



RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
12/14/2020

RE: MN 83  
Lot 83 MN

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

**Site Information:**

Customer: Project Name: MN 83  
Lot/Block:  
Address:  
City:

Model:  
Subdivision:  
State:

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

Design Code: IRC2018/TPI2014  
Wind Code: N/A  
Roof Load: 45.0 psf

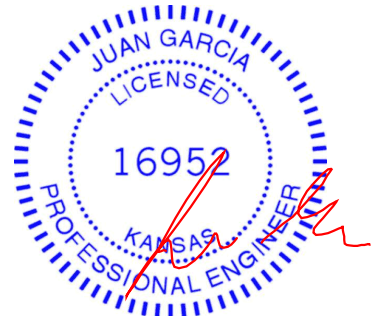
Design Program: MiTek 20/20 8.4  
Wind Speed: 115 mph  
Floor Load: N/A psf

This package includes 89 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal#     | Truss Name | Date       | No. | Seal#     | Truss Name | Date       |
|-----|-----------|------------|------------|-----|-----------|------------|------------|
| 1   | I43671074 | A1         | 11/18/2020 | 21  | I43671094 | D5         | 11/18/2020 |
| 2   | I43671075 | A2         | 11/18/2020 | 22  | I43671095 | D6         | 11/18/2020 |
| 3   | I43671076 | A3         | 11/18/2020 | 23  | I43671096 | E1         | 11/18/2020 |
| 4   | I43671077 | A4         | 11/18/2020 | 24  | I43671097 | E2         | 11/18/2020 |
| 5   | I43671078 | B1         | 11/18/2020 | 25  | I43671098 | E3         | 11/18/2020 |
| 6   | I43671079 | B2         | 11/18/2020 | 26  | I43671099 | E4         | 11/18/2020 |
| 7   | I43671080 | B3         | 11/18/2020 | 27  | I43671100 | E5         | 11/18/2020 |
| 8   | I43671081 | B4         | 11/18/2020 | 28  | I43671101 | E6         | 11/18/2020 |
| 9   | I43671082 | B5         | 11/18/2020 | 29  | I43671102 | G1         | 11/18/2020 |
| 10  | I43671083 | B6         | 11/18/2020 | 30  | I43671103 | G2         | 11/18/2020 |
| 11  | I43671084 | C1         | 11/18/2020 | 31  | I43671104 | G3         | 11/18/2020 |
| 12  | I43671085 | C2         | 11/18/2020 | 32  | I43671105 | H1         | 11/18/2020 |
| 13  | I43671086 | C3         | 11/18/2020 | 33  | I43671106 | H2         | 11/18/2020 |
| 14  | I43671087 | C4         | 11/18/2020 | 34  | I43671107 | H3         | 11/18/2020 |
| 15  | I43671088 | C5         | 11/18/2020 | 35  | I43671108 | J1         | 11/18/2020 |
| 16  | I43671089 | C6         | 11/18/2020 | 36  | I43671109 | J2         | 11/18/2020 |
| 17  | I43671090 | D1         | 11/18/2020 | 37  | I43671110 | J3         | 11/18/2020 |
| 18  | I43671091 | D2         | 11/18/2020 | 38  | I43671111 | J4         | 11/18/2020 |
| 19  | I43671092 | D3         | 11/18/2020 | 39  | I43671112 | J5         | 11/18/2020 |
| 20  | I43671093 | D4         | 11/18/2020 | 40  | I43671113 | J6         | 11/18/2020 |

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: Garcia, Juan  
My license renewal date for the state of Kansas is April 30, 2022.  
Kansas COA: E-943

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



November 18, 2020



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314-434-1200

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| No. | Seal#     | Truss Name | Date       | No. | Seal#     | Truss Name | Date       |
|-----|-----------|------------|------------|-----|-----------|------------|------------|
| 41  | I43671114 | J7         | 11/18/2020 | 85  | I43671158 | V1         | 11/18/2020 |
| 42  | I43671115 | J8         | 11/18/2020 | 86  | I43671159 | V2         | 11/18/2020 |
| 43  | I43671116 | J9         | 11/18/2020 | 87  | I43671160 | V3         | 11/18/2020 |
| 44  | I43671117 | J10        | 11/18/2020 | 88  | I43671161 | V4         | 11/18/2020 |
| 45  | I43671118 | J11        | 11/18/2020 | 89  | I43671162 | V5         | 11/18/2020 |
| 46  | I43671119 | J12        | 11/18/2020 |     |           |            |            |
| 47  | I43671120 | J13        | 11/18/2020 |     |           |            |            |
| 48  | I43671121 | J14        | 11/18/2020 |     |           |            |            |
| 49  | I43671122 | J15        | 11/18/2020 |     |           |            |            |
| 50  | I43671123 | J16        | 11/18/2020 |     |           |            |            |
| 51  | I43671124 | J17        | 11/18/2020 |     |           |            |            |
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| 53  | I43671126 | J19        | 11/18/2020 |     |           |            |            |
| 54  | I43671127 | J20        | 11/18/2020 |     |           |            |            |
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| 67  | I43671140 | J33        | 11/18/2020 |     |           |            |            |
| 68  | I43671141 | J33A       | 11/18/2020 |     |           |            |            |
| 69  | I43671142 | J34        | 11/18/2020 |     |           |            |            |
| 70  | I43671143 | J35        | 11/18/2020 |     |           |            |            |
| 71  | I43671144 | J36        | 11/18/2020 |     |           |            |            |
| 72  | I43671145 | J37        | 11/18/2020 |     |           |            |            |
| 73  | I43671146 | J38        | 11/18/2020 |     |           |            |            |
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| 76  | I43671149 | J41        | 11/18/2020 |     |           |            |            |
| 77  | I43671150 | J42        | 11/18/2020 |     |           |            |            |
| 78  | I43671151 | J43        | 11/18/2020 |     |           |            |            |
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| 80  | I43671153 | J45        | 11/18/2020 |     |           |            |            |
| 81  | I43671154 | LAY2       | 11/18/2020 |     |           |            |            |
| 82  | I43671155 | LAY3       | 11/18/2020 |     |           |            |            |
| 83  | I43671156 | LAY4       | 11/18/2020 |     |           |            |            |
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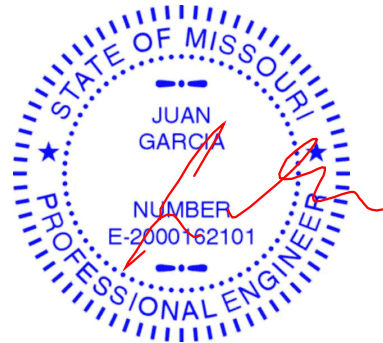
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MiTek USA, Inc. under my direct supervision  
based on the parameters provided by Wheeler - Waverly.  
Truss Design Engineer's Name: Garcia, Juan  
My license renewal date for the state of Missouri is December 31, 2020.  
Missouri COA: 001193

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| 84  | I43671157 | LAY5       | 11/18/2020 |     |           |            |            |

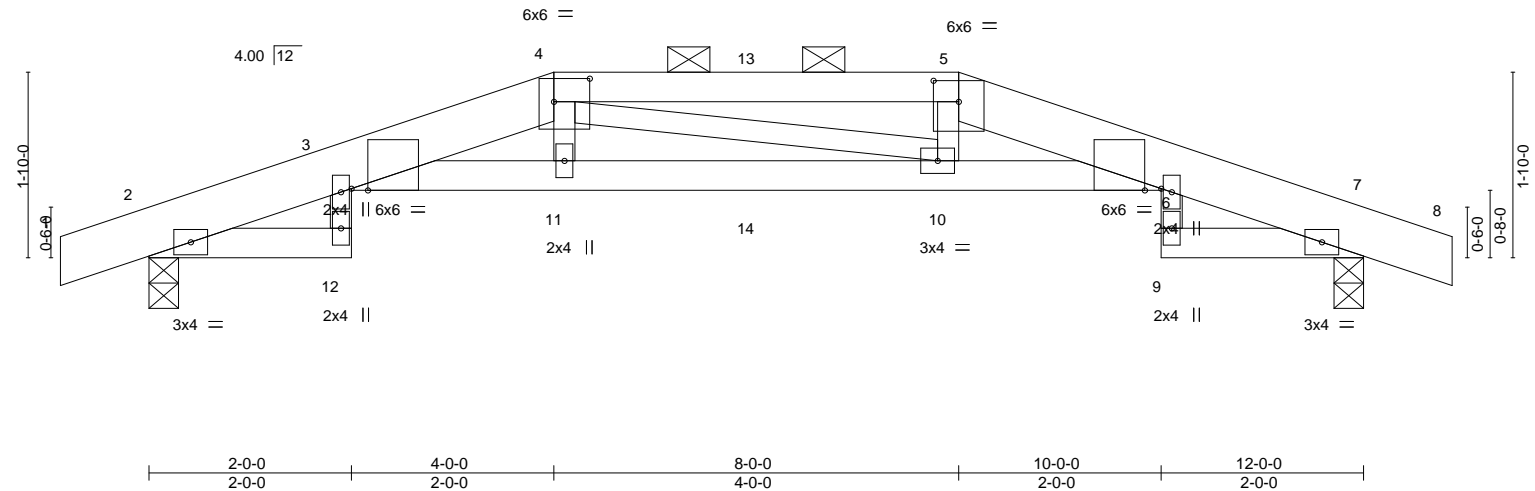
|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | A1    | Hip Girder | 1   | 1   |           | I43671074 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:09:53 2020 Page 1  
ID:XpHwfvjXNLdKxr38zG0BKza5Wo-pWZw7Eo?Y11lIzVYXR?T7F16cSzocwHvLJ4E9yI?tC

|         |       |       |       |        |        |         |
|---------|-------|-------|-------|--------|--------|---------|
| -0-10-8 | 2-0-0 | 4-0-0 | 8-0-0 | 10-0-0 | 12-0-0 | 12-10-8 |
| 0-10-8  | 2-0-0 | 2-0-0 | 4-0-0 | 2-0-0  | 2-0-0  | 0-10-8  |

Scale = 1:22.8



| Plate Offsets (X,Y)-- [3:0-1-15,Edge], [4:0-4-4,0-2-12], [5:0-3-0,0-2-8], [6:0-1-15,Edge] |       |                      |      |          |      |                           |             |             |     |               |          |
|---|-------|----------------------|------|----------|------|---------------------------|-------------|-------------|-----|---------------|----------|
| LOADING (psf)   |       | SPACING- 2-0-0       |      | CSI.     |      | DEFL. in (loc) l/defl L/d |             | PLATES GRIP |     |               |          |
| TCLL  | 25.0  | Plate Grip DOL       | 1.15 | TC       | 0.71 | Vert(LL)                  | -0.18 10-11 | >800        | 360 | MT20          | 197/144  |
| TCDL  | 10.0  | Lumber DOL           | 1.15 | BC       | 1.00 | Vert(CT)                  | -0.32 10-11 | >440        | 360 |               |          |
| BCLL  | 0.0 * | Rep Stress Incr      | NO   | WB       | 0.08 | Horz(CT)                  | 0.20 7      | n/a         | n/a |               |          |
| BCDL  | 10.0  | Code IRC2018/TPI2014 |      | Matrix-S |      | Wind(LL)                  | 0.17 10-11  | >819        | 240 | Weight: 48 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x6 SP DSS \*Except\*  
4-5: 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-12 oc purlins, except  
2-0-0 oc purlins (2-9-2 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied or 6-4-14 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 7=0-3-8  
Max Horz 2=35(LC 8)  
Max Uplift 2=299(LC 4), 7=299(LC 5)  
Max Grav 2=910(LC 1), 7=910(LC 1)

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

TOP CHORD 2-3=-336/130, 3-4=-2962/879, 4-5=-3090/905, 5-6=-3086/892, 6-7=-336/124  
BOT CHORD 3-11=-841/2941, 10-11=-841/2965, 6-10=-847/3069

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=299, 7=299.
- 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) 107 lb down and 74 lb up at 4-0-0, and 107 lb down and 74 lb up at 6-0-0, and 107 lb down and 74 lb up at 8-0-0 on top chord, and 205 lb down and 86 lb up at 4-0-0, and 13 lb down at 6-0-0, and 205 lb down and 86 lb up 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 (plf)  
Vert: 1-4=-70, 4-5=-70, 5-8=-70, 2-12=-20, 3-6=-20, 7-9=-20

Continued on page 2



November 18, 2020

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

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



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|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | A1    | Hip Girder | 1   | 1   | I43671074                |
|       |       |            |     |     | Job Reference (optional) |

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 4=-70(F) 5=-70(F) 11=-205(F) 10=-205(F) 13=-70(F) 14=-5(F)

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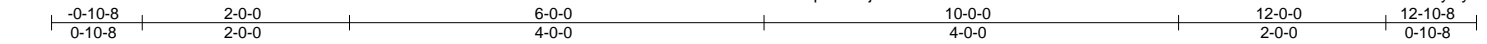


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Chesterfield, MO 63017

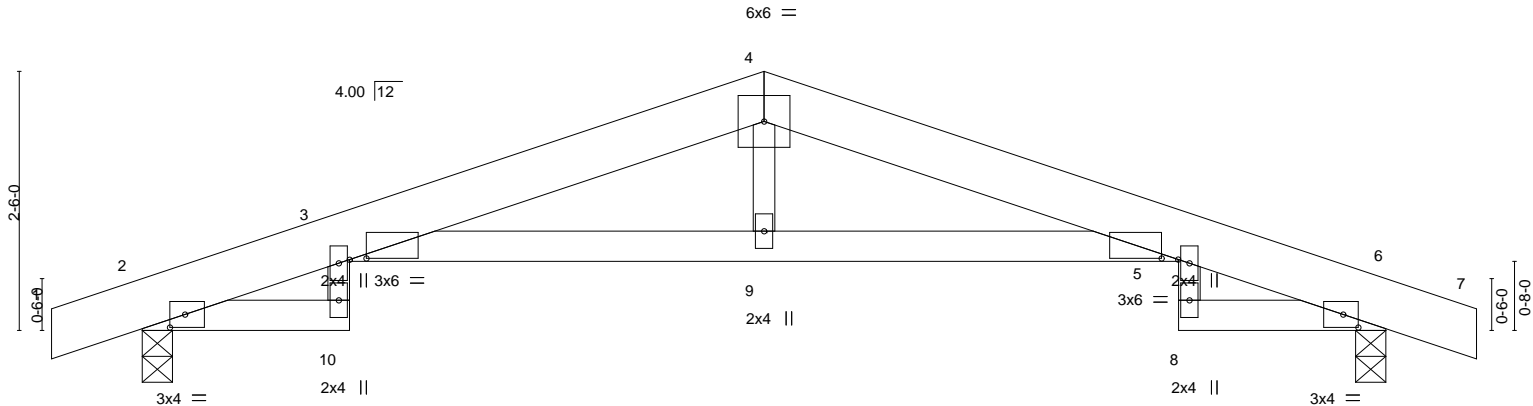
|              |             |                            |          |          |           |           |
|--------------|-------------|----------------------------|----------|----------|-----------|-----------|
| Job<br>MN 83 | Truss<br>A2 | Truss Type<br>Roof Special | Qty<br>2 | Ply<br>1 | Lot 83 MN | I43671075 |
|--------------|-------------|----------------------------|----------|----------|-----------|-----------|

Wheeler Lumber, Waverly, KS 66871

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 11:35:56 2020 Page 1  
ID:XpHwfcjXNLdKxr38zG0BKza5Wo-RBJITXfL2VCxJWHEkC9U6UoniD1z0w0mHbm4yHys1



Scale = 1:22.2



|                        |  |
|------------------------|--|
| Plate Offsets (X, Y)-- | [2:0-1-12,0-1-8], [3:0-1-15,0-0-2], [5:0-1-15,0-0-2], [6:0-1-12,0-1-8] |
|------------------------|--|

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.74  | Vert(LL) | -0.14 | 5-9   | >993   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.53  | Vert(CT) | -0.26 | 5-9   | >551   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.05  | Horz(CT) | 0.18  | 6     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S | Wind(LL) | 0.11  | 5-9   | >999   | 240 | Weight: 42 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-6-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(lb/size) 2=597/0-3-8, 6=591/0-3-8  
Max Horz 2=47(LC 8)  
Max Uplift 2=-166(LC 4), 6=-169(LC 5)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-1272/210, 4-5=-1249/222  
BOT CHORD 3-9=-164/1227, 5-9=-165/1229

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 166 lb uplift at joint 2 and 169 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



November 18, 2020

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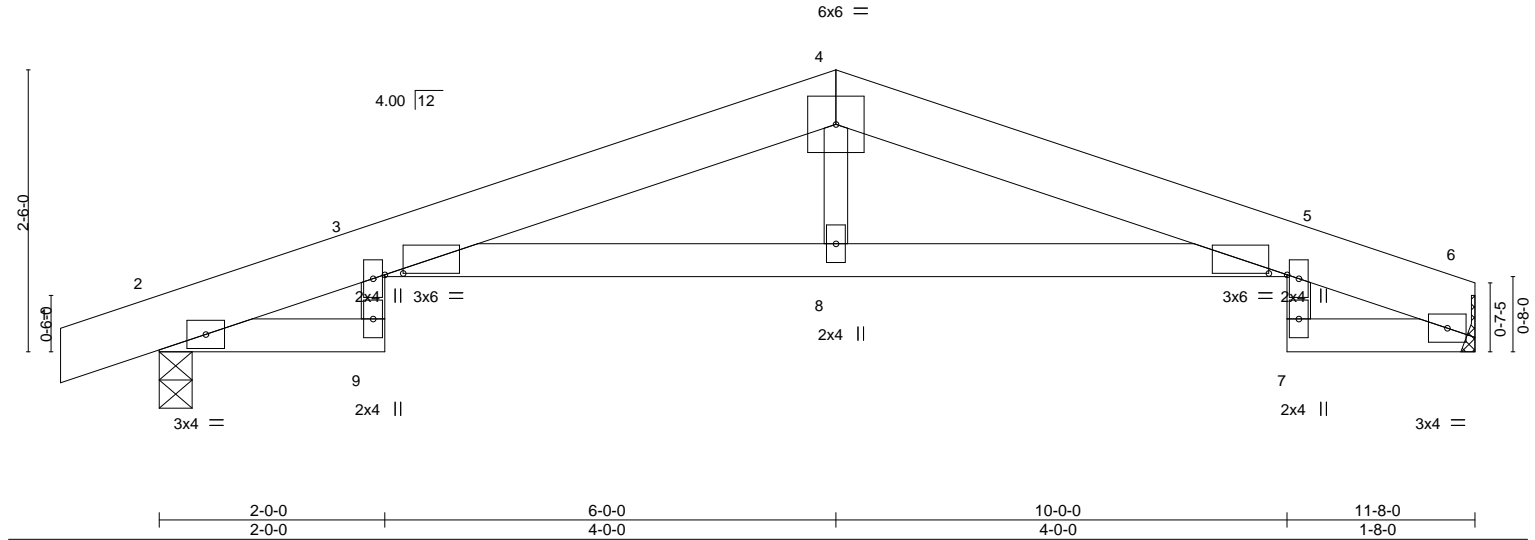


|                                      |       |              |     |     |           |                          |
|--------------------------------------|-------|--------------|-----|-----|-----------|--------------------------|
| Job                                  | Truss | Truss Type   | Qty | Ply | Lot 83 MN |                          |
| MN 83                                | A3    | Roof Special | 1   | 1   |           | I43671076                |
| Wheeler Lumber, Waverly, KS - 66871, |       |              |     |     |           | Job Reference (optional) |

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:09:55 2020 Page 1  
ID:XpHwfvclXNLdKxr38zG0BKza5Wo-mvhhYwpF4JHT\_bjlfyTTZYLPQQFcGWeaMfoAJ2yl?tA

|         |       |       |        |        |
|---------|-------|-------|--------|--------|
| -0-10-8 | 2-0-0 | 6-0-0 | 10-0-0 | 11-8-0 |
| 0-10-8  | 2-0-0 | 4-0-0 | 4-0-0  | 1-8-0  |

Scale = 1:20.4



| Plate Offsets (X,Y)-- |  | [3:0-1-15,0-0-2], [5:0-1-15,0-0-2] |       |             |  |              |           |               |     |               |             |
|-----------------------|--|------------------------------------|-------|-------------|--|--------------|-----------|---------------|-----|---------------|-------------|
| <b>LOADING</b> (psf)  |  | <b>SPACING-</b>                    | 2-0-0 | <b>CSI.</b> |  | <b>DEFL.</b> | in (loc)  | <b>L/defl</b> | L/d | <b>PLATES</b> | <b>GRIP</b> |
| TCLL 25.0             |  | Plate Grip DOL                     | 1.15  | TC 0.60     |  | Vert(LL)     | -0.11 3-8 | >999          | 360 | MT20          | 197/144     |
| TCDL 10.0             |  | Lumber DOL                         | 1.15  | BC 0.48     |  | Vert(CT)     | -0.20 3-8 | >691          | 360 |               |             |
| BCLL 0.0 *            |  | Rep Stress Incr                    | YES   | WB 0.06     |  | Horz(CT)     | 0.15 6    | n/a           | n/a |               |             |
| BCDL 10.0             |  | Code IRC2018/TPI2014               |       | Matrix-S    |  | Wind(LL)     | 0.09 3-8  | >999          | 240 | Weight: 39 lb | FT = 20%    |

#### LUMBER-

TOP CHORD 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-0-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 6=Mechanical, 2=0-3-8  
Max Horz 2=50(LC 8)  
Max Uplift 6=107(LC 5), 2=164(LC 4)  
Max Grav 6=512(LC 1), 2=590(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-1232/203, 4-5=-1236/216  
BOT CHORD 3-8=-160/1186, 5-8=-160/1186

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=107, 2=164.
- 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.



