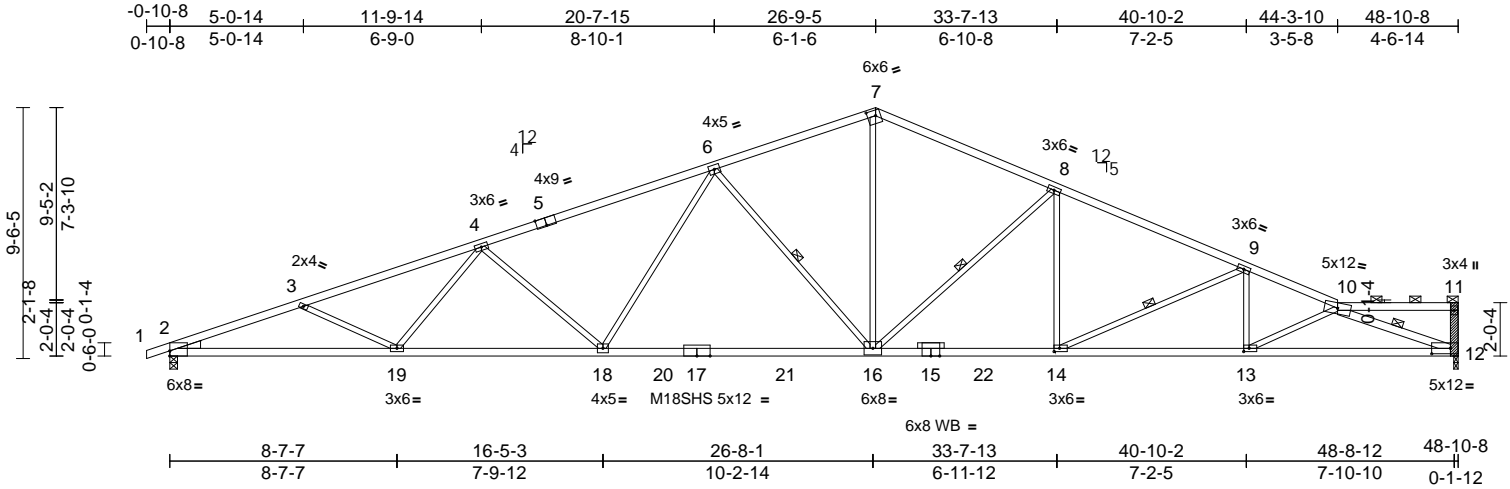
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A12 | Roof Special | 2 | 1 | Job Reference (optional) | I47787261 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:56
ID:nMMAkoxz07ZFqdnrbi9s3qz6QqR-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:87.4



APPLY 2 X 4 SPF/DF/SP NO.2 SCAB TO ONE FACE OF TRUSS
AS SHOWN. ATTACH WITH (0.131" X 3") NAILS PER
THE FOLLOWING NAIL SCHEDULE: 2 X 3'S - 1 ROW, 2 X 4'S - 2 ROWS,
2 X 6'S AND LARGER - 3 ROWS: SPACED @ 2" O.C. USE 2" MEMBER END DISTANCE.

Plate Offsets (X, Y): [2:Edge,0-2-5], [5:0-4-8,Edge], [7:0-3-12,0-2-8], [12:0-8-8,0-2-8], [13:0-2-8,0-1-8], [14:0-2-8,0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.90 | Vert(LL) | -0.74 | 16-18 | >792 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.84 | Vert(CT) | -1.26 | 16-18 | >461 | 240 | M18SHS | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.98 | Horz(CT) | 0.29 | 12 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.33 | 16-18 | >999 | 240 | Weight: 184 lb | FT = 10% |

| | | | |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LUMBER | | WEBS | 3-19=-218/194, 4-19=0/406, 4-18=-856/296, 6-18=-102/1050, 6-16=-1217/351, 7-16=-224/2025, 10-13=-439/132, 10-12=-5409/642, 8-16=-1103/300, 8-14=-11/629, 9-13=0/457, 9-14=-930/199 |
| TOP CHORD | 2x4 SPF 2100F 1.8E *Except* 10-11:2x4 SPF No.2 | | |
| BOT CHORD | 2x4 SPF 2100F 1.8E | | |
| WEBS | 2x3 SPF No.2 *Except* 11-12,12-10:2x4 SPF No.2 | | |
| OTHERS | 2x3 SPF No.2 | | |
| LBR SCAB | 12-11 SPF No.2 one side | | |
| WEDGE | Left: 2x4 SP No.3 | | |
| BRACING | | | |
| TOP CHORD | Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 10-11. | | |
| BOT CHORD | Rigid ceiling directly applied or 8-3-4 oc bracing. | | |
| WEBS | 1 Row at midpt 6-16, 10-12, 8-16, 9-14 | | |
| REACTIONS (lb/size) | | | |
| | 2=2258/0-3-8, (req. 0-3-11), 13=2185/(0-2-0 + bearing block), (req.0-3-10) | | |
| | Max Horiz 2=170 (LC 8) | | |
| | Max Uplift 2=-371 (LC 4), 12=-266 (LC 9) | | |
| | Max Grav 2=2360 (LC 2), 12=2304 (LC 2) | | |
| FORCES (lb) - Maximum Compression/Maximum Tension | | | |
| TOP CHORD | 1-2=0/6, 2-3=-5734/865, 3-4=-5598/761, 4-6=-4767/668, 6-7=-3370/485, 7-8=-3457/498, 8-9=-4331/492, 9-10=-5210/544, 10-11=-119/13, 11-12=-184/67 | | |
| BOT CHORD | 2-19=-896/5322, 18-19=-742/5027, 16-18=-472/3912, 14-16=-321/3930, 13-14=-495/4777, 12-13=-612/5137 | | |

WEBS 3-19=-218/194, 4-19=0/406, 4-18=-856/296, 6-18=-102/1050, 6-16=-1217/351, 7-16=-224/2025, 10-13=-439/132, 10-12=-5409/642, 8-16=-1103/300, 8-14=-11/629, 9-13=0/457, 9-14=-930/199

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 2, 12 greater than input bearing size.
- Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 371 lb uplift at joint 2 and 266 lb uplift at joint 12.
- 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

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



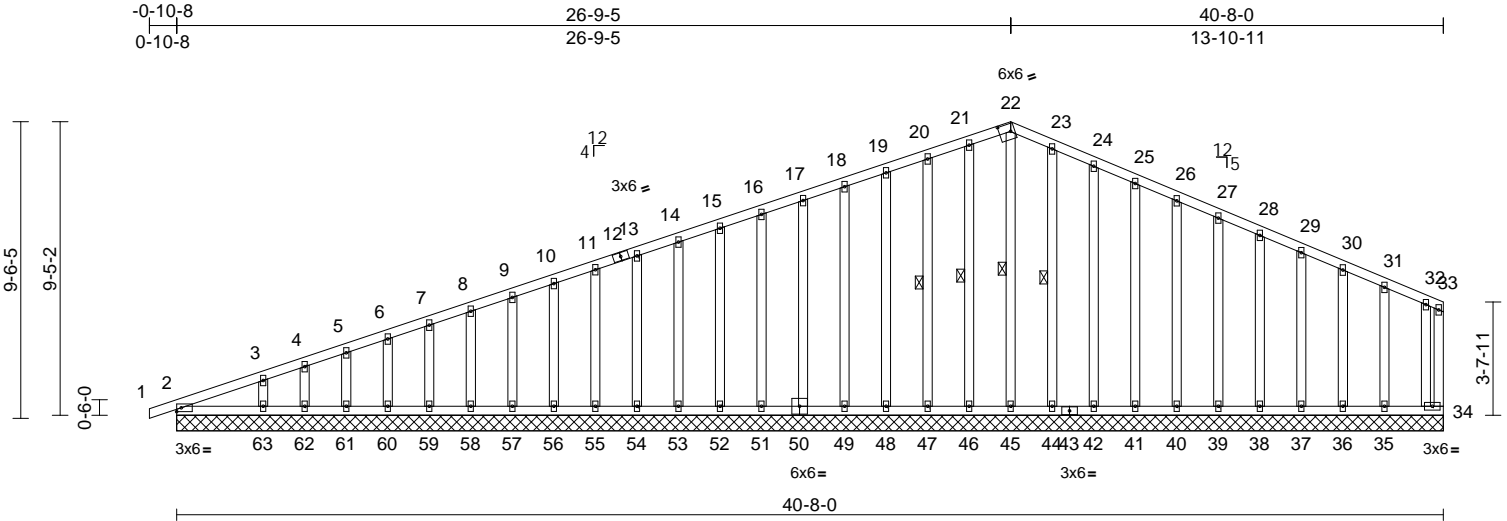
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|------------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | I47787262 |
| Lot 11 OS | A13 | Roof Special Supported Gable | 2 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:56
ID:5nBDjN6JdZ4GtpCxxslh4z6QmL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:74

Plate Offsets (X, Y): [22:0-4-7,0-3-0]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|-----|--------|---------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | n/a | - | n/a | 999 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.11 | Horz(CT) | 0.00 | 34 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | |
| Weight: 273 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.

