



RE: B240091 - Lot 182 HT

Site Information:

Project Customer: Summit Homes Project Name:
Lot/Block: 182 Subdivision: Hawthorn Ridge
Model: Winfield - Craftsman
Address: 1617 SW Arborway Terr
City: Lee's Summit State: MO

MiTek, Inc.

16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-16 [Wind Speed: 115 mph] Design Method: MWFRS (Envelope) ASCE 7-16 [Low Rise]
Roof Load: 45.0 psf Floor Load: N/A psf
Mean Roof Height (feet): 25 Exposure Category: C

| No. | Seal# | Truss Name | Date | No. | Seal# | Truss Name | Date |
|-----|-----------|------------|---------|-----|-----------|------------|---------|
| 1 | I65177295 | A1 | 4/29/24 | 35 | I65177329 | V5 | 4/29/24 |
| 2 | I65177296 | A2 | 4/29/24 | 36 | I65177330 | V6 | 4/29/24 |
| 3 | I65177297 | B1 | 4/29/24 | 37 | I65177331 | V7 | 4/29/24 |
| 4 | I65177298 | C1 | 4/29/24 | 38 | I65177332 | V8 | 4/29/24 |
| 5 | I65177299 | C2 | 4/29/24 | 39 | I65177333 | V9 | 4/29/24 |
| 6 | I65177300 | C3 | 4/29/24 | 40 | I65177334 | V10 | 4/29/24 |
| 7 | I65177301 | C4 | 4/29/24 | | | | |
| 8 | I65177302 | C5 | 4/29/24 | | | | |
| 9 | I65177303 | D1 | 4/29/24 | | | | |
| 10 | I65177304 | D2 | 4/29/24 | | | | |
| 11 | I65177305 | D3 | 4/29/24 | | | | |
| 12 | I65177306 | D4 | 4/29/24 | | | | |
| 13 | I65177307 | D5 | 4/29/24 | | | | |
| 14 | I65177308 | D6 | 4/29/24 | | | | |
| 15 | I65177309 | D7 | 4/29/24 | | | | |
| 16 | I65177310 | D8 | 4/29/24 | | | | |
| 17 | I65177311 | E1 | 4/29/24 | | | | |
| 18 | I65177312 | G1 | 4/29/24 | | | | |
| 19 | I65177313 | G2 | 4/29/24 | | | | |
| 20 | I65177314 | G3 | 4/29/24 | | | | |
| 21 | I65177315 | G4 | 4/29/24 | | | | |
| 22 | I65177316 | G5 | 4/29/24 | | | | |
| 23 | I65177317 | G6 | 4/29/24 | | | | |
| 24 | I65177318 | H1 | 4/29/24 | | | | |
| 25 | I65177319 | H2 | 4/29/24 | | | | |
| 26 | I65177320 | J1 | 4/29/24 | | | | |
| 27 | I65177321 | J2 | 4/29/24 | | | | |
| 28 | I65177322 | J3 | 4/29/24 | | | | |
| 29 | I65177323 | LAY1 | 4/29/24 | | | | |
| 30 | I65177324 | R1 | 4/29/24 | | | | |
| 31 | I65177325 | V1 | 4/29/24 | | | | |
| 32 | I65177326 | V2 | 4/29/24 | | | | |
| 33 | I65177327 | V3 | 4/29/24 | | | | |
| 34 | I65177328 | V4 | 4/29/24 | | | | |

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

Truss Design Engineer's Name: Sevier, Scott

My license renewal date for the state of Missouri is December 31, 2025.

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



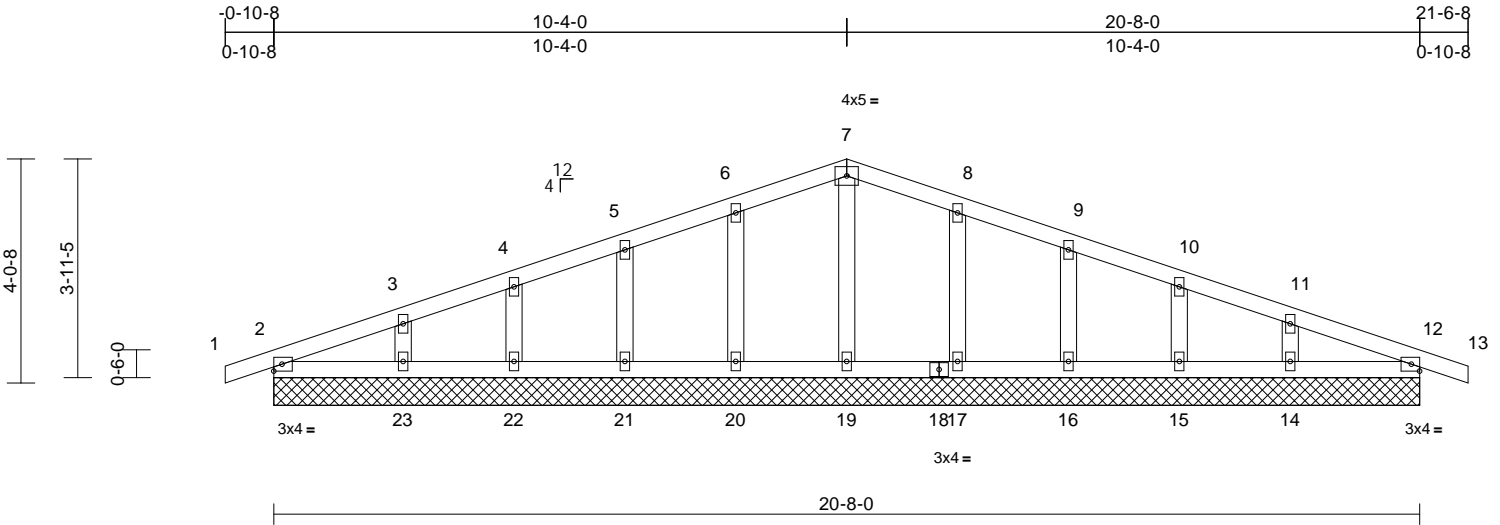
April 29, 2024

| | | | | | | |
|---------|-------|------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | 165177295 |
| B240091 | A1 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:30
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Page: 1



Scale = 1:41.6

| 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 | 0.05 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 12 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 70 lb | FT = 10% |

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

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

REACTIONS (size) 2=20-8-0, 12=20-8-0, 14=20-8-0, 15=20-8-0, 16=20-8-0, 17=20-8-0, 19=20-8-0, 20=20-8-0, 21=20-8-0, 22=20-8-0, 23=20-8-0
Max Horiz 2=66 (LC 8)
Max Uplift 2=-40 (LC 4), 12=-49 (LC 5), 14=-52 (LC 9), 15=-42 (LC 5), 16=-43 (LC 9), 17=-46 (LC 9), 20=-47 (LC 8), 21=-42 (LC 8), 22=-42 (LC 4), 23=-55 (LC 8)
Max Grav 2=163 (LC 1), 12=163 (LC 1), 14=207 (LC 22), 15=173 (LC 22), 16=180 (LC 1), 17=191 (LC 22), 19=162 (LC 1), 20=191 (LC 21), 21=180 (LC 1), 22=173 (LC 21), 23=207 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-73/47, 3-4=-47/52, 4-5=-31/67, 5-6=-29/84, 6-7=-32/102, 7-8=-32/98, 8-9=-29/68, 9-10=-29/40, 10-11=-31/22, 11-12=-50/27, 12-13=0/6
BOT CHORD 2-23=-3/53, 22-23=-3/53, 21-22=-3/53, 20-21=-3/53, 19-20=-3/53, 17-19=-3/53, 16-17=-3/53, 15-16=-3/53, 14-15=-3/53, 12-14=-3/53
WEBS 7-19=-122/0, 6-20=-151/71, 5-21=-139/67, 4-22=-136/65, 3-23=-156/81, 8-17=-151/70, 9-16=-139/67, 10-15=-136/65, 11-14=-156/78

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.
- 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.
- All bearings are assumed to be SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 2, 47 lb uplift at joint 20, 42 lb uplift at joint 21, 42 lb uplift at joint 22, 55 lb uplift at joint 23, 46 lb uplift at joint 17, 43 lb uplift at joint 16, 42 lb uplift at joint 15, 52 lb uplift at joint 14 and 49 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



April 29, 2024

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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, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

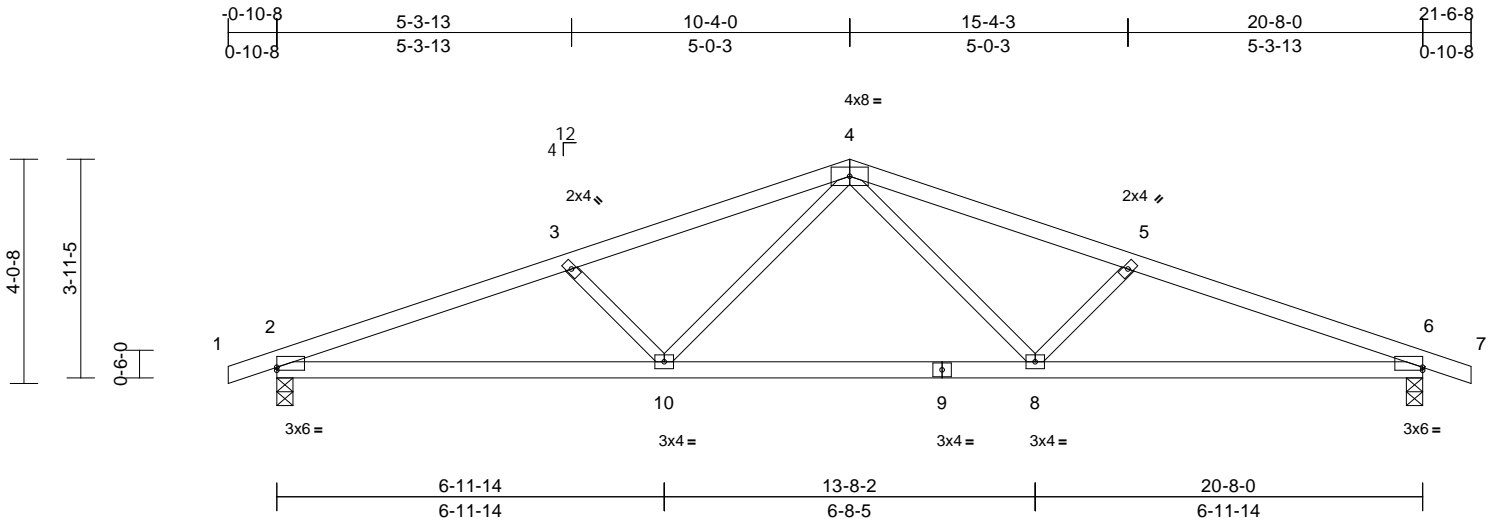
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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | 165177296 |
| B240091 | A2 | Common | 5 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:41.6

| | | | | | | | | | | | | |
|--|-------|-----------------|-----------------|------------|------|-------------|-------|-------|--------|-----|---------------|-------------|
| Plate Offsets (X, Y): [2:Edge,0-0-10], [6:Edge,0-0-10] | | | | | | | | | | | | |
| 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 | 0.34 | Vert(LL) | -0.10 | 8-10 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.62 | Vert(CT) | -0.19 | 8-10 | >999 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.19 | Horz(CT) | 0.06 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.07 | 8-10 | >999 | 240 | Weight: 62 lb | FT = 10% |

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=66 (LC 12)
Max Uplift 2=-178 (LC 4), 6=-178 (LC 5)
Max Grav 2=988 (LC 1), 6=988 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-0/6, 2-3=-2034/306, 3-4=-1783/254, 4-5=-1783/254, 5-6=-2034/306, 6-7=0/6
BOT CHORD 2-10=-283/1848, 8-10=-115/1284, 6-8=-233/1848
WEBS 4-8=-72/544, 5-8=-346/186, 4-10=-72/544, 3-10=-346/186

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 2 and 178 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 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.
 - 5) All bearings are assumed to be SPF No.2 .



April 29,2024

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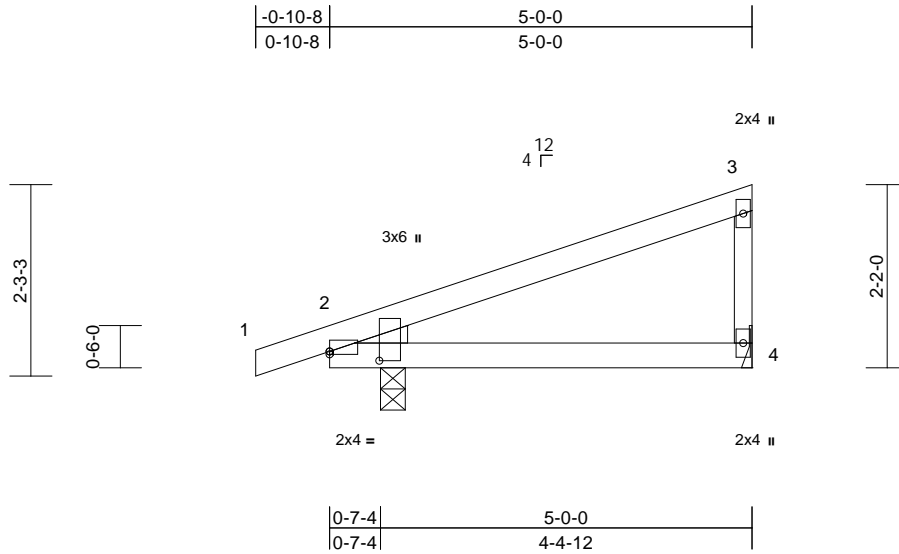
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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177297 |
| B240091 | B1 | Monopitch | 9 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:27.3

Plate Offsets (X, Y): [2:Edge,0-0-6], [2:0-1-5,0-7-1]

| 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 | 0.39 | Vert(LL) | -0.03 | 2-4 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.27 | Vert(CT) | -0.06 | 2-4 | >933 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 15 lb | FT = 10% |

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
WEDGE Left: 2x3 SPF No.2

BRACING

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

REACTIONS (size) 2=0-3-8, 4= Mechanical
Max Horiz 2=84 (LC 7)
Max Uplift 2=-81 (LC 4), 4=-45 (LC 8)
Max Grav 2=293 (LC 1), 4=206 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=0/6, 2-3=-74/45, 3-4=-159/73
BOT CHORD 2-4=-26/20

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) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 45 lb uplift at joint
4 and 81 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.