November 18, 2020

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Chesterfield, MO 63017



|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671077 |
| MN 83 | A4    | Common     | 1   | 1   | Job Reference (optional) |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:09:56 2020 Page 1  
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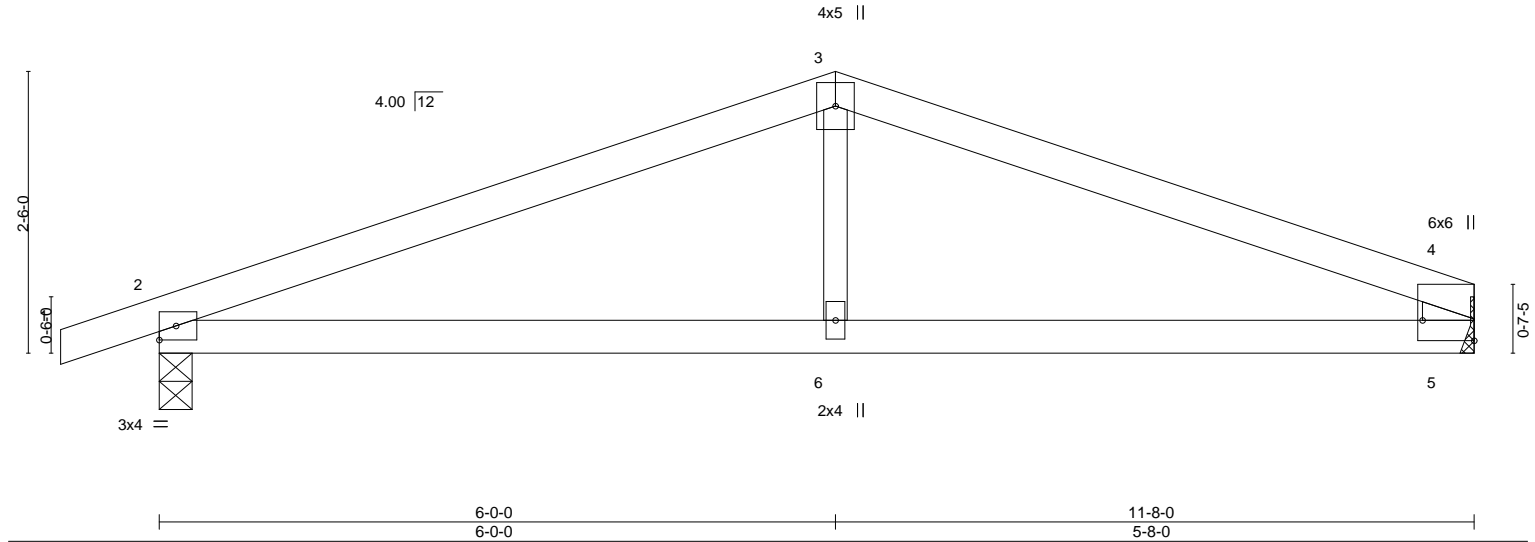


Plate Offsets (X,Y)-- [4:Edge,0-5-8]

| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.53  | Vert(LL) | -0.05 | 2-6   | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.39  | Vert(CT) | -0.11 | 2-6   | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.08  | Horz(CT) | 0.01  | 5     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S | Wind(LL) | 0.05  | 2-6   | >999   | 240 | Weight: 30 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
4-5: 2x6 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-14 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  
Max Horz 2=50(LC 12)  
Max Uplift 2=-163(LC 4), 5=-105(LC 5)  
Max Grav 2=583(LC 1), 5=505(LC 1)

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

TOP CHORD 2-3=-833/149, 3-4=-816/150, 4-5=-441/136  
BOT CHORD 2-6=-95/713, 5-6=-95/713

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=163, 5=105.
- 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.



November 18,2020

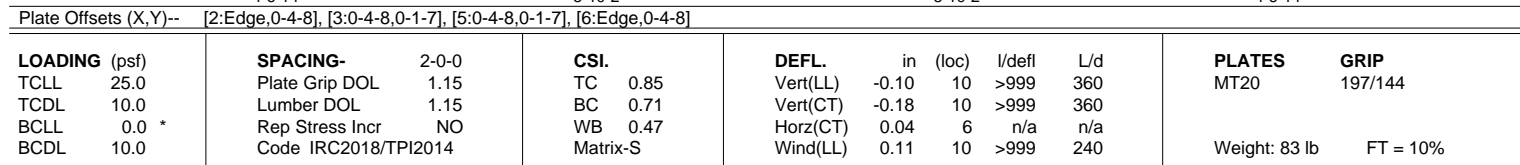
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Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:09:57 2020 Page 1  
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0-10-8 4-6-14 10-5-0 16-3-2 20-10-0 21-8-8  
0-10-8 4-6-14 5-10-2 5-10-2 4-6-14 0-10-8  
Scale = 1:37.4



**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=-95(LC 27)  
 Max Uplift 2=-486(LC 8), 6=-486(LC 9)  
 Max Grav 2=1452(LC 1), 6=1452(LC 1)

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

|           |  |
|-----------|--|
| TOP CHORD | 2-3=-2253/772, 3-4=-2582/970, 4-5=-2582/970, 5-6=-2253/772               |
| BOT CHORD | 2-11=-679/1799, 10-11=-676/1783, 8-10=-586/1783, 6-8=-589/1799           |
| WEBS      | 3-11=-111/449, 3-10=-440/957, 4-10=-653/473, 5-10=-441/957, 5-8=-112/449 |

**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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=486, 6=486.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 116 lb down and 107 lb up at 6-5-0, 116 lb down and 107 lb up at 8-5-0, 116 lb down and 107 lb up at 10-5-0, and 116 lb down and 107 lb up at 12-5-0, and 116 lb down and 107 lb up at 14-5-0 on top chord, and 286 lb down and 176 lb up at 4-6-14, 33 lb down at 6-5-0, 33 lb down at 8-5-0, 33 lb down at 10-5-0, 33 lb down at 12-5-0, and 33 lb down at 14-5-0, and 286 lb down and 176 lb up at 16-3-2 on bottom chord.  
The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Continued on page 2



STATE OF MISSOURI

JUAN GARCIA

NUMBER E-2000162101

PROFESSIONAL ENGINEER

November 18.2020

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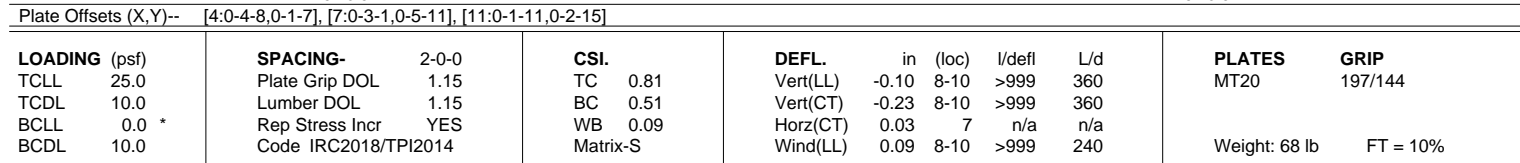
|                          |       |            |     |     |           |
|--------------------------|-------|------------|-----|-----|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |
| MN 83                    | B1    | Hip Girder | 1   | 1   | I43671078 |
| Job Reference (optional) |       |            |     |     |           |

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-3=-70, 3-5=-70, 5-7=-70, 2-6=-20
- Concentrated Loads (lb)
- Vert: 11=-286(B) 10=-22(B) 4=-45(B) 8=-286(B) 12=-45(B) 13=-45(B) 14=-45(B) 15=-45(B) 16=-22(B) 17=-22(B) 18=-22(B) 19=-22(B)



Wheeler Lumber, Waverly, KS - 66871, 8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:09:58 2020 Page 1  
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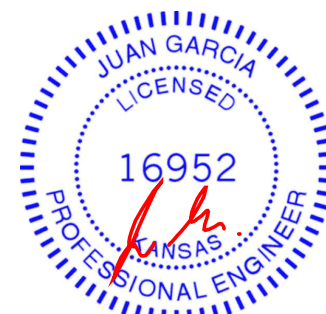
**REACTIONS.** (size) 11=0-3-8, 7=0-3-8  
 Max Horz 11=-160(LC 6)  
 Max Uplift 11=-165(LC 8), 7=-165(LC 9)  
 Max Grav 11=994(LC 1), 7=994(LC 1)

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

|           |   |
|-----------|---|
| TOP CHORD | 2-3=-1260/146, 3-4=-969/200, 4-5=-1260/146, 2-11=-915/214, 5-7=-915/214 |
| BOT CHORD | 10-11=-152/972, 8-10=-154/969, 7-8=-50/972                              |
| WEBS      | 3-10=0/274. 4-8=0/275   |

**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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=165, 7=165.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | B3    | Hip        | 1   | 1   |           | I43671080 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:09:58 2020 Page 1  
ID: XxAsF4MdGikvF3O7A2bzF0yH?NM-AUNpAyr7NEf2r3Stk51AABzu7dG2Trr12c0rNyl?7

0-10-8 5-0-5 9-1-11 11-8-5 15-9-11 20-10-0 21-8-8  
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Scale = 1:39.1

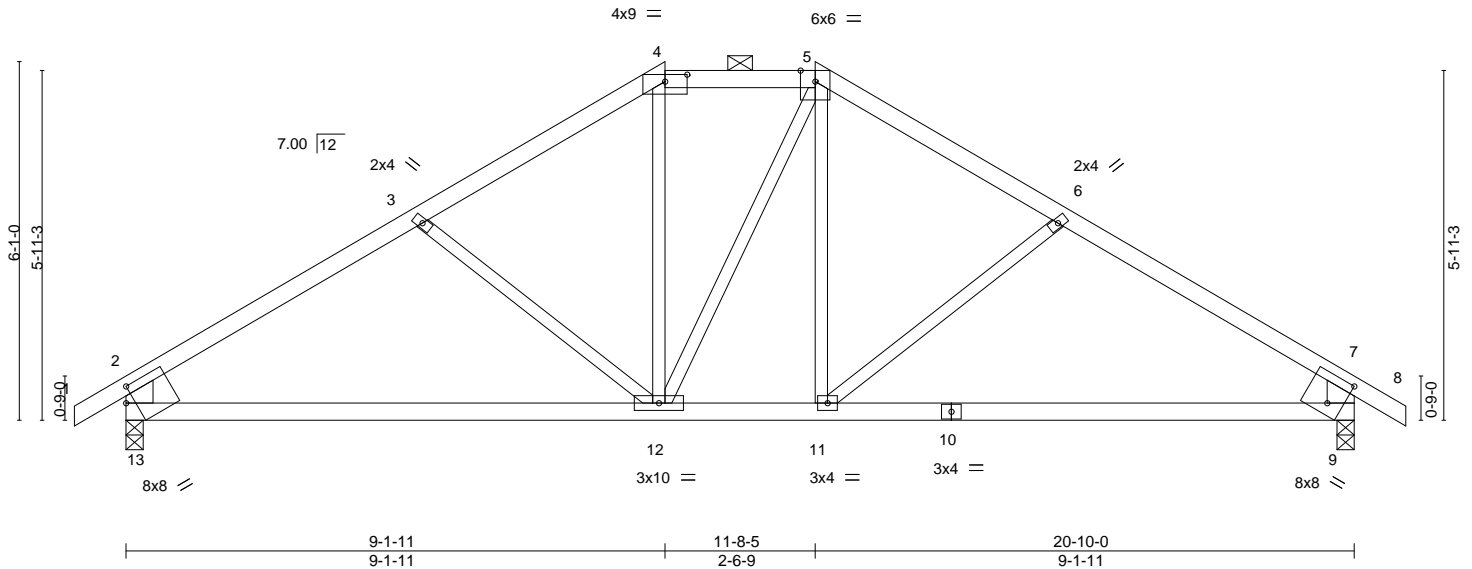


Plate Offsets (X,Y)-- [4:0-4-8,0-1-7], [9:0-3-1,0-5-11], [13:0-1-11,0-2-15]

| LOADING (psf) | SPACING-             |  | CSI.     | DEFL.          | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|--|----------|----------------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  |  | TC 0.76  | Vert(LL) -0.16 | 9-11  | >999  | 360    |     | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      |  | BC 0.56  | Vert(CT) -0.32 | 9-11  | >755  | 360    |     |               |          |
| BCLL 0.0 *    | Rep Stress Incr YES  |  | WB 0.16  | Horz(CT) 0.03  | 9     | n/a   | n/a    |     |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |  | Matrix-S | Wind(LL) 0.06  | 11-12 | >999  | 240    |     | Weight: 77 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-13,7-9: 2x6 SP DSS

#### BRACING-

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

#### REACTIONS.

(size) 13=0-3-8, 9=0-3-8  
Max Horz 13=-200(LC 6)  
Max Uplift 13=-187(LC 8), 9=-187(LC 9)  
Max Grav 13=994(LC 1), 9=994(LC 1)

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

TOP CHORD 2-3=-1249/243, 3-4=-1001/190, 4-5=-820/206, 5-6=-1000/190, 6-7=-1248/243,  
2-13=-894/236, 7-9=-893/236  
BOT CHORD 12-13=-208/969, 11-12=-14/819, 9-11=-113/969  
WEBS 4-12=-40/251, 5-11=-59/257

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=187, 9=187.
- 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.



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16023 Swingley Ridge Rd  
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|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | B4    | Common     | 1   | 1   |           | I43671081 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

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ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-egxBNisl8YnuTD13uoYPjOV291bZCIMAHGmOSpyl?16

0-10-8 4-1-1 10-5-0 16-8-15 20-10-0 21-8-8  
0-10-8 4-1-1 6-3-15 6-3-15 4-1-1 0-10-8

4x9 =

Scale = 1:42.6

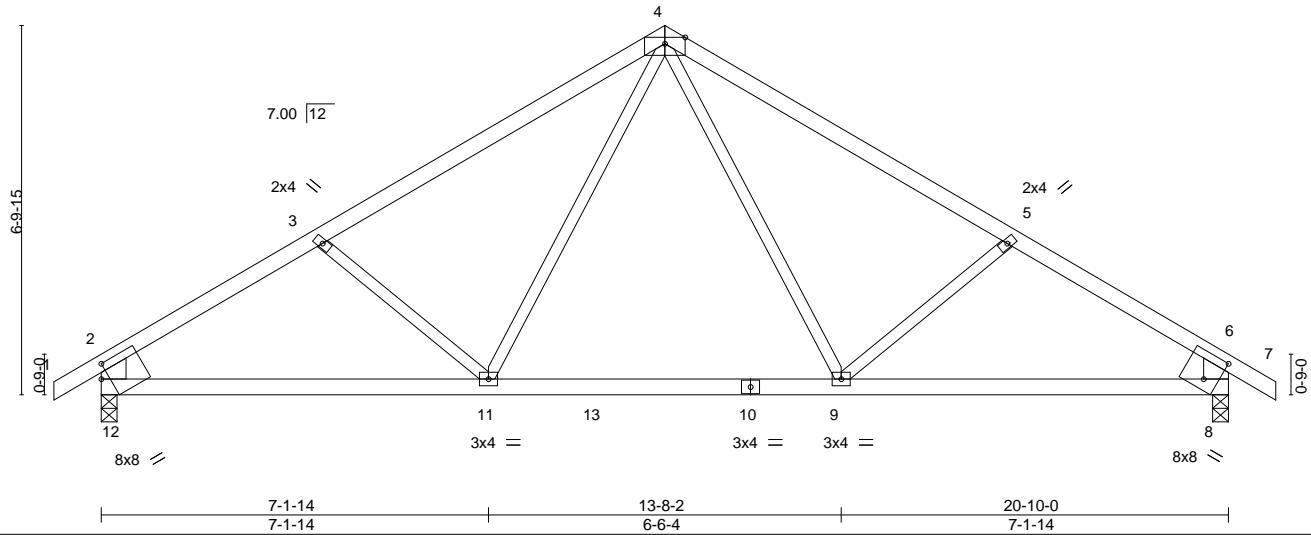


Plate Offsets (X,Y)-- [8:0-3-1,0-5-11], [12:0-1-11,0-2-15]

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in   | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.80  | Vert(LL) -0.17 | 9-11 | >999  | 360    |     | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.61  | Vert(CT) -0.26 | 9-11 | >941  | 360    |     |               |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.14  | Horz(CT) 0.03  | 8    | n/a   | n/a    |     |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-S | Wind(LL) 0.10  | 9-11 | >999  | 240    |     | Weight: 74 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-12,6-8: 2x6 SP DSS

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 12=0-3-8, 8=0-3-8  
Max Horz 12=-224(LC 6)  
Max Uplift 12=-196(LC 8), 8=-196(LC 9)  
Max Grav 12=1085(LC 15), 8=1085(LC 16)

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

TOP CHORD 2-3=-1400/282, 3-4=-1208/238, 4-5=-1209/238, 5-6=-1401/282, 2-12=-949/227,  
6-8=-950/227  
BOT CHORD 11-12=-281/1258, 9-11=-51/858, 8-9=-169/1091  
WEBS 4-9=-83/460, 5-9=-268/255, 4-11=-83/457, 3-11=-268/254

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=196, 8=196.
- 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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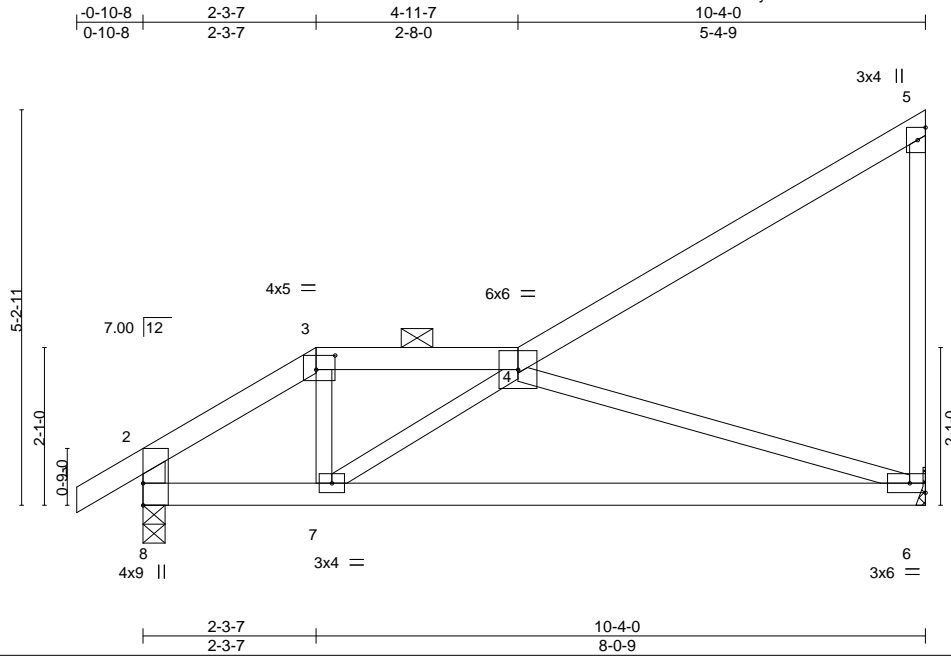
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Chesterfield, MO 63017



|                          |       |                     |     |     |           |           |
|--------------------------|-------|---------------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type          | Qty | Ply | Lot 83 MN |           |
| MN 83                    | B5    | Roof Special Girder | 1   | 1   |           | I43671082 |
| Job Reference (optional) |       |                     |     |     |           |           |

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|                       |       |                      |       |             |      |              |           |        |     |               |             |
|-----------------------|-------|----------------------|-------|-------------|------|--------------|-----------|--------|-----|---------------|-------------|
| Plate Offsets (X,Y)-- |       | [3-0-3-0,0-2-4]      |       |             |      |              |           |        |     |               |             |
| <b>LOADING</b> (psf)  |       | <b>SPACING-</b>      | 2-0-0 | <b>CSI.</b> |      | <b>DEFL.</b> | in (loc)  | l/defl | L/d | <b>PLATES</b> | <b>GRIP</b> |
| TCLL                  | 25.0  | Plate Grip DOL       | 1.15  | TC          | 0.46 | Vert(LL)     | -0.12 6-7 | >999   | 360 | MT20          | 197/144     |
| TCDL                  | 10.0  | Lumber DOL           | 1.15  | BC          | 0.55 | Vert(CT)     | -0.25 6-7 | >484   | 360 |               |             |
| BCLL                  | 0.0 * | Rep Stress Incr      | NO    | WB          | 0.52 | Horz(CT)     | 0.01 6    | n/a    | n/a |               |             |
| BCDL                  | 10.0  | Code IRC2018/TPI2014 |       | Matrix-S    |      | Wind(LL)     | 0.03 6-7  | >999   | 240 | Weight: 39 lb | FT = 10%    |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-8: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 6=Mechanical, 8=0-3-8  
Max Horz 8=234(LC 25)  
Max Uplift 6=161(LC 8), 8=183(LC 8)  
Max Grav 6=454(LC 34), 8=526(LC 1)

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

TOP CHORD 2-3=-601/154, 3-4=-456/149, 2-8=-500/155  
BOT CHORD 7-8=-232/477, 6-7=-260/639  
WEBS 3-7=-3/273, 4-6=-658/329

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=161, 8=183.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 154 lb down and 158 lb up at 2-3-7 on top chord, and 20 lb down and 26 lb up at 2-3-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 6-8=-20



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Continued on page 2

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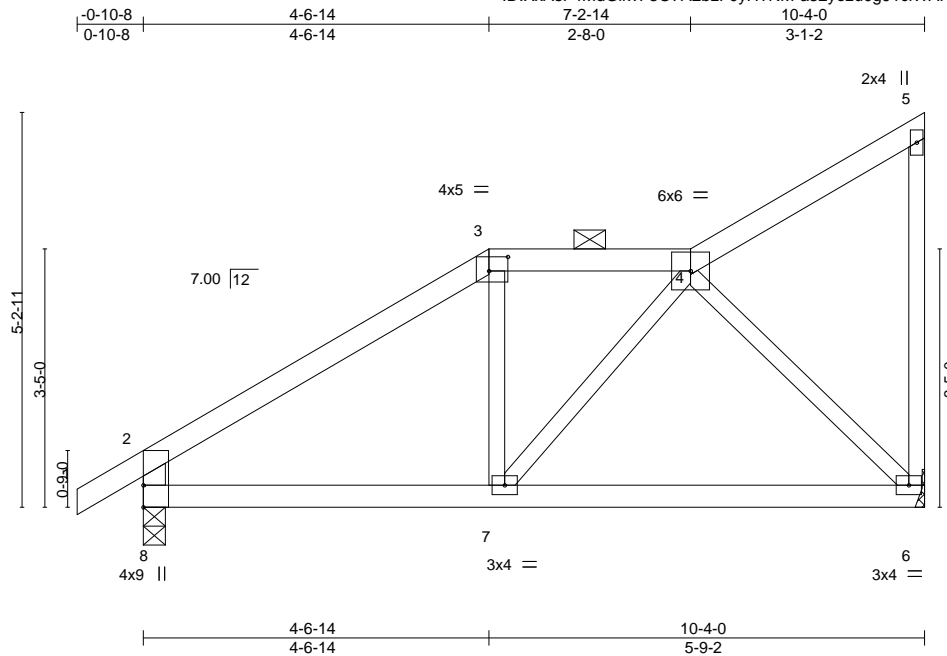
|                          |       |                     |     |     |           |
|--------------------------|-------|---------------------|-----|-----|-----------|
| Job                      | Truss | Truss Type          | Qty | Ply | Lot 83 MN |
| MN 83                    | B5    | Roof Special Girder | 1   | 1   | I43671082 |
| Job Reference (optional) |       |                     |     |     |           |