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

WEBS 1 Row at midpt 22-45, 21-46, 20-47, 23-44

REACTIONS (lb/size) 2=177/40-8-0, 34=86/40-8-0, 35=131/40-8-0, 36=118/40-8-0, 37=120/40-8-0, 38=120/40-8-0, 39=120/40-8-0, 40=120/40-8-0, 41=120/40-8-0, 42=120/40-8-0, 44=123/40-8-0, 45=111/40-8-0, 46=123/40-8-0, 47=120/40-8-0, 48=119/40-8-0, 49=122/40-8-0, 50=120/40-8-0, 51=118/40-8-0, 52=120/40-8-0, 53=120/40-8-0, 54=120/40-8-0, 55=120/40-8-0, 56=120/40-8-0, 57=120/40-8-0, 58=120/40-8-0, 59=120/40-8-0, 60=118/40-8-0, 61=131/40-8-0, 62=73/40-8-0, 63=234/40-8-0

Max Horiz 2=175 (LC 8)

Max Uplift 2=7 (LC 9), 34=14 (LC 4), 35=50 (LC 9), 36=29 (LC 9), 37=32 (LC 9), 38=32 (LC 9), 39=32 (LC 9), 40=32 (LC 9), 41=32 (LC 9), 42=38 (LC 9), 44=16 (LC 9), 46=16 (LC 8), 47=34 (LC 4), 48=29 (LC 4), 49=28 (LC 8), 50=28 (LC 4), 51=30 (LC 8), 52=28 (LC 4), 53=29 (LC 8), 54=28 (LC 8), 55=28 (LC 4), 56=28 (LC 4), 57=28 (LC 8), 58=28 (LC 4), 59=28 (LC 8), 60=28 (LC 4), 61=30 (LC 8), 62=21 (LC 4), 63=69 (LC 8)

Max Grav 2=177 (LC 1), 34=86 (LC 1), 35=131 (LC 22), 36=118 (LC 1), 37=120 (LC 22), 38=120 (LC 1), 39=120 (LC 22), 40=120 (LC 1), 41=120 (LC 1), 42=121 (LC 22), 44=123 (LC 22), 45=132 (LC 18), 46=123 (LC 21), 47=121 (LC 21), 48=119 (LC 1), 49=122 (LC 21), 50=120 (LC 1), 51=118 (LC 21), 52=120 (LC 1), 53=120 (LC 21), 54=120 (LC 21), 55=120 (LC 1), 56=120 (LC 1), 57=120 (LC 1), 58=120 (LC 1), 59=120 (LC 1), 60=118 (LC 21), 61=131 (LC 1), 62=73 (LC 21), 63=234 (LC 21)

TOP CHORD 1-2=0/6, 2-3=206/48, 3-4=160/37, 4-5=146/43, 5-6=132/52, 6-7=118/62, 7-8=105/73, 8-9=91/84, 9-10=78/95, 10-11=64/106, 11-13=50/117, 13-14=49/128, 14-15=49/138, 15-16=49/149, 16-17=48/160, 17-18=49/171, 18-19=49/182, 19-20=49/193, 20-21=49/205, 21-22=48/211, 22-23=49/211, 23-24=48/191, 24-25=46/167, 25-26=44/151, 26-27=42/134, 27-28=40/118, 28-29=38/102, 29-30=36/86, 30-31=41/69, 31-32=51/53, 32-33=58/49, 33-34=34/39

FORCES

(lb) - Maximum Compression/Maximum Tension



September 7, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | |
|--------------------------|-------|------------------------------|-----|-----|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS |
| Lot 11 OS | A13 | Roof Special Supported Gable | 2 | 1 | I47787262 |
| Job Reference (optional) | | | | | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:56

Page: 2

ID:5nBDjN6JdZ4GtpCxxslh4z6QmL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

BOT CHORD 2-63=-49/40, 62-63=-49/40, 61-62=-49/40, 60-61=-49/40, 59-60=-49/40, 58-59=-49/40, 57-58=-49/40, 56-57=-49/40, 55-56=-49/40, 54-55=-49/40, 53-54=-49/40, 52-53=-49/40, 51-52=-49/40, 49-51=-49/40, 48-49=-49/39, 47-48=-49/39, 46-47=-49/39, 45-46=-49/39, 44-45=-49/39, 42-44=-49/39, 41-42=-49/39, 40-41=-49/39, 39-40=-49/39, 38-39=-49/39, 37-38=-49/39, 36-37=-49/39, 35-36=-49/39, 34-35=-49/39

WEBS 22-45=-105/11, 21-46=-97/32, 20-47=-94/50, 19-48=-93/44, 18-49=-93/45, 17-50=-94/44, 16-51=-93/45, 15-52=-93/44, 14-53=-93/44, 13-54=-93/44, 11-55=-93/44, 10-56=-93/44, 9-57=-93/44, 8-58=-93/44, 7-59=-94/45, 6-60=-92/44, 5-61=-100/47, 4-62=-62/31, 3-63=-173/96, 23-44=-97/32, 24-42=-94/54, 25-41=-93/48, 26-40=-93/48, 27-39=-93/48, 28-38=-93/48, 29-37=-93/48, 30-36=-93/43, 31-35=-99/72, 32-34=-64/11

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 34, 16 lb uplift at joint 46, 34 lb uplift at joint 47, 29 lb uplift at joint 48, 28 lb uplift at joint 49, 28 lb uplift at joint 50, 30 lb uplift at joint 51, 28 lb uplift at joint 52, 29 lb uplift at joint 53, 28 lb uplift at joint 54, 28 lb uplift at joint 55, 28 lb uplift at joint 56, 28 lb uplift at joint 57, 28 lb uplift at joint 58, 28 lb uplift at joint 59, 28 lb uplift at joint 60, 30 lb uplift at joint 61, 21 lb uplift at joint 62, 69 lb uplift at joint 63, 16 lb uplift at joint 44, 38 lb uplift at joint 42, 32 lb uplift at joint 41, 32 lb uplift at joint 40, 32 lb uplift at joint 39, 32 lb uplift at joint 38, 32 lb uplift at joint 37, 29 lb uplift at joint 36, 50 lb uplift at joint 35 and 7 lb uplift at joint 2.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



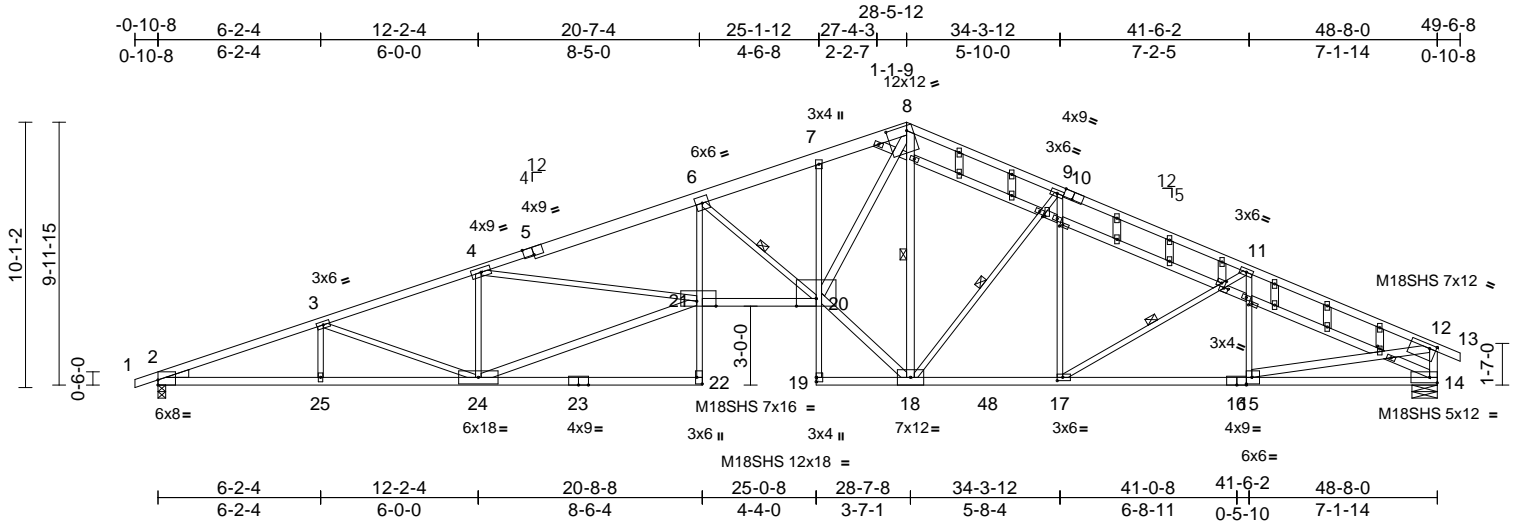
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|-------------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A14 | Roof Special Structural Gable | 2 | 1 | Job Reference (optional) | I47787263 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:57
ID:5MefbDtFQ51Jwy4rpPBxYhrrh-RfC?PsB70Hq3NSgPqnL8w3uITxbGKwRCD0i7J4zJC7f

Page: 1



Scale = 1:87.6

[2:Edge,0-2-5], [5:0-4-8,Edge], [8:0-9-4,0-2-4], [10:0-4-5,Edge], [12:0-3-0,0-1-12], [15:0-2-8,0-3-0], [16:0-4-6,Edge], [17:0-2-8,0-1-8], [21:0-8-12,Edge],

Plate Offsets (X, Y): [22:Edge,0-2-8], [29:0-0-3,0-1-2], [30:0-1-4,0-1-0], [31:0-2-0,0-0-4], [31:0-1-12,0-1-8], [32:0-1-4,0-1-0], [33:0-1-4,0-1-0]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.88 | Vert(LL) | -0.75 | 22-24 | >770 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.99 | Vert(CT) | -1.37 | 22-24 | >424 | 240 | M18SHS | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.93 | Horz(CT) | 0.53 | 14 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.50 | 22 | >999 | 240 | Weight: 260 lb | FT = 10% |

| | | |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| LUMBER | | |
| TOP CHORD | 2x4 SPF No.2 *Except* 5-8:2x6 SPF No.2, 1-5:2x4 SPF 2100F 1.8E | |
| BOT CHORD | 2x4 SPF 2100F 1.8E *Except* 22-6,7-19:2x3 SPF No.2, 23-22,16-14:2x4 SPF No.2 | |
| WEBS | 2x4 SPF No.2 *Except* 3-25,24-3,4-24,21-4,20-6,18-9,17-9,17-11,15- 11:2x3 SPF No.2, 24-21,20-8:2x4 SPF 2100F 1.8E | |
| OTHERS | 2x4 SPF No.2 | |
| WEDGE | Left: 2x4 SP No.3 | |
| BRACING | | |
| TOP CHORD | Structural wood sheathing directly applied or 2-1-9 oc purlins, except end verticals. | |
| BOT CHORD | Rigid ceiling directly applied or 2-2-0 oc bracing. | |
| WEBS | 1 Row at midpt 6-20, 8-18, 9-18, 11-17 | |
| REACTIONS | (lb/size) | 2=2248/0-3-8, (req. 0-3-10), 14=2248/0-11-8 |
| | Max Horiz | 2=170 (LC 12) |
| | Max Uplift | 2=-380 (LC 4), 14=-267 (LC 9) |
| | Max Grav | 2=2309 (LC 2), 14=2324 (LC 2) |
| FORCES | | |
| (lb) - Maximum Compression/Maximum Tension | | |
| TOP CHORD | 1-2=0/6, 2-3=-5719/842, 3-4=-5187/764, 4-6=-7360/1050, 6-7=-5289/744, 7-8=-5262/793, 8-9=-3084/505, 9-11=-3537/464, 11-12=-3620/386, 12-13=0/27, 12-14=-2205/302 | |
| BOT CHORD | 2-25=-863/5315, 24-25=-863/5315, 22-24=0/51, 21-22=0/148, 6-21=-197/1916, 20-21=-883/6938, 19-20=0/45, 7-20=-265/106, 18-19=-4/14, 17-18=-255/3191, 15-17=-289/3270, 14-15=-70/227 | |