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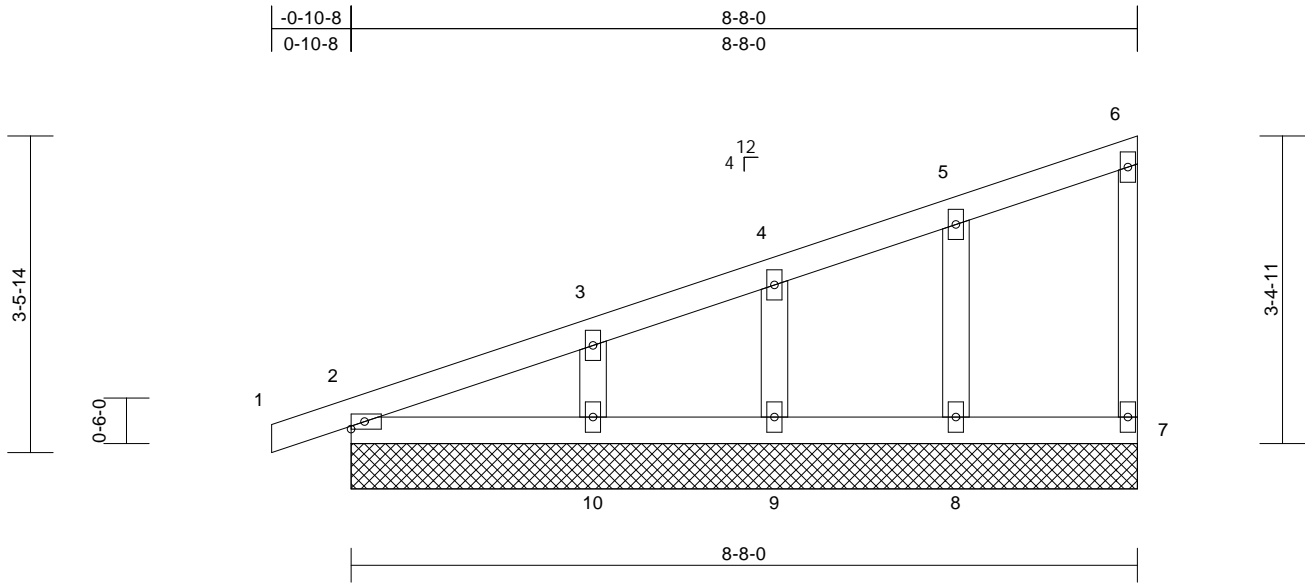
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|---------|-------|---------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | C1 | Monopitch Supported Gable | 1 | 1 | Job Reference (optional) | I65177298 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:31
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Page: 1



Scale = 1:25.4

| 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 | 0.11 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.02 | Horz(CT) | 0.00 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 29 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 10-0-0 oc bracing. |

| | | |
|-----------|------------|---|
| REACTIONS | (size) | 2=8-8-0, 7=8-8-0, 8=8-8-0, 9=8-8-0, 10=8-8-0 |
| | Max Horiz | 2=138 (LC 5) |
| | Max Uplift | 2=-33 (LC 4), 7=-14 (LC 5), 8=-47 (LC 8), 9=-40 (LC 4), 10=-61 (LC 8) |
| | Max Grav | 2=172 (LC 1), 7=66 (LC 1), 8=201 (LC 1), 9=159 (LC 1), 10=234 (LC 1) |

FORCES

| | |
|-----------|--|
| | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-2=0/6, 2-3=-110/37, 3-4=-80/19, 4-5=-68/24, 5-6=-58/26, 6-7=-52/22 |
| BOT CHORD | 2-10=-43/33, 9-10=-43/33, 8-9=-43/33, 7-8=-43/33 |
| WEBS | 5-8=-155/74, 4-9=-126/60, 3-10=-178/95 |

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) 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.
 - 8) All bearings are assumed to be SPF No.2 .
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 7, 33 lb uplift at joint 2, 47 lb uplift at joint 8, 40 lb uplift at joint 9 and 61 lb uplift at joint 10.
 - 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



April 29, 2024

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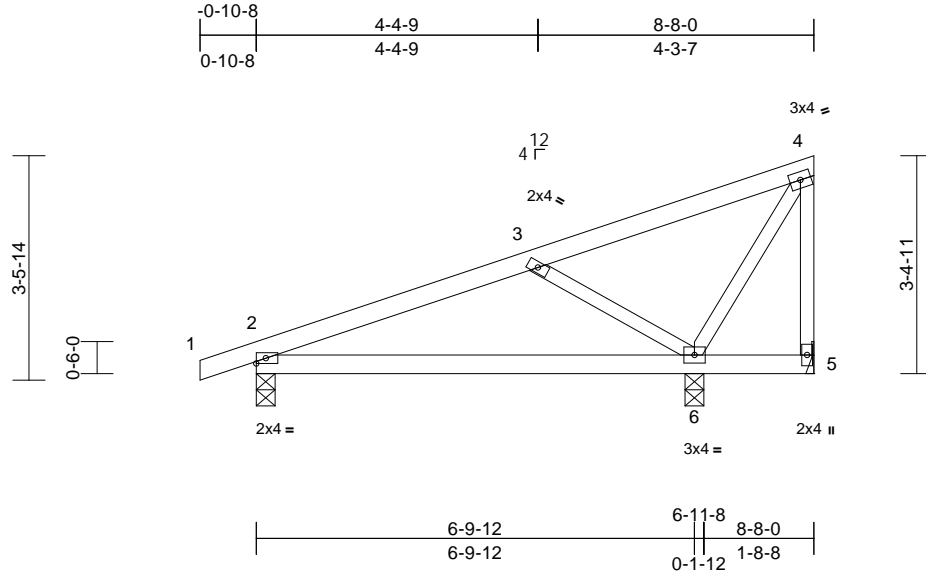
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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/17/2024 3:09:31

| | | | | | | |
|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177299 |
| B240091 | C2 | Monopitch | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:31
ID:NpVATqoAJz_5QRqr8sL_QZze1aS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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 | 0.26 | Vert(LL) | -0.06 | 2-6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.34 | Vert(CT) | -0.12 | 2-6 | >643 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.11 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 29 lb | FT = 10% |

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 2=0-3-8, 5= Mechanical, 6=0-3-8
Max Horiz 2=138 (LC 5)
Max Uplift 2=-89 (LC 4), 5=-74 (LC 3), 6=-86 (LC 8)
Max Grav 2=341 (LC 1), 5=-13 (LC 8), 6=544 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-316/88, 3-4=-74/135, 4-5=-7/31
BOT CHORD 2-6=-111/254, 5-6=-43/33
WEBS 3-6=-418/208, 4-6=-204/76

NOTES

- 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
- 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.
- All bearings are assumed to be SPF No.2.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 5, 89 lb uplift at joint 2 and 86 lb uplift at joint 6.



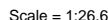
April 29, 2024

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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:31 Page: 1
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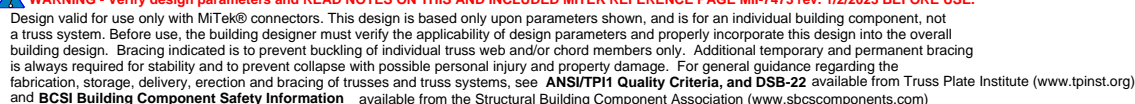
LUMBER

BRACING

NOTES

-

LOAD CASE(S) Standard



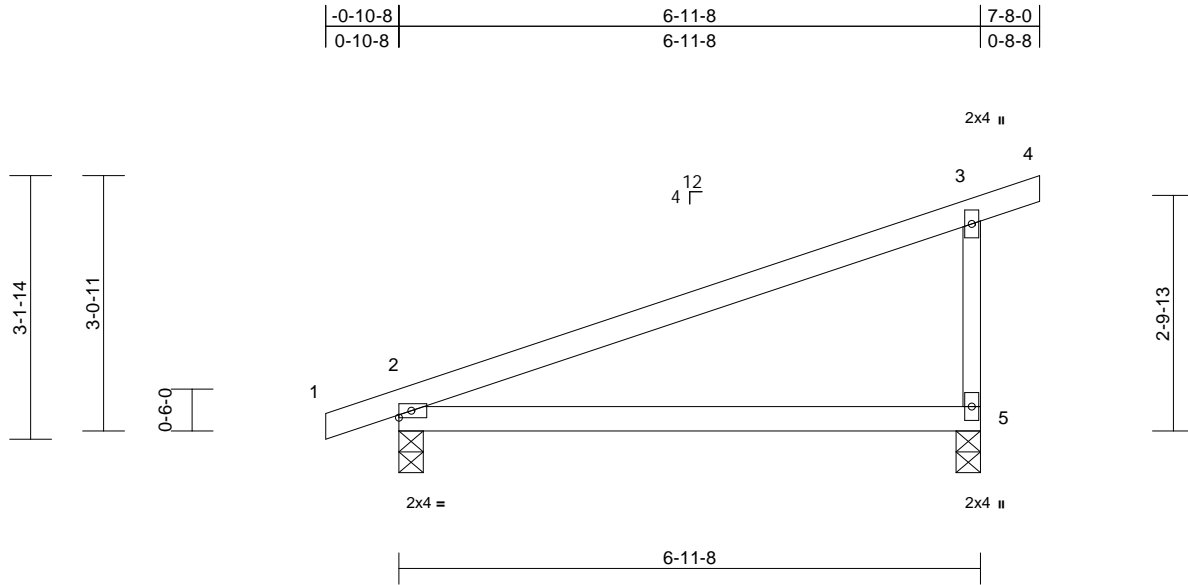
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Crestwood, MO 63070
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| | | | | | | |
|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177301 |
| B240091 | C4 | Monopitch | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:31
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Page: 1



Scale = 1:27.6

| 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 | 0.84 | Vert(LL) | -0.12 | 2-5 | >663 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.49 | Vert(CT) | -0.24 | 2-5 | >331 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 5 | 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
WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5=0-3-8
Max Horiz 2=124 (LC 5)
Max Uplift 2=-89 (LC 4), 5=-88 (LC 8)
Max Grav 2=375 (LC 1), 5=357 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-103/65, 3-4=-18/0,
3-5=-290/128

BOT CHORD 2-5=-35/27

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 5 and 89 lb uplift at joint 2.
- 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



April 29, 2024

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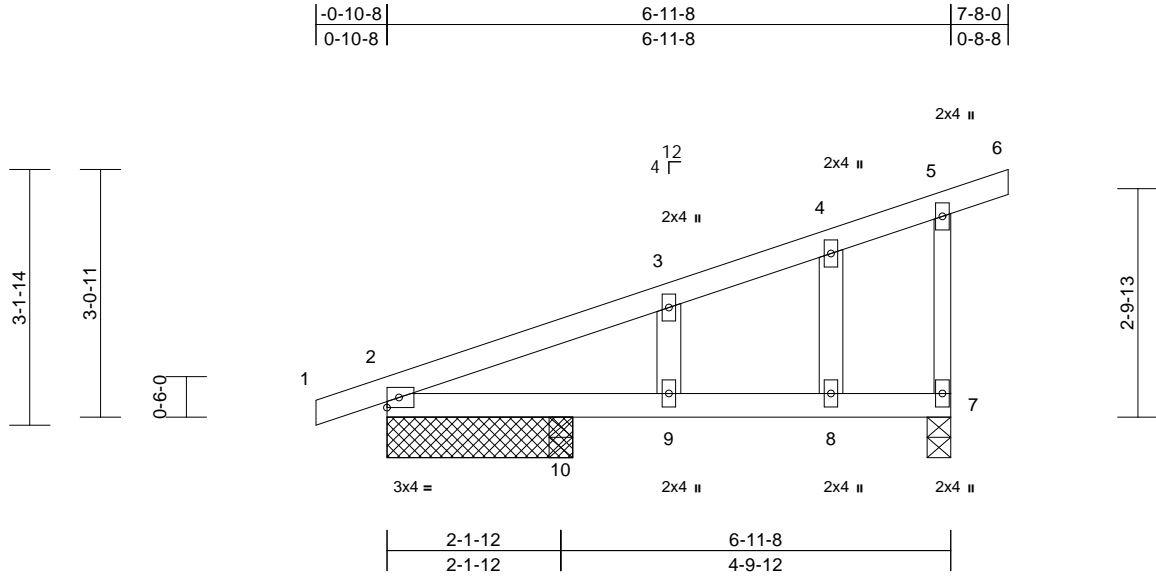
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|---------|-------|----------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177302 |
| B240091 | C5 | Monopitch Structural Gable | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:32

Page: 1

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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 | 0.17 | Vert(LL) | -0.03 | 8-9 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.32 | Vert(CT) | -0.05 | 8-9 | >999 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.02 | 8-9 | >999 | 240 | Weight: 23 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 10-0-0 oc bracing. |

REACTIONS

| | |
|------------|---|
| (size) | 2=2-3-8, 7=0-3-8, 10=0-3-8 |
| Max Horiz | 2=124 (LC 5) |
| Max Uplift | 2=-30 (LC 4), 7=-63 (LC 8), 10=-82 (LC 8) |
| Max Grav | 2=128 (LC 1), 7=254 (LC 1), 10=353 (LC 1) |

FORCES

| | |
|--|--|
| (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=0/6, 2-3=-118/9, 3-4=-92/0, 4-5=-50/16, 5-6=-18/0, 5-7=-186/62 |
| BOT CHORD | 2-10=-29/27, 9-10=-29/27, 8-9=-29/27, 7-8=-29/27 |
| WEBS | 3-9=-222/107, 4-8=0/51 |

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) Gable studs spaced at 2-0-0 oc.
- 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) All bearings are assumed to be SPF No.2 .
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 7, 30 lb uplift at joint 2 and 82 lb uplift at joint 10.
- 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



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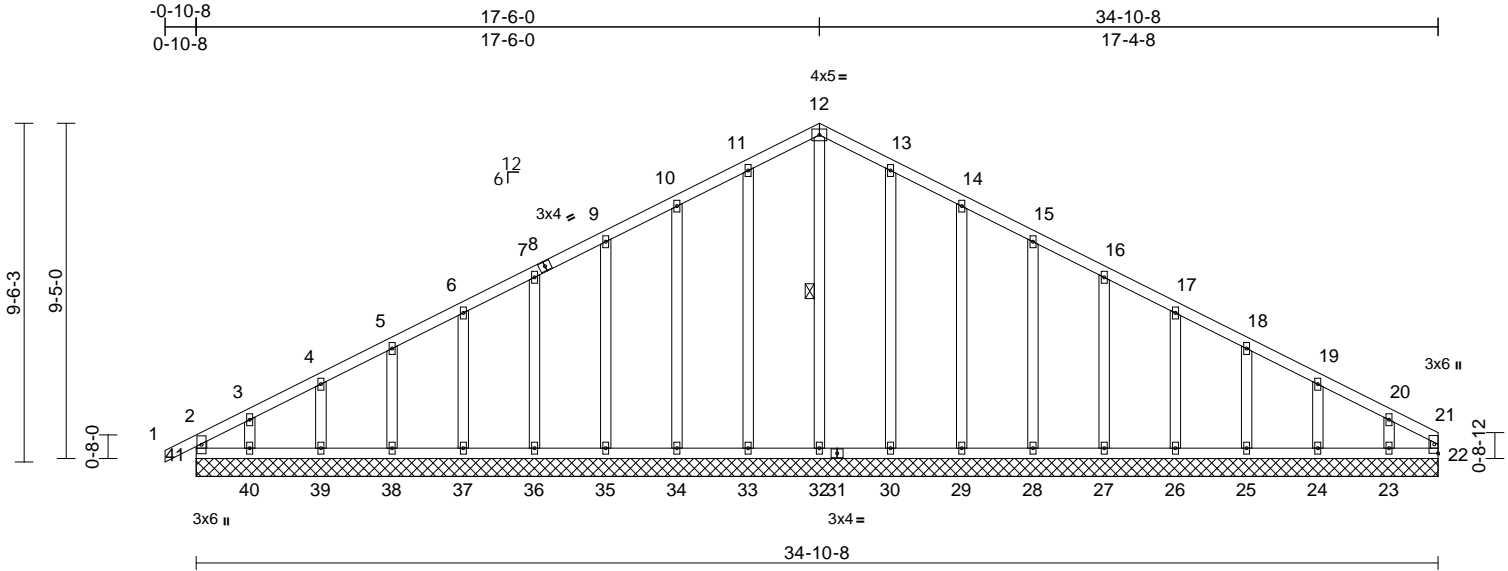
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|---------|-------|------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177303 |
| B240091 | D1 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:32
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Page: 1



Scale = 1:64.7

| 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 | 0.06 | Vert(CT) | n/a | - | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.17 | Horz(CT) | 0.01 | 22 | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | |
| Weight: 176 lb FT = 10% | | | | | | | | | | | |

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 21-22:2x3 SPF No.2
OTHERS 2x4 SPF No.2

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

WEBS 1 Row at midpt 12-32

REACTIONS (size)
22=34'-10-8, 23=34'-10-8,
24=34'-10-8, 25=34'-10-8,
26=34'-10-8, 27=34'-10-8,
28=34'-10-8, 29=34'-10-8,
30=34'-10-8, 32=34'-10-8,
33=34'-10-8, 34=34'-10-8,
35=34'-10-8, 36=34'-10-8,
37=34'-10-8, 38=34'-10-8,
39=34'-10-8, 40=34'-10-8,
41=34'-10-8
Max Horiz 41=156 (LC 8)
Max Uplift 23=108 (LC 9), 24=47 (LC 9),
25=56 (LC 9), 26=53 (LC 9),
27=54 (LC 9), 28=53 (LC 9),
29=58 (LC 9), 30=48 (LC 9),
33=51 (LC 8), 34=57 (LC 8),
35=53 (LC 8), 36=54 (LC 8),
37=53 (LC 8), 38=56 (LC 8),
39=44 (LC 8), 40=116 (LC 8),
41=49 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-41=141/47, 1-2=0/32, 2-3=197/80,
3-4=143/84, 4-5=107/97, 5-6=78/123,
6-7=66/149, 7-9=55/175, 9-10=44/201,
10-11=38/227, 11-12=41/250, 21-22=68/3,
12-13=42/242, 13-14=38/199,
14-15=39/151, 15-16=38/118,
16-17=38/92, 17-18=38/66, 18-19=60/44,
19-20=86/36, 20-21=137/30
BOT CHORD 40-41=27/113, 39-40=27/113,
38-39=27/113, 37-38=27/113,
36-37=27/113, 35-36=27/113,
34-35=27/113, 33-34=27/113,
32-33=27/113, 30-32=27/113,
29-30=27/113, 28-29=27/113,
27-28=27/113, 26-27=27/113,
25-26=27/113, 24-25=27/113,
23-24=27/113, 22-23=27/113
WEBS 12-32=174/0, 11-33=150/75,
10-34=139/81, 9-35=140/77, 7-36=140/78,
6-37=140/78, 5-38=138/79, 4-39=147/74,
3-40=100/105, 13-30=150/72,
14-29=139/82, 15-28=140/77,
16-27=140/78, 17-26=140/78,
18-25=139/78, 19-24=143/76,
20-23=125/98

NOTES
1) 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 2'-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'-0" tall by 2'-0" wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2.