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 7=3(F)

|                          |       |              |     |     |           |           |
|--------------------------|-------|--------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type   | Qty | Ply | Lot 83 MN |           |
| MN 83                    | B6    | Roof Special | 1   | 1   |           | I43671083 |
| Job Reference (optional) |       |              |     |     |           |           |

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Scale = 1:30.5

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

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.32  | Vert(LL) | -0.03 | 6-7   | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.24  | Vert(CT) | -0.07 | 6-7   | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.20  | Horz(CT) | 0.01  | 6     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S | Wind(LL) | 0.02  | 6-7   | >999   | 240 | Weight: 39 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-8: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 6=Mechanical, 8=0-3-8  
Max Horz 8=234(LC 5)  
Max Uplift 6=-143(LC 8), 8=-120(LC 8)  
Max Grav 6=450(LC 1), 8=529(LC 1)

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

TOP CHORD 2-3=-533/96, 3-4=-378/128, 2-8=-481/150  
BOT CHORD 7-8=-117/378, 6-7=-84/298  
WEBS 4-6=-423/179

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=143, 8=120.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671084 |
| MN 83 | C1    | HIP GIRDER | 1   | 1   | Job Reference (optional) |           |

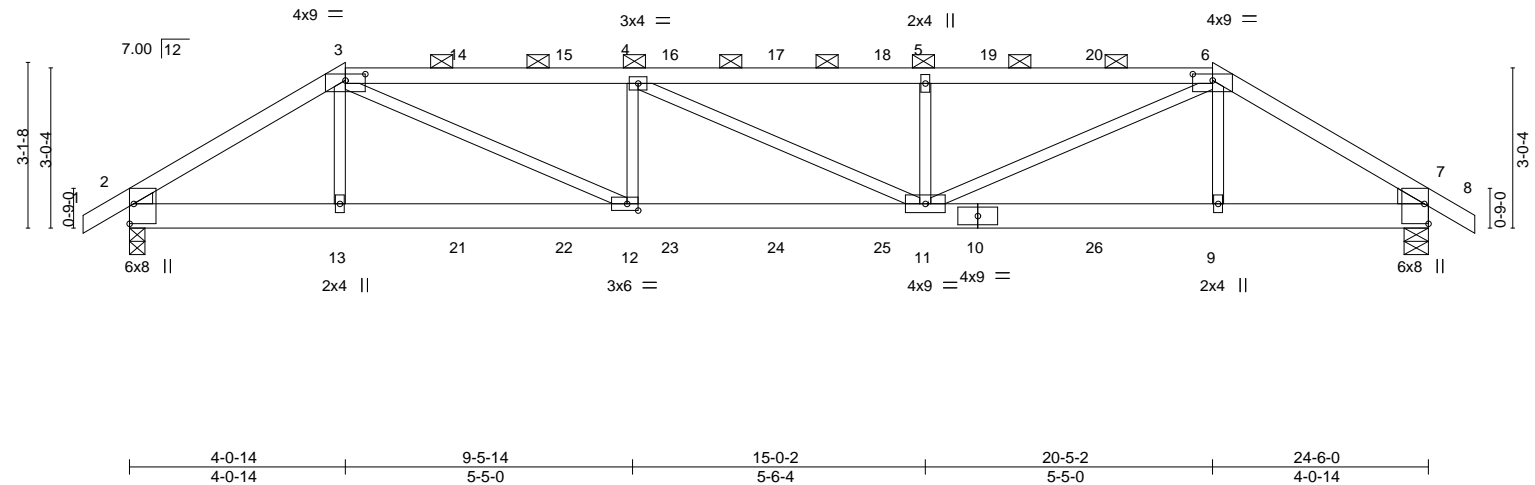
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0-10-8 4-0-14 9-5-14 15-0-2 20-5-2 24-6-0 25-4-8  
0-10-8 4-0-14 5-5-0 5-6-4 5-5-0 4-0-14 0-10-8

Scale = 1:43.5



|                       |       |  |  |          |  |                               |  |  |  |                        |  |
|-----------------------|-------|--|--|----------|--|-------------------------------|--|--|--|------------------------|--|
| Plate Offsets (X,Y)-- |       | [2:Edge,0-0-15], [3:0-4-8,0-1-7], [6:0-4-8,0-1-7], [7:Edge,0-0-15], [12:0-2-8,0-1-8] |  |          |  |                               |  |  |  |                        |  |
| LOADING (psf)         |       | SPACING-2-0-0  |  | CSI.     |  | DEFL. in (loc) l/defl L/d     |  |  |  | PLATES GRIP            |  |
| TCLL                  | 25.0  | Plate Grip DOL 1.15  |  | TC 0.90  |  | Vert(LL) -0.17 11-12 >999 360 |  |  |  | MT20 197/144           |  |
| TCDL                  | 10.0  | Lumber DOL 1.15  |  | BC 0.79  |  | Vert(CT) -0.31 11-12 >920 360 |  |  |  |                        |  |
| BCLL                  | 0.0 * | Rep Stress Incr NO   |  | WB 0.52  |  | Horz(CT) 0.06 7 n/a n/a       |  |  |  |                        |  |
| BCDL                  | 10.0  | Code IRC2018/TPI2014   |  | Matrix-S |  | Wind(LL) 0.17 11-12 >999 240  |  |  |  | Weight: 98 lb FT = 10% |  |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x6 SPF No.2  
WEBS 2x3 SPF No.2  
WEDGE  
Left: 2x3 SPF No.2 , Right: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-7-11 oc purlins, except  
2-0-0 oc purlins (2-5-6 max.): 3-6.  
BOT CHORD Rigid ceiling directly applied or 7-9-13 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 7=0-5-8  
Max Horz 2=86(LC 7)  
Max Uplift 2=378(LC 8), 7=381(LC 9)  
Max Grav 2=1540(LC 1), 7=1549(LC 1)

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

TOP CHORD 2-3=2406/633, 3-4=3229/883, 4-5=3201/873, 5-6=3203/875, 6-7=2385/630  
BOT CHORD 2-13=557/1924, 12-13=556/1911, 11-12=891/3227, 9-11=471/1881, 7-9=472/1894  
WEBS 3-13=40/335, 3-12=439/1505, 4-12=516/283, 5-11=513/275, 6-11=437/1507, 6-9=44/338

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=378, 7=381.
- 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) 94 lb down and 62 lb up at 4-0-14, 102 lb down and 62 lb up at 6-3-0, 102 lb down and 62 lb up at 8-3-0, 102 lb down and 62 lb up at 10-3-0, 102 lb down and 62 lb up at 12-3-0, 102 lb down and 62 lb up at 14-3-0, 102 lb down and 62 lb up at 16-3-0, and 102 lb down and 62 lb up at 18-3-0, and 94 lb down and 62 lb up at 20-5-2 on top chord, and 173 lb down and 109 lb up at 4-0-14, 27 lb down at 4-3-0, 27 lb down at 6-3-0, 27 lb down at 8-3-0, 27 lb down at 10-3-0, 27 lb down at 12-3-0, 27 lb down at 14-3-0, 27 lb down at 16-3-0, 27 lb down at 18-3-0, and 27 lb down at 20-3-0, and 173 lb down and 109 lb up at 20-5-2 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



November 18, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                          |       |            |     |     |           |
|--------------------------|-------|------------|-----|-----|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |
| MN 83                    | C1    | HIP GIRDER | 1   | 1   | I43671084 |
| Job Reference (optional) |       |            |     |     |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:03 2020 Page 2  
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LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-70, 3-6=-70, 6-8=-70, 2-7=-20

Concentrated Loads (lb)

Vert: 3=-30(F) 6=-30(F) 10=-16(F) 13=-189(F) 9=-189(F) 14=-30(F) 15=-30(F) 16=-30(F) 17=-30(F) 18=-30(F) 19=-30(F) 20=-30(F) 21=-16(F) 22=-16(F) 23=-16(F) 24=-16(F) 25=-16(F) 26=-16(F)

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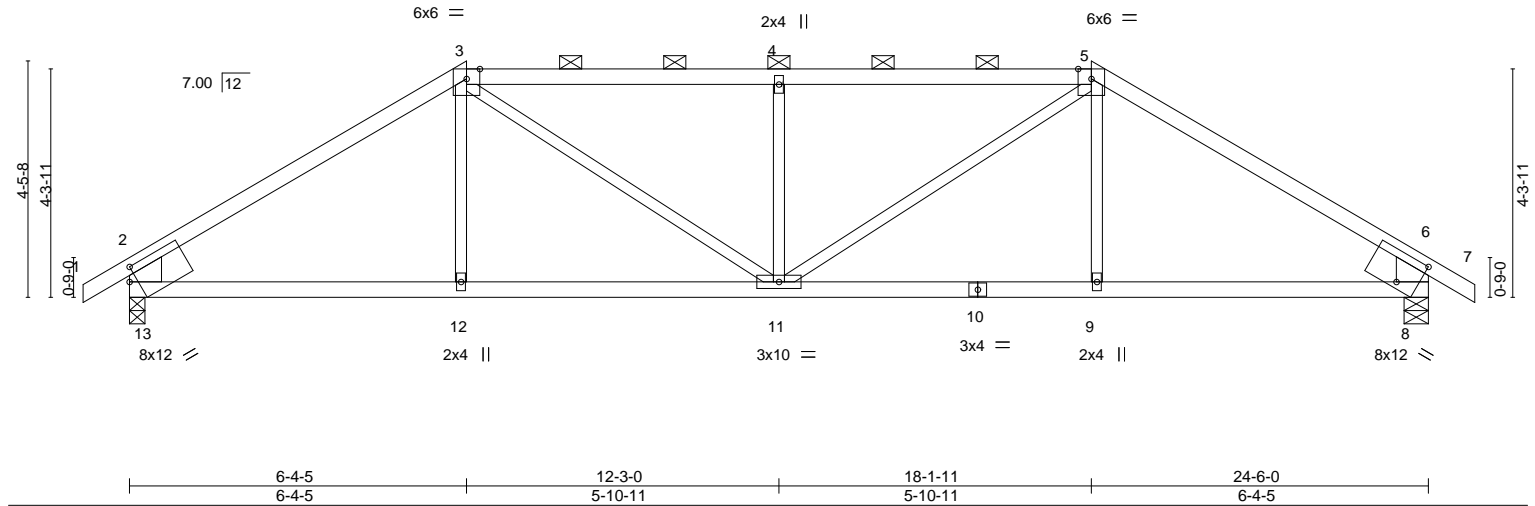
|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671085 |
| MN 83 | C2    | Hip        | 1   | 1   | Job Reference (optional) |           |

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ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-XSAiDfvGBmHKxqKq7ecLtEgh3exH84tmCukbbayl?12

0-10-8 6-4-5 12-3-0 18-1-11 24-6-0 25-4-8  
0-10-8 6-4-5 5-10-11 5-10-11 6-4-5 0-10-8

Scale = 1:43.5



|  |                      |       |             |              |             |               |             |
|--|----------------------|-------|-------------|--------------|-------------|---------------|-------------|
| Plate Offsets (X,Y)-- [8:0-4-9,0-6-10], [13:0-1-11,0-2-15] |                      |       |             |              |             |               |             |
| <b>LOADING</b> (psf)                                       | <b>SPACING-</b>      | 2-0-0 | <b>CSI.</b> | <b>DEFL.</b> |             | <b>PLATES</b> | <b>GRIP</b> |
| TCLL 25.0  | Plate Grip DOL       | 1.15  | TC 1.00     | in (loc)     | l/defl      | MT20          | 197/144     |
| TCDL 10.0  | Lumber DOL           | 1.15  | BC 0.69     | Vert(LL)     | -0.14 11-12 |               |             |
| BCLL 0.0 *   | Rep Stress Incr      | YES   | WB 0.30     | Vert(CT)     | -0.28 11-12 |               |             |
| BCDL 10.0  | Code IRC2018/TPI2014 |       | Matrix-S    | Horz(CT)     | 0.05 8      |               |             |
|  |                      |       |             | Wind(LL)     | 0.13 9-11   |               |             |
|  |                      |       |             |              |             | Weight: 84 lb | FT = 10%    |

|                            |   |
|----------------------------|---|
| <b>LUMBER-</b>             | <b>BRACING-</b>   |
| TOP CHORD 2x4 SPF No.2     | TOP CHORD Structural wood sheathing directly applied, except end verticals, and |
| BOT CHORD 2x4 SPF No.2     | 2-0-0 oc purlins (3-11-10 max.): 3-5.   |
| WEBS 2x3 SPF No.2 *Except* | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.                  |
| 2-13,6-8: 2x8 SP DSS       |   |

**REACTIONS.** (size) 13=0-3-8, 8=0-5-8  
Max Horz 13=153(LC 7)  
Max Uplift 13=-169(LC 8), 8=-169(LC 9)  
Max Grav 13=1158(LC 1), 8=1158(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1513/220, 3-4=-1677/301, 4-5=-1677/301, 5-6=-1513/220, 2-13=-1057/215, 6-8=-1057/215  
BOT CHORD 12-13=-233/1186, 11-12=-235/1185, 9-11=-120/1185, 8-9=-118/1186  
WEBS 3-11=-239/679, 4-11=-532/256, 5-11=-239/679

- 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=169, 8=169.
  - 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.



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Chesterfield, MO 63017



|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | C3    | Hip        | 1   | 1   |           | I43671086 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

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|         |        |        |         |        |        |        |
|---------|--------|--------|---------|--------|--------|--------|
| -0-10-8 | 4-2-10 | 8-7-11 | 15-10-5 | 20-3-6 | 24-6-0 | 25-4-8 |
| 0-10-8  | 4-2-10 | 4-5-2  | 7-2-9   | 4-5-2  | 4-2-10 | 0-10-8 |

Scale = 1:43.5

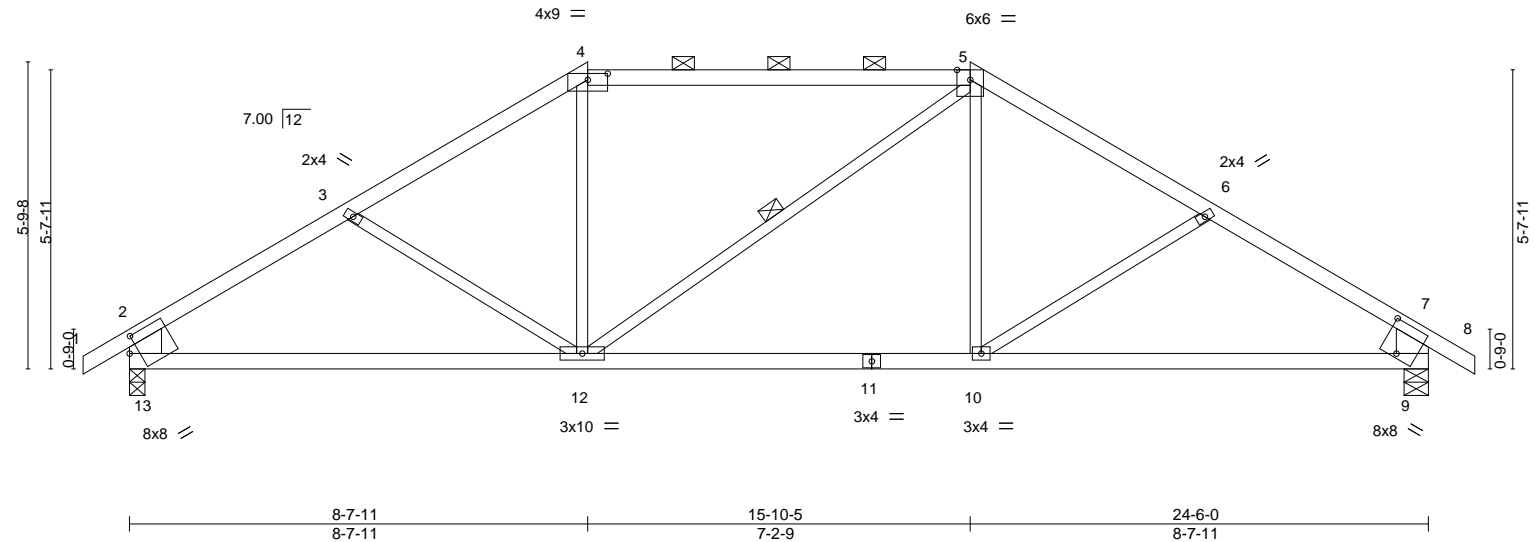


Plate Offsets (X,Y)-- [4:0-4-8,0-1-7], [9:0-3-13,0-7-0], [13:0-2-1,0-3-6]

| LOADING (psf) | SPACING-             |       | CSI.     |  | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|--|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.91  |  | Vert(LL) | -0.14 | 10-12 | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.64  |  | Vert(CT) | -0.24 | 10-12 | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.10  |  | Horz(CT) | 0.05  | 9     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |  | Wind(LL) | 0.08  | 10-12 | >999   | 240 | Weight: 88 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E \*Except\*  
4-5: 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-13,7-9: 2x8 SP DSS

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-12

#### REACTIONS.

(size) 13=0-3-8, 9=0-5-8  
Max Horz 13=193(LC 7)  
Max Uplift 13=196(LC 8), 9=196(LC 9)  
Max Grav 13=1184(LC 2), 9=1191(LC 2)

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

TOP CHORD 2-3=-1504/259, 3-4=-1383/198, 4-5=-1174/222, 5-6=-1395/198, 6-7=-1516/259,  
2-13=-1065/239, 7-9=-1065/239  
BOT CHORD 12-13=-224/1237, 10-12=-60/1185, 9-10=-136/1186  
WEBS 4-12=0/322, 5-10=-0/357

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=196, 9=196.
- 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.



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|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | C4    | Hip        | 1   | 1   |           | I43671087 |
| Job Reference (optional) |       |            |     |     |           |           |

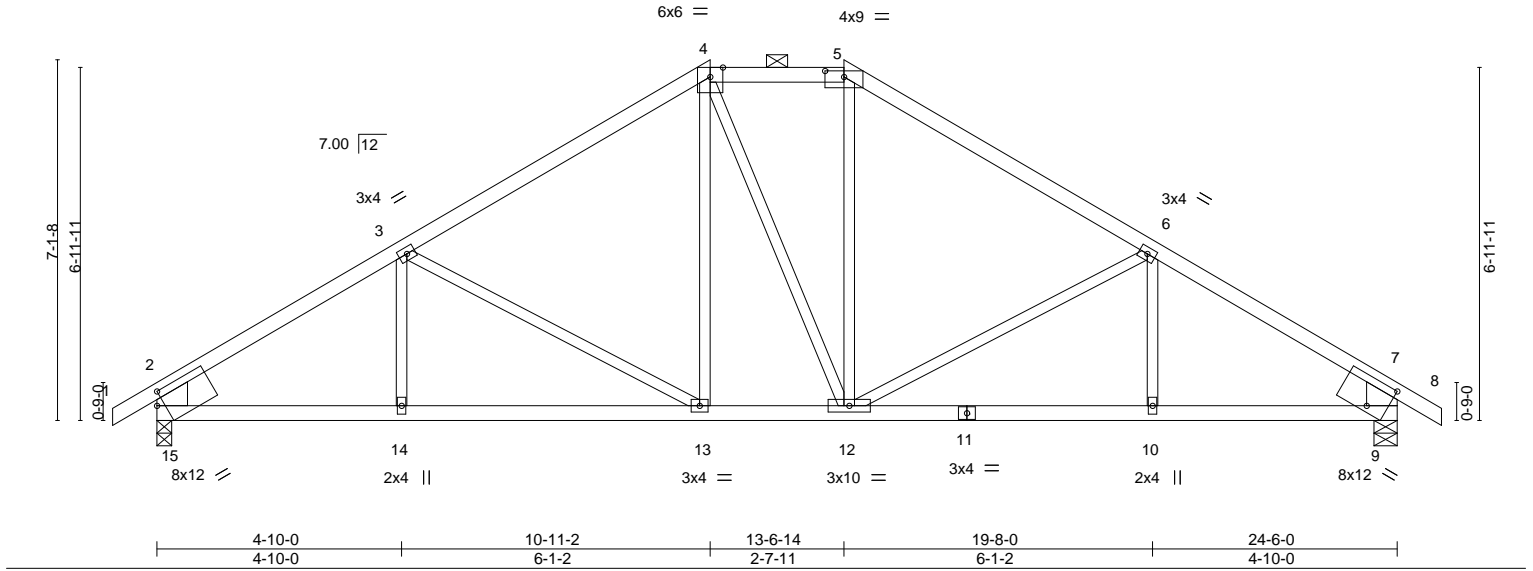
Wheeler Lumber, Waverly, KS - 66871,

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ID: XxAsF4MdGikvF3O7A2bzF0yH?NM-TqITeLxWJOY2B8UDF3fpzff3CSZDcyx3fCDifYl?to

0-10-8 4-10-0 10-11-2 13-6-14 19-8-0 24-6-0 25-4-8  
0-10-8 4-10-0 6-1-2 2-7-11 6-1-2 4-10-0 0-10-8

Scale = 1:45.5



|                       |                      |   |             |               |             |        |     |
|-----------------------|----------------------|---|-------------|---------------|-------------|--------|-----|
| Plate Offsets (X,Y)-- |                      | [5:0-4-8,0-1-7], [9:0-4-9,0-6-10], [15:0-1-11,0-2-15] |             |               |             |        |     |
| <b>LOADING</b> (psf)  | <b>SPACING-</b>      | 2-0-0   | <b>CSI.</b> | <b>DEFL.</b>  | in (loc)    | l/defl | L/d |
| TCLL 25.0             | Plate Grip DOL       | 1.15  | TC 0.89     | Vert(LL)      | -0.14 13-14 | >999   | 360 |
| TCDL 10.0             | Lumber DOL           | 1.15  | BC 0.91     | Vert(CT)      | -0.27 13-14 | >999   | 360 |
| BCLL 0.0 *            | Rep Stress Incr      | YES   | WB 0.39     | Horz(CT)      | 0.05 9      | n/a    | n/a |
| BCDL 10.0             | Code IRC2018/TPI2014 |   | Matrix-S    | Wind(LL)      | 0.10 13-14  | >999   | 240 |
|                       |                      |   |             | <b>PLATES</b> | <b>GRIP</b> |        |     |
|                       |                      |   |             | MT20          | 197/144     |        |     |
|                       |                      |   |             | Weight: 97 lb | FT = 10%    |        |     |

|                            |  |
|----------------------------|--|
| <b>LUMBER-</b>             | <b>BRACING-</b>  |
| TOP CHORD 2x4 SPF No.2     | TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-8-10 max.): 4-5. |
| BOT CHORD 2x4 SPF No.2     | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.   |
| WEBS 2x3 SPF No.2 *Except* |  |
| 2-15,7-9: 2x8 SP DSS       |  |

**REACTIONS.** (size) 15=0-3-8, 9=0-5-8  
Max Horz 15=233(LC 7)  
Max Uplift 15=-217(LC 8), 9=-217(LC 9)  
Max Grav 15=1158(LC 1), 9=1158(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1521/262, 3-4=-1214/228, 4-5=-962/259, 5-6=-1215/228, 6-7=-1521/262,  
2-15=-1036/229, 7-9=-1036/229  
BOT CHORD 14-15=-254/1205, 13-14=-254/1205, 12-13=-65/961, 10-12=-140/1204, 9-10=-140/1204  
WEBS 3-13=-347/214, 4-13=-54/271, 5-12=-58/275, 6-12=-346/215

- 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=217, 9=217.
  - 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.