WEBS 3-25=0/212, 3-24=-515/167, 4-24=-1390/311, 21-24=-764/5144, 4-21=-175/2075, 6-20=-2609/500, 18-20=-292/3696, 8-20=-626/4790, 8-18=-1716/220, 9-18=-719/232, 9-17=0/365, 11-17=-252/148, 11-15=-415/141, 12-15=-248/3099

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 2 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 380 lb uplift at joint 2 and 267 lb uplift at joint 14.
- 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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



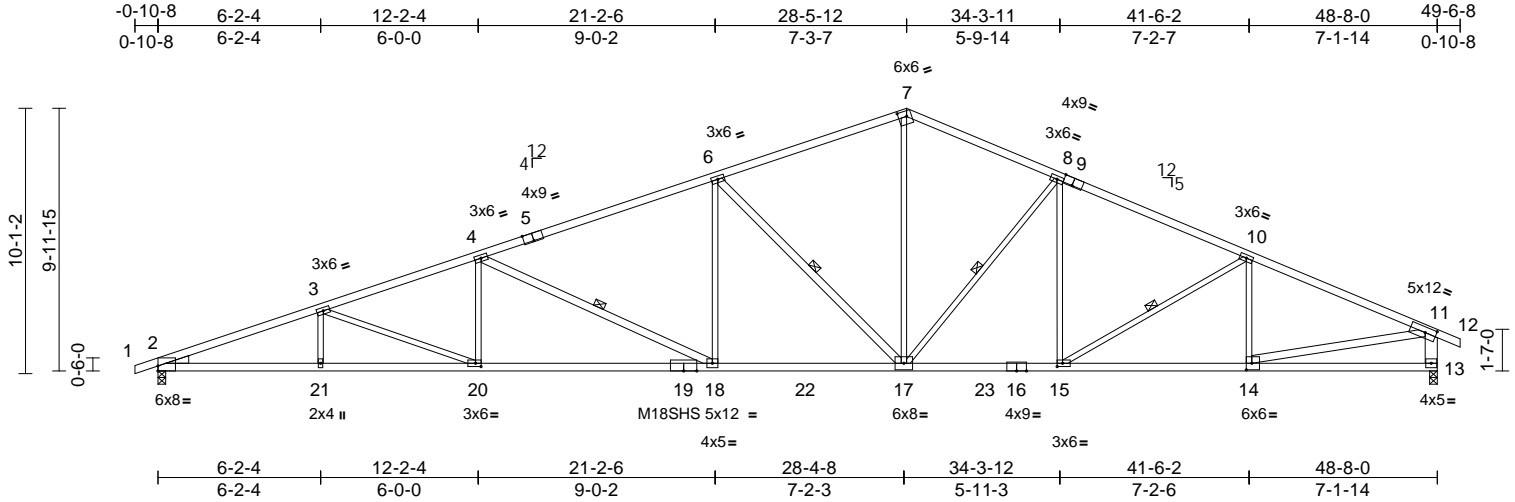
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A15 | Roof Special | 2 | 1 | Job Reference (optional) | I47787264 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:58
ID:mLJ2h5cAmhxRk3t89PJP4HyhyKy-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?i

Page: 1



| | | | | | | | | | | | |
|----------------|--------|-----------------|-----------------|------------|------|-------------|-------|-------|--------|-----|-------------------------|
| Scale | 1:87.6 | | | | | | | | | | |
| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES |
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.85 | Vert(LL) | -0.51 | 18-20 | >999 | 360 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.99 | Vert(CT) | -0.94 | 18-20 | >619 | 240 | M18SHS |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.76 | Horz(CT) | 0.24 | 13 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.31 | 18-20 | >999 | 240 | Weight: 196 lb FT = 10% |

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 7-9,9-12:2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 16-13:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 17-6,14-11,18-4:2x4 SPF No.2, 13-11:2x6 SPF No.2
WEDGE Left: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 6-17, 8-17, 10-15, 4-18
REACTIONS (lb/size) 2=2244/0-3-8, (req. 0-3-11), 13=2251/0-3-8, (req. 0-3-11)
Max Horiz 2=171 (LC 8)
Max Uplift 2=-379 (LC 4), 13=-268 (LC 9)
Max Grav 2=2333 (LC 2), 13=2350 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-5793/834, 3-4=-5265/775, 4-6=-4134/611, 6-7=-3052/481, 7-8=-3109/503, 8-10=-3568/462, 10-11=-3622/382, 11-12=0/30, 11-13=-2233/304
BOT CHORD 2-21=-855/5370, 20-21=-855/5370, 18-20=-728/4953, 17-18=-461/3847, 15-17=-253/3220, 14-15=-283/3271, 13-14=-78/243
WEBS 6-17=-1469/344, 7-17=-213/1789, 8-17=-724/237, 8-15=0/348, 10-15=-230/142, 10-14=-426/140, 11-14=-241/3088, 3-21=0/225, 3-20=-479/144, 4-20=0/446, 4-18=-1234/297, 6-18=-23/870

NOTES
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) WARNING: Required bearing size at joint(s) 2, 13 greater than input bearing size.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 379 lb uplift at joint 2 and 268 lb uplift at joint 13.
- 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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



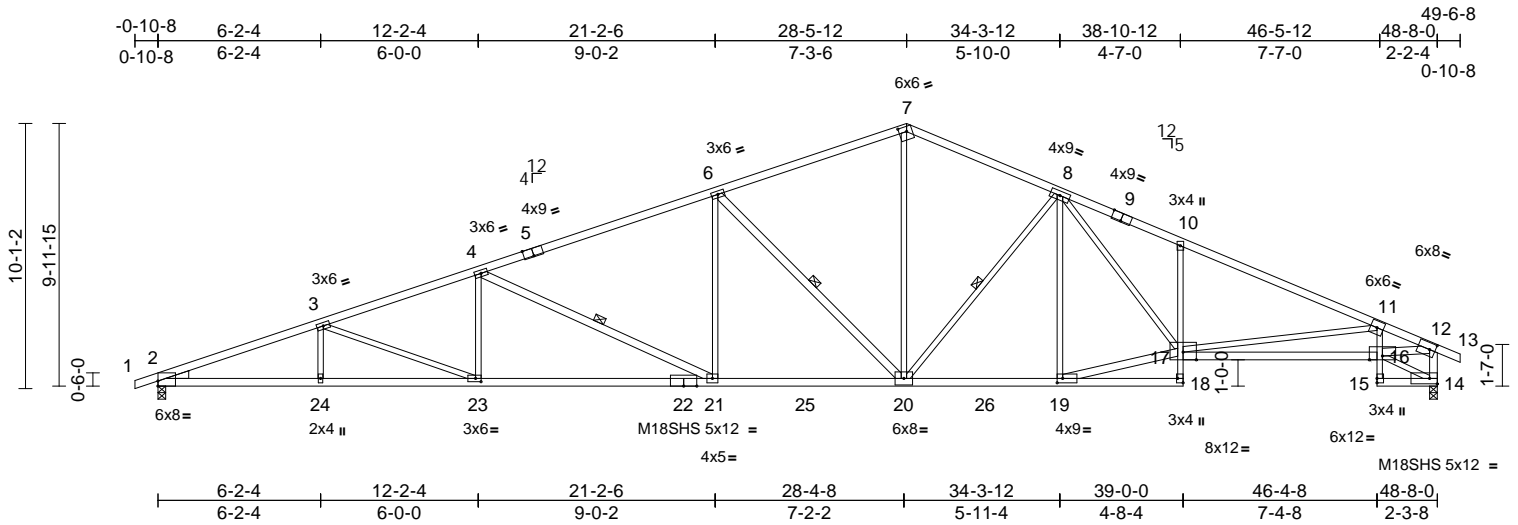
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A16 | Roof Special | 5 | 1 | Job Reference (optional) | I47787265 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:58
ID:ceyXGprA4IYGZ4QRMFHGugyhzc_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:87.6

Plate Offsets (X, Y): [2:Edge,0-2-5], [5:0-4-8,Edge], [7:0-3-8,0-2-4], [9:0-4-8,Edge], [12:0-2-9,0-3-0], [18:Edge,0-2-8], [19:0-2-8,0-2-0], [23:0-2-8,0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.81 | Vert(LL) | -0.53 | 21-23 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.75 | Vert(CT) | -0.96 | 21-23 | >602 | 240 | M18SHS | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.93 | Horz(CT) | 0.35 | 14 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.32 | 21-23 | >999 | 240 | Weight: 205 lb | FT = 10% |

| | | |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| LUMBER | | |
| TOP CHORD | 2x4 SPF 2100F 1.8E *Except* 7-9:2x4 SPF No.2 | |
| BOT CHORD | 2x4 SPF 2100F 1.8E *Except* 18-10,11-15:2x3 SPF No.2, 15-14:2x4 SPF No.2 | |
| WEBS | 2x3 SPF No.2 *Except* 20-6,19-17,14-12,21-4,16-12:2x4 SPF No.2 | |
| WEDGE | Left: 2x4 SP No.3 | |
| BRACING | | |
| TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals. | |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing. | |
| WEBS | 1 Row at midpt 6-20, 8-20, 4-21 | |
| REACTIONS | | |
| (lb/size) | 2=2248/0-3-8, (req. 0-3-11), 14=2248/0-3-8, (req. 0-3-11) | |
| Max Horiz | 2=171 (LC 8) | |
| Max Uplift | 2=380 (LC 4), 14=267 (LC 9) | |
| Max Grav | 2=2337 (LC 2), 14=2349 (LC 2) | |
| FORCES | | |
| (lb) - Maximum Compression/Maximum Tension | | |
| TOP CHORD | 1-2=0/6, 2-3=5804/835, 3-4=5277/776, 4-6=4146/612, 6-7=3066/482, 7-8=3117/502, 8-10=4503/560, 10-11=4562/487, 11-12=4108/477, 12-13=0/27, 12-14=2293/259 | |
| BOT CHORD | 2-24=856/5381, 23-24=856/5381, 21-23=729/4965, 20-21=463/3858, 19-20=252/3223, 18-19=38/95, 17-18=0/77, 10-17=427/220, 16-17=467/3956, 15-16=0/30, 11-16=535/155, 14-15=41/69 | |
| WEBS | 6-20=1467/344, 7-20=207/1779, 8-20=706/228, 8-19=538/116, 17-19=220/3227, 8-17=255/1497, 11-17=76/291, 3-24=0/225, 3-23=479/143, 4-23=0/446, 4-21=1235/297, 6-21=24/869, 14-16=61/60, 12-16=457/3804 | |