April 29, 2024

Continued on page 2

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|---------|-------|------------------------|-----|-----|--------------------------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT |
| B240091 | D1 | Common Supported Gable | 1 | 1 | I65177303 |
| | | | | | Job Reference (optional) |

- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 41, 51 lb uplift at joint 33, 57 lb uplift at joint 34, 53 lb uplift at joint 35, 54 lb uplift at joint 36, 53 lb uplift at joint 37, 56 lb uplift at joint 38, 44 lb uplift at joint 39, 116 lb uplift at joint 40, 48 lb uplift at joint 30, 58 lb uplift at joint 29, 53 lb uplift at joint 28, 54 lb uplift at joint 27, 53 lb uplift at joint 26, 56 lb uplift at joint 25, 47 lb uplift at joint 24 and 108 lb uplift at joint 23.
- 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

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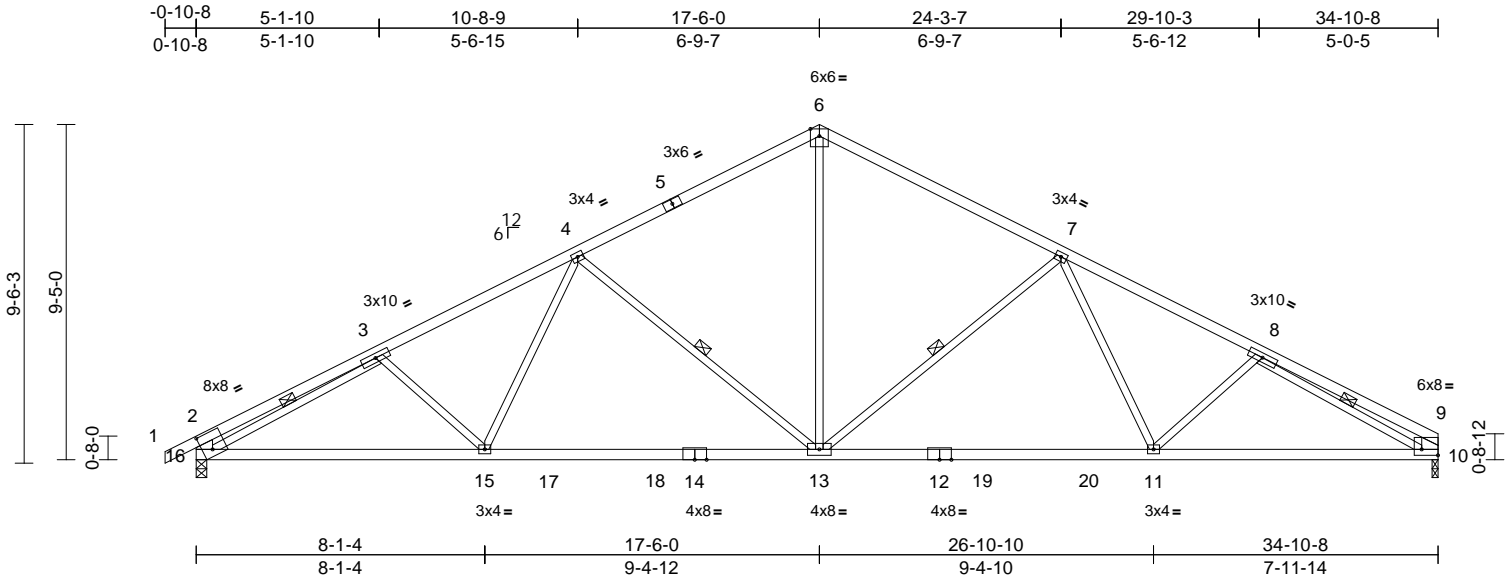
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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | D2 | Common | 7 | 1 | Job Reference (optional) | I65177304 |

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|--|--|-------|-----------------|--|-----------------|------------|--|-------------|----------|--|-------|-------|--------|-----|----------------|-------------|
| Scale = 1:64.7 | | | | | | | | | | | | | | | | |
| Plate Offsets (X, Y): [2:0-3-5,0-5-12], [9:Edge,0-2-0] | | | | | | | | | | | | | | | | |
| 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 | | 0.62 | Vert(LL) | | -0.24 | 11-13 | >999 | 360 | MT20 | 197/144 |
| TCDL | | 10.0 | Lumber DOL | | 1.15 | BC | | 0.59 | Vert(CT) | | -0.42 | 11-13 | >975 | 240 | | |
| BCLL | | 0.0* | Rep Stress Incr | | YES | WB | | 0.67 | Horz(CT) | | 0.09 | 10 | n/a | n/a | | |
| BCDL | | 10.0 | Code | | IRC2018/TPI2014 | Matrix-S | | | Wind(LL) | | 0.09 | 13-15 | >999 | 240 | Weight: 133 lb | FT = 10% |

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2400F 2.0E *Except* 14-12:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 16-2,10-9:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-16, 8-10, 4-13, 7-13

REACTIONS (size) 10=0-2-0, 16=0-3-8
Max Horiz 16=156 (LC 8)
Max Uplift 10=-192 (LC 9), 16=-218 (LC 8)
Max Grav 10=1636 (LC 2), 16=1701 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-866/167, 3-4=-2632/321, 4-6=-1889/278, 6-7=-1889/278, 7-8=-2610/320, 8-9=-632/108, 2-16=-608/164, 9-10=-405/104
BOT CHORD 15-16=-387/2352, 13-15=-267/2125, 11-13=-132/2112, 10-11=-252/2318
WEBS 6-13=-96/1243, 3-16=-1920/182, 8-10=-2125/239, 4-13=-702/266, 7-13=-687/265, 4-15=0/441, 7-11=0/425, 3-15=-170/165, 8-11=-158/164

- * 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.
- All bearings are assumed to be SPF 2400F 2.0E .
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 218 lb uplift at joint 16 and 192 lb uplift at joint 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

- 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
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



April 29,2024

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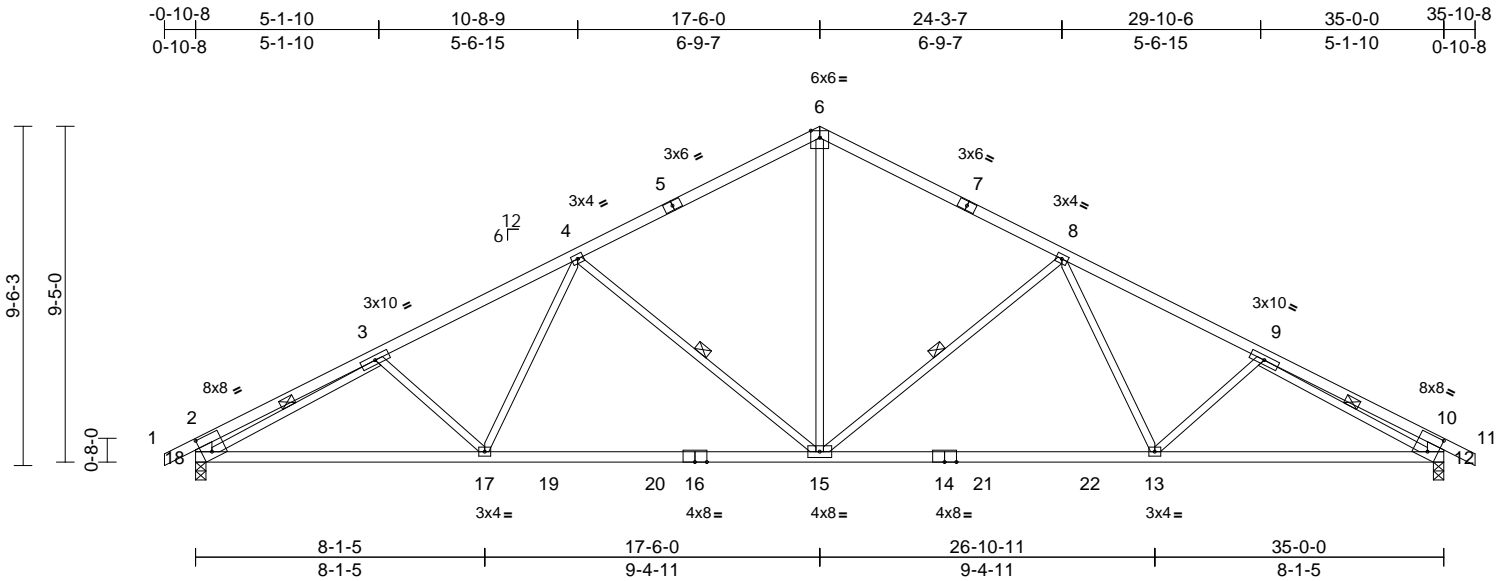
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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | D3 | Common | 1 | 1 | Job Reference (optional) | 165177305 |

Wheeler Lumber, Waverly, KS - 66871,

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| | | | | | | | | | |
|---|-------|-----------------|-----------------|------------|------|-------------|-------------------------|--------|-----|
| Scale = 1:64.6 | | | | | | | | | |
| Plate Offsets (X, Y): [2:0-3-5,0-5-12], [10:0-3-5,0-5-12] | | | | | | | | | |
| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in (loc) | l/defl | L/d |
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.61 | Vert(LL) | -0.28 13-15 | >999 | 360 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.95 | Vert(CT) | -0.49 13-15 | >840 | 240 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.63 | Horz(CT) | 0.12 12 | n/a | n/a |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.10 15-17 | >999 | 240 |
| | | | | | | | Weight: 134 lb FT = 10% | | |
| | | | | | | | PLATES GRIP | | |
| | | | | | | | MT20 197/144 | | |

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 16-14:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 18-2,12-10:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 3-18, 9-12, 4-15, 8-15

REACTIONS (size) 12=0-3-8, 18=0-3-8
Max Horiz 18=146 (LC 13)
Max Uplift 12=219 (LC 9), 18=219 (LC 8)
Max Grav 12=1706 (LC 2), 18=1706 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=846/164, 3-4=2641/322, 4-6=1903/278, 6-8=1903/278, 8-9=2641/322, 9-10=846/164, 10-11=0/35, 2-18=600/163, 10-12=600/163
BOT CHORD 17-18=378/2358, 15-17=257/2136, 13-15=111/2136, 12-13=233/2357
WEBS 6-15=-96/1256, 3-18=-1947/185, 9-12=-1947/186, 4-15=-700/267, 8-15=-700/268, 4-17=-2/435, 8-13=-2/435, 3-17=-166/164, 9-13=-166/164

- 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) All bearings are assumed to be SPF No.2 .
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 219 lb uplift at joint 18 and 219 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.

LOAD CASE(S) Standard

- 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
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

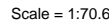


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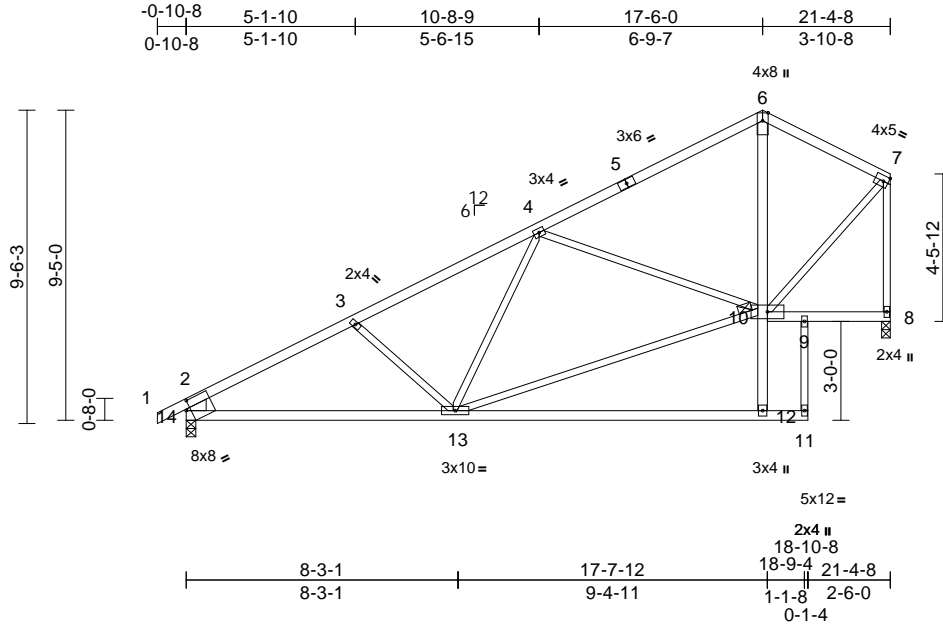
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|---------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | D5 | Roof Special | 2 | 1 | Job Reference (optional) | I65177307 |

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:70

Plate Offsets (X, Y): [14:0-1-10,0-3-4]

| 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 | 0.87 | Vert(LL) | -0.13 | 12-13 | >999 | 360 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.58 | Vert(CT) | -0.30 | 12-13 | >836 | 240 | 197/144 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.79 | Horz(CT) | 0.01 | 8 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.07 | 12-13 | >999 | 240 | Weight: 97 lb FT = 10% |

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-2:2x8 SP 2400F
2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or
2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-8-5 oc
bracing.

JOINTS 1 Brace at Jt(s): 10

REACTIONS (size) 8=0-3-2, 14=0-3-8
Max Horiz 14=284 (LC 5)
Max Uplift 8=-158 (LC 8), 14=-155 (LC 8)
Max Grav 8=941 (LC 1), 14=1028 (LC 1)

FORCES

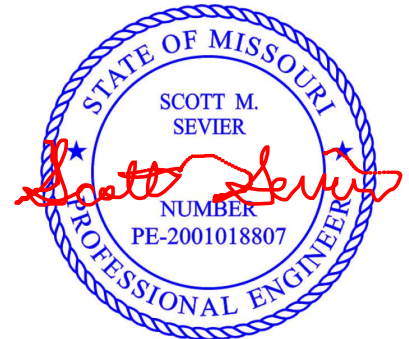
(lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=0/37, 2-3=-1442/219, 3-4=-1199/185,
4-6=-680/135, 6-7=-595/165, 2-14=-939/193,
7-8=-912/171
BOT CHORD 13-14=-356/1184, 12-13=0/46, 11-12=0/0,
10-12=0/355, 6-10=-8/242, 9-10=-59/45,
8-9=-59/45
WEBS 3-13=-209/172, 4-13=-38/184,
10-13=-289/1058, 4-10=-597/244,
7-10=-116/741, 9-11=-118/0

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
- 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.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 155 lb uplift at joint 14 and 158 lb uplift at joint 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



April 29, 2024

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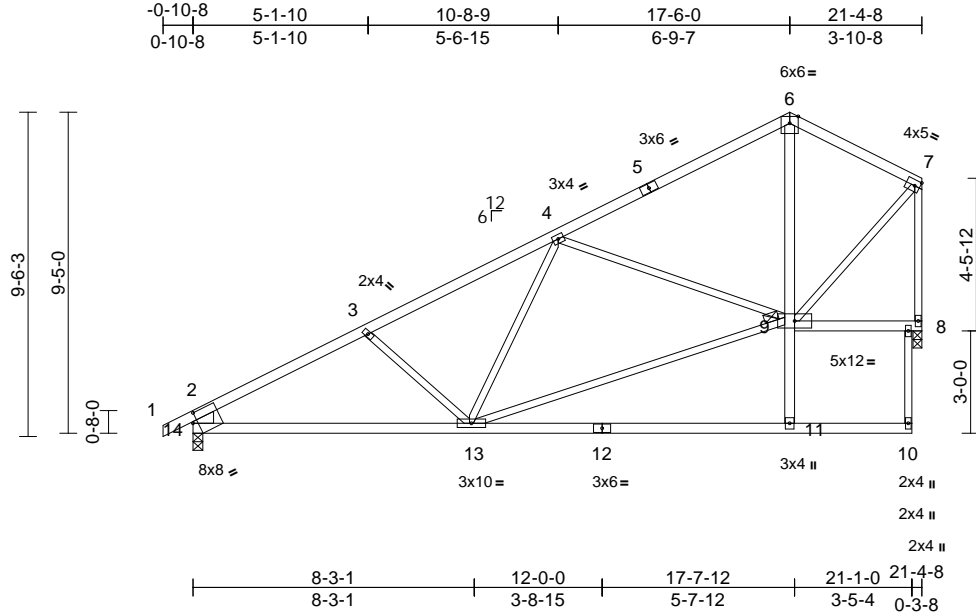
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|---------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | D6 | Roof Special | 3 | 1 | Job Reference (optional) | I65177308 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:32

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Scale = 1:67.6

Plate Offsets (X, Y): [14:0-1-10,0-3-4]

| 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 | 0.87 | Vert(LL) | -0.14 | 11-13 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.59 | Vert(CT) | -0.31 | 11-13 | >793 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.79 | Horz(CT) | 0.01 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.07 | 11-13 | >999 | 240 | Weight: 100 lb | FT = 10% |

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-2:2x8 SP 2400F
2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or
2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc
bracing.