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Chesterfield, MO 63017

|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | C5    | Common     | 2   | 1   |           | I43671088 |
| Job Reference (optional) |       |            |     |     |           |           |

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ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-x0srrhy8UhgvpH3PomA2VslHasyBLSpCusyGBvyl?1?

0-10-8 4-11-10 12-3-0 19-6-7 24-6-0 25-4-8  
0-10-8 4-11-10 7-3-7 7-3-7 4-11-10 0-10-8

4x9 =

Scale = 1:49.2

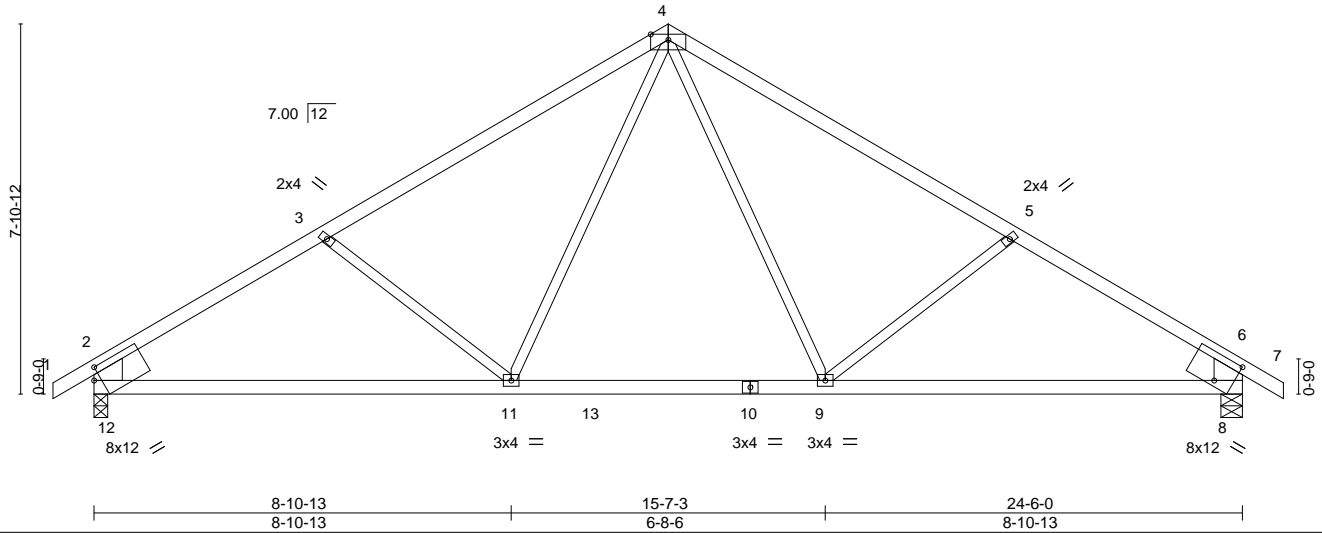


Plate Offsets (X,Y)-- [8:0-4-9,0-6-10], [12:0-1-11,0-2-15]

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.66  | Vert(LL) -0.18 | 9-11     | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.74  | Vert(CT) -0.29 | 11-12    | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.22  | Horz(CT) 0.05  | 8        | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-S | Wind(LL) 0.12  | 9-11     | >999   | 240 | Weight: 87 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-12,6-8: 2x8 SP DSS

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-14 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 9-10-4 oc bracing.

#### REACTIONS.

(size) 12=0-3-8, 8=0-5-8  
Max Horz 12=258(LC 7)  
Max Uplift 12=-226(LC 8), 8=-226(LC 9)  
Max Grav 12=1265(LC 15), 8=1265(LC 16)

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

TOP CHORD 2-3=-1649/335, 3-4=-1403/272, 4-5=-1404/272, 5-6=-1650/335, 2-12=-1104/270, 6-8=-1104/270  
BOT CHORD 11-12=-332/1484, 9-11=-60/1021, 8-9=-200/1291  
WEBS 4-9=-95/528, 5-9=-327/300, 4-11=-95/526, 3-11=-327/299

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=226, 8=226.
- 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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Chesterfield, MO 63017

|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | C6    | Common     | 1   | 1   |           | I43671089 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:07 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-PDQD31ynF?omQRebMUhH24qNEFEP4vmL7WipkLyI?t\_

-0-10-8 4-11-10 12-3-0 19-6-7 24-6-0  
0-10-8 4-11-10 7-3-7 7-3-7 4-11-10

6x8 =

Scale = 1:48.7

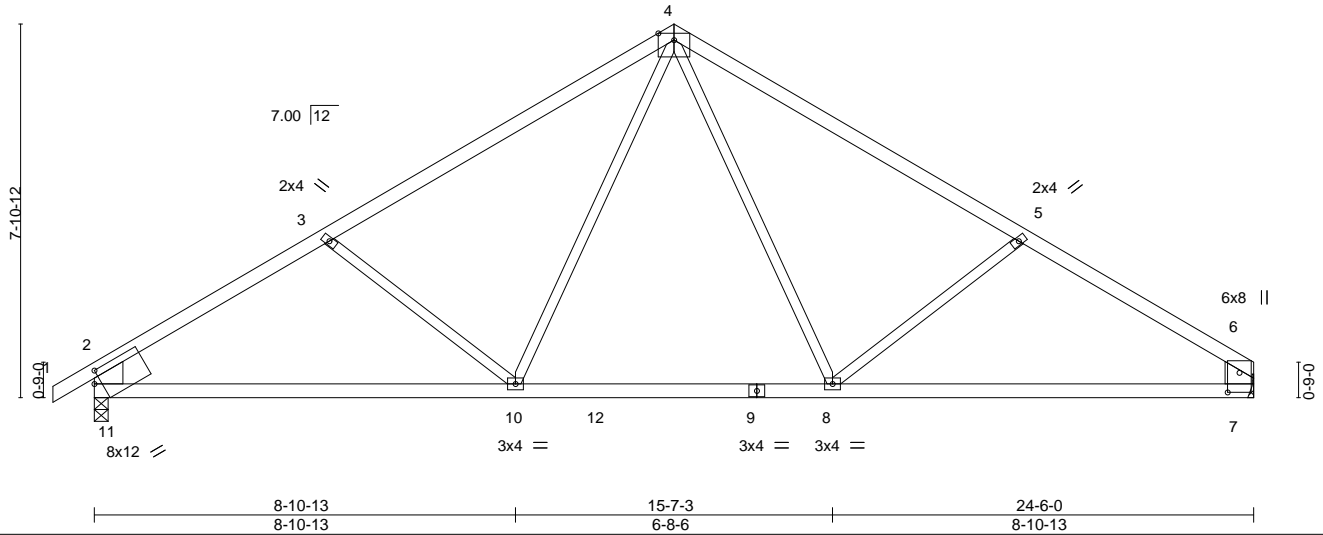


Plate Offsets (X,Y)-- [6:0-5-0,0-3-0], [11:0-1-11,0-2-15]

| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.99  | Vert(LL) | -0.23 | 8-10  | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.93  | Vert(CT) | -0.35 | 8-10  | >829   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.24  | Horz(CT) | 0.05  | 7     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S | Wind(LL) | 0.15  | 8-10  | >999   | 240 | Weight: 86 lb | FT = 10% |

| LUMBER-  | BRACING-  |
|--|---|
| TOP CHORD 2x4 SPF 2100F 1.8E *Except*<br>4-6: 2x4 SPF No.2 | TOP CHORD Structural wood sheathing directly applied, except end verticals. |
| BOT CHORD 2x4 SPF No.2                                     | BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.               |
| WEBS 2x3 SPF No.2 *Except*<br>2-11,6-7: 2x8 SP DSS         |   |

**REACTIONS.** (size) 11=0-3-8, 7=Mechanical  
Max Horz 11=251(LC 5)  
Max Uplift 11=-226(LC 8), 7=-192(LC 9)  
Max Grav 11=1266(LC 15), 7=1187(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1654/335, 3-4=-1407/273, 4-5=-1403/272, 5-6=-1661/337, 2-11=-1106/270,  
6-7=-1008/231  
BOT CHORD 10-11=-346/1477, 8-10=-73/1010, 7-8=-234/1320  
WEBS 4-8=-93/521, 5-8=-356/308, 4-10=-98/537, 3-10=-329/300

- 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=226, 7=192.
  - 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.



November 18,2020

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|                          |       |                     |     |     |           |           |
|--------------------------|-------|---------------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type          | Qty | Ply | Lot 83 MN |           |
| MN 83                    | D1    | Roof Special Girder | 1   | 1   |           | I43671090 |
| Job Reference (optional) |       |                     |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:08 2020 Page 1  
ID: XxAsF4MdGikvF3O7A2bzF0yH?NM-iPzbGNzP0Jwd2bDowBCWaHNd9faZpFsVMARMFnyI?sz

|         |        |        |        |        |        |        |
|---------|--------|--------|--------|--------|--------|--------|
| 4-11-12 | 12-3-0 | 19-7-7 | 21-2-5 | 26-2-5 | 29-6-0 | 30-4-8 |
| 4-11-12 | 7-3-4  | 7-4-7  | 1-6-14 | 5-0-0  | 3-3-11 | 0-10-8 |

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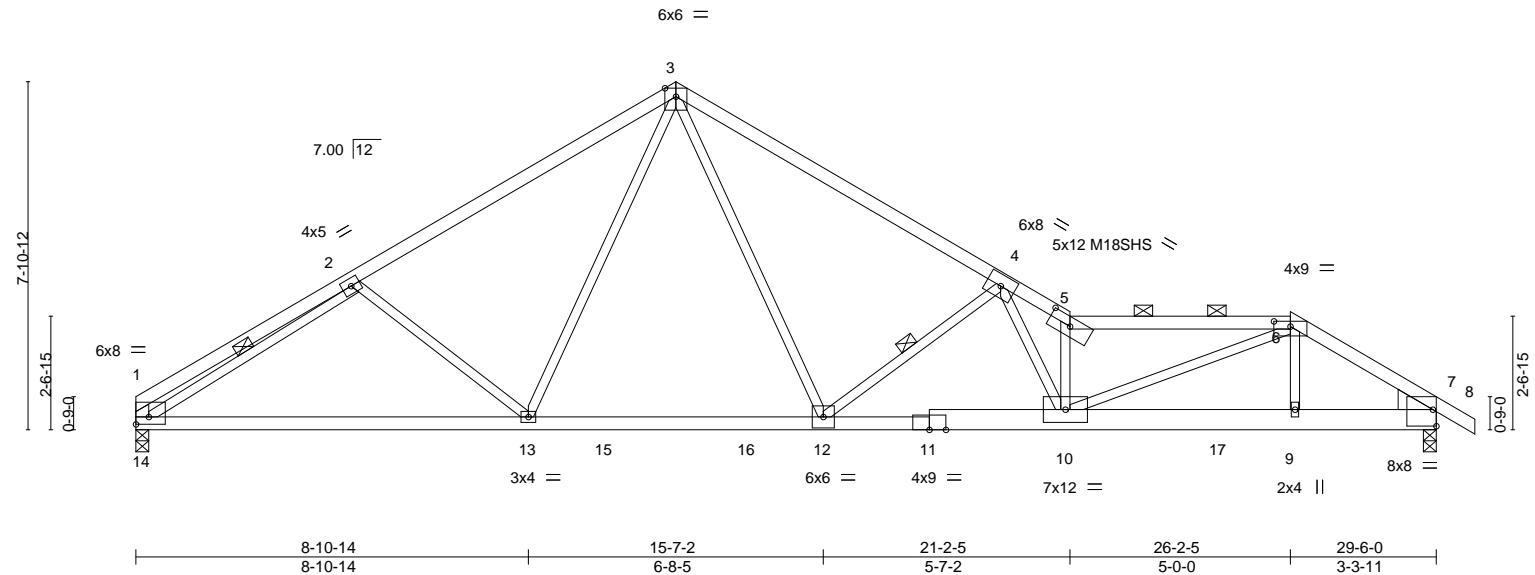


Plate Offsets (X,Y)-- [1:Edge,0-2-0], [5:0-6-0,0-2-7], [6:0-4-8,0-1-7], [7:Edge,0-4-8]

| LOADING (psf) | SPACING-             |  | CSI.     |  | DEFL.          | in (loc) | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|--|----------|--|----------------|----------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  |  | TC 0.66  |  | Vert(LL) -0.22 | 10-12    | >999   | 360 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      |  | BC 0.93  |  | Vert(CT) -0.38 | 10-12    | >925   | 360 | M18SHS         | 197/144  |
| BCLL 0.0 *    | Rep Stress Incr NO   |  | WB 0.70  |  | Horz(CT) 0.07  | 7        | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |  | Matrix-S |  | Wind(LL) 0.18  | 10       | >999   | 240 |                |          |
|               |                      |  |          |  |                |          |        |     | Weight: 118 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E \*Except\*  
6-8: 2x4 SPF No.2  
BOT CHORD 2x4 SPF 2100F 1.8E \*Except\*  
7-11: 2x6 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
1-14: 2x4 SPF No.2

#### WEDGE

Right: 2x6 SPF No.2

#### REACTIONS.

(size) 14=0-3-8, 7=0-3-8  
Max Horz 14=-239(LC 27)  
Max Uplift 14=-253(LC 8), 7=-489(LC 9)  
Max Grav 14=1489(LC 35), 7=1751(LC 2)

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

TOP CHORD 1-2=-635/66, 2-3=-1994/398, 3-4=-2370/533, 4-5=-4643/1026, 5-6=-4146/943,  
6-7=-2917/784, 1-14=-419/78  
BOT CHORD 13-14=-446/1989, 12-13=-168/1491, 10-12=-638/3183, 9-10=-567/2315, 7-9=-571/2342  
WEBS 2-13=-351/321, 3-13=-102/587, 3-12=-338/1344, 4-12=-1610/599, 4-10=-404/2043,  
5-10=-2427/526, 6-10=-287/2000, 6-9=-86/581, 2-14=-1620/388

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=253, 7=489.
- 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) 122 lb down and 194 lb up at 26-2-4 on top chord, and 385 lb down and 125 lb up at 24-6-12, and 35 lb down and 15 lb up at 26-1-9 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).

Continued on page 2

#### LOAD CASE(S) Standard

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

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November 18, 2020



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|       |       |                     |     |     |                          |
|-------|-------|---------------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type          | Qty | Ply | Lot 83 MN                |
| MN 83 | D1    | Roof Special Girder | 1   | 1   | I43671090                |
|       |       |                     |     |     | Job Reference (optional) |

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-70, 3-5=-70, 5-6=-70, 6-8=-70, 7-14=-20  
Concentrated Loads (lb)  
Vert: 6=-7(F) 9=-7(F) 17=-385(F)



|                          |       |              |     |     |           |           |
|--------------------------|-------|--------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type   | Qty | Ply | Lot 83 MN |           |
| MN 83                    | D2    | Roof Special | 1   | 1   |           | I43671091 |
| Job Reference (optional) |       |              |     |     |           |           |

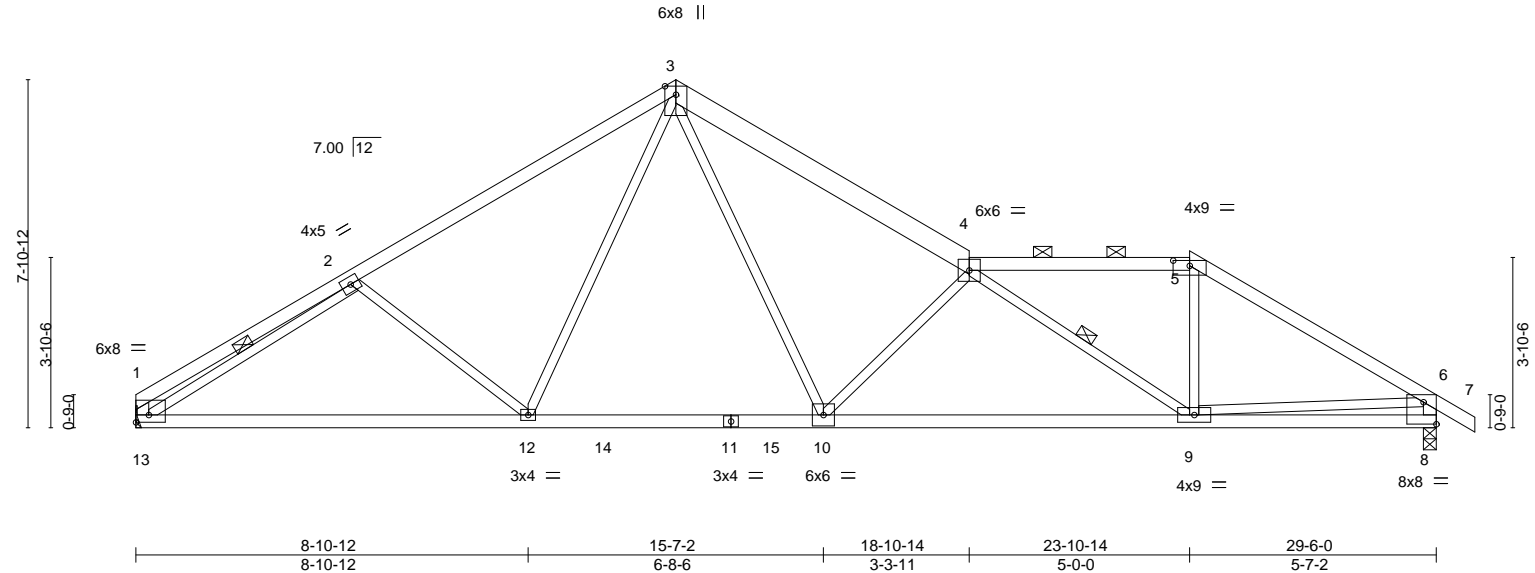
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:09 2020 Page 1

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|        |        |          |          |        |        |
|--------|--------|----------|----------|--------|--------|
| 4-11-9 | 12-3-0 | 18-10-14 | 23-10-14 | 29-6-0 | 30-4-8 |
| 4-11-9 | 7-3-6  | 6-7-14   | 5-0-0    | 5-7-2  | 0-10-8 |

Scale = 1:52.3



| LOADING (psf) |       | SPACING-             |      | CSI.     |      | DEFL.    |                     | PLATES         |  | GRIP     |  |
|---------------|-------|----------------------|------|----------|------|----------|---------------------|----------------|--|----------|--|
| TCLL          | 25.0  | Plate Grip DOL       | 1.15 | TC       | 0.90 | Vert(LL) | -0.19 9-10 >999 360 | MT20           |  | 197/144  |  |
| TCDL          | 10.0  | Lumber DOL           | 1.15 | BC       | 0.94 | Vert(CT) | -0.38 9-10 >913 360 |                |  |          |  |
| BCLL          | 0.0 * | Rep Stress Incr      | YES  | WB       | 0.67 | Horz(CT) | 0.08 8 n/a n/a      |                |  |          |  |
| BCDL          | 10.0  | Code IRC2018/TPI2014 |      | Matrix-S |      | Wind(LL) | 0.07 10 >999 240    |                |  |          |  |
|               |       |                      |      |          |      |          |                     | Weight: 116 lb |  | FT = 10% |  |

|                |   |                 |  |
|----------------|---|-----------------|--|
| <b>LUMBER-</b> |   | <b>BRACING-</b> |  |
| TOP CHORD      | 2x4 SPF No.2 *Except*<br>3-4: 2x6 SPF No.2      | TOP CHORD       | Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-0-13 max.): 4-5. |
| BOT CHORD      | 2x4 SPF No.2                                    | BOT CHORD       | Rigid ceiling directly applied or 10-0-0 oc bracing, Except:   |
| WEBS           | 2x3 SPF No.2 *Except*<br>1-13,6-8: 2x4 SPF No.2 | WEBS            | 2-2-0 oc bracing: 9-10.<br>1 Row at midpt 4-9, 2-13  |

**REACTIONS.** (size) 13=Mechanical, 8=0-3-8  
Max Horz 13=-198(LC 4)  
Max Uplift 13=-57(LC 8), 8=-102(LC 9)  
Max Grav 13=1433(LC 13), 8=1442(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-581/0, 2-3=-1904/131, 3-4=-2218/162, 4-5=-1711/145, 5-6=-2083/127,  
1-13=-387/21, 6-8=-1367/124  
BOT CHORD 12-13=-142/1881, 10-12=0/1412, 9-10=-88/2582, 8-9=-117/496  
WEBS 2-12=-345/198, 3-12=-27/549, 3-10=-74/1209, 4-10=-1124/211, 4-9=-1071/70,  
5-9=0/743, 2-13=-1578/150, 6-9=0/1323

- 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 8=102.
  - 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.