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 2, 14 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 380 lb uplift at joint 2 and 267 lb uplift at joint 14.
- 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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

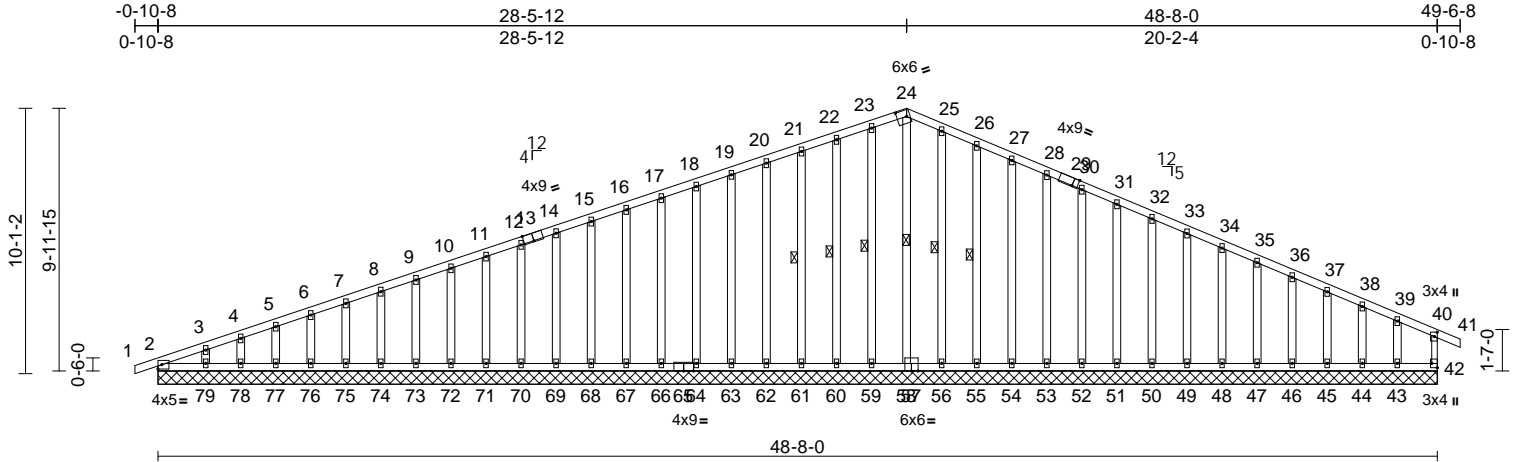
| | | | | | | |
|-----------|-------|------------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | I47787266 |
| Lot 11 OS | A17 | Roof Special Supported Gable | 2 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:59

Page: 1

ID:W3M06mk9XdimnHGkYBzAJ9yhZRo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f



Scale = 1:87.6

Plate Offsets (X, Y): [13:0-4-8,Edge], [24:0-4-7,0-3-0], [29:0-2-6,Edge], [40:0-2-0,0-1-4], [42:Edge,0-2-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|-----|--------|---------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.11 | Horz(CT) | 0.00 | 42 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | |
| Weight: 322 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. |
| WEBS | 1 Row at midpt 24-58, 23-59, 22-60, 21-61, 25-56, 26-55 |

REACTIONS (lb/size)

2=147/48-8-0, 42=147/48-8-0,
43=106/48-8-0, 44=123/48-8-0,
45=120/48-8-0, 46=120/48-8-0,
47=120/48-8-0, 48=120/48-8-0,
49=120/48-8-0, 50=120/48-8-0,
51=120/48-8-0, 52=120/48-8-0,
53=120/48-8-0, 54=120/48-8-0,
55=120/48-8-0, 56=124/48-8-0,
58=114/48-8-0, 59=124/48-8-0,
60=120/48-8-0, 61=120/48-8-0,
62=120/48-8-0, 63=120/48-8-0,
64=120/48-8-0, 66=120/48-8-0,
67=120/48-8-0, 68=120/48-8-0,
69=120/48-8-0, 70=120/48-8-0,
71=120/48-8-0, 72=120/48-8-0,
73=120/48-8-0, 74=120/48-8-0,
75=120/48-8-0, 76=120/48-8-0,
77=122/48-8-0, 78=113/48-8-0,
79=143/48-8-0

Max Horiz 2=171 (LC 8)

Max Uplift 2=-46 (LC 9), 42=-14 (LC 5),
43=-80 (LC 9), 44=-20 (LC 9),
45=-35 (LC 9), 46=-31 (LC 9),
47=-32 (LC 9), 48=-32 (LC 9),
49=-32 (LC 9), 50=-32 (LC 9),
51=-32 (LC 9), 52=-32 (LC 9),
53=-32 (LC 9), 54=-32 (LC 9),
55=-41 (LC 9), 56=-7 (LC 9),
59=-12 (LC 8), 60=-35 (LC 4),
61=-29 (LC 4), 62=-28 (LC 8),
63=-28 (LC 4), 64=-28 (LC 4),
66=-28 (LC 8), 67=-28 (LC 8),
68=-28 (LC 4), 69=-28 (LC 8),
70=-28 (LC 4), 71=-28 (LC 8),
72=-28 (LC 4), 73=-28 (LC 8),
74=-28 (LC 4), 75=-28 (LC 8),
76=-29 (LC 4), 77=-29 (LC 8),
78=-30 (LC 4), 79=-53 (LC 8)

Max Grav 2=147 (LC 21), 42=147 (LC 1),
43=107 (LC 22), 44=123 (LC 1),
45=120 (LC 22), 46=120 (LC 1),
47=120 (LC 22), 48=120 (LC 1),
49=120 (LC 22), 50=120 (LC 1),
51=120 (LC 22), 52=120 (LC 22),
53=120 (LC 1), 54=120 (LC 1),
55=121 (LC 22), 56=124 (LC 1),
58=178 (LC 9), 59=124 (LC 1),
60=121 (LC 21), 61=120 (LC 1),
62=120 (LC 1), 63=120 (LC 21),
64=120 (LC 21), 66=120 (LC 1),
67=120 (LC 21), 68=120 (LC 1),
69=120 (LC 1), 70=120 (LC 1),
71=120 (LC 1), 72=120 (LC 1),
73=120 (LC 21), 74=120 (LC 1),
75=120 (LC 21), 76=120 (LC 1),
77=122 (LC 21), 78=113 (LC 1),
79=143 (LC 1)

TOP CHORD 1-2=0/6, 2-3=-195/121, 3-4=-160/120,
4-5=-144/126, 5-6=-131/137, 6-7=-117/147,
7-8=-104/158, 8-9=-90/169, 9-10=-76/180,
10-11=-63/191, 11-12=-49/202,
12-14=-38/213, 14-15=-38/223,
15-16=-38/234, 16-17=-38/245,
17-18=-38/256, 18-19=-38/267,
19-20=-38/278, 20-21=-38/288,
21-22=-38/299, 22-23=-38/312,
23-24=-37/315, 24-25=-38/317,
25-26=-37/302, 26-27=-34/274,
27-28=-32/250, 28-30=-31/225,
30-31=-29/201, 31-32=-27/176,
32-33=-25/152, 33-34=-23/127,
34-35=-21/103, 35-36=-19/86, 36-37=-17/69,
37-38=-17/53, 38-39=-20/37, 39-40=-44/23,
40-41=0/26, 40-42=-135/34

FORCES

(lb) - Maximum Compression/Maximum Tension



September 7, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | |
|--------------------------|-------|------------------------------|-----|-----|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS |
| Lot 11 OS | A17 | Roof Special Supported Gable | 2 | 1 | 147787266 |
| Job Reference (optional) | | | | | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:52:59

Page: 2

ID:W3M06mk9XdimnHGkYBzAJ9yhzRo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

BOT CHORD 2-79=-15/30, 78-79=-15/30, 77-78=-15/30,
76-77=-15/30, 75-76=-15/30, 74-75=-15/30,
73-74=-15/30, 72-73=-15/30, 71-72=-15/30,
70-71=-15/30, 69-70=-15/30, 68-69=-15/30,
67-68=-15/30, 66-67=-15/30, 64-66=-15/30,
63-64=-15/30, 62-63=-15/30, 61-62=-15/30,
60-61=-15/30, 59-60=-15/30, 58-59=-15/30,
56-58=-15/30, 55-56=-15/30, 54-55=-15/30,
53-54=-15/30, 52-53=-15/30, 51-52=-15/30,
50-51=-15/30, 49-50=-15/30, 48-49=-15/30,
47-48=-15/30, 46-47=-15/30, 45-46=-15/30,
44-45=-15/30, 43-44=-15/30, 42-43=-15/30