JOINTS 1 Brace at Jt(s): 9

REACTIONS (size) 8=0-3-2, 14=0-3-8
Max Horiz 14=284 (LC 5)
Max Uplift 8=120 (LC 8), 14=150 (LC 8)
Max Grav 8=1008 (LC 1), 14=1028 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum
Tension
TOP CHORD 6-7=-596/147, 2-14=-939/189, 7-8=-948/151,
1-2=0/37, 2-3=-1442/210, 3-4=-1199/176,
4-6=-679/118
BOT CHORD 13-14=-349/1183, 11-13=0/42, 10-11=0/1,
9-11=0/299, 6-9=0/267, 8-9=-68/47
WEBS 3-13=-208/173, 4-13=-37/177,
9-13=-275/1059, 4-9=-598/248,
7-9=-101/789, 8-10=0/25

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
- 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.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 150 lb uplift at joint 14 and 120 lb uplift at joint 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



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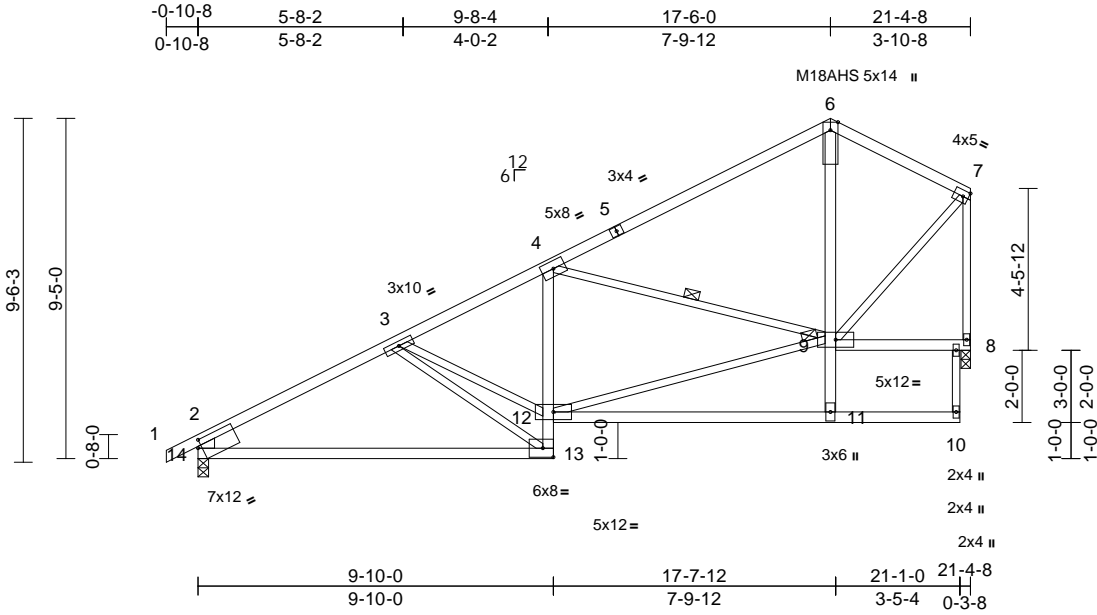
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|---------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177309 |
| B240091 | D7 | Roof Special | 3 | 1 | Job Reference (optional) | |

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Page: 1



Scale = 1:63.8

Plate Offsets (X, Y): [14:0-1-4,0-2-8]

| 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 | 0.77 | Vert(LL) | -0.25 | 13-14 | >999 | 360 | MT20 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.72 | Vert(CT) | -0.49 | 13-14 | >508 | 240 | M18AHS 142/136 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.79 | Horz(CT) | 0.05 | 8 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.08 | 13 | >999 | 240 | Weight: 101 lb FT = 10% |

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-2:2x6 SP 2400F 2.OE

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-2-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-9
JOINTS 1 Brace at Jt(s): 9

REACTIONS

(size) 8=0-3-2, 14=0-3-8
Max Horiz 14=284 (LC 5)
Max Uplift 8=121 (LC 8), 14=149 (LC 8)
Max Grav 8=1012 (LC 1), 14=1026 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-1414/220, 3-4=-1361/231, 4-6=-701/116, 6-7=-594/150, 2-14=-924/207, 7-8=-944/153
BOT CHORD 13-14=-348/1157, 12-13=-179/779, 4-12=0/209, 11-12=0/68, 10-11=0/3, 9-11=0/281, 6-9=0/251, 8-9=-68/47
WEBS 3-13=-1161/394, 3-12=-279/1087, 9-12=-324/1239, 4-9=-792/285, 7-9=-107/793, 8-10=0/35

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.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 149 lb uplift at joint 14 and 121 lb uplift at joint 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



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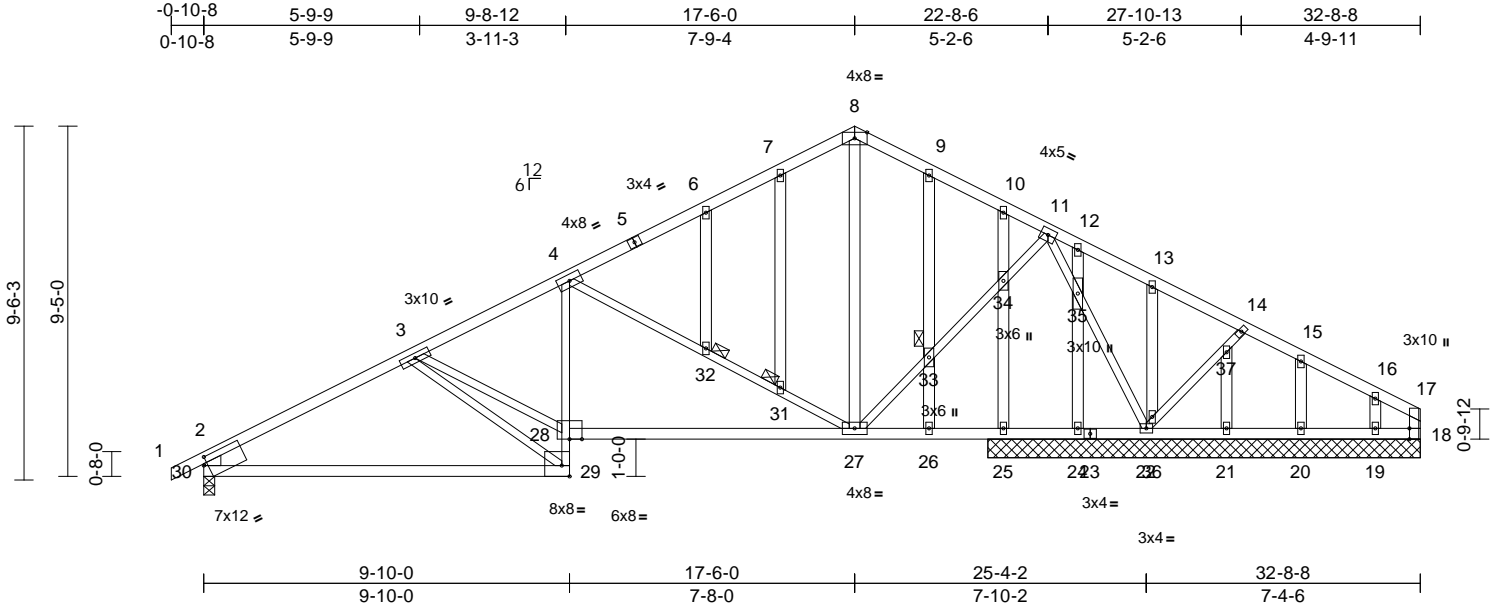
| | | | | | | |
|---------|-------|-------------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177310 |
| B240091 | D8 | Roof Special Structural Gable | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:33

Page: 1

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Scale = 1:62

Plate Offsets (X, Y): [17:0-3-8,Edge], [29:Edge,0-3-8], [30:0-1-4,0-2-8]

| | | | | | | | | | | | | |
|----------------|-------|-----------------|-----------------|------------|------|-------------|-------|-------|--------|-----|----------------|-------------|
| 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 | 0.70 | Vert(LL) | -0.22 | 29-30 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.67 | Vert(CT) | -0.43 | 29-30 | >588 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.83 | Horz(CT) | 0.06 | 25 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.08 | 27-28 | >999 | 240 | Weight: 164 lb | FT = 10% |

| | |
|------------------|---|
| LUMBER | |
| TOP CHORD | 2x4 SPF No.2 |
| BOT CHORD | 2x4 SPF No.2 *Except* 30-29:2x4 SPF 2100F 1.8E, 29-4:2x3 SPF No.2 |
| WEBS | 2x3 SPF No.2 *Except* 27-8,18-17:2x4 SPF No.2, 30-2:2x6 SP 2400F 2.0E |
| OTHERS | 2x4 SPF No.2 |
| BRACING | |
| TOP CHORD | Structural wood sheathing directly applied or 4-0-15 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing, Except: |
| JOINTS | 10-0-0 oc bracing: 29-30,27-28. |
| | 1 Brace at Jt(s): 31, 32, 33 |
| REACTIONS | (size) 18=11-7-8, 19=11-7-8, 20=11-7-8, 21=11-7-8, 22=11-7-8, 24=11-7-8, 25=11-7-8, 30=0-3-8 |
| | Max Horiz 30=179 (LC 8) |
| | Max Uplift 18=381 (LC 21), 19=81 (LC 8), 20=35 (LC 21), 21=56 (LC 21), 22=72 (LC 8), 24=110 (LC 8), 25=102 (LC 9), 30=153 (LC 8) |
| | Max Grav 18=100 (LC 8), 19=422 (LC 1), 20=113 (LC 22), 21=45 (LC 8), 22=644 (LC 1), 24=734 (LC 1), 25=547 (LC 1), 30=985 (LC 1) |
| FORCES | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-2=0/35, 2-3=1332/229, 3-4=1275/236, 4-6=459/93, 6-7=345/107, 7-8=304/119, 8-9=330/136, 9-10=403/144, 10-11=198/84, 11-12=0/367, 12-13=54/646, 13-14=76/598, 14-15=56/414, 15-16=68/371, 16-17=104/434, 2-30=880/212, 17-18=67/274 |

| | |
|------------------|--|
| BOT CHORD | 29-30=296/1088, 28-29=172/831, 4-28=13/417, 27-28=232/1145, 26-27=360/132, 25-26=360/132, 24-25=360/132, 22-24=360/132, 21-22=335/95, 20-21=335/95, 19-20=335/95, 18-19=335/95 |
| WEBS | 3-29=1218/370, 3-28=251/1125, 4-32=950/298, 31-32=961/306, 27-31=979/312, 8-27=61/171, 27-33=139/954, 33-34=138/956, 11-34=146/1002, 11-35=401/33, 22-35=359/27, 22-36=335/159, 36-37=299/82, 14-37=240/85, 7-31=37/12, 6-32=23/16, 9-33=68/75, 26-33=58/66, 10-34=543/109, 25-34=480/106, 12-35=679/125, 24-35=726/131, 13-36=115/91, 21-37=21/102, 15-20=78/60, 16-19=266/87 |

- 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) 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) Bearings are assumed to be: Joint 30 SPF 2100F 1.8E , Joint 19 SPF No.2 .
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 153 lb uplift at joint 30, 72 lb uplift at joint 22, 381 lb uplift at joint 18, 102 lb uplift at joint 25, 110 lb uplift at joint 24, 56 lb uplift at joint 21, 35 lb uplift at joint 20 and 81 lb uplift at joint 19.
 - 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



April 29,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

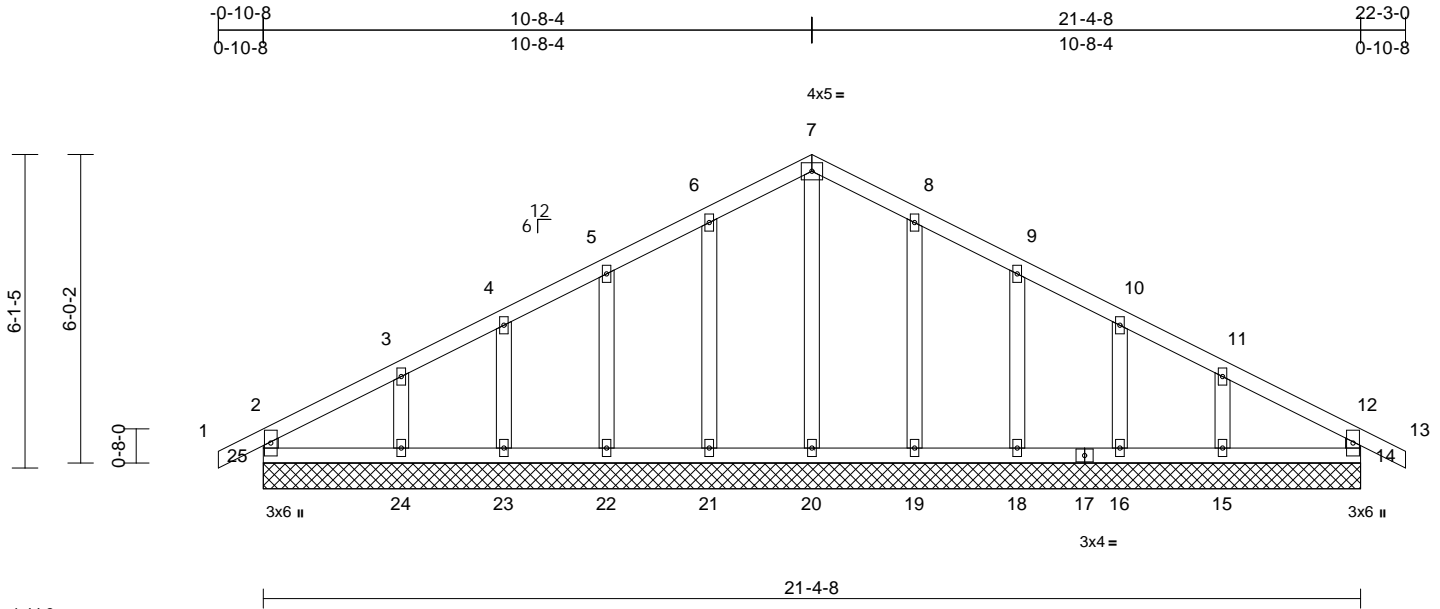
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/17/2024 3:09:32

| | | | | | | |
|---------|-------|------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | 165177311 |
| B240091 | E1 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:33
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Page: 1



Scale = 1:44.9

| 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 | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 14 | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | Weight: 88 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 (size)
14=21-4-8, 15=21-4-8, 16=21-4-8, 18=21-4-8, 19=21-4-8, 20=21-4-8, 21=21-4-8, 22=21-4-8, 23=21-4-8, 24=21-4-8, 25=21-4-8
Max Horiz 25=91 (LC 6)
Max Uplift 14=18 (LC 8), 15=84 (LC 9), 16=44 (LC 9), 18=57 (LC 9), 19=54 (LC 9), 21=55 (LC 8), 22=58 (LC 8), 23=42 (LC 8), 24=90 (LC 8), 25=33 (LC 9)
Max Grav 14=194 (LC 1), 15=213 (LC 22), 16=171 (LC 1), 18=181 (LC 1), 19=190 (LC 22), 20=169 (LC 18), 21=190 (LC 21), 22=181 (LC 1), 23=171 (LC 1), 24=213 (LC 21), 25=194 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-25=-171/45, 1-2=0/32, 2-3=-98/59, 3-4=-65/86, 4-5=-54/112, 5-6=-48/138, 6-7=-51/162, 7-8=-51/155, 8-9=-48/115, 9-10=-48/88, 10-11=-51/63, 11-12=-79/40, 12-13=0/32, 12-14=-171/33
BOT CHORD 24-25=-17/74, 23-24=-17/74, 22-23=-17/74, 21-22=-17/74, 20-21=-17/74, 19-20=-17/74, 18-19=-17/74, 16-18=-17/74, 15-16=-17/74, 14-15=-17/74