November 18,2020

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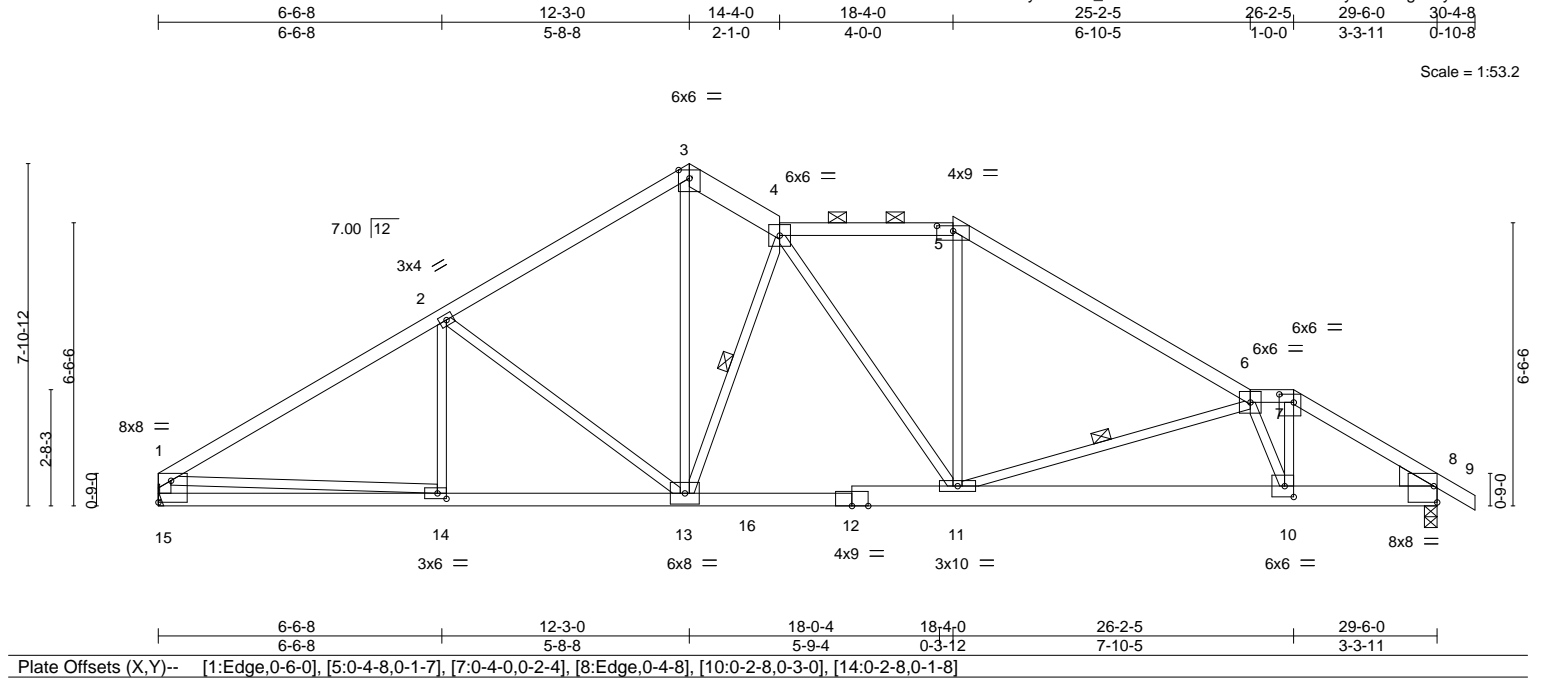
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|                          |       |                     |     |     |           |           |
|--------------------------|-------|---------------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type          | Qty | Ply | Lot 83 MN |           |
| MN 83                    | D4    | Roof Special Girder | 1   | 1   |           | I43671093 |
| Job Reference (optional) |       |                     |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

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| LOADING (psf) |       | SPACING-             |      | CSI.     |      | DEFL.    |             | PLATES         |  | GRIP     |  |
|---------------|-------|----------------------|------|----------|------|----------|-------------|----------------|--|----------|--|
| TCLL          | 25.0  | Plate Grip DOL       | 1.15 | TC       | 0.69 | Vert(LL) | -0.12 11-13 | MT20           |  | 197/144  |  |
| TCDL          | 10.0  | Lumber DOL           | 1.15 | BC       | 0.95 | Vert(CT) | -0.22 10-11 |                |  |          |  |
| BCLL          | 0.0 * | Rep Stress Incr      | NO   | WB       | 0.67 | Horz(CT) | 0.06 8      |                |  |          |  |
| BCDL          | 10.0  | Code IRC2018/TPI2014 |      | Matrix-S |      | Wind(LL) | 0.09 10-11  |                |  |          |  |
|               |       |                      |      |          |      |          |             | Weight: 130 lb |  | FT = 10% |  |

|                |   |                 |  |
|----------------|---|-----------------|--|
| <b>LUMBER-</b> |   | <b>BRACING-</b> |  |
| TOP CHORD      | 2x4 SPF No.2 *Except*<br>3-4: 2x6 SPF No.2, 5-6: 2x4 SPF 2100F 1.8E | TOP CHORD       | Structural wood sheathing directly applied or 3-3-10 oc purlins, except end verticals, and 2-0-0 oc purlins (3-8-14 max.): 4-5, 6-7. |
| BOT CHORD      | 2x4 SPF No.2 *Except*<br>8-12: 2x6 SPF No.2                         | BOT CHORD       | Rigid ceiling directly applied or 9-9-0 oc bracing.  |
| WEBS           | 2x3 SPF No.2 *Except*<br>1-15: 2x4 SPF No.2                         | WEBS            | 1 Row at midpt<br>4-13, 6-11   |
| WEDGE          | Right: 2x6 SPF No.2   |                 |  |

|                   |                              |  |   |
|-------------------|------------------------------|--|---|
| <b>REACTIONS.</b> |                              | <b>FORCES.</b>   |   |
| (size)            | 15=Mechanical, 8=0-3-8       | (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. |   |
| Max Horz          | 15=-238(LC 6)                | TOP CHORD  | 1-2=-2137/351, 2-3=-1702/393, 3-4=-1624/388, 4-5=-1694/455, 5-6=-2059/440, 6-7=-2236/568, 7-8=-2731/632, 1-15=-1345/274   |
| Max Uplift        | 15=-239(LC 8), 8=-449(LC 9)  | BOT CHORD  | 14-15=-246/658, 13-14=-334/1915, 11-13=-185/1750, 10-11=-570/2612, 8-10=-439/2167   |
| Max Grav          | 15=1458(LC 35), 8=1780(LC 2) | WEBS   | 2-13=-561/253, 3-13=-304/1389, 4-13=-991/351, 5-11=-62/672, 6-11=-985/438, 6-10=-1103/378, 7-10=-332/1527, 1-14=-153/1300 |

- 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=239, 8=449.
  - 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) 53 lb down and 129 lb up at 26-2-4 on top chord, and 408 lb down and 121 lb up at 26-1-9 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).

Continued on page 2

**LOAD CASE(S)** Standard

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November 18, 2020

**MiTek**  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                          |       |                     |     |     |           |
|--------------------------|-------|---------------------|-----|-----|-----------|
| Job                      | Truss | Truss Type          | Qty | Ply | Lot 83 MN |
| MN 83                    | D4    | Roof Special Girder | 1   | 1   | I43671093 |
| Job Reference (optional) |       |                     |     |     |           |

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 6-7=-70, 7-9=-70, 8-15=-20
- Concentrated Loads (lb)
- Vert: 10=-408(B)



|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | D5    | Hip        | 1   | 1   |           | I43671094 |
| Job Reference (optional) |       |            |     |     |           |           |

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8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:12 2020 Page 1  
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|       |         |        |         |         |
|-------|---------|--------|---------|---------|
| 6-6-9 | 12-5-7  | 16-0-9 | 21-11-7 | 26-0-13 |
| 6-6-9 | 5-10-14 | 3-7-2  | 5-10-14 | 4-1-5   |

6x6 =

4x9 =

Scale = 1:49.3

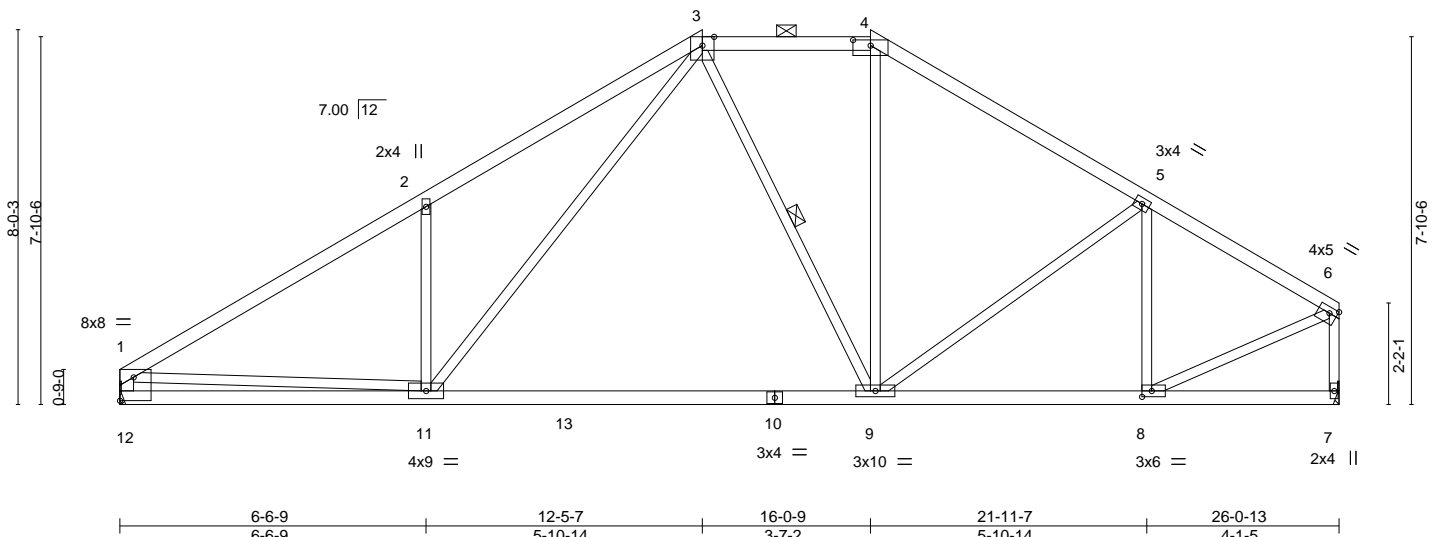


Plate Offsets (X,Y)-- [1:Edge,0-6-0], [4:0-4-8,0-1-7], [6:Edge,0-1-8], [8:0-2-8,0-1-8]

| LOADING (psf) | SPACING-             |       | CSI.     |  | DEFL.    | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|----------|--|----------|-------|-------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.48  |  | Vert(LL) | -0.27 | 9-11  | >999   | 360 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.50  |  | Vert(CT) | -0.45 | 9-11  | >690   | 360 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.72  |  | Horz(CT) | 0.02  | 7     | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |  | Wind(LL) | 0.06  | 9-11  | >999   | 240 | Weight: 106 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF 2100F 1.8E  
WEBS 2x3 SPF No.2 \*Except\*  
1-12: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 12=Mechanical, 7=Mechanical  
Max Horz 12=260(LC 5)  
Max Uplift 12=-205(LC 8), 7=-181(LC 9)  
Max Grav 12=1265(LC 15), 7=1224(LC 2)

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

TOP CHORD 1-2=-1848/280, 2-3=-1910/494, 3-4=-1040/250, 4-5=-1295/236, 5-6=-1220/197,  
1-12=-1183/231, 6-7=-1151/200  
BOT CHORD 11-12=-277/577, 9-11=-105/1089, 8-9=-152/1019  
WEBS 2-11=-494/356, 3-11=-310/939, 4-9=-50/392, 5-8=-383/118, 1-11=-19/1145,  
6-8=-147/1106

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=205, 7=181.
- 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.



November 18,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | D6    | Common     | 2   | 1   |           | I43671095 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:13 2020 Page 1

ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-ENnUJ41XrrYv8M5ijkohHL4RdgOTUY?EVS97w?yI?su

|       |        |         |        |        |
|-------|--------|---------|--------|--------|
| 6-6-9 | 14-3-0 | 21-11-7 | 28-6-0 | 29-4-8 |
| 6-6-9 | 7-8-7  | 7-8-7   | 6-6-9  | 0-10-8 |

4x9 =

Scale = 1:55.6

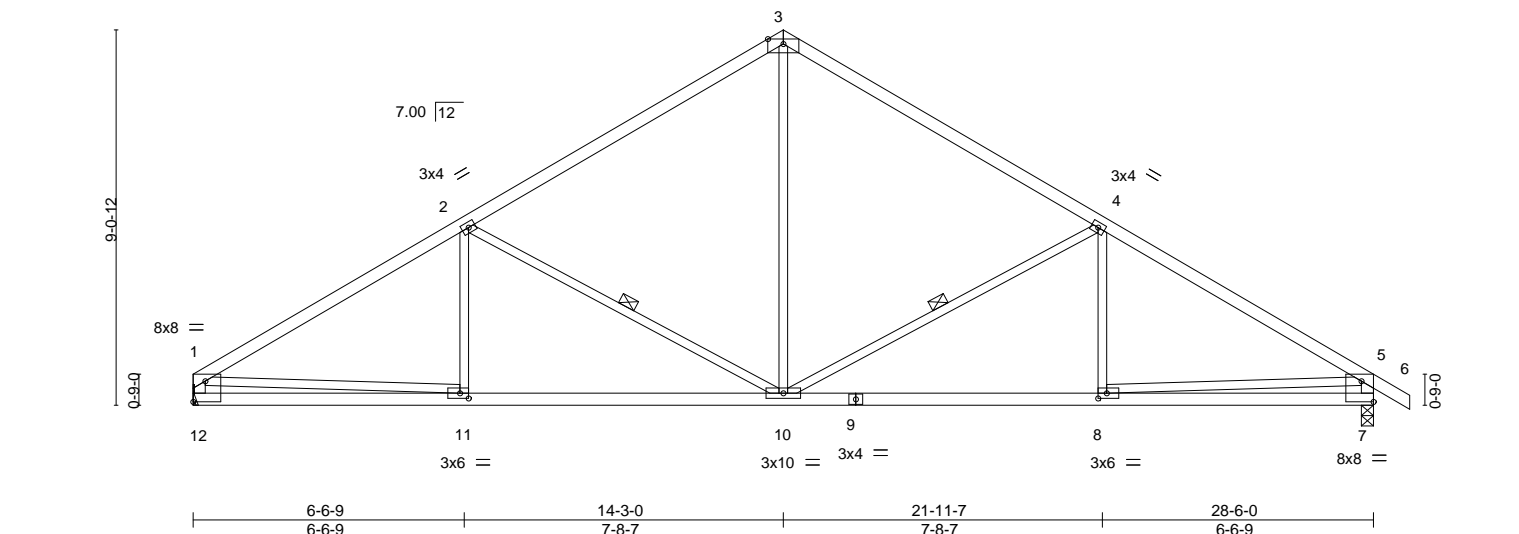


Plate Offsets (X,Y)-- [1:Edge,0-6-0], [7:Edge,0-6-0], [8:0-2-8,0-1-8], [11:0-2-8,0-1-8]

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.80  | Vert(LL) -0.08 | 10-11    | >999   | 360 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.57  | Vert(CT) -0.19 | 10-11    | >999   | 360 |                |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.45  | Horz(CT) 0.05  | 7        | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-S | Wind(LL) 0.05  | 10-11    | >999   | 240 |                |          |
|               |                      |          |                |          |        |     | Weight: 110 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
1-12,5-7: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.  
WEBS 1 Row at midpt 4'-10, 2'-10

#### REACTIONS.

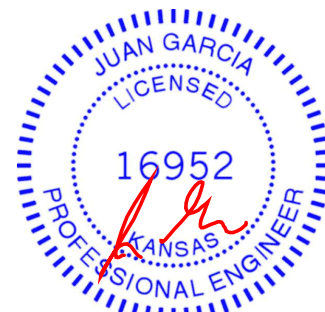
(size) 12=Mechanical, 7=0-3-8  
Max Horz 12=-227(LC 4)  
Max Uplift 12=-66(LC 8), 7=-81(LC 9)  
Max Grav 12=1268(LC 1), 7=1342(LC 1)

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

TOP CHORD 1-2=-1915/115, 2-3=-1369/143, 3-4=-1368/143, 4-5=-1913/116, 1-12=-1203/99,  
5-7=-1278/113  
BOT CHORD 11-12=-172/504, 10-11=-113/1572, 8-10=-18/1563, 7-8=-70/459  
WEBS 3-10=-6/730, 4-10=-620/171, 2-10=-630/173, 1-11=0/1207, 5-8=0/1107

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



November 18,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | E1    | Hip        | 1   | 1   |           | I43671096 |
| Job Reference (optional) |       |            |     |     |           |           |

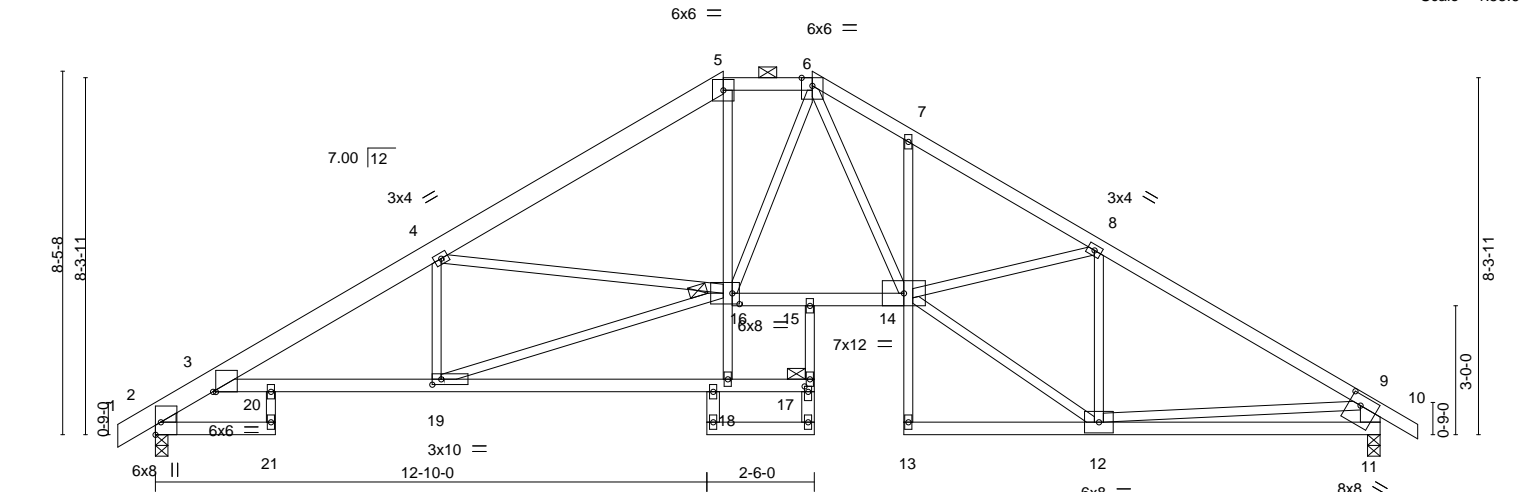
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:14 2020 Page 1

ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-iZLsXQ2Ac9gmmWgxGSJwqYdgX4iWDxPNk6uhTRyl?st

0-10-8 2-9-8 6-6-9 13-2-9 15-3-7 17-5-0 21-11-8 28-6-0 29-4-8  
0-10-8 2-9-8 3-9-1 6-8-1 2-0-14 2-1-9 4-6-8 6-6-9 0-10-8

Scale = 1:53.6



|                       |   |
|-----------------------|---|
| Plate Offsets (X,Y)-- | [2:Edge,0-1-8], [3:0-0-13,0-0-1], [11:0-3-4,0-2-12], [16:0-2-0,0-3-0], [17:0-1-8,0-1-0], [19:0-2-8,0-1-8] |
|-----------------------|---|

| LOADING (psf) | SPACING-             | CSI.     | DEFL.    | in (loc)    | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.54  | Vert(LL) | -0.18 19-20 | >999   | 360 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.58  | Vert(CT) | -0.33 19-20 | >999   | 360 |                |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.76  | Horz(CT) | 0.31 11     | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-S | Wind(LL) | 0.16 19-20  | >999   | 240 | Weight: 152 lb | FT = 10% |

|   |   |
|---|---|
| <b>LUMBER-</b>  | <b>BRACING-</b>   |
| TOP CHORD 2x4 SPF No.2 *Except*<br>1-5: 2x6 SP DSS                              | TOP CHORD Structural wood sheathing directly applied or 3-4-9 oc purlins, except end verticals, and 2-0-0 oc purlins (4-4-5 max.): 5-6. |
| BOT CHORD 2x4 SPF No.2 *Except*<br>3-17: 2x4 SPF 2100F 1.8E, 7-13: 2x3 SPF No.2 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:<br>10-0-0 oc bracing: 17-18                                      |
| WEBS 2x3 SPF No.2 *Except*<br>9-11: 2x6 SPF No.2, 22-24,17-23: 2x4 SPF No.2     | JOINTS 1 Brace at Jt(s): 17, 16   |
| WEDGE<br>Left: 2x3 SPF No.2   |   |

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
Max Horz 2=264(LC 7)  
Max Uplift 2=250(LC 8), 11=252(LC 9)  
Max Grav 2=1337(LC 1), 11=1343(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-830/219, 3-4=-2447/439, 4-5=-2158/319, 5-6=-1774/342, 6-7=-2532/403,  
7-8=-2618/350, 8-9=-1854/311, 9-11=-1277/287  
BOT CHORD 3-20=-437/2144, 19-20=-437/2144, 15-16=-82/1733, 14-15=-82/1733, 11-12=-210/533  
WEBS 4-19=-413/184, 4-16=-491/328, 5-16=-31/703, 6-16=-118/262, 6-14=-276/1109,  
12-14=-175/1790, 8-14=-46/710, 8-12=-979/168, 9-12=-25/968, 16-19=-458/2217

- 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 2x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=250, 11=252.
  - 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.