WEBS 24-58=-162/4, 23-59=-97/28, 22-60=-94/51,
21-61=-93/45, 20-62=-93/44, 19-63=-93/44,
18-64=-93/44, 17-66=-93/44, 16-67=-93/44,
15-68=-93/44, 14-69=-93/44, 12-70=-93/44,
11-71=-93/44, 10-72=-93/44, 9-73=-93/44,
8-74=-93/44, 7-75=-93/44, 6-76=-93/44,
5-77=-94/45, 4-78=-89/44, 3-79=-109/73,
25-56=-97/23, 26-55=-94/57, 27-54=-93/48,
28-53=-93/48, 30-52=-93/48, 31-51=-93/48,
32-50=-93/48, 33-49=-93/48, 34-48=-93/48,
35-47=-93/48, 36-46=-93/48, 37-45=-93/49,
38-44=-97/43, 39-43=-77/71

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 42, 46 lb uplift at joint 2, 12 lb uplift at joint 59, 35 lb uplift at joint 60, 29 lb uplift at joint 61, 28 lb uplift at joint 62, 28 lb uplift at joint 63, 28 lb uplift at joint 64, 28 lb uplift at joint 66, 28 lb uplift at joint 67, 28 lb uplift at joint 68, 28 lb uplift at joint 69, 28 lb uplift at joint 70, 28 lb uplift at joint 71, 28 lb uplift at joint 72, 28 lb uplift at joint 73, 28 lb uplift at joint 74, 28 lb uplift at joint 75, 29 lb uplift at joint 76, 29 lb uplift at joint 77, 30 lb uplift at joint 78, 53 lb uplift at joint 79, 7 lb uplift at joint 56, 41 lb uplift at joint 55, 32 lb uplift at joint 54, 32 lb uplift at joint 53, 32 lb uplift at joint 52, 32 lb uplift at joint 51, 32 lb uplift at joint 50, 32 lb uplift at joint 49, 32 lb uplift at joint 48, 32 lb uplift at joint 47, 31 lb uplift at joint 46, 35 lb uplift at joint 45, 20 lb uplift at joint 44 and 80 lb uplift at joint 43.
- 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

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



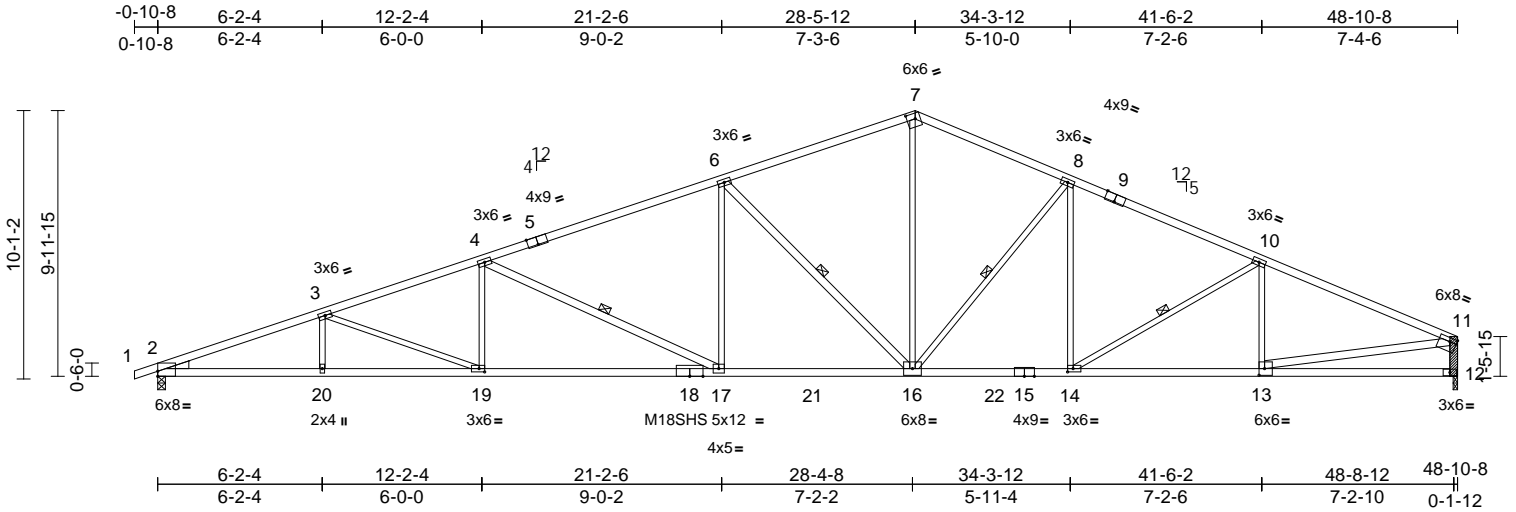
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | I47787267 |
| Lot 11 OS | A18 | Roof Special | 2 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:53:00
ID:6GMQM?KsFY?_ZsslijyMaOGyi?BN-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



APPLY 2 X 4 SPF/DF/SP NO.2 SCAB TO ONE FACE OF TRUSS
AS SHOWN. ATTACH WITH (0.131" X 3") NAILS PER
THE FOLLOWING NAIL SCHEDULE: 2 x 3'S - 1 ROW, 2 x 4'S - 2 ROWS,
2 x 6'S AND LARGER - 3 ROWS: SPACED @ 2" O.C. USE 2" MEMBER END DISTANCE.

Plate Offsets (X, Y): [2:Edge,0-2-5], [5:0-4-8,Edge], [7:0-3-12,0-2-8], [9:0-4-8,Edge], [11:0-3-0,0-1-12], [13:0-2-8,0-3-0], [14:0-2-8,0-1-8], [19:0-2-8,0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.81 | Vert(LL) | -0.51 | 17-19 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.76 | Vert(CT) | -0.94 | 17-19 | >623 | 240 | M18SHS | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.80 | Horz(CT) | 0.23 | 12 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.31 | 17-19 | >999 | 240 | Weight: 197 lb | FT = 10% |

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 7-9:2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
12-11,13-11,4-17,6-16:2x4 SPF No.2
LBR SCAB 12-11 SPF No.2 one side
WEDGE Left: 2x4 SP No.3
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-5-2 oc bracing.
WEBS 1 Row at midpt 8-16, 10-14, 4-17, 6-16
REACTIONS (lb/size) 2=2258/0-3-8, (req. 0-3-11), 13=2185/(0-2-0 + bearing block), (req.0-3-10)
Max Horiz 2=178 (LC 8)
Max Uplift 2=380 (LC 4), 12=246 (LC 9)
Max Grav 2=2348 (LC 2), 12=2299 (LC 2)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=5833/837, 3-4=5308/779, 4-6=4178/615, 6-7=3097/484, 7-8=3153/506, 8-10=3642/468, 10-11=3781/397, 11-12=2176/282
BOT CHORD 2-20=867/5408, 19-20=867/5408, 17-19=740/4994, 16-17=474/3889, 14-16=266/3285, 13-14=312/3422, 12-13=53/213

WEBS 7-16=214/1815, 8-16=755/239, 8-14=5/393, 10-14=314/159, 10-13=387/144, 11-13=276/3257, 3-20=0/225, 3-19=478/143, 4-19=0/446, 4-17=1234/297, 6-17=23/870, 6-16=1469/344

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 2, 12 greater than input bearing size.
- Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 380 lb uplift at joint 2 and 246 lb uplift at joint 12.
- 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

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



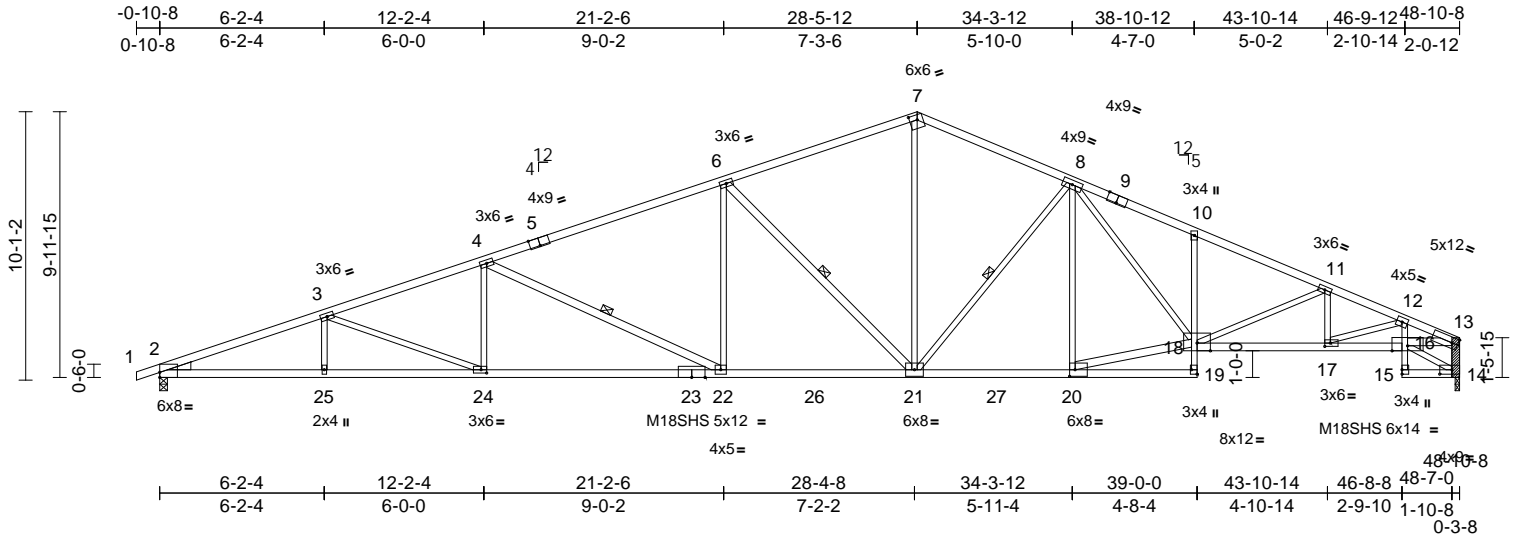
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A19 | Roof Special | 5 | 1 | Job Reference (optional) | I47787268 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:53:00
ID:0q1nA6KoxqtqELzK4M5cyP?yi?S8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?7f

Page: 1



Scale = 1:86.6

APPLY 2 X 4 SPF/DF/SP NO.2 SCAB TO ONE FACE OF TRUSS
AS SHOWN. ATTACH WITH (0.131" X 3") NAILS PER
THE FOLLOWING NAIL SCHEDULE: 2 x 3'S - 1 ROW, 2 x 4'S - 2 ROWS,
2 x 6'S AND LARGER - 3 ROWS: SPACED @ 2" O.C. USE 2" MEMBER END DISTANCE.