WEBS
7-20=-129/0, 6-21=-150/79, 5-22=-140/81, 4-23=-134/69, 3-24=-161/108, 8-19=-150/78, 9-18=-140/81, 10-16=-134/70, 11-15=-161/104

- 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 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.
 - All bearings are assumed to be SPF No.2.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 25, 18 lb uplift at joint 14, 55 lb uplift at joint 21, 58 lb uplift at joint 22, 42 lb uplift at joint 23, 90 lb uplift at joint 24, 54 lb uplift at joint 19, 57 lb uplift at joint 18, 44 lb uplift at joint 16 and 84 lb uplift at joint 15.
 - 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



April 29, 2024

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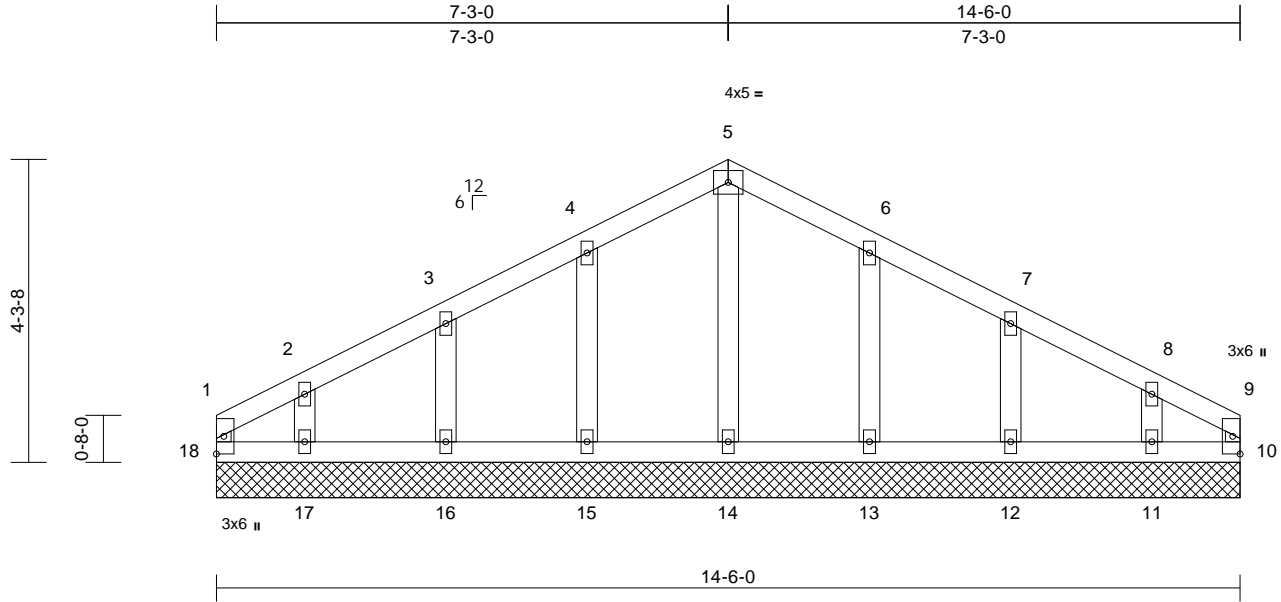
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05/17/2024 3:09:32

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|---------|-------|------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | 165177312 |
| B240091 | G1 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:33
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Page: 1



Scale = 1:32.6

| 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 | 0.05 | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.02 | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.03 | 0.00 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | Weight: 52 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 10-0-0 oc bracing. |

| | | |
|-----------|------------|---|
| REACTIONS | (size) | 10=14-6-0, 11=14-6-0, 12=14-6-0, 13=14-6-0, 14=14-6-0, 15=14-6-0, 16=14-6-0, 17=14-6-0, 18=14-6-0 |
| | Max Horiz | 18=62 (LC 5) |
| | Max Uplift | 10=6 (LC 8), 11=68 (LC 9), 12=53 (LC 9), 13=58 (LC 9), 15=58 (LC 8), 16=52 (LC 8), 17=73 (LC 8), 18=16 (LC 9) |
| | Max Grav | 10=50 (LC 18), 11=156 (LC 22), 12=183 (LC 1), 13=190 (LC 22), 14=158 (LC 1), 15=190 (LC 21), 16=183 (LC 1), 17=156 (LC 21), 18=57 (LC 17) |

FORCES

| | |
|-----------|---|
| | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-18=-41/17, 1-2=-62/34, 2-3=-51/51, 3-4=-41/78, 4-5=-44/103, 5-6=-44/95, 6-7=-41/66, 7-8=-40/40, 8-9=-49/25, 9-10=-36/10 |
| BOT CHORD | 17-18=-20/40, 16-17=-20/40, 15-16=-20/40, 14-15=-20/40, 13-14=-20/40, 12-13=-20/40, 11-12=-20/40, 10-11=-20/40 |
| WEBS | 5-14=-118/0, 4-15=-150/82, 3-16=-142/78, 2-17=-122/80, 6-13=-150/81, 7-12=-142/79, 8-11=-122/78 |

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) 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) All bearings are assumed to be SPF No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 18, 6 lb uplift at joint 10, 58 lb uplift at joint 15, 52 lb uplift at joint 16, 73 lb uplift at joint 17, 58 lb uplift at joint 13, 53 lb uplift at joint 12 and 68 lb uplift at joint 11.
- 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



April 29,2024

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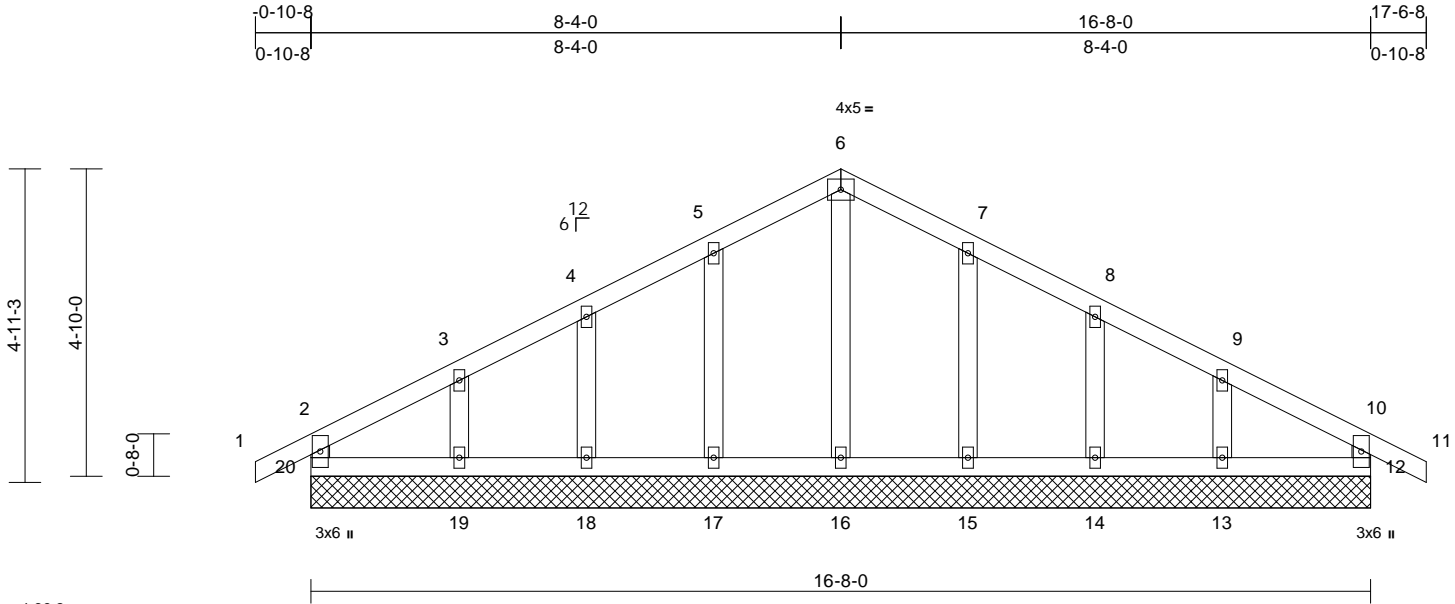
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|---------|-------|------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | G2 | Common Supported Gable | 1 | 1 | Job Reference (optional) | I65177313 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:33
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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 | 0.07 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | 0.00 | 12 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | | | | | | Weight: 64 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 | (size) | 12=16-8-0, 13=16-8-0, 14=16-8-0, 15=16-8-0, 16=16-8-0, 17=16-8-0, 18=16-8-0, 19=16-8-0, 20=16-8-0 |
| Max Horiz | | 20=76 (LC 7) |
| Max Uplift | | 12=-18 (LC 9), 13=-72 (LC 9), 14=-49 (LC 9), 15=-58 (LC 9), 17=-59 (LC 8), 18=-48 (LC 8), 19=-77 (LC 8), 20=-29 (LC 9) |
| Max Grav | | 12=176 (LC 1), 13=188 (LC 22), 14=176 (LC 1), 15=192 (LC 22), 16=161 (LC 1), 17=192 (LC 21), 18=176 (LC 1), 19=188 (LC 21), 20=176 (LC 1) |

FORCES

| | |
|-----------|---|
| | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 2-20=-155/39, 1-2=0/32, 2-3=-72/53, 3-4=-48/75, 4-5=-37/101, 5-6=-41/126, 6-7=-41/118, 7-8=-37/84, 8-9=-38/58, 9-10=-59/40, 10-11=0/32, 10-12=-155/35 |
| BOT CHORD | 19-20=-16/59, 18-19=-16/59, 17-18=-16/59, 16-17=-16/59, 15-16=-16/59, 14-15=-16/59, 13-14=-16/59, 12-13=-16/59 |
| WEBS | 6-16=-121/0, 5-17=-151/82, 4-18=-137/73, 3-19=-143/95, 7-15=-151/82, 8-14=-137/74, 9-13=-143/92 |

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) 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) All bearings are assumed to be SPF No.2.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 20, 18 lb uplift at joint 12, 59 lb uplift at joint 17, 48 lb uplift at joint 18, 77 lb uplift at joint 19, 58 lb uplift at joint 15, 49 lb uplift at joint 14 and 72 lb uplift at joint 13.
- 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



April 29, 2024

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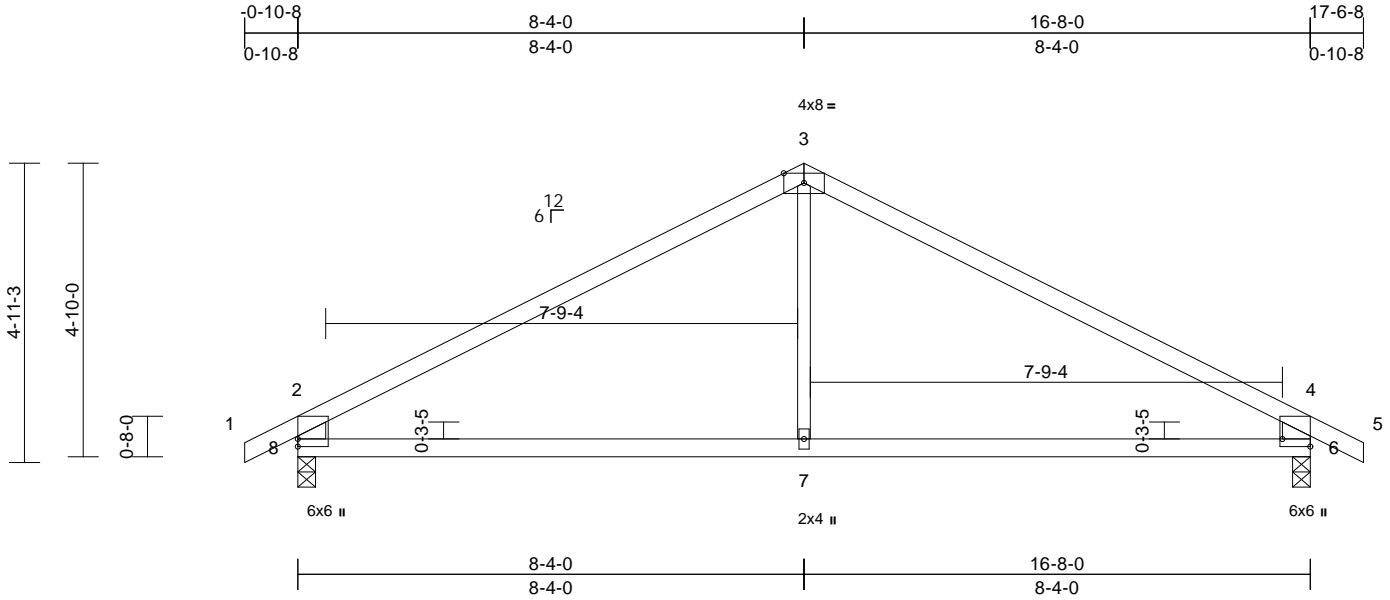
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05/17/2024 3:09:32

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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | 165177314 |
| B240091 | G3 | Common | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:33
ID:0047JK1vpobSzvZpOnQDy3ze1Gn-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:37.9

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

| 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) | -0.09 | 7-8 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.55 | Vert(CT) | -0.18 | 7-8 | >999 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.11 | Horz(CT) | 0.02 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | Wind(LL) | 0.05 | 7-8 | >999 | 240 | Weight: 47 lb | FT = 10% |

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except* 7-3:2x3 SPF No.2

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 6=0-3-8, 8=0-3-8
Max Horiz 8=77 (LC 7)
Max Uplift 6=116 (LC 9), 8=116 (LC 8)
Max Grav 6=807 (LC 1), 8=807 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-950/126, 3-4=-950/126, 4-5=0/35, 2-8=-745/174, 4-6=-745/174
BOT CHORD 7-8=-29/728, 6-7=-29/728
WEBS 3-7=0/362

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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.
- 5) All bearings are assumed to be SPF No.2 .
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 116 lb uplift at joint 8 and 116 lb uplift at joint 6.