November 18,2020

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**MiTek**  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671097 |
| MN 83 | E2    | Hip        | 1   | 1   | Job Reference (optional) |           |

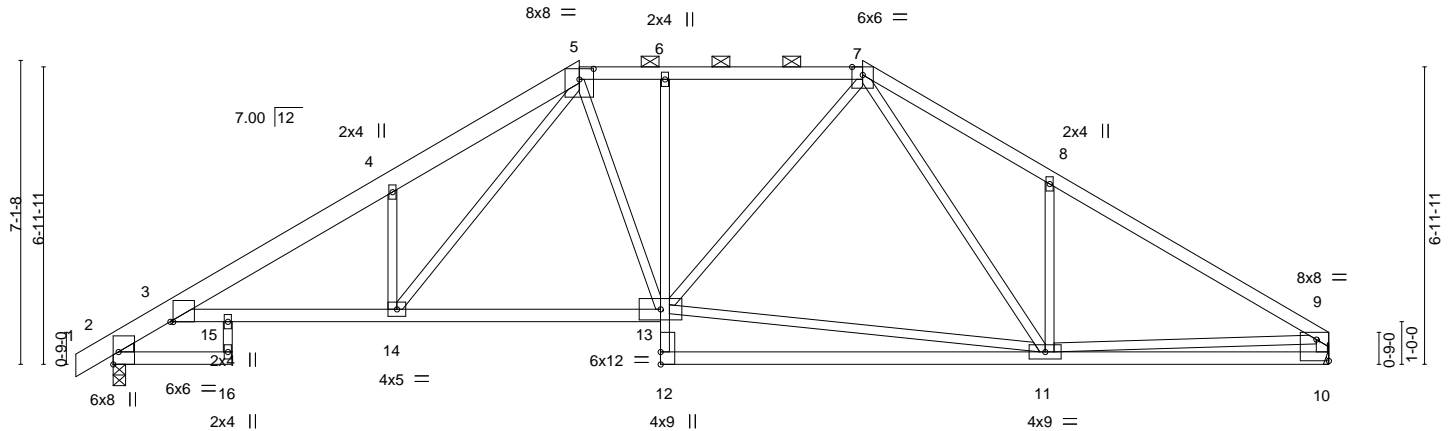
Wheeler Lumber, Waverly, KS - 66871,

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|        |       |       |         |         |         |         |        |
|--------|-------|-------|---------|---------|---------|---------|--------|
| 0-10-8 | 2-9-8 | 6-6-9 | 10-11-2 | 12-10-0 | 17-6-14 | 21-11-7 | 28-6-0 |
| 0-10-8 | 2-9-8 | 3-9-1 | 4-4-9   | 1-10-14 | 4-8-14  | 4-4-10  | 6-6-9  |

Scale = 1:54.0



|       |        |         |         |         |         |        |
|-------|--------|---------|---------|---------|---------|--------|
| 2-9-8 | 6-10-5 | 10-11-2 | 12-10-0 | 17-6-14 | 21-11-7 | 28-6-0 |
| 2-9-8 | 4-0-13 | 4-0-13  | 1-10-14 | 4-8-14  | 4-4-10  | 6-6-9  |

Plate Offsets (X,Y)-- [2:Edge,0-1-8], [3:0-0-13,0-0-1], [5:0-4-0,0-3-0], [9:Edge,0-6-0]

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc)    | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.60  | Vert(LL) | -0.20 11-12 | >999   | 360 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.59  | Vert(CT) | -0.45 11-12 | >759   | 360 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.42  | Horz(CT) | 0.21 10     | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S | Wind(LL) | 0.11 14-15  | >999   | 240 | Weight: 135 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
1-5: 2x6 SP DSS  
BOT CHORD 2x4 SPF No.2 \*Except\*  
3-13: 2x4 SPF 2100F 1.8E, 6-12: 2x3 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
9-10: 2x4 SPF No.2

#### WEDGE

Left: 2x3 SPF No.2

#### REACTIONS.

(size) 2=0-3-8, 10=Mechanical  
Max Horz 2=173(LC 5)  
Max Uplift 2=65(LC 8), 10=50(LC 9)  
Max Grav 2=1342(LC 1), 10=1268(LC 1)

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

TOP CHORD 2-3=-834/58, 3-4=-2448/95, 4-5=-2584/222, 5-6=-1573/94, 6-7=-1571/96,  
7-8=-1859/189, 8-9=-1902/70, 9-10=-1211/79  
BOT CHORD 3-15=-79/2137, 14-15=-79/2137, 13-14=-29/1472, 6-13=-319/93, 10-11=-79/417  
WEBS 4-14=-644/202, 5-14=-164/1091, 5-13=-92/417, 11-13=0/1217, 7-13=-81/471,  
7-11=-119/476, 8-11=-411/196, 9-11=0/1135

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-2-10 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-10 max.); 5-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.



November 18, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671099 |
| MN 83 | E4    | Hip        | 1   | 1   | Job Reference (optional) |           |

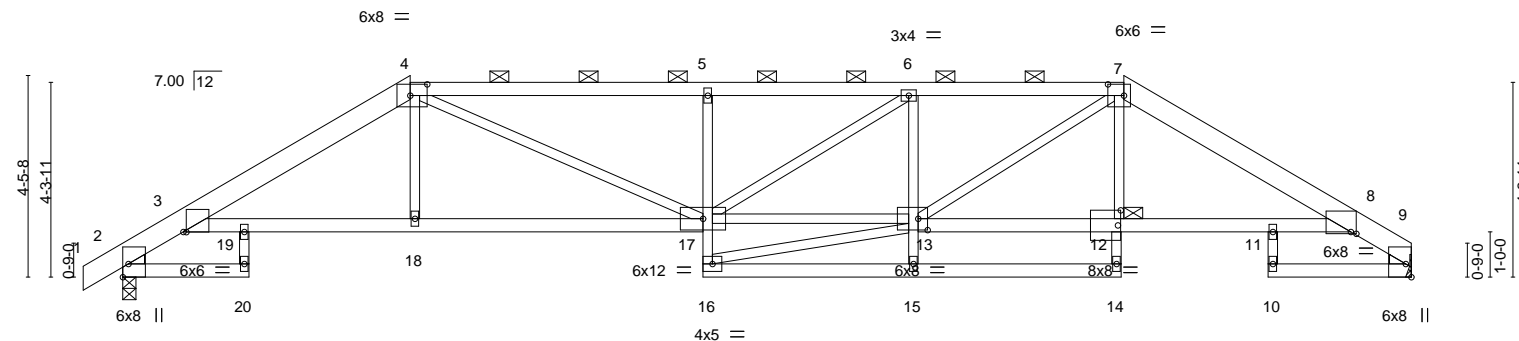
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:18 2020 Page 1

ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-aKaNNn5gfNACF8\_J\VIOT\_OoGVh4z8iYzfsucCyl?sp

|        |       |        |         |         |         |        |        |
|--------|-------|--------|---------|---------|---------|--------|--------|
| 0-10-8 | 2-9-8 | 6-4-5  | 12-10-0 | 17-5-14 | 22-1-11 | 25-4-0 | 28-6-0 |
| 0-10-8 | 2-9-8 | 3-6-13 | 6-5-11  | 4-7-14  | 4-7-14  | 3-2-5  | 3-2-0  |

Scale = 1:51.0



|       |        |         |         |        |         |        |        |
|-------|--------|---------|---------|--------|---------|--------|--------|
| 2-9-8 | 6-4-5  | 12-10-0 | 17-5-14 | 22-1-0 | 22-1-11 | 25-4-0 | 28-6-0 |
| 2-9-8 | 3-6-13 | 6-5-11  | 4-7-14  | 4-7-2  | 0-0-11  | 3-2-5  | 3-2-0  |

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

| LOADING (psf) | SPACING-             |       | CSI.     |  | DEFL.    | in    | (loc) | I/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|----------|--|----------|-------|-------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.92  |  | Vert(LL) | -0.28 | 5     | >999   | 360 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.61  |  | Vert(CT) | -0.50 | 5     | >675   | 360 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.94  |  | Horz(CT) | 0.43  | 9     | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |  | Wind(LL) | 0.16  | 5     | >999   | 240 |                |          |
|               |                      |       |          |  |          |       |       |        |     | Weight: 131 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x6 SP DSS \*Except\*  
4-7: 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
3-17,8-13: 2x4 SPF 2100F 1.8E, 5-16: 2x3 SPF No.2  
WEBS 2x3 SPF No.2  
WEDGE  
Left: 2x3 SPF No.2, Right: 2x3 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-1-0 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 4-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 11-12  
JOINTS 1 Brace at Jt(s): 12

#### REACTIONS.

(size) 2=0-3-8, 9=Mechanical  
Max Horz 2=100(LC 7)  
Max Uplift 2=-45(LC 5), 9=-41(LC 4)  
Max Grav 2=1346(LC 1), 9=1271(LC 1)

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

TOP CHORD 2-3=-837/51, 3-4=-2455/143, 4-5=-3008/205, 5-6=-2979/202, 6-7=-2888/162, 7-8=-2443/120, 8-9=-795/49  
BOT CHORD 3-19=-160/2136, 18-19=-160/2136, 17-18=-158/2144, 5-17=-428/131, 12-13=-33/2139, 11-12=-35/2132, 8-11=-35/2132  
WEBS 4-18=0/339, 4-17=-185/1047, 13-17=-132/2747, 6-13=-393/133, 7-13=-142/975

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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16023 Swingley Ridge Rd  
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43671100

Scale = 1:51.4



|       |       |                     |     |     |           |
|-------|-------|---------------------|-----|-----|-----------|
| Job   | Truss | Truss Type          | Qty | Ply | Lot 83 MN |
| MN 83 | E5    | Roof Special Girder | 1   | 2   | I43671100 |

Wheeler Lumber, Waverly, KS 66871

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 11:37:17 2020 Page 2  
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#### NOTES-

- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 34 lb down and 18 lb up at 4-0-14, 34 lb down and 16 lb up at 6-3-0, 34 lb down and 16 lb up at 8-3-0, 34 lb down and 16 lb up at 10-3-0, and 34 lb down and 16 lb up at 12-3-0, and 80 lb down and 62 lb up at 14-3-0 on top chord, and 173 lb down and 111 lb up at 4-0-14, 63 lb down and 61 lb up at 4-3-0, 63 lb down and 61 lb up at 6-3-0, 63 lb down and 61 lb up at 8-3-0, 63 lb down and 61 lb up at 10-3-0, 63 lb down and 61 lb up at 12-3-0, and 23 lb down at 14-3-0, and 504 lb down and 172 lb up at 15-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

##### Uniform Loads (plf)

Vert: 1-4=-70, 4-9=-70, 9-10=-70, 10-12=-70, 2-23=-20, 19-22=-20, 17-18=-20, 16-17=-20, 14-16=-20, 12-13=-20

##### Concentrated Loads (lb)

Vert: 4=-4(B) 7=-30(B) 21=-236(B) 24=-4(B) 25=-4(B) 26=-4(B) 27=-4(B) 28=-63(B) 29=-63(B) 30=-63(B) 31=-63(B) 32=-16(B) 33=-504(B)

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|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671101 |
| MN 83 | E6    | Hip Girder | 1   | 1   | Job Reference (optional) |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:21 2020 Page 1  
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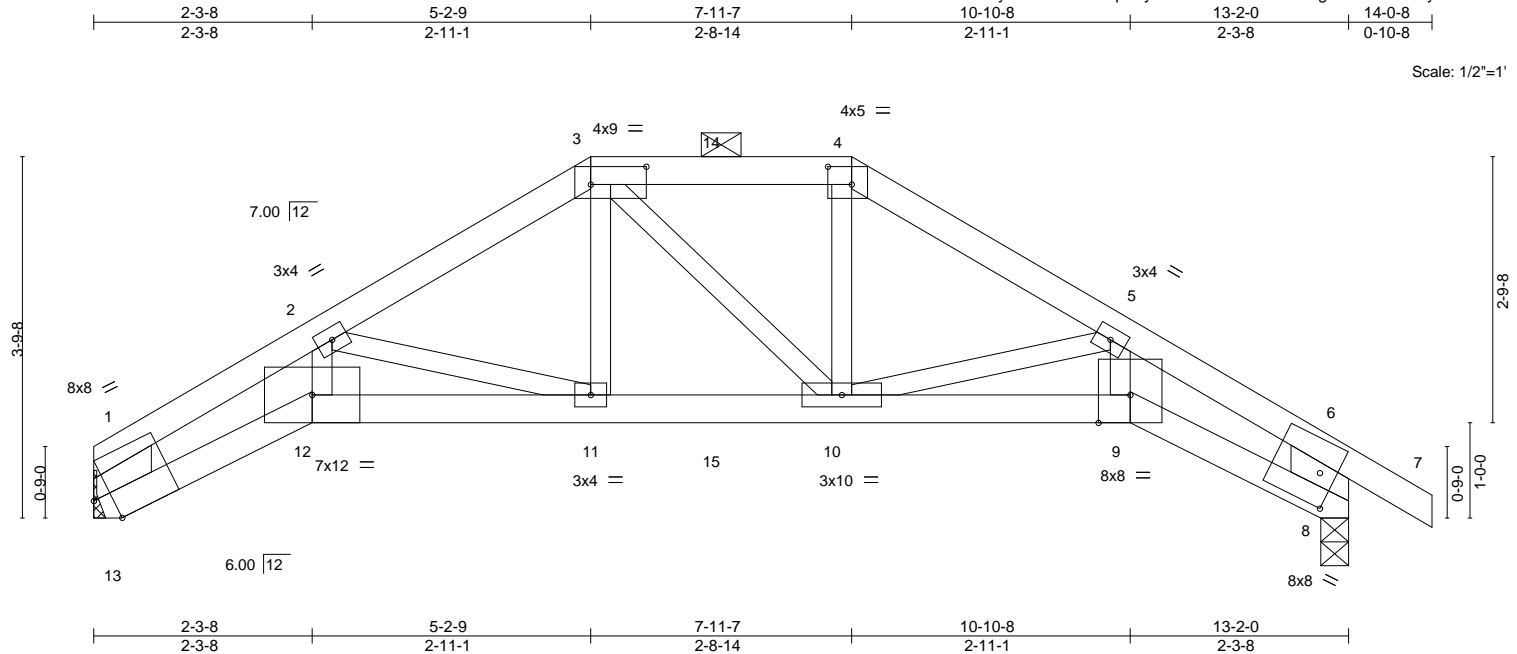


Plate Offsets (X,Y)-- [1:0-2-4,Edge], [3:0-7-0,0-2-4], [4:0-3-0,0-2-4], [8:0-2-0,0-4-0]

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.92  | Vert(LL) -0.14 | 11-12    | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.87  | Vert(CT) -0.25 | 11-12    | >611   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr NO   | WB 0.17  | Horz(CT) 0.22  | 8        | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-S | Wind(LL) 0.13  | 11-12    | >999   | 240 | Weight: 50 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
4-7: 2x4 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF 2100F 1.8E \*Except\*  
9-12: 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
1-13,6-8: 2x8 SP 2400F 2.0E

#### BRACING-

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

#### REACTIONS.

(size) 13=Mechanical, 8=0-3-8  
Max Horz 13=-101(LC 6)  
Max Uplift 13=-251(LC 8), 8=-268(LC 9)  
Max Grav 13=909(LC 1), 8=999(LC 1)

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

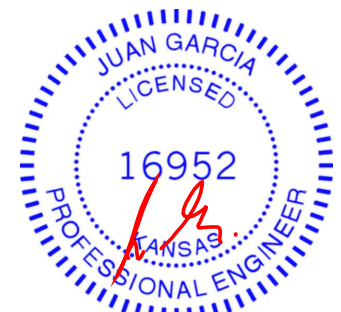
TOP CHORD 1-2=-1948/580, 2-3=-1615/549, 3-4=-1416/502, 4-5=-1600/535, 5-6=-2021/578,  
1-13=-1275/379, 6-8=-1483/414  
BOT CHORD 12-13=-488/1536, 11-12=-460/1468, 10-11=-466/1425, 9-10=-398/1461, 8-9=-432/1597  
WEBS 2-12=-87/369, 2-11=-269/168, 3-11=-169/482, 4-10=-161/463, 5-9=-92/495

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=251, 8=268.
- 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) 115 lb down and 129 lb up at 6-7-0 on top chord, and 300 lb down and 194 lb up at 5-2-9, and 42 lb down at 6-7-0, and 300 lb down and 194 lb up at 7-11-7 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

Continued on page 2



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|                          |       |            |     |     |           |
|--------------------------|-------|------------|-----|-----|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |
| MN 83                    | E6    | Hip Girder | 1   | 1   | I43671101 |
| Job Reference (optional) |       |            |     |     |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:21 2020 Page 2  
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-3=-70, 3-4=-70, 4-6=-70, 6-7=-70, 12-13=-20, 9-12=-20, 8-9=-20
- Concentrated Loads (lb)
  - Vert: 11=-300(B) 10=-300(B) 14=-65(B) 15=-29(B)

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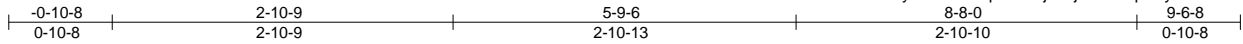


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|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | G1    | Hip Girder | 1   | 1   |           | I43671102 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:22 2020 Page 1  
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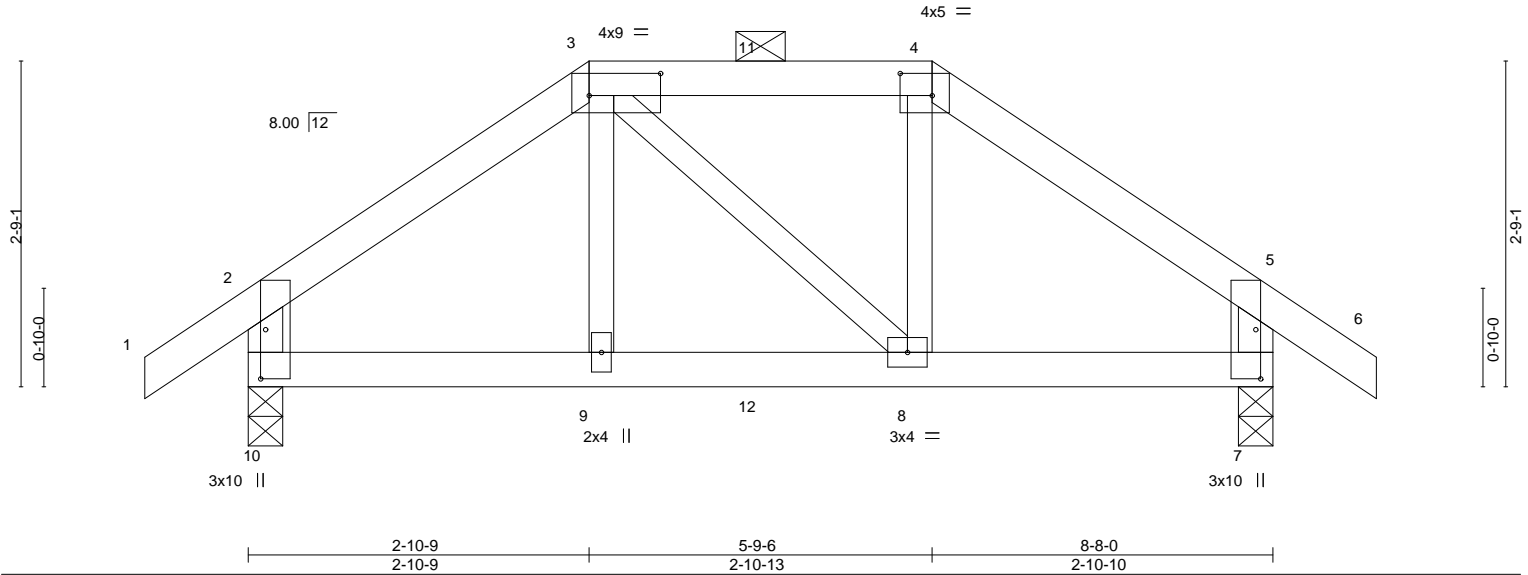


Plate Offsets (X,Y)-- [3:0-7-4,0-2-4], [4:0-3-4,0-2-4], [7:0-5-0,0-0-8], [10:0-5-0,0-0-8]

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.35  | Vert(LL) 0.03  | 8-9      | >999   | 240 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.33  | Vert(CT) -0.04 | 8-9      | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr NO   | WB 0.04  | Horz(CT) 0.01  | 7        | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-S |                |          |        |     | Weight: 31 lb | FT = 10% |

| LUMBER-   | BRACING-  |
|---|---|
| TOP CHORD 2x4 SPF No.2                            | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4. |
| BOT CHORD 2x4 SPF No.2                            | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  |
| WEBS 2x3 SPF No.2 *Except* 2-10,5-7: 2x4 SPF No.2 |   |

**REACTIONS.** (size) 10=0-3-8, 7=0-3-8  
Max Horz 10=103(LC 7)  
Max Uplift 10=-209(LC 8), 7=-209(LC 9)  
Max Grav 10=564(LC 1), 7=564(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-557/232, 3-4=-408/211, 4-5=-557/231, 2-10=-491/212, 5-7=-491/211  
BOT CHORD 9-10=-204/438, 8-9=-201/441, 7-8=-178/420

- 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 10=209, 7=209.
  - 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) 196 lb down and 181 lb up at 2-10-10, and 104 lb down and 84 lb up at 4-4-0, and 196 lb down and 181 lb up at 5-9-7 on top chord, and 60 lb down at 2-10-10, and 27 lb down at 4-4-0, and 60 lb down at 5-8-4 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  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20