Plate Offsets (X, Y): [2:Edge,0-2-5], [5:0-4-8,Edge], [7:0-3-8,0-2-4], [9:0-4-8,Edge], [14:0-5-8,0-2-0], [17:0-2-8,0-1-8], [19:Edge,0-2-8], [20:0-2-8,0-3-0], [24:0-2-8,0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.81 | Vert(LL) | -0.55 | 22-24 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.76 | Vert(CT) | -1.01 | 22-24 | >579 | 240 | M18SHS | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.79 | Horz(CT) | 0.40 | 14 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.34 | 22-24 | >999 | 240 | Weight: 207 lb | FT = 10% |

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 7-9,9-13:2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
19-10,12-15:2x3 SPF No.2, 15-14:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
21-6,20-18,14-13,22-4:2x4 SPF No.2,
13-16:2x4 SPF 2100F 1.8E
LBR SCAB 14-13 SPF No.2 one side
WEDGE Left: 2x4 SP No.3
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, Except:
8-5-11 oc bracing: 2-25
8-5-2 oc bracing: 24-25
9-1-3 oc bracing: 22-24.
WEBS 1 Row at midpt 6-21, 8-21, 4-22
REACTIONS (lb/size) 2=2258/0-3-8, (req. 0-3-11),
13=2185/(0-2-0 + bearing block),
(req.0-3-10)
Max Horiz 2=178 (LC 12)
Max Uplift 2=-380 (LC 4), 14=-246 (LC 9)
Max Grav 2=2348 (LC 2), 14=2299 (LC 2)
FORCES (lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=0/6, 2-3=-5833/837, 3-4=-5308/779,
4-6=-4178/615, 6-7=-3098/484,
7-8=-3151/504, 8-10=-4553/556,
10-11=-4584/501, 11-12=-4865/515,
12-13=-5014/546, 13-14=-2219/260

BOT CHORD 2-25=-867/5408, 24-25=-867/5408,
22-24=-740/4994, 21-22=-474/3888,
20-21=-265/3275, 19-20=-18/137,
18-19=0/79, 10-18=-305/160,
17-18=-438/4491, 16-17=-507/4674,
15-16=0/36, 12-16=0/132, 14-15=-13/131
WEBS 6-21=-1467/344, 7-21=-210/1806,
8-21=-737/234, 8-20=-542/123,
18-20=-253/3212, 8-18=-247/1503,
11-18=-390/129, 12-17=-195/71,
11-17=-92/76, 13-16=-483/4515,
14-16=-87/21, 3-25=0/225, 3-24=-477/143,
4-24=0/446, 4-22=-1234/297, 6-22=-24/869

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) WARNING: Required bearing size at joint(s) 2, 14 greater than input bearing size.
- 7) Bearing at joint(s) 14 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 380 lb uplift at joint 2 and 246 lb uplift at joint 14.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



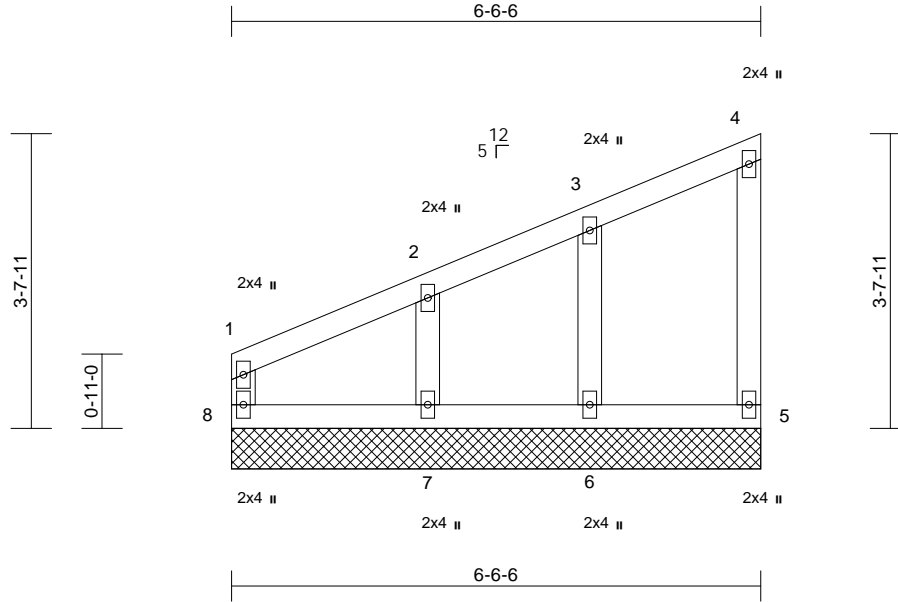
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|---------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | A20 | Monopitch Supported Gable | 2 | 1 | Job Reference (optional) | I47787269 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:53:01
ID:a78XY5DQKbrtjrYyzlQ5fthz7p-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:28.4

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|-----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.06 | Vert(TL) | n/a | - | n/a | 999 | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.02 | Horiz(TL) | 0.00 | 5 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | |
| | | | | | | | | | | Weight: 24 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. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

| | |
|----------------------------|-----------------------------------------------------------------|
| REACTIONS (lb/size) | 5=77/6-6-6, 6=181/6-6-6, 7=218/6-6-6, 8=85/6-6-6 |
| | Max Horiz 8=139 (LC 5) |
| | Max Uplift 5=-26 (LC 5), 6=-33 (LC 8), 7=-92 (LC 8) |
| | Max Grav 5=77 (LC 1), 6=181 (LC 1), 7=218 (LC 1), 8=112 (LC 16) |

FORCES (lb) - Maximum Compression/Maximum Tension

| | |
|-----------|------------------------------------------------------------|
| TOP CHORD | 1-2=-101/32, 2-3=-76/22, 3-4=-66/30, 4-5=-59/26, 1-8=-81/0 |
| BOT CHORD | 7-8=-48/34, 6-7=-48/34, 5-6=-48/34 |
| WEBS | 2-7=-166/102, 3-6=-143/61 |

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 2-0-0 oc.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 5, 92 lb uplift at joint 7 and 33 lb uplift at joint 6.
- 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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



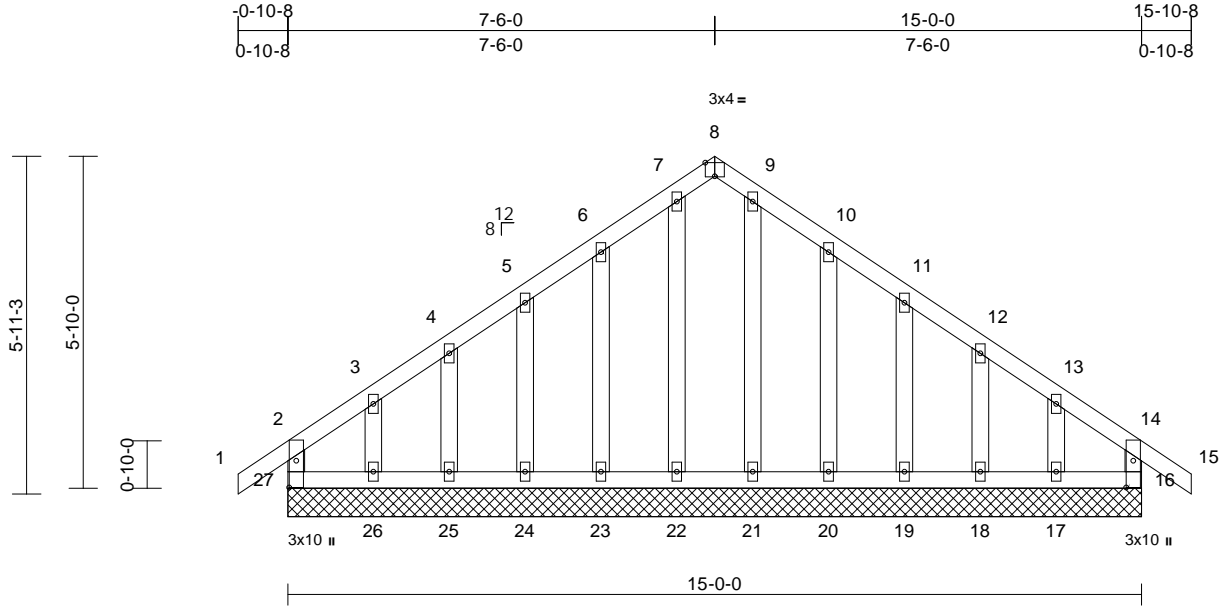
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | B1 | Common Supported Gable | 3 | 1 | Job Reference (optional) | I47787270 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:53:01
ID:e1NgcMxfWJjWVERPrfaxr8z6Qjz-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWwRCD0i7J4zJC?f

Page: 1



Scale = 1:40.5

Plate Offsets (X, Y): [8:0-2-0,Edge], [16:0-5-10,0-1-8], [27:0-5-10,0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.07 | Vert(LL) | n/a | - | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 16 | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | Weight: 76 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. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing. |

| | |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REACTIONS (lb/size) | 16=149/15-0-0, 17=98/15-0-0, 18=125/15-0-0, 19=119/15-0-0, 20=119/15-0-0, 21=123/15-0-0, 22=123/15-0-0, 23=119/15-0-0, 24=119/15-0-0, 25=125/15-0-0, 26=98/15-0-0, 27=149/15-0-0 |
| Max Horiz | 27=169 (LC 6) |
| Max Uplift | 16=36 (LC 5), 17=96 (LC 9), 18=34 (LC 9), 19=48 (LC 9), 20=64 (LC 9), 23=63 (LC 8), 24=49 (LC 8), 25=33 (LC 8), 26=103 (LC 8), 27=62 (LC 4) |
| Max Grav | 16=151 (LC 22), 17=139 (LC 16), 18=125 (LC 22), 19=125 (LC 16), 20=127 (LC 16), 21=127 (LC 17), 22=133 (LC 18), 23=124 (LC 15), 24=126 (LC 15), 25=125 (LC 21), 26=152 (LC 15), 27=172 (LC 16) |