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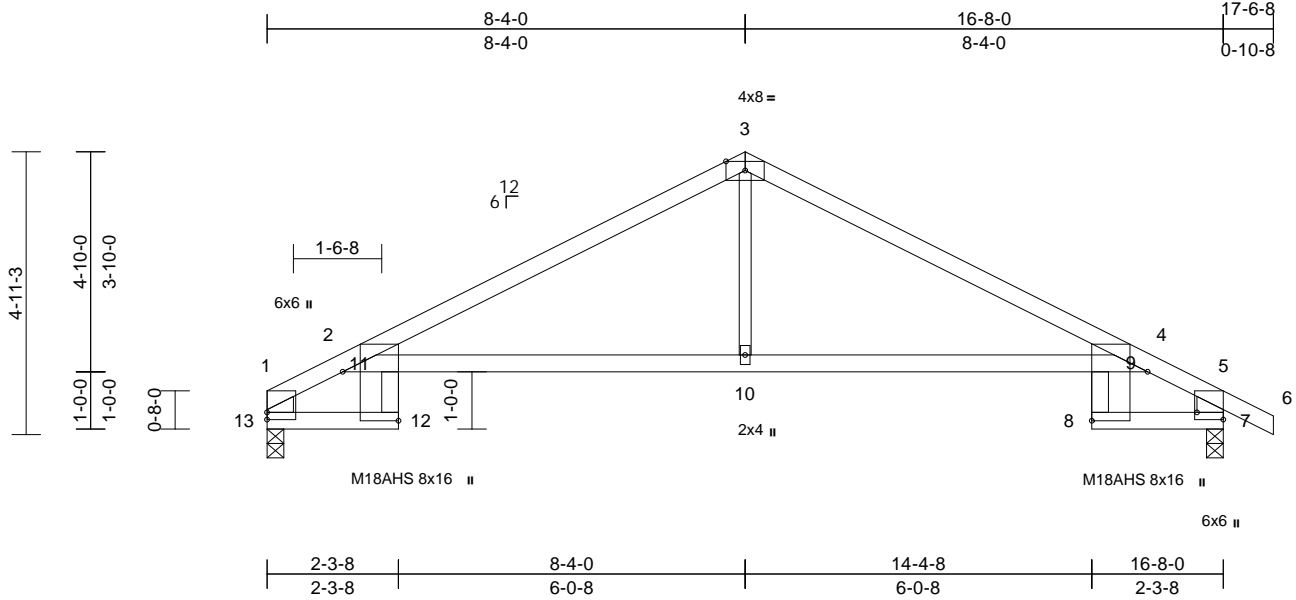
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|---------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | G4 | Roof Special | 1 | 1 | Job Reference (optional) | I65177315 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Nov 16 2023 Print: 8.730 E Nov 16 2023 MiTek Industries, Inc. Mon Apr 29 09:09:52
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Page: 1



| | | | | | | | | | |
|---|-------|-----------------|-----------------|------------|------|-------------|-------------|---------------|----------|
| Scale = 1:40.2 | | | | | | | | | |
| Plate Offsets (X, Y): [4:Edge,0-11-11], [7:Edge,0-5-8], [12:Edge,0-11-11] | | | | | | | | | |
| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in (loc) | l/defl | L/d |
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.95 | Vert(LL) | -0.27 10-11 | >708 | 360 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.96 | Vert(CT) | -0.51 10-11 | >382 | 240 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.16 | Horz(CT) | 0.42 7 | n/a | n/a |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | Wind(LL) | 0.25 10-11 | >779 | 240 |
| | | | | | | | | Weight: 49 lb | FT = 10% |

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 2-4:2x4 SPF 2400F 2.0E
WEBS 2x6 SPF No.2 *Except* 10-3:2x3 SPF No.2

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

REACTIONS (lb/size) 7=809/0-3-8, 13=727/0-3-8
Max Horiz 13=81 (LC 4)
Max Uplift 7=116 (LC 9), 13=90 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-735/121, 2-3=-1224/118, 3-4=-1225/148, 4-5=-729/135, 1-13=-737/110, 5-7=-832/127
BOT CHORD 12-13=-128/460, 2-11=0/569, 10-11=-44/1029, 9-10=-44/1029, 4-9=-10/585, 7-8=-82/445
WEBS 3-10=0/497

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 13 and 116 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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.



April 29, 2024

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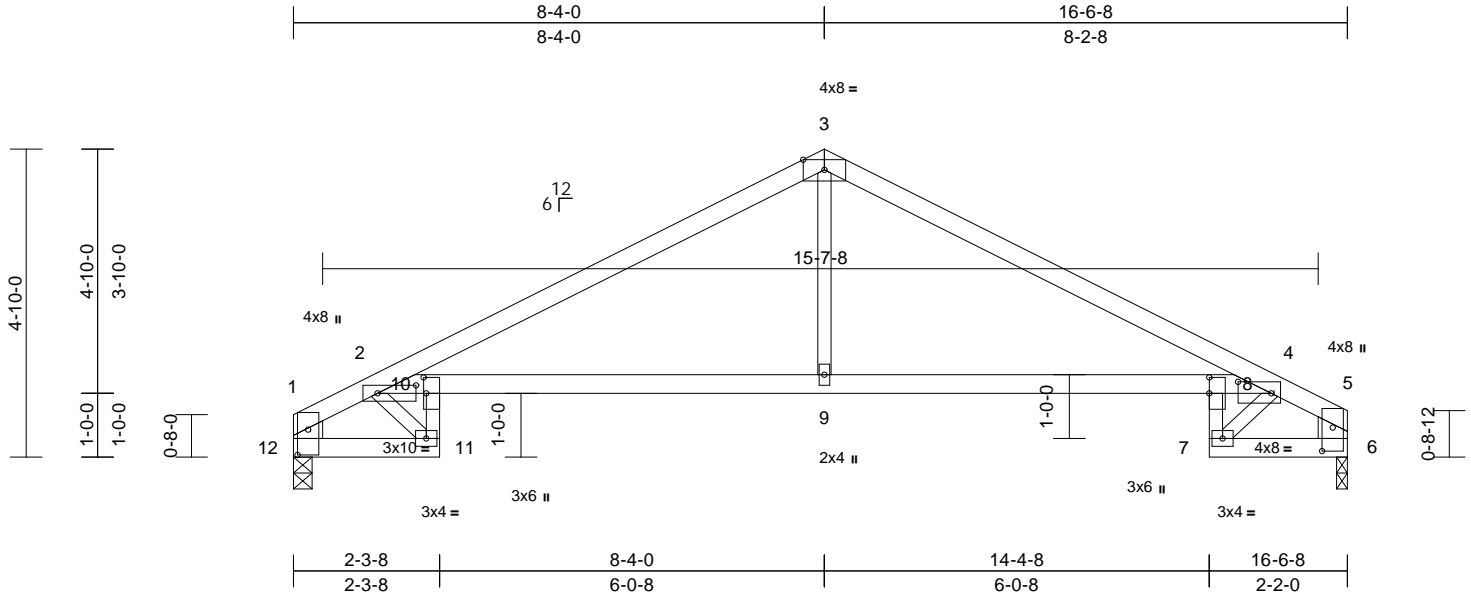
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|---------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | G5 | Roof Special | 4 | 1 | Job Reference (optional) | 165177316 |

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:36.2

Plate Offsets (X, Y): [1:0-4-13,0-2-0], [2:0-7-4,0-1-8], [4:0-6-4,0-2-3], [5:0-4-7,0-2-0], [8:0-3-0,Edge], [10:0-3-0,0-0-8]

| 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) | -0.26 | 9-10 | >750 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.90 | Vert(CT) | -0.48 | 9-10 | >403 | 240 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.16 | Horz(CT) | 0.36 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.24 | 9-10 | >800 | 240 | Weight: 49 lb | FT = 10% |

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 11-10,8-7:2x3 SPF No.2, 2-4:2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 12-1,6-5:2x6 SPF No.2

BRACING

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

REACTIONS

(size) 6=0-2-0, 12=0-3-8
Max Horiz 12=72 (LC 5)
Max Uplift 6=-88 (LC 9), 12=-89 (LC 8)
Max Grav 6=724 (LC 1), 12=724 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-860/157, 2-3=-1212/127,
3-4=-1214/151, 4-5=-795/152, 1-12=-658/91,
5-6=-658/86
BOT CHORD 11-12=-186/632, 10-11=-154/576,
2-10=-29/931, 9-10=-57/1019, 8-9=-57/1019,
4-8=-51/937, 7-8=-96/500, 6-7=-129/559
WEBS 3-9=0/487, 2-11=-813/237, 4-7=-713/162

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
- 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.

- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 12 and 88 lb uplift at joint 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



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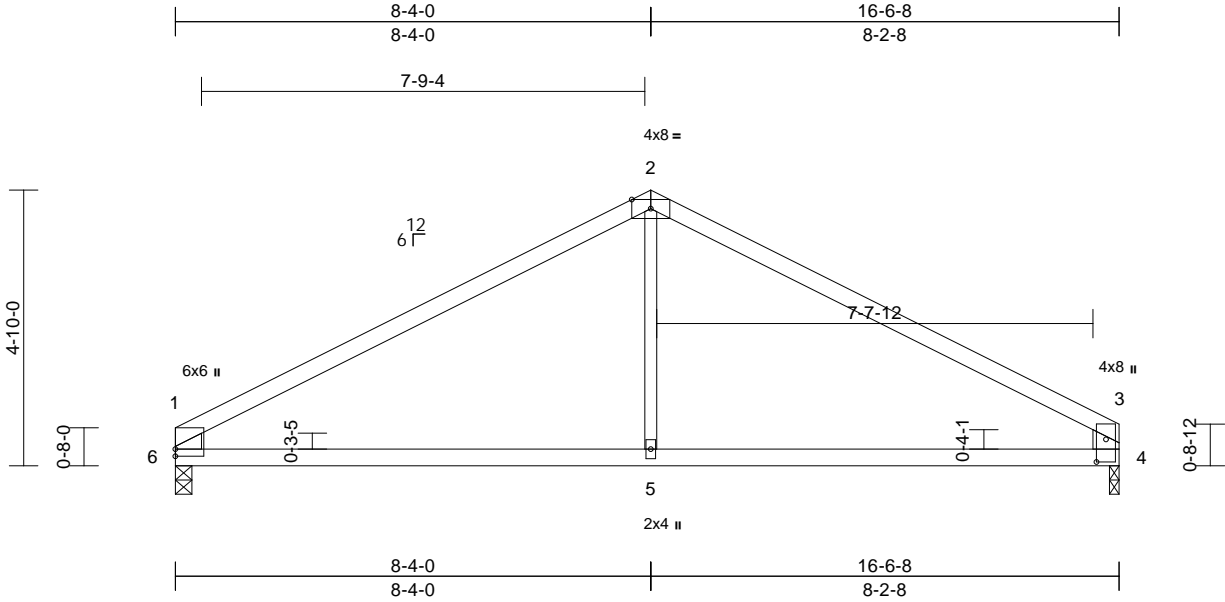
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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | G6 | Common | 1 | 1 | Job Reference (optional) | I65177317 |

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:40.4

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

| 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) | -0.09 | 5-6 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.51 | Vert(CT) | -0.19 | 5-6 | >999 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.11 | Horz(CT) | 0.02 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-R | | Wind(LL) | 0.04 | 5-6 | >999 | 240 | Weight: 45 lb | FT = 10% |

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 2-3:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except* 5-2:2x3 SPF No.2

BRACING

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

REACTIONS (size) 4=0-2-0, 6=0-3-8
Max Horiz 6=72 (LC 7)
Max Uplift 4=-88 (LC 9), 6=-89 (LC 8)
Max Grav 4=724 (LC 1), 6=724 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-932/123, 2-3=-931/122, 1-6=-647/142, 3-4=-644/141
BOT CHORD 5-6=-36/719, 4-5=-36/719
WEBS 2-5=0/345

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
- 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.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 6 and 88 lb uplift at joint 4.
- 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



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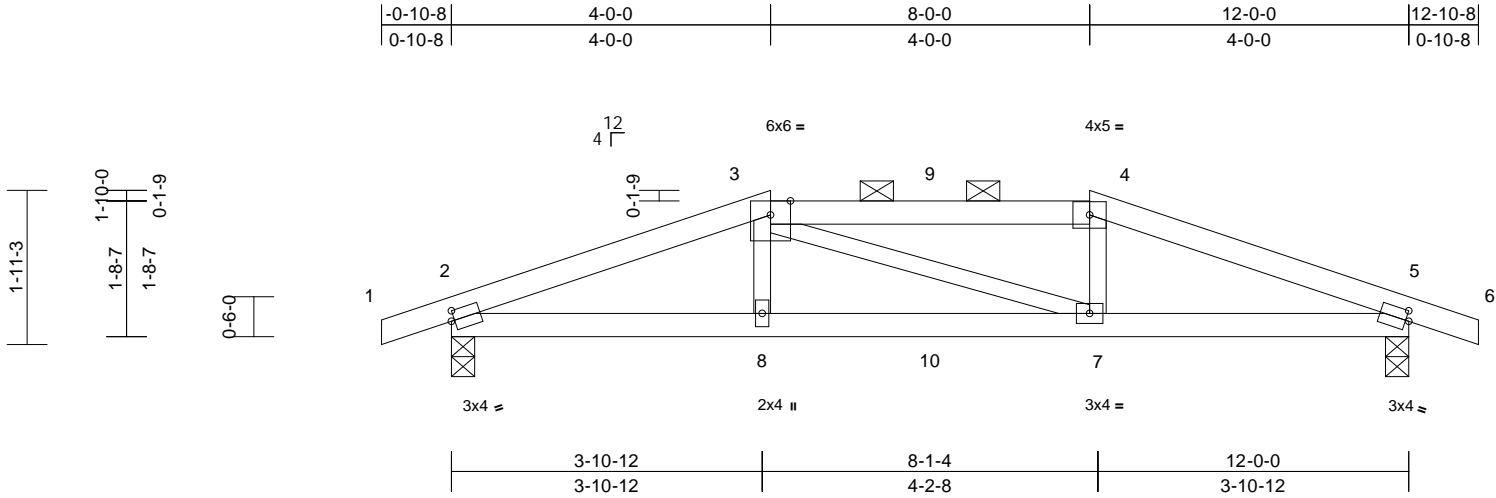
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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | 165177318 |
| B240091 | H1 | Hip Girder | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:28.9

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

| 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 | 0.45 | Vert(LL) | -0.05 | 7-8 | >999 | 360 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.48 | Vert(CT) | -0.10 | 7-8 | >999 | 240 | |
| BCLL | 0.0* | Rep Stress Incr | NO | WB | 0.09 | Horz(CT) | 0.03 | 5 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.04 | 7-8 | >999 | 240 | |
| | | | | | | | | | | Weight: 36 lb | FT = 10% |

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-4-6 oc purlins, except 2-0-0 oc purlins (4-4-1 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 5=0-3-8
Max Horiz 2=28 (LC 8)
Max Uplift 2=-200 (LC 4), 5=-200 (LC 5)
Max Grav 2=802 (LC 1), 5=802 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-1634/342, 3-4=-1473/347, 4-5=-1635/341, 5-6=0/6
BOT CHORD 2-8=-298/1482, 7-8=-304/1472, 5-7=-285/1483
WEBS 3-8=0/274, 3-7=-49/50, 4-7=0/275

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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.
- 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.
- All bearings are assumed to be SPF No.2.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 200 lb uplift at joint 2 and 200 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 195 lb down and 146 lb up at 4-0-0, and 83 lb down and 63 lb up at 6-0-0, and 195 lb down and 146 lb up at 8-0-0 on top chord, and 85 lb down at 4-0-0, and 36 lb down at 6-0-0, and 85 lb down at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 3=-125 (B), 4=-125 (B), 8=-42 (B), 7=-42 (B), 9=-53 (B), 10=-18 (B)



April 29, 2024

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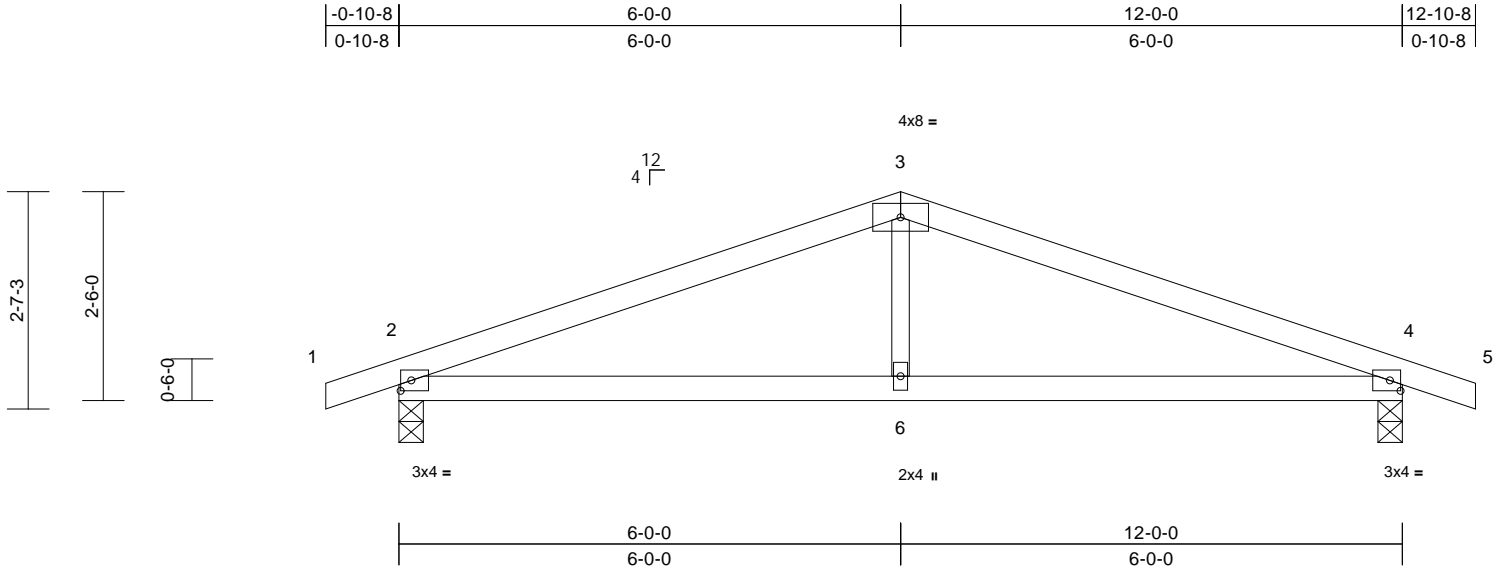
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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177319 |
| B240091 | H2 | Common | 3 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:34
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Page: 1



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|--|-------|-----------------|-----------------|------------|------|---------------|-----------|-------------|-----|
| Scale = 1:27.6 | | | | | | | | | |
| Plate Offsets (X, Y): [2:0-1-9,0-1-8], [4:0-1-9,0-1-8] | | | | | | | | | |
| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in (loc) | l/defl | L/d |
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.50 | Vert(LL) | -0.03 4-6 | >999 | 360 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.38 | Vert(CT) | -0.08 4-6 | >999 | 240 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.02 4 | n/a | n/a |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.03 2-6 | >999 | 240 |
| | | | | | | PLATES | | GRIP | |
| | | | | | | MT20 | | 197/144 | |
| | | | | | | Weight: 32 lb | | FT = 10% | |

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 4=0-3-8
Max Horiz 2=40 (LC 12)
Max Uplift 2=121 (LC 4), 4=121 (LC 5)
Max Grav 2=598 (LC 1), 4=598 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-914/108, 3-4=-914/107, 4-5=0/6
BOT CHORD 2-6=-57/791, 4-6=-57/791
WEBS 3-6=0/281

7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
LOAD CASE(S) Standard

- 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 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.
 - 5) All bearings are assumed to be SPF No.2 .
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 2 and 121 lb uplift at joint 4.