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Continued on page 2

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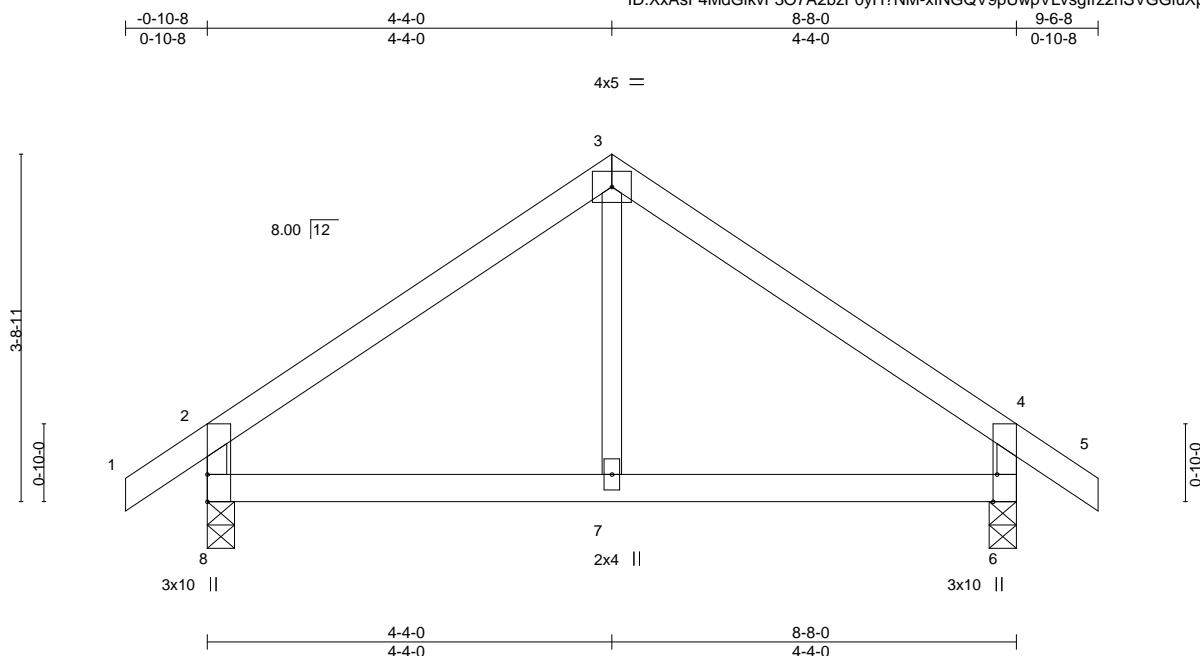
|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671102 |
| MN 83 | G1    | Hip Girder | 1   | 1   | Job Reference (optional) |           |

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 3=-60(F) 4=-60(F) 9=-32(F) 8=-32(F) 11=-30(F) 12=-17(F)

|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | G2    | Common     | 3   | 1   |           | I43671103 |
| Job Reference (optional) |       |            |     |     |           |           |

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8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:23 2020 Page 1  
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| Plate Offsets (X,Y)-- |       | [6:0-3-8,Edge]       |       |             |      |              |       |       |        |     |               |
|-----------------------|-------|----------------------|-------|-------------|------|--------------|-------|-------|--------|-----|---------------|
| <b>LOADING</b> (psf)  |       | <b>SPACING-</b>      | 2-0-0 | <b>CSI.</b> |      | <b>DEFL.</b> | in    | (loc) | I/defl | L/d | <b>PLATES</b> |
| TCLL                  | 25.0  | Plate Grip DOL       | 1.15  | TC          | 0.34 | Vert(LL)     | -0.01 | 6-7   | >999   | 360 | MT20          |
| TCDL                  | 10.0  | Lumber DOL           | 1.15  | BC          | 0.14 | Vert(CT)     | -0.02 | 6-7   | >999   | 360 | GRIP          |
| BCLL                  | 0.0 * | Rep Stress Incr      | YES   | WB          | 0.05 | Horz(CT)     | 0.00  | 6     | n/a    | n/a | 197/144       |
| BCDL                  | 10.0  | Code IRC2018/TPI2014 |       | Matrix-R    |      | Wind(LL)     | -0.01 | 7-8   | >999   | 240 | Weight: 28 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 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

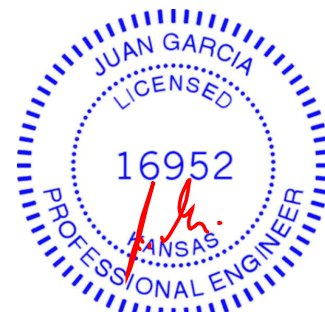
(size) 8=0-3-8, 6=0-3-8  
Max Horz 8=-131(LC 6)  
Max Uplift 8=-92(LC 8), 6=-92(LC 9)  
Max Grav 8=449(LC 1), 6=449(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-385/93, 3-4=-385/93, 2-8=-398/125, 4-6=-398/125  
BOT CHORD 7-8=-4/261, 6-7=-4/261

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 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.



November 18, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|       |       |               |     |     |           |
|-------|-------|---------------|-----|-----|-----------|
| Job   | Truss | Truss Type    | Qty | Ply | Lot 83 MN |
| MN 83 | G3    | Common Girder | 1   | 2   |           |

I43671104

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:24 2020 Page 1  
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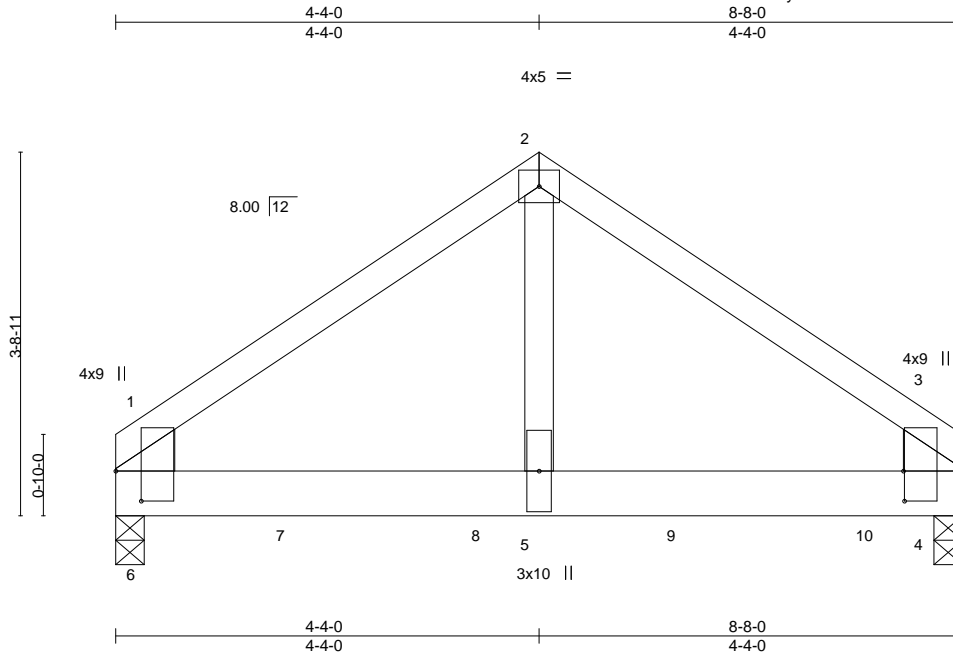


Plate Offsets (X,Y)-- [1:0-3-11,0-3-2], [3:0-3-11,0-0-2]

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.18  | Vert(LL) -0.02 | 4-5      | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.30  | Vert(CT) -0.04 | 4-5      | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr NO   | WB 0.30  | Horz(CT) 0.01  | 4        | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-R | Wind(LL) 0.02  | 4-5      | >999   | 240 | Weight: 77 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x6 SP 2400F 2.0E  
WEBS 2x8 SP DSS \*Except\*  
2-5: 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) 6=0-3-8, 4=0-3-8  
Max Horz 6=-87(LC 23)  
Max Uplift 6=-140(LC 8), 4=-464(LC 9)  
Max Grav 6=2592(LC 1), 4=3547(LC 1)

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

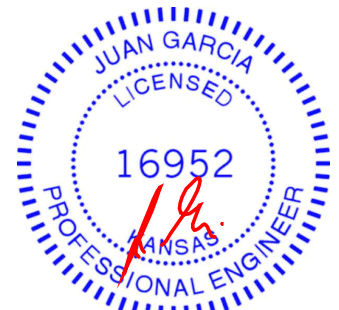
TOP CHORD 1-2=-2455/185, 2-3=-2452/183, 1-6=-1483/130, 3-4=-1477/127  
BOT CHORD 5-6=-113/1963, 4-5=-113/1963  
WEBS 2-5=-119/2411

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
Webs connected as follows: 2x4 - 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.
- 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=140, 4=464.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1248 lb down and 70 lb up at 1-10-0, 1248 lb down and 56 lb up at 3-10-0, and 1251 lb down and 61 lb up at 5-10-0, and 1666 lb down and 417 lb up at 7-9-3 on bottom 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



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Continued on page 2

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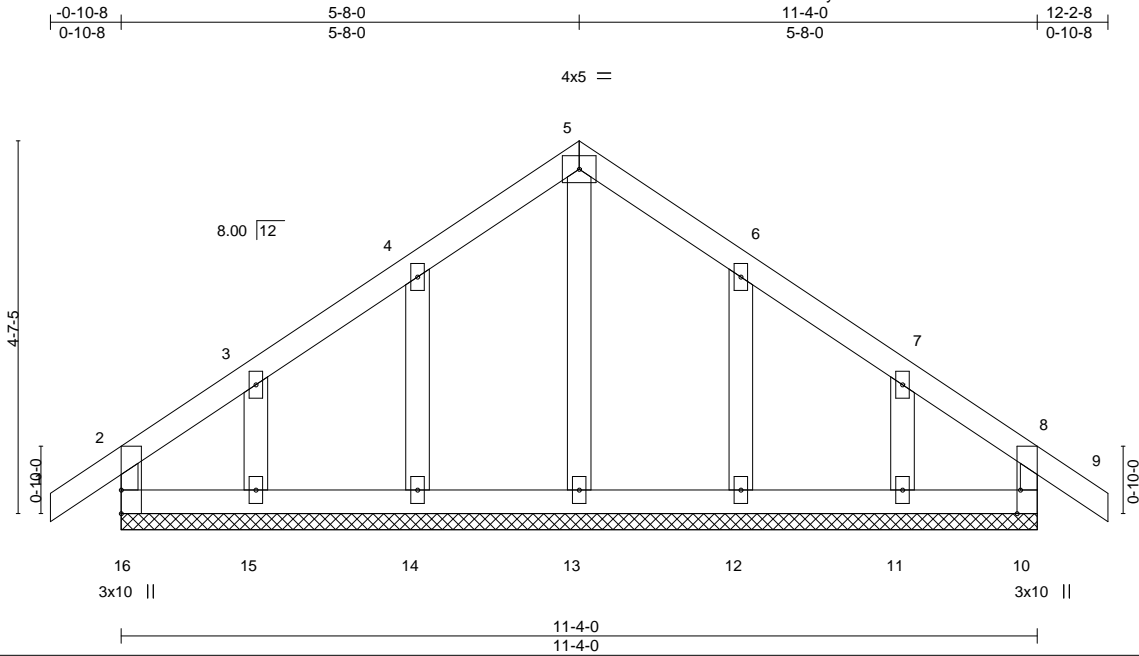
|       |       |               |     |     |                          |
|-------|-------|---------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type    | Qty | Ply | Lot 83 MN                |
| MN 83 | G3    | Common Girder | 1   | 2   | I43671104                |
|       |       |               |     |     | Job Reference (optional) |

**LOAD CASE(S)** Standard  
Uniform Loads (plf)  
    Vert: 1-2=-70, 2-3=-70, 4-6=-20  
Concentrated Loads (lb)  
    Vert: 7=-1248(B) 8=-1248(B) 9=-1251(B) 10=-1666(B)

|                          |       |                        |     |     |           |           |
|--------------------------|-------|------------------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type             | Qty | Ply | Lot 83 MN |           |
| MN 83                    | H1    | Common Supported Gable | 1   | 1   |           | I43671105 |
| Job Reference (optional) |       |                        |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:24 2020 Page 1  
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Scale = 1:28.5

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

| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.07  | Vert(LL) | -0.00 | 9     | n/r    | 120 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.04  | Vert(CT) | -0.00 | 9     | n/r    | 120 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.04  | Horz(CT) | 0.00  | 10    | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R |          |       |       |        |     | Weight: 46 lb | FT = 10% |

#### LUMBER-

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

#### BRACING-

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

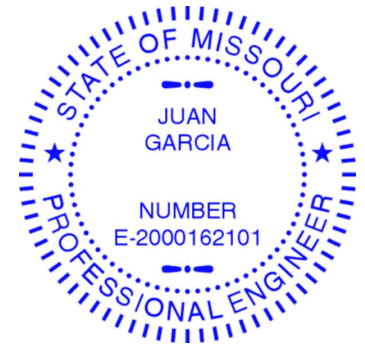
#### REACTIONS.

All bearings 11-4-0.  
(lb) - Max Horz 16=157(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 12 except 15=105(LC 8), 11=-101(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10, 14, 12 except (jt=lb) 15=105, 11=101.
- 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.



November 18, 2020

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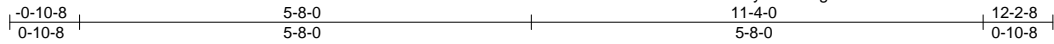


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|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | H2    | Common     | 1   | 1   |           | I43671106 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:25 2020 Page 1  
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4x5 =

Scale = 1:28.9

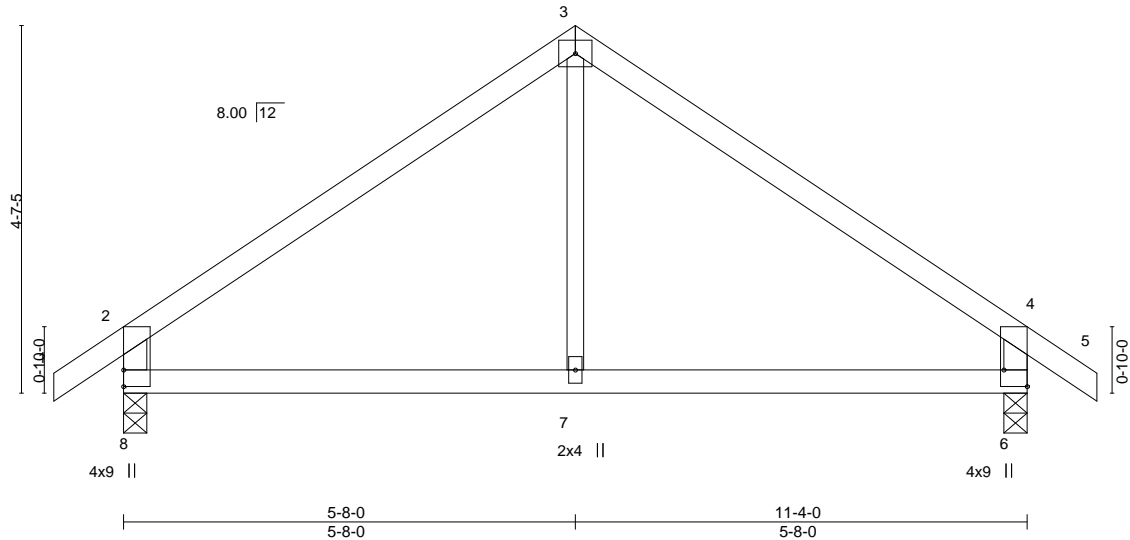


Plate Offsets (X,Y)-- [6:Edge,0-3-8]

| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.36  | Vert(LL) | -0.02 | 7-8   | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.23  | Vert(CT) | -0.04 | 7-8   | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.07  | Horz(CT) | 0.01  | 6     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R | Wind(LL) | -0.02 | 7-8   | >999   | 240 | Weight: 35 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2 \*Except\*  
3-7: 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) 8=0-3-8, 6=0-3-8  
Max Horz 8=159(LC 7)  
Max Uplift 8=114(LC 8), 6=114(LC 9)  
Max Grav 8=568(LC 1), 6=568(LC 1)

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

TOP CHORD 2-3=-532/123, 3-4=-532/123, 2-8=-515/159, 4-6=-515/159  
BOT CHORD 7-8=-12/359, 6-7=-12/359

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=114, 6=114.
- 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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16023 Swingley Ridge Rd  
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|       |       |               |     |     |           |
|-------|-------|---------------|-----|-----|-----------|
| Job   | Truss | Truss Type    | Qty | Ply | Lot 83 MN |
| MN 83 | H3    | Common Girder | 1   | 2   |           |

I43671107

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:26 2020 Page 1  
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0-10-8 5-8-0 11-4-0 12-2-8  
0-10-8 5-8-0 5-8-0 0-10-8

4x5 ||

Scale = 1:28.9

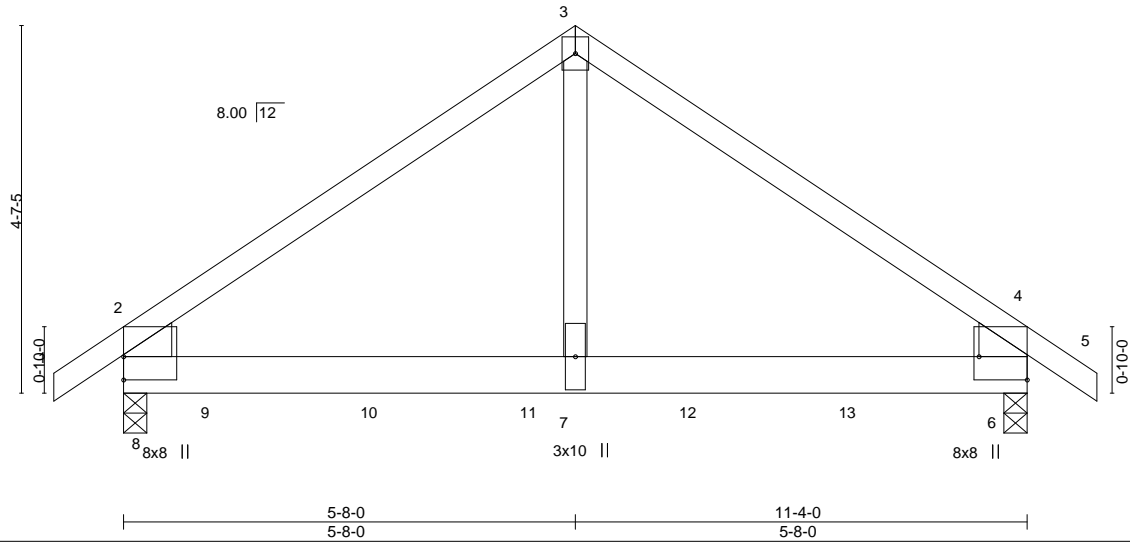


Plate Offsets (X,Y)-- [6:Edge,0-7-4]

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.51  | Vert(LL) | -0.05 | 6-7   | >999   | 360 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.41  | Vert(CT) | -0.09 | 6-7   | >999   | 360 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | NO    | WB 0.44  | Horz(CT) | 0.01  | 6     | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R | Wind(LL) | 0.04  | 7-8   | >999   | 240 | Weight: 104 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x6 SP 2400F 2.0E  
WEBS 2x8 SP DSS \*Except\*  
3-7: 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) 8=0-3-8, 6=0-3-8  
Max Horz 8=-160(LC 6)  
Max Uplift 8=-521(LC 8), 6=-396(LC 9)  
Max Grav 8=3972(LC 1), 6=3518(LC 2)

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

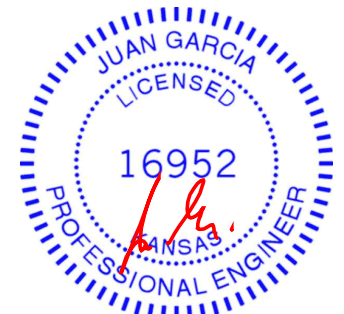
TOP CHORD 2-3=-3507/487, 3-4=-3506/490, 2-8=-2183/382, 4-6=-2185/386  
BOT CHORD 7-8=-310/2817, 6-7=-310/2817  
WEBS 3-7=-388/3577

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.  
Webs connected as follows: 2x4 - 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.
- 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=521, 6=396.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1249 lb down and 86 lb up at 1-2-0, 1211 lb down and 225 lb up at 3-2-0, 1392 lb down and 259 lb up at 5-2-0, and 1362 lb down and 77 lb up at 7-2-0, and 1358 lb down and 77 lb up at 9-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

Continued on page 2



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Chesterfield, MO 63017

|       |       |               |     |     |                          |
|-------|-------|---------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type    | Qty | Ply | Lot 83 MN                |
| MN 83 | H3    | Common Girder | 1   | 2   | I43671107                |
|       |       |               |     |     | Job Reference (optional) |

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 6-8=-20

Concentrated Loads (lb)

Vert: 9=-1249(B) 10=-1142(B) 11=-1339(B) 12=-1293(B) 13=-1293(B)