FORCES (lb) - Maximum Compression/Maximum Tension

| | |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TOP CHORD | 2-27=-141/52, 1-2=0/40, 2-3=-111/102, 3-4=-76/74, 4-5=-68/81, 5-6=-55/106, 6-7=-45/139, 7-8=-33/107, 8-9=-29/103, 9-10=-25/125, 10-11=-33/93, 11-12=-42/68, 12-13=-49/54, 13-14=-81/70, 14-15=0/40, 14-16=-135/31 |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| | |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| BOT CHORD | 26-27=-76/89, 25-26=-76/89, 24-25=-76/89, 23-24=-76/89, 22-23=-76/89, 21-22=-76/89, 20-21=-76/89, 19-20=-76/89, 18-19=-76/89, 17-18=-76/89, 16-17=-76/89 |
| WEBS | 3-26=-105/91, 4-25=-98/56, 5-24=-98/62, 6-23=-98/79, 7-22=-107/4, 9-21=-100/0, 10-20=-100/81, 11-19=-98/62, 12-18=-98/57, 13-17=-98/87 |

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 27, 36 lb uplift at joint 16, 103 lb uplift at joint 26, 33 lb uplift at joint 25, 49 lb uplift at joint 24, 63 lb uplift at joint 23, 64 lb uplift at joint 20, 48 lb uplift at joint 19, 34 lb uplift at joint 18 and 96 lb uplift at joint 17.

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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



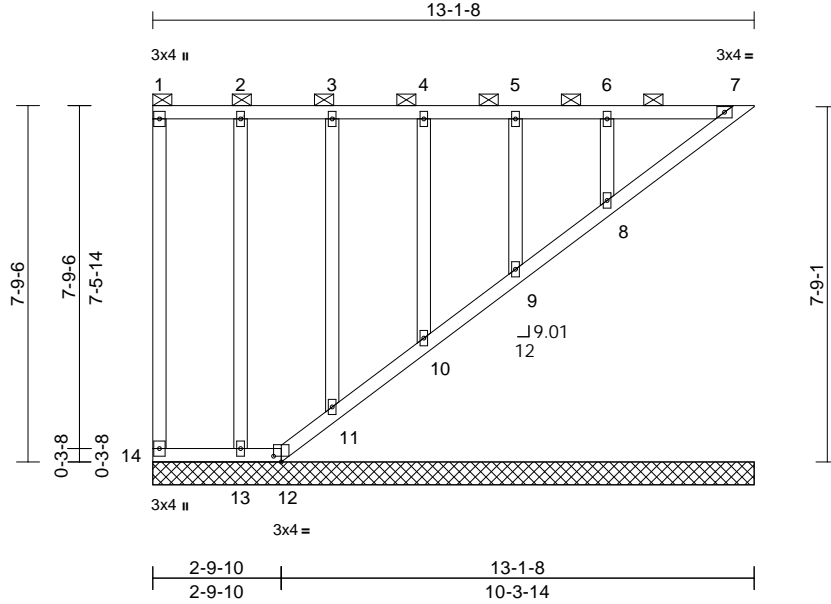
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | LAY1 | Lay-In Gable | 2 | 1 | Job Reference (optional) | I47787271 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:53:01
ID: ?Q2IsETSTEcOc9Ez6n2slWz6QxV-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWRcD0i7J4zJC?i

Page: 1



Scale = 1:50.3

Plate Offsets (X, Y): [12:0-2-0,0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|-----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.26 | Vert(LL) | n/a | - | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.12 | Vert(TL) | n/a | - | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.14 | Horiz(TL) | 0.00 | 7 | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | Weight: 68 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 | 2-0-0 oc purlins (6-0-0 max.): 1-7, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 9-10,7-8. |

| | | |
|-----------|------------|----------------------------------------------------------------------------------------------------------------------|
| REACTIONS | (lb/size) | 7=103/13-1-8, 8=262/13-1-8, 9=152/13-1-8, 10=188/13-1-8, 11=174/13-1-8, 12=9/13-1-8, 13=178/13-1-8, 14=66/13-1-8 |
| | Max Horiz | 14=-213 (LC 6) |
| | Max Uplift | 7=-80 (LC 5), 8=-49 (LC 4), 9=-29 (LC 5), 10=-35 (LC 4), 11=-49 (LC 5), 12=-109 (LC 6), 13=-62 (LC 5), 14=-17 (LC 4) |
| | Max Grav | 7=124 (LC 15), 8=262 (LC 1), 9=152 (LC 1), 10=188 (LC 1), 11=174 (LC 1), 12=95 (LC 5), 13=178 (LC 1), 14=66 (LC 1) |

FORCES

| | | |
|-----------|---------------------------------------------------------------------------------------------------------|--|
| | (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-14=-63/58, 1-2=-106/80, 2-3=-106/80, 3-4=-106/80, 4-5=-106/80, 5-6=-106/80, 6-7=-106/80 | |
| BOT CHORD | 13-14=-80/106, 12-13=-80/106, 11-12=-106/146, 10-11=-107/145, 9-10=-108/144, 8-9=-107/147, 7-8=-110/148 | |
| WEBS | 2-13=-142/92, 3-11=-140/65, 4-10=-144/60, 5-9=-121/51, 6-8=-198/79 | |

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 14, 80 lb uplift at joint 7, 109 lb uplift at joint 12, 62 lb uplift at joint 13, 49 lb uplift at joint 11, 35 lb uplift at joint 10, 29 lb uplift at joint 9 and 49 lb uplift at joint 8.
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 11, 10, 9, 8.
- 12) 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.
- 13) 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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

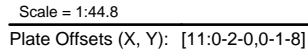
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:53:02 Page: 1
ID:?hZJR2gStIz8m1Fcrrrx5z6QxE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWkCDoi7J4zJC?fi



NUMBER
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 2-0-0 oc purlins (6-0-0 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 9-10,7-8.

REACTIONS (lb/size) 7=103/13-1-8, 8=261/13-1-8,
9=153/13-1-8, 10=185/13-1-8,
11=7/13-1-8, 12=172/13-1-8,
13=186/13-1-8, 14=65/13-1-8
Max Horiz 14=178 (LC 6)
Max Uplift 7=-70 (LC 5), 8=-49 (LC 4), 9=-29 (LC 5), 10=-36 (LC 5), 11=-47 (LC 6), 12=-48 (LC 4), 13=-39 (LC 5), 14=-15 (LC 4)
Max Grav 7=114 (LC 15), 8=261 (LC 1), 9=153 (LC 1), 10=185 (LC 1), 11=47 (LC 5), 12=172 (LC 1), 13=186 (LC 1), 14=65 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-51/47, 1-2=-89/68, 2-3=-89/68, 3-4=-89/68, 4-5=-89/68, 5-6=-89/68, 6-7=-89/68
BOT CHORD 13-14=-68/89, 12-13=-68/89, 11-12=-68/89, 10-11=-88/124, 9-10=-92/123, 8-9=-91/125, 7-8=-94/126
WEBS 2-13=-143/82, 3-12=-139/62, 4-10=-144/60, 5-9=-121/51, 6-8=-198/79

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; CNDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 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" oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06-00 tall by 2'-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 14, 70 lb uplift at joint 7, 47 lb uplift at joint 11, 39 lb uplift at joint 13, 48 lb uplift at joint 12, 36 lb uplift at joint 10, 29 lb uplift at joint 9 and 49 lb uplift at joint 8.
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 10, 9, 8.
- 12) 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.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Components**

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



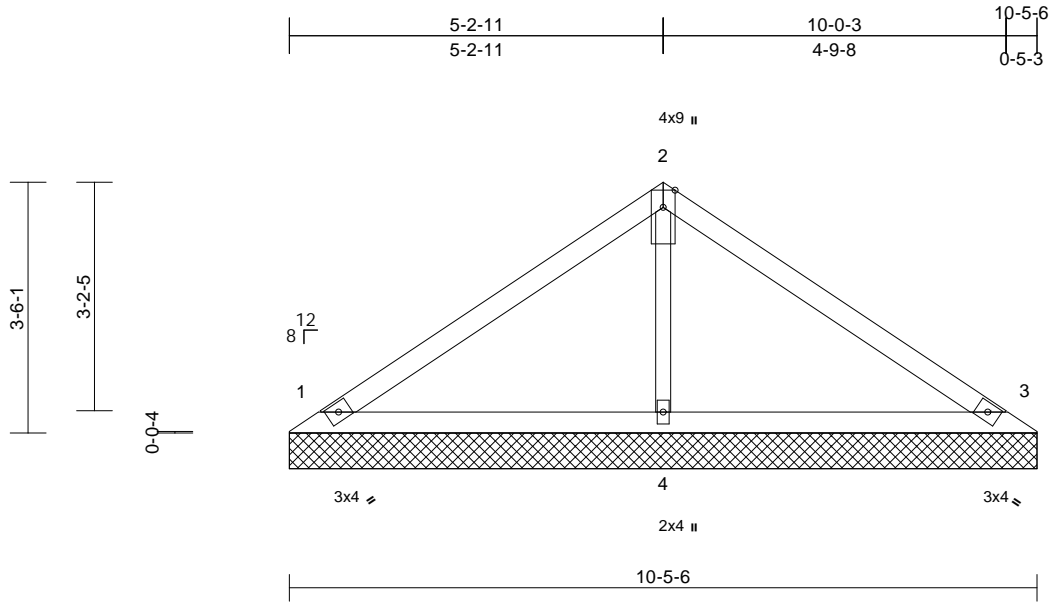
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | 147787273 |
| Lot 11 OS | V1 | Valley | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:53:02
ID:e8viQv7tT8SU69TA8W3HcOyi?AK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:32.2