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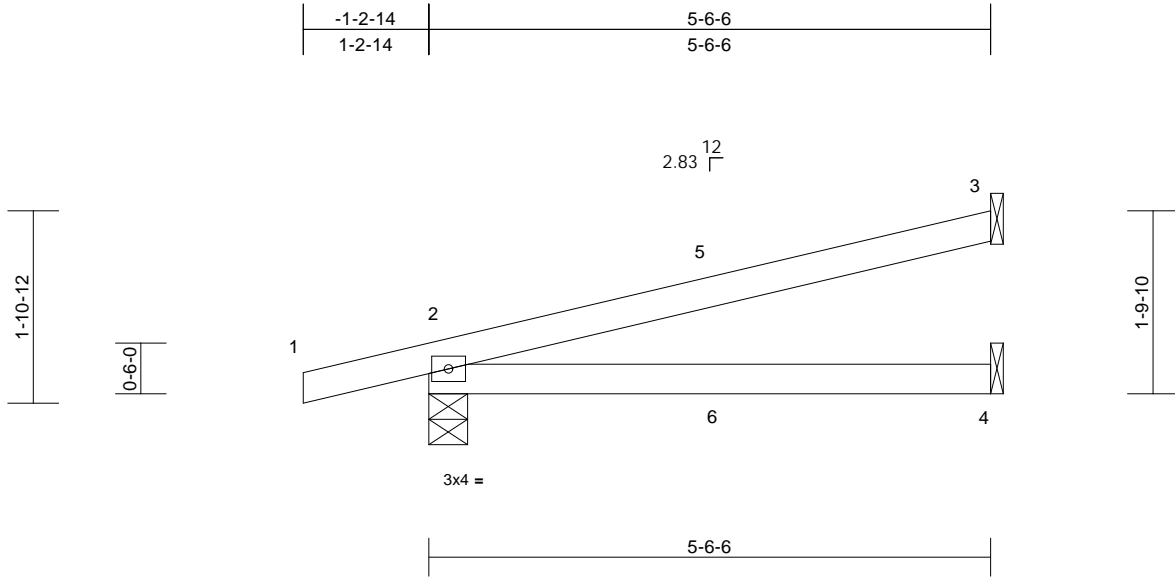
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|---------|-------|---------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177320 |
| B240091 | J1 | Diagonal Hip Girder | 2 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

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|----------------|-------|-----------------|-----------------|------------|------|-------------|-------|-------|--------|-----|---------------|-------------|
| 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 | 0.53 | Vert(LL) | -0.05 | 2-4 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.32 | Vert(CT) | -0.09 | 2-4 | >680 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | NO | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 14 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 5-6-6 oc purlins.

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

REACTIONS (size) 2=0-4-9, 3= Mechanical, 4= Mechanical
Max Horiz 2=66 (LC 4)
Max Uplift 2=-104 (LC 4), 3=-80 (LC 8)
Max Grav 2=351 (LC 1), 3=171 (LC 1), 4=106 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-62/37

BOT CHORD 2-4=0/0

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 3 and 104 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 34 lb up at 2-9-8, and 67 lb down and 34 lb up at 2-9-8 on top chord, and 2 lb down at 2-9-8, and 2 lb down at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 2-4=-20



April 29, 2024

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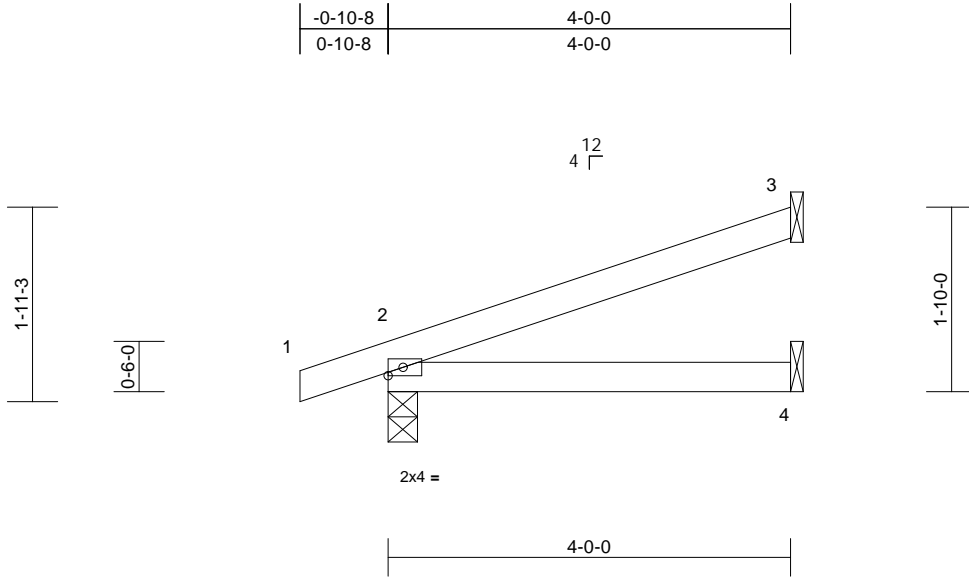
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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177321 |
| B240091 | J2 | Jack-Open | 3 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:34
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Scale = 1:22.9

| 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) | -0.01 | 2-4 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.14 | Vert(CT) | -0.02 | 2-4 | >999 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | | Weight: 11 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 4-0-0 oc purlins.

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

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=67 (LC 4)
Max Uplift 2=-69 (LC 4), 3=-64 (LC 8)
Max Grav 2=252 (LC 1), 3=123 (LC 1), 4=76 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-60/36

BOT CHORD 2-4=0/0

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 3 and 69 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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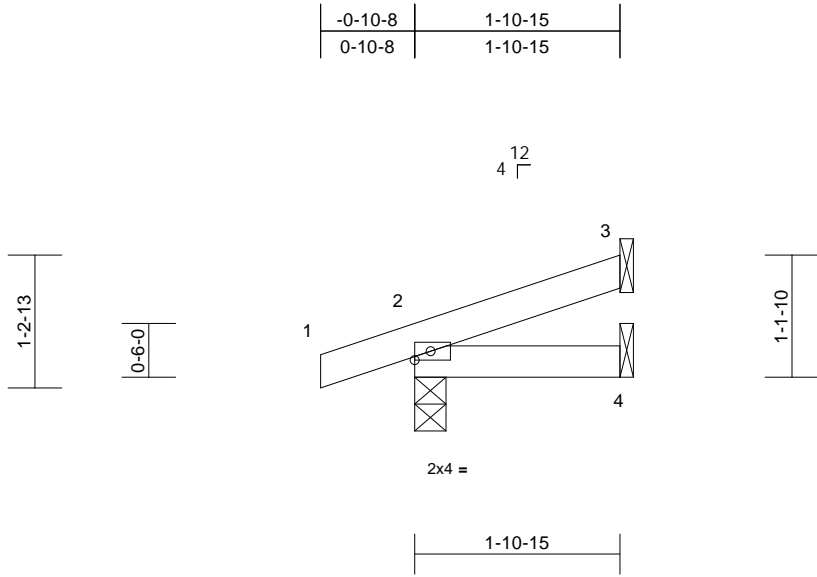
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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | J3 | Jack-Open | 4 | 1 | Job Reference (optional) | I65177322 |

Wheeler Lumber, Waverly, KS - 66871,

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|----------------|-------|-----------------|-----------------|------------|------|-------------|------|-------|--------|-----|---------------|-------------|
| 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 | 0.05 | Vert(LL) | 0.00 | 2-4 | >999 | 360 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | 0.00 | 2-4 | >999 | 240 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 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
1-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4=
Mechanical
Max Horiz 2=39 (LC 4)
Max Uplift 2=-56 (LC 4), 3=-29 (LC 8)
Max Grav 2=163 (LC 1), 3=50 (LC 1), 4=37
(LC 3)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=0/6, 2-3=-35/15
BOT CHORD 2-4=0/0

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) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 56 lb uplift at joint
2 and 29 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

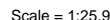


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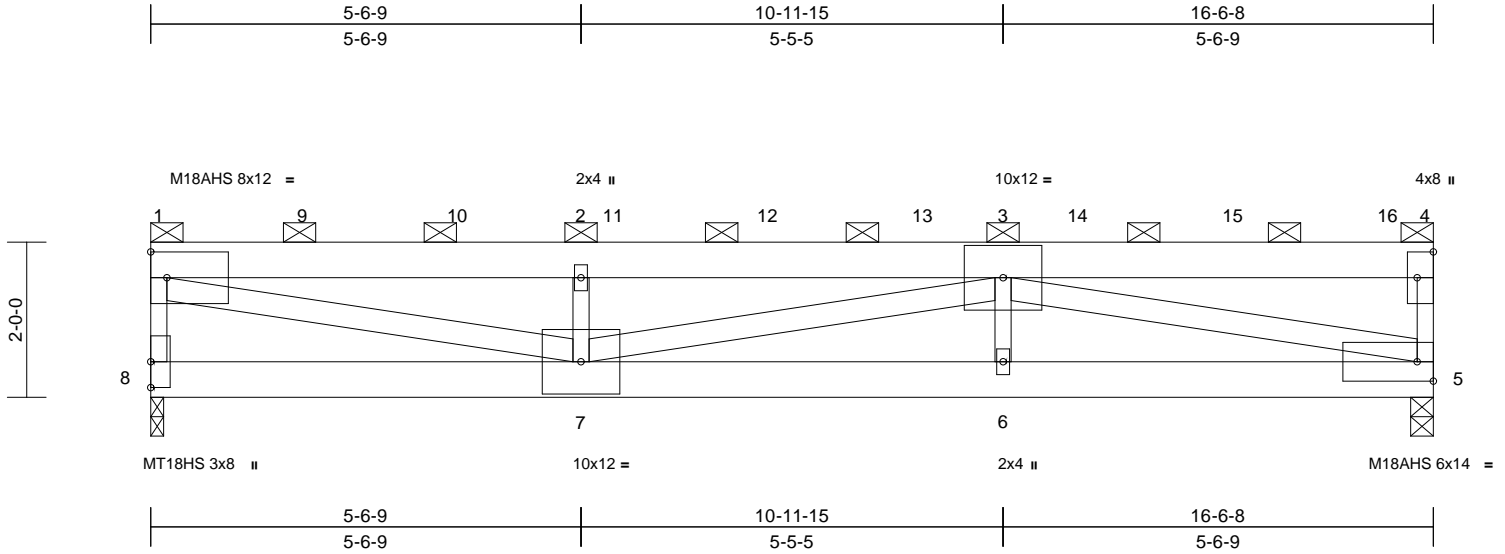
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|---------|-------|-------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | 165177324 |
| B240091 | R1 | Flat Girder | 1 | 2 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:29.7

Plate Offsets (X, Y): [4: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 | 0.71 | Vert(LL) | -0.18 | 6-7 | >999 | 360 | MT18HS 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.49 | Vert(CT) | -0.35 | 6-7 | >560 | 240 | M18AHS 142/136 |
| BCLL | 0.0* | Rep Stress Incr | NO | WB | 0.85 | Horz(CT) | 0.04 | 5 | n/a | n/a | MT20 197/144 |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | Wind(LL) | 0.14 | 6-7 | >999 | 240 | Weight: 198 lb FT = 10% |

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 7-1,7-3,5-3:2x4 SPF 2100F 1.8E

BRACING

TOP CHORD 2-0-0 oc purlins (5-10-12 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=0-3-8, 8=0-2-0
Max Horiz 8=-59 (LC 6)
Max Uplift 5=-612 (LC 5), 8=-482 (LC 4)
Max Grav 5=4702 (LC 1), 8=4169 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-8=-3975/492, 1-2=-10912/1251,
2-3=-10912/1251, 3-4=-291/55,
4-5=-1503/265

BOT CHORD 7-8=-76/299, 6-7=-1312/10925,
5-6=-1312/10925

WEBS 1-7=-1268/11032, 2-7=-3037/418,
3-7=-17/64, 3-6=-21/135, 3-5=-11052/1310

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x3 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TC DL=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.
- All bearings are assumed to be SP 2400F 2.0E .
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 482 lb uplift at joint 8 and 612 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 942 lb down and 92 lb up at 1-11-8, 942 lb down and 92 lb up at 3-11-8, 942 lb down and 92 lb up at 5-11-8, 938 lb down and 91 lb up at 7-11-8, 938 lb down and 91 lb up at 9-11-8, 938 lb down and 91 lb up at 11-11-8, and 871 lb down and 129 lb up at 13-11-8, and 890 lb down and 137 lb up at 15-11-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)

Vert: 1-4=-70, 5-8=-20
Concentrated Loads (lb)
Vert: 9=-942, 10=-942, 11=-942, 12=-938, 13=-938, 14=-938, 15=-871, 16=-890



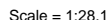
April 29, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:34 Page: 1
ID:6a7fm?DZTW8JNi1v9d01IeZe1dn-RfC?PsB70Hq3NSaPanL8w3u1tXBGKWRCDoi7J4zJC?f

LOAD CASE(S) Standard

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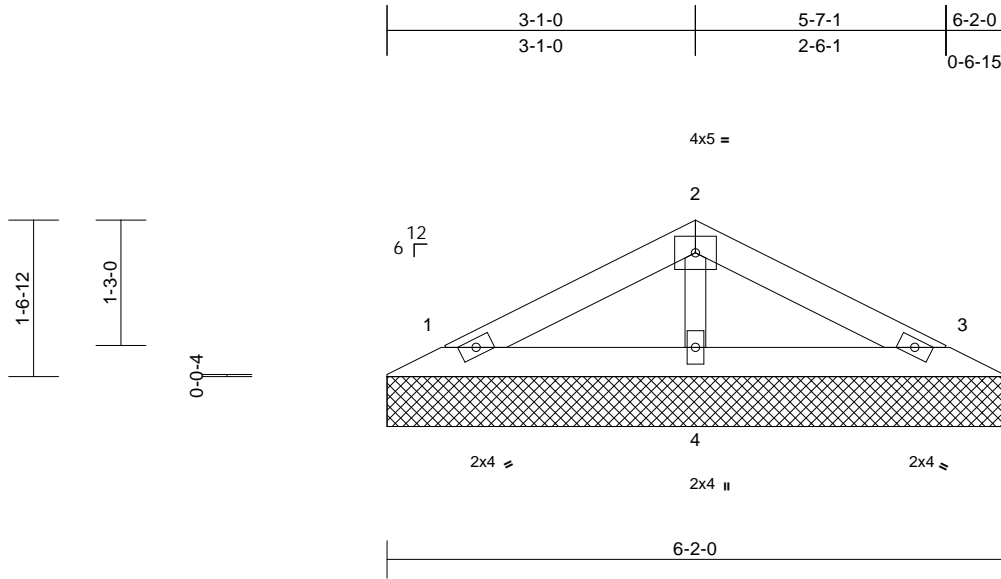
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844.620.1111
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| | | | | | | |
|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | V2 | Valley | 1 | 1 | Job Reference (optional) | I65177326 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:34
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Page: 1



Scale = 1:23

| 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 | 0.11 | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.05 | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.03 | Horiz(TL) | 0.00 | 3 | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | Weight: 14 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

| | |
|------------|--|
| (size) | 1=6-2-0, 3=6-2-0, 4=6-2-0 |
| Max Horiz | 1=-22 (LC 9) |
| Max Uplift | 1=-27 (LC 8), 3=-31 (LC 9), 4=-3 (LC 8) |
| Max Grav | 1=117 (LC 1), 3=117 (LC 1), 4=215 (LC 1) |

FORCES

(lb) - Maximum Compression/Maximum Tension

| | |
|-----------|------------------------|
| TOP CHORD | 1-2=-56/31, 2-3=-56/22 |
| BOT CHORD | 1-4=-1/25, 3-4=-1/25 |
| WEBS | 2-4=-152/40 |

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 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.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1, 31 lb uplift at joint 3 and 3 lb uplift at joint 4.
- 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



April 29,2024

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LUMBER

BRACING

| REACTIONS | (size) | 1=10-11-12, 5=10-11-12, 6=10-11-12, 7=10-11-12 |
|------------|--------|---|
| Max Horiz | | 1=213 (LC 5) |
| Max Uplift | | 5=-33 (LC 5), 6=-121 (LC 8), 7=-94 (LC 8) |
| Max Grav | | 1=108 (LC 16), 5=177 (LC 15), 6=433 (LC 2), 7=312 (LC 2) |

TOP CHORD 1-2=-183/56, 2-3=-147/72, 3-4=-129/55,
4-5=-108/45

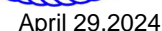
BOT CHORD 1-7=-72/56, 6-7=-72/56, 5-6=-72/56
WEBS 3-6=-314/166 2-7=-239/136

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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 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.
- 7) All bearings are assumed to be SPF No.2.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 5, 121 lb uplift at joint 6 and 94 lb uplift at joint 7.
- 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



 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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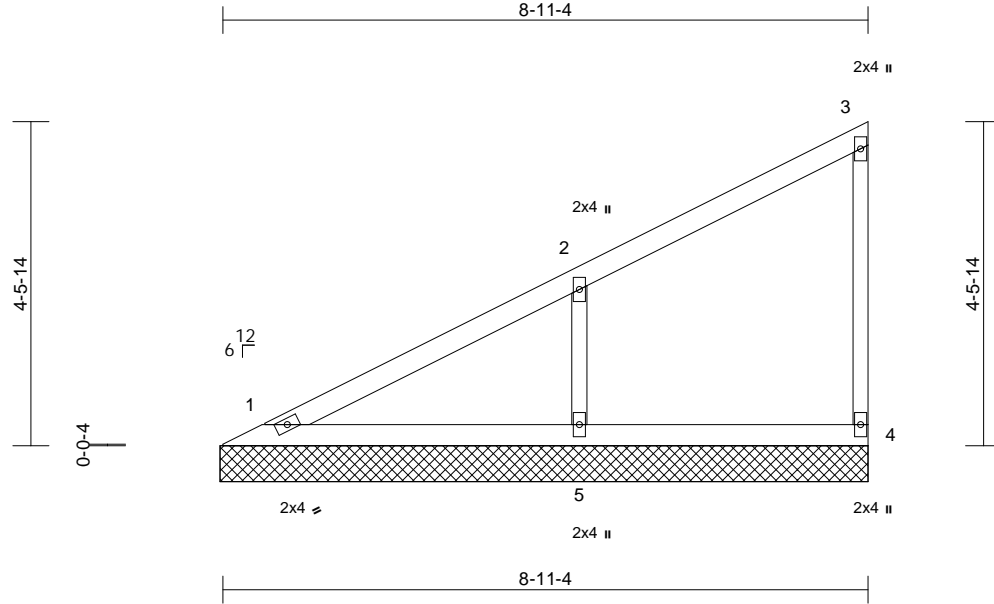
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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | |
| B240091 | V4 | Valley | 1 | 1 | Job Reference (optional) | I65177328 |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:34

Page: 1

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Scale = 1:31.9

| 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 | 0.28 | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.14 | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.07 | Horiz(TL) | 0.00 | 4 | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | Weight: 26 lb | FT = 10% |

LUMBER

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

BRACING

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

| | | |
|------------------|------------|---|
| REACTIONS | (size) | 1=8-11-12, 4=8-11-12, 5=8-11-12 |
| | Max Horiz | 1=172 (LC 7) |
| | Max Uplift | 4=-27 (LC 5), 5=-139 (LC 8) |
| | Max Grav | 1=152 (LC 16), 4=126 (LC 1), 5=464 (LC 1) |

FORCES

| | |
|-----------|--|
| | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-2=-137/85, 2-3=-121/46, 3-4=-98/44 |
| BOT CHORD | 1-5=-59/44, 4-5=-59/44 |
| WEBS | 2-5=-361/201 |

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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 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.
- 7) All bearings are assumed to be SPF No.2 .

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4 and 139 lb uplift at joint 5.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 29, 2024

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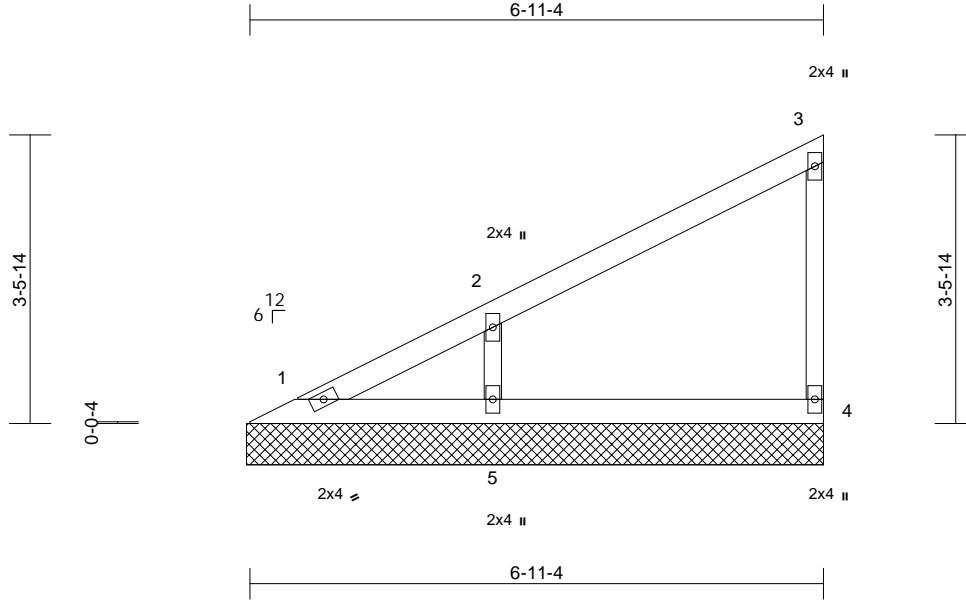
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|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177329 |
| B240091 | V5 | Valley | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:35
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Page: 1



Scale = 1:27.9

| 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 | 0.19 | n/a | - | n/a | 999 | MT20 | 197/144 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.10 | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.05 | Horiz(TL) | 0.00 | 4 | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-P | | | | | | Weight: 19 lb | FT = 10% |

LUMBER

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

BRACING

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

| | | |
|-----------|------------|--|
| REACTIONS | (size) | 1=6-11-12, 4=6-11-12, 5=6-11-12 |
| | Max Horiz | 1=130 (LC 5) |
| | Max Uplift | 4=-27 (LC 8), 5=-111 (LC 8) |
| | Max Grav | 1=69 (LC 16), 4=142 (LC 1), 5=369 (LC 1) |

FORCES

| | |
|-----------|--|
| | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-2=-110/58, 2-3=-106/43, 3-4=-111/46 |
| BOT CHORD | 1-5=-44/34, 4-5=-44/34 |
| WEBS | 2-5=-287/160 |

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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 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.
- 7) All bearings are assumed to be SPF No.2 .

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4 and 111 lb uplift at joint 5.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



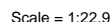
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LUMBER

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

BRACING

REACTIONS (size) 1=4-11-12, 3=4-11-12

Max Horiz 1=89 (LC 5)
Max Uplift 1=-25 (LC 8), 3=-47 (LC 8)
Max Gray 1=191 (LC 1), 3=191 (LC 1)

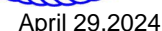
FORCES

(Ib) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-81/53, 2-3=-149/72
BOT CHORD 1-3=-30/23

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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 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.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 25 lb uplift at joint
1 and 47 lb uplift at joint 3.



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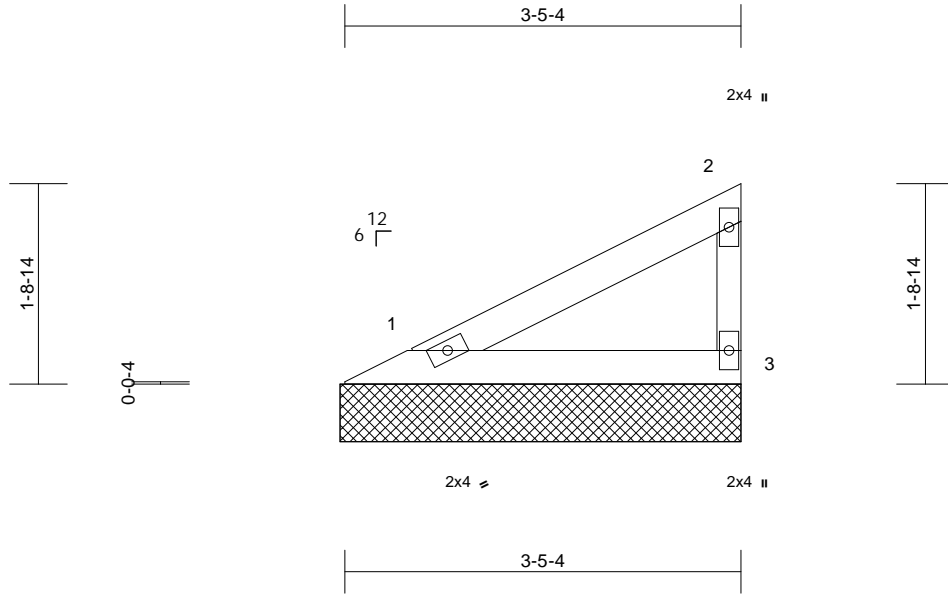
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| | | | | | | |
|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177331 |
| B240091 | V7 | Valley | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:20

| 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 | 0.13 | Vert(LL) | n/a | - | n/a | 999 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | 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: 8 lb FT = 10% |

LUMBER

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

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-5-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-5-12, 3=3-5-12
Max Horiz 1=57 (LC 7)
Max Uplift 1=-16 (LC 8), 3=-30 (LC 8)
Max Grav 1=124 (LC 1), 3=124 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-52/34, 2-3=-96/47
BOT CHORD 1-3=-20/15

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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 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.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 1 and 30 lb uplift at joint 3.



April 29, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

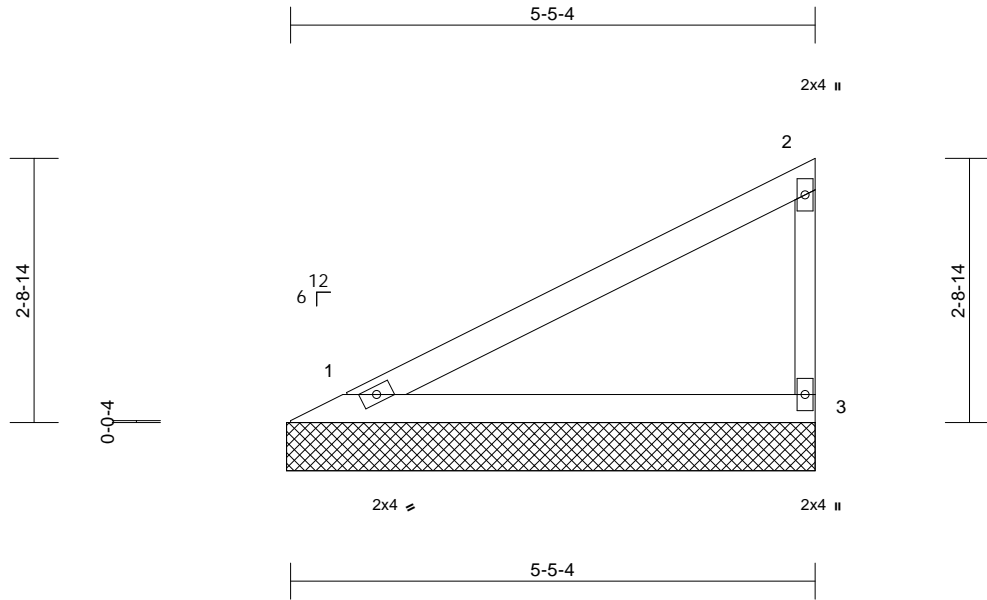
MiTek®
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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/17/2024 3:09:33

| | | | | | | |
|---------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 182 HT | I65177332 |
| B240091 | V8 | Valley | 1 | 1 | Job Reference (optional) | |

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:35
ID:VR0594?9p_zQIQzYN_jtqrze1gf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:23.9

| 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 | 0.43 | Vert(LL) | n/a | - | n/a | 999 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.23 | 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: 14 lb FT = 10% |

LUMBER

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

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-5-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-5-12, 3=5-5-12
Max Horiz 1=99 (LC 5)
Max Uplift 1=-27 (LC 8), 3=-52 (LC 8)
Max Grav 1=214 (LC 1), 3=214 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-90/60, 2-3=-166/81
BOT CHORD 1-3=-34/26

NOTES

- 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.
- All bearings are assumed to be SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1 and 52 lb uplift at joint 3.



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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 25 15:11:35 Page: 1
ID:n9mADbrZAo?uOqCHJXWcUpze1i8-RfC?PsB70Hg3NSqPqnL8w3ulTXbGKWKCdoi7J4zJC?f

LOAD CASE(S) Standard

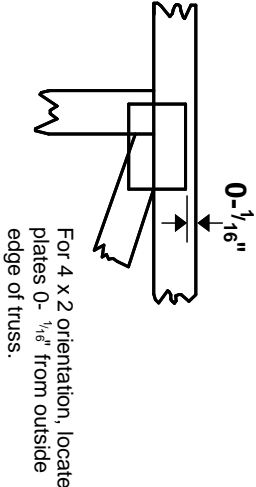
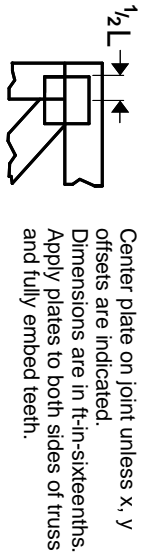
April 29, 2024

WARNING – verify design parameters and noted notes on this and included MiTek Reference Tag M7473 Rev. 1/2/2023 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, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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Crestwood, MO 63070
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05/17/2024 3:09:33

Symbols

PLATE LOCATION AND ORIENTATION



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

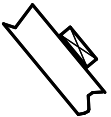
This symbol indicates the required direction of slots in connector plates.

PLATE SIZE

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

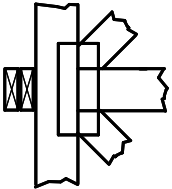
4 X 4

LATERAL BRACING LOCATION



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

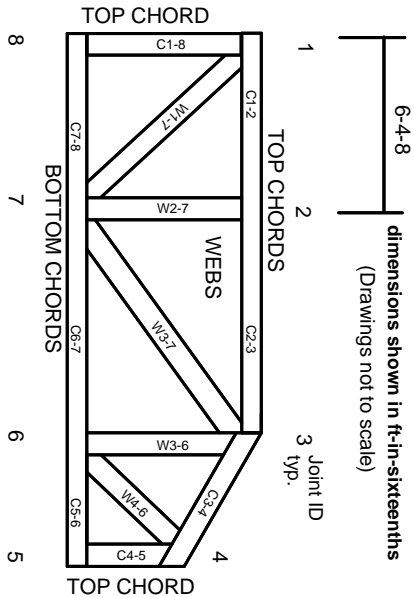
BEARING



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

Industry Standards:
ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:
ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.
Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.