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|-----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.32 | Vert(LL) | n/a | - | n/a | 999 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.19 | Vert(TL) | n/a | - | n/a | 999 | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.08 | Horiz(TL) | 0.00 | 3 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | |
| | | | | | | | | | | Weight: 27 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=221/10-5-6, 3=221/10-5-6, 4=418/10-5-6
Max Horiz 1=-83 (LC 4)
Max Uplift 1=-42 (LC 8), 3=-52 (LC 9), 4=-16 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-165/79, 2-3=-164/60
BOT CHORD 1-4=-16/76, 3-4=-16/76
WEBS 2-4=-272/69

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1, 52 lb uplift at joint 3 and 16 lb uplift at joint 4.
- 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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



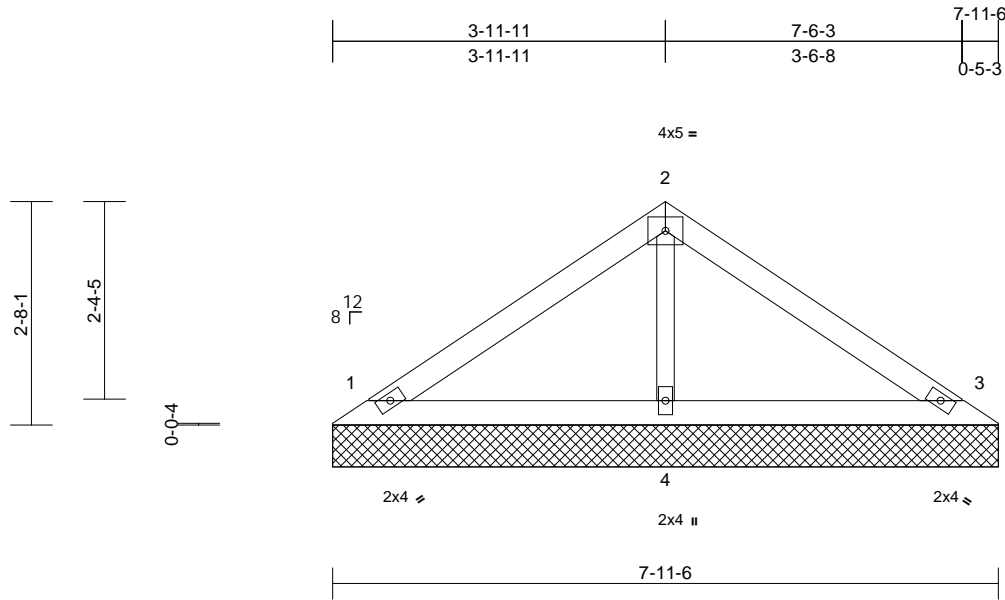
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | V2 | Valley | 1 | 1 | Job Reference (optional) | I47787274 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:53:02
ID:e8viQv7tT8SU69TA8W3HcOyi?AK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:27.5

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|-------------|-------|-----------------|-----------------|----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.23 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.11 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.04 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 20 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=178/7-11-6, 3=178/7-11-6, 4=277/7-11-6
Max Horiz 1=61 (LC 7)
Max Uplift 1=-39 (LC 8), 3=-47 (LC 9)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-110/56, 2-3=-106/42
BOT CHORD 1-4=-12/52, 3-4=-12/52
WEBS 2-4=-189/48

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 1 and 47 lb uplift at joint 3.
- 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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



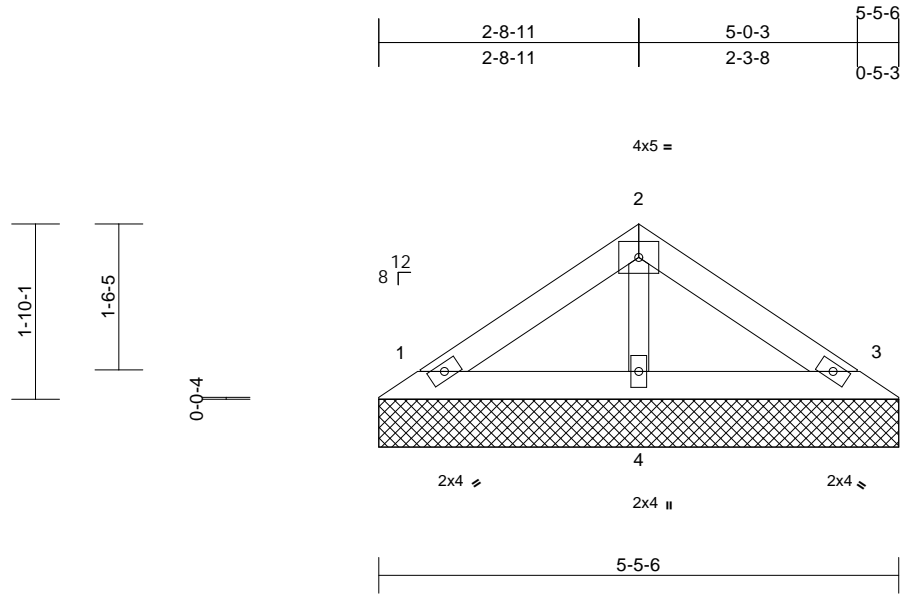
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | V3 | Valley | 1 | 1 | Job Reference (optional) | I47787275 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:53:02
ID:p7iM?_XkCa6brqXYVmuBiMyhz7P-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:24.1

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|-------------|-------|-----------------|-----------------|----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.09 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.02 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 13 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 5-6-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=115/5-5-6, 3=115/5-5-6, 4=179/5-5-6
Max Horiz 1=-40 (LC 4)
Max Uplift 1=-25 (LC 8), 3=-30 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-71/36, 2-3=-69/27
BOT CHORD 1-4=-8/33, 3-4=-8/33
WEBS 2-4=-122/31

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 30 lb uplift at joint 3.
- 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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



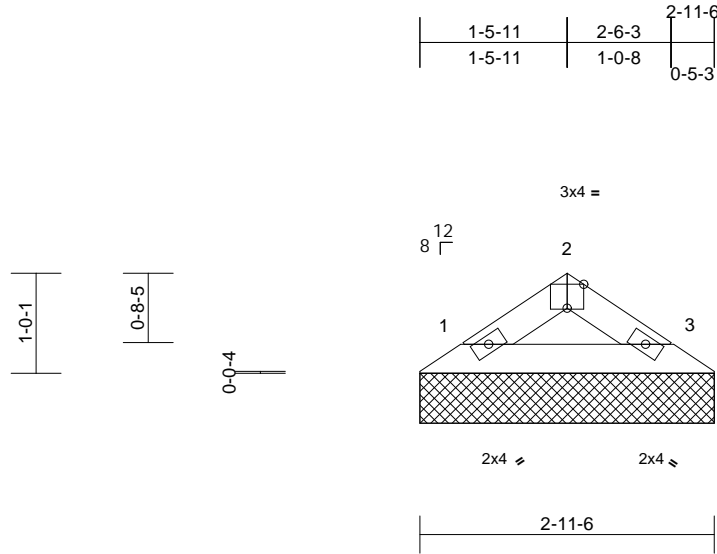
16023 Swingley Ridge Rd
Chesterfield, MO 63017

| | | | | | | |
|-----------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 11 OS | |
| Lot 11 OS | V4 | Valley | 1 | 1 | Job Reference (optional) | I47787276 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 07 08:53:02
ID:DiOVd0acVVUaiG7AuRuK_yhz7M-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?i

Page: 1



Scale = 1:23.1

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|-----------|-------|--------|-----|--------|-----------------------|
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.02 | Vert(LL) | n/a | - | n/a | 999 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(TL) | n/a | - | n/a | 999 | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 6 lb FT = 10% |

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-0-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=92/2-11-6, 3=92/2-11-6
Max Horiz 1=-18 (LC 4)
Max Uplift 1=-11 (LC 8), 3=-11 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-80/25, 2-3=-80/25
BOT CHORD 1-3=-10/54

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 11 lb uplift at joint 3.

- 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



September 7, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

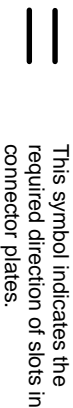
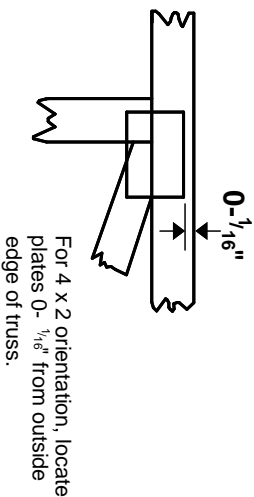
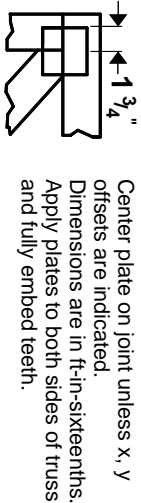
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



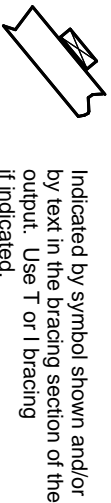
* Plate location details available in **MiTek 20/20** software or upon request.

PLATE SIZE

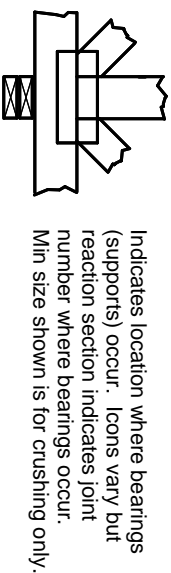
4 X 4

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

LATERAL BRACING LOCATION

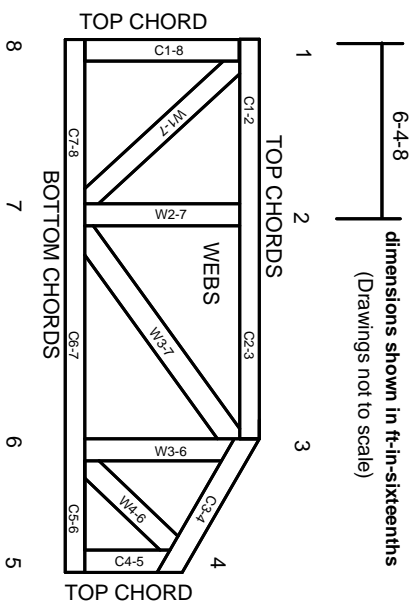


BEARING



Industry Standards:
ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:
ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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.

© 2012 MiTek® All Rights Reserved



MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

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.