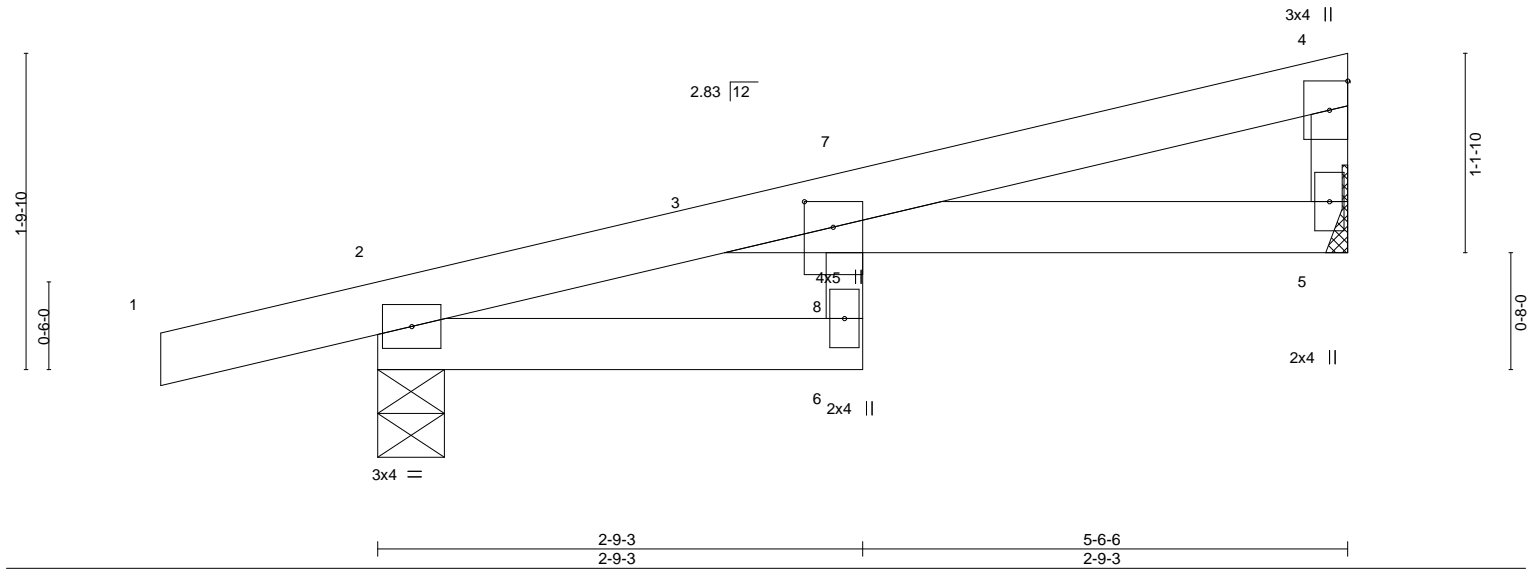
|                          |       |                     |     |     |           |           |
|--------------------------|-------|---------------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type          | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J1    | Diagonal Hip Girder | 2   | 1   |           | I43671108 |
| Job Reference (optional) |       |                     |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:27 2020 Page 1  
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Scale = 1:13.1



| Plate Offsets (X,Y)-- |       | [3:0-1-12,0-2-0]     |      |          |      |                |       |            |      |               |          |         |
|-----------------------|-------|----------------------|------|----------|------|----------------|-------|------------|------|---------------|----------|---------|
| LOADING (psf)         |       | SPACING- 2-0-0       |      | CSI.     |      | DEFL. in (loc) |       | l/defl L/d |      | PLATES GRIP   |          |         |
| TCLL                  | 25.0  | Plate Grip DOL       | 1.15 | TC       | 0.53 | Vert(LL)       | -0.07 | 6          | >842 | 360           | MT20     | 197/144 |
| TCDL                  | 10.0  | Lumber DOL           | 1.15 | BC       | 0.30 | Vert(CT)       | -0.15 | 6          | >424 | 360           |          |         |
| BCLL                  | 0.0 * | Rep Stress Incr      | NO   | WB       | 0.03 | Horz(CT)       | 0.04  | 5          | n/a  | n/a           |          |         |
| BCDL                  | 10.0  | Code IRC2018/TPI2014 |      | Matrix-S |      | Wind(LL)       | 0.08  | 6          | >777 | 240           |          |         |
|                       |       |                      |      |          |      |                |       |            |      | Weight: 16 lb | FT = 20% |         |

|                |              |                 |   |
|----------------|--------------|-----------------|---|
| <b>LUMBER-</b> |              | <b>BRACING-</b> |   |
| TOP CHORD      | 2x4 SPF No.2 | TOP CHORD       | Structural wood sheathing directly applied or 5-6-6 oc purlins, except end verticals. |
| BOT CHORD      | 2x4 SPF No.2 | BOT CHORD       | Rigid ceiling directly applied or 6-0-0 oc bracing.                                   |
| WEBS           | 2x3 SPF No.2 |                 |   |

**REACTIONS.** (size) 5=Mechanical, 2=0-4-9  
Max Horz 2=63(LC 5)  
Max Uplift 5=58(LC 8), 2=-133(LC 4)  
Max Grav 5=228(LC 1), 2=358(LC 1)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=133.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 77 lb down and 39 lb up at 2-9-8, and 77 lb down and 39 lb up at 2-9-8 on top chord, and 2 lb down at 2-7-15, and 2 lb down at 2-7-15 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 (plf)  
Vert: 1-4=-70, 2-6=-20, 3-5=-20



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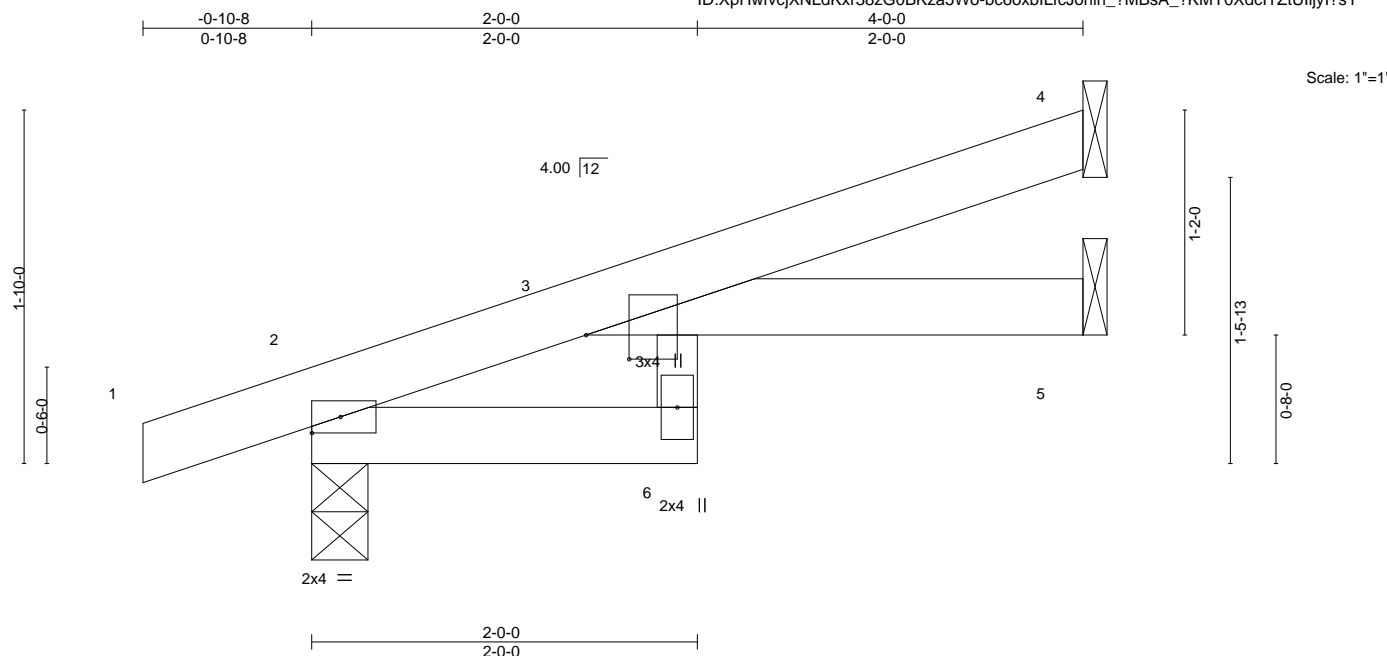
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J2    | Jack-Open  | 3   | 1   |           | I43671109 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:35 2020 Page 1  
ID:XpHwfcjXNLdKxr38zG0BKza5Wo-bc6oxbILfcJonlin\_?MBsA\_?KMY0XdcITZtUlijy/?sY



| Plate Offsets (X,Y)-- |       | [3:0-1-8,0-2-11]     |      |          |      |                           |       |   |      |             |               |          |
|-----------------------|-------|----------------------|------|----------|------|---------------------------|-------|---|------|-------------|---------------|----------|
| LOADING (psf)         |       | SPACING- 2-0-0       |      | CSI.     |      | DEFL. in (loc) l/defl L/d |       |   |      | PLATES GRIP |               |          |
| TCLL                  | 25.0  | Plate Grip DOL       | 1.15 | TC       | 0.27 | Vert(LL)                  | -0.03 | 6 | >999 | 360         | MT20          | 197/144  |
| TCDL                  | 10.0  | Lumber DOL           | 1.15 | BC       | 0.06 | Vert(CT)                  | -0.06 | 6 | >753 | 360         |               |          |
| BCLL                  | 0.0 * | Rep Stress Incr      | YES  | WB       | 0.01 | Horz(CT)                  | 0.02  | 5 | n/a  | n/a         |               |          |
| BCDL                  | 10.0  | Code IRC2018/TPI2014 |      | Matrix-P |      | Wind(LL)                  | 0.04  | 6 | >999 | 240         | Weight: 11 lb | FT = 20% |

#### 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 4-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=77(LC 4)  
Max Uplift 4=67(LC 8), 2=85(LC 4)  
Max Grav 4=140(LC 1), 2=258(LC 1), 5=51(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.



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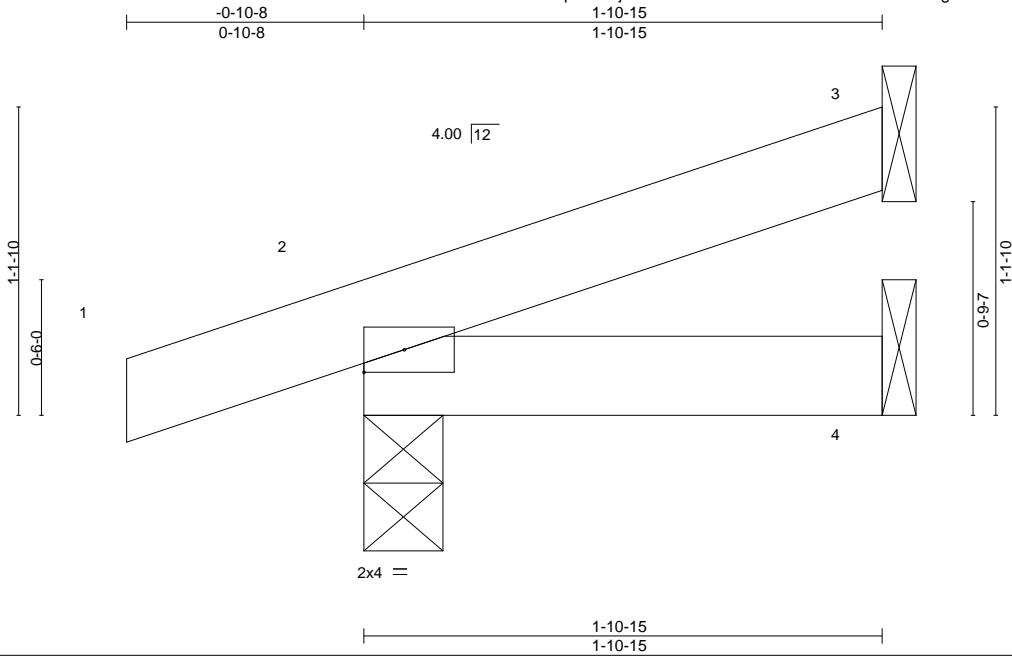


16023 Swingley Ridge Rd  
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|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |           |
| MN 83 | J3    | Jack-Open  | 4   | 1   | Job Reference (optional) | I43671110 |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:41 2020 Page 1  
ID:XpHwfvjXNLdKxr38zG0BKza5Wo-PIT4BfN6FS4xVgE7MdlGQFEPlz3P1K\_MxpcwNyl?sS



Scale = 1:8.5

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | I/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL 2-0-0 | TC 0.05  | Vert(LL) -0.00 | 2        | >999   | 360 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.03  | Vert(CT) -0.00 | 2-4      | >999   | 360 |              |          |
| 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 | Wind(LL) 0.00  | 2        | ****   | 240 | Weight: 6 lb | FT = 20% |

#### 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) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=45(LC 4)  
Max Uplift 3=35(LC 8), 2=70(LC 4)  
Max Grav 3=50(LC 1), 2=163(LC 1), 4=37(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.



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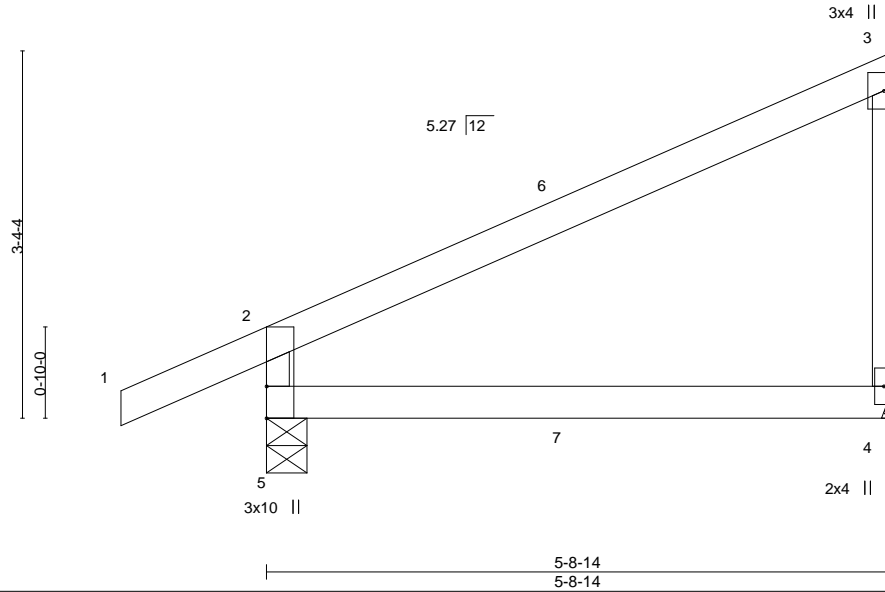
|                          |       |                     |     |     |           |           |
|--------------------------|-------|---------------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type          | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J4    | Diagonal Hip Girder | 2   | 1   |           | I43671111 |
| Job Reference (optional) |       |                     |     |     |           |           |

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8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:49 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-Aly5tOT7Mv4oTurgqlR8lxaglBklvxzXn2t1Cvyl?sK

-1-3-15  
1-3-15  
5-8-14  
5-8-14

Scale = 1:21.0



| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.47  | Vert(LL) | -0.04 | 4-5   | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.29  | Vert(CT) | -0.08 | 4-5   | >796   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | NO    | WB 0.00  | Horz(CT) | -0.00 | 4     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R | Wind(LL) | 0.03  | 4-5   | >999   | 240 | Weight: 18 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 5-8-14 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-4-7, 4=Mechanical  
Max Horz 5=162(LC 5)  
Max Uplift 5=-98(LC 8), 4=-145(LC 5)  
Max Grav 5=362(LC 1), 4=317(LC 1)

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

TOP CHORD 2-5=-317/136

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 4=145.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 98 lb down and 55 lb up at 2-9-9, and 90 lb down and 51 lb up at 2-10-11, and 100 lb down and 98 lb up at 5-7-10 on top chord, and 6 lb down at 2-9-9, and 7 lb down and 13 lb up at 2-10-11, and 38 lb down at 5-7-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) 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 (plf)  
Vert: 1-2=-70, 2-3=-70, 4-5=-20  
Concentrated Loads (lb)  
Vert: 3=-56(B) 4=-25(B) 7=0(F=-0, B=1)



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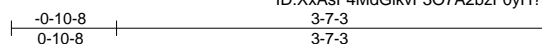


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Chesterfield, MO 63017

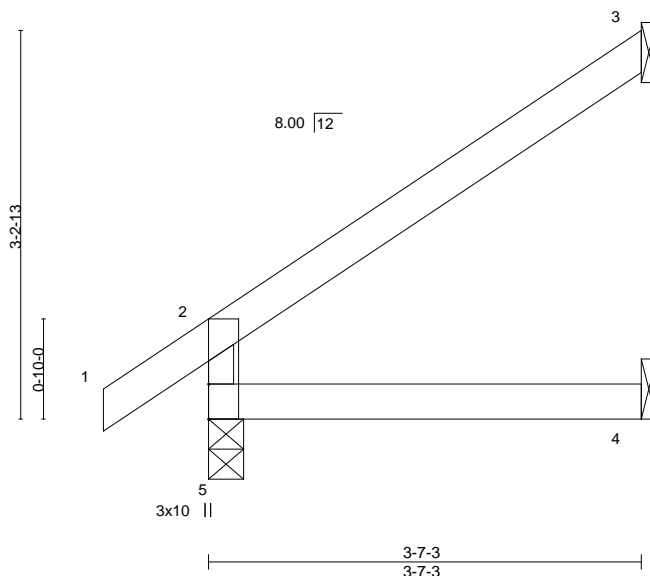
|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J5    | Jack-Open  | 2   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671112

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:52 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-bteEVPV?fqTNKMaFVR?rNZCGXOoo6lizT05hoEyl?sH

Scale = 1:19.2



| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.18  | Vert(LL) -0.01 | 4-5      | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.11  | Vert(CT) -0.02 | 4-5      | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.00  | Horz(CT) -0.01 | 3        | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-R | Wind(LL) 0.01  | 4-5      | >999   | 240 | Weight: 11 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 3-7-3 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

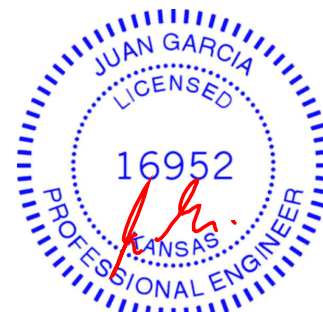
**REACTIONS.**

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=125(LC 8)  
 Max Uplift 5=-16(LC 8), 3=-93(LC 8)  
 Max Grav 5=233(LC 1), 3=119(LC 15), 4=66(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



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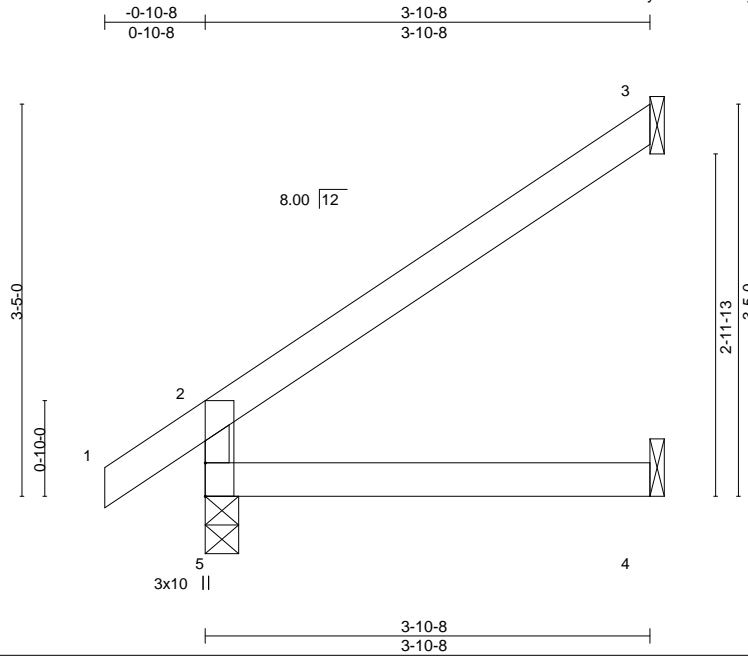


16023 Swingley Ridge Rd  
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|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J6    | Jack-Open  | 5   | 1   |           | I43671113 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:53 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-33CcjIWdQ7bExW9R38W4vknQvo8krly7igrFLgyl?sG



Scale = 1:20.1

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in  | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|-----|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 2-0-0 | TC 0.20  | Vert(LL) -0.01 | 4-5 | >999  | 360    |     | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.13  | Vert(CT) -0.02 | 4-5 | >999  | 360    |     |               |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.00  | Horz(CT) -0.02 | 3   | n/a   | n/a    |     |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-R | Wind(LL) 0.01  | 4-5 | >999  | 240    |     | Weight: 11 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 3-10-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

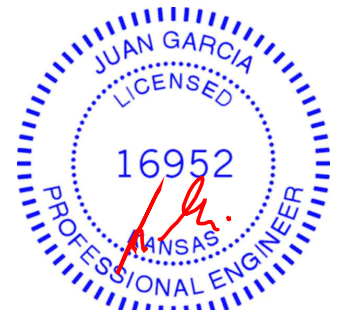
#### REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=134(LC 8)  
Max Uplift 5=-16(LC 8), 3=-100(LC 8)  
Max Grav 5=244(LC 1), 3=129(LC 15), 4=71(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



November 18, 2020

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J7    | Jack-Open  | 2   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

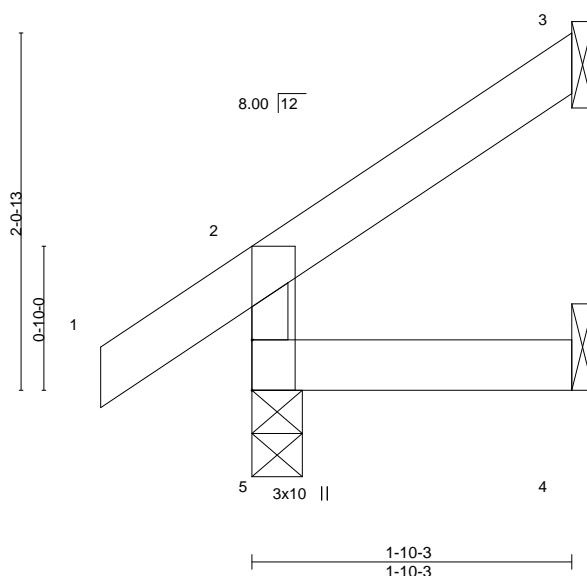
I43671114

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:54 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-XFI\_w5XFBRj5ZgkdcrlJS\_HdkCVQaCCGwKaat7yl?sF

-0-10-8 1-10-3  
0-10-8 1-10-3

Scale = 1:13.3



| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.07  | Vert(LL) | -0.00 | 5     | >999   | 360 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.03  | Vert(CT) | -0.00 | 5     | >999   | 360 |              |          |
| 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-R | Wind(LL) | 0.00  | 5     | >999   | 240 | Weight: 6 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 1-10-3 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=72(LC 8)  
Max Uplift 5=17(LC 8), 3=48(LC 8), 4=3(LC 8)  
Max Grav 5=166(LC 1), 3=53(LC 15), 4=33(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 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.



November 18, 2020

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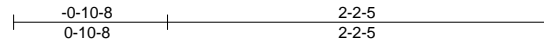
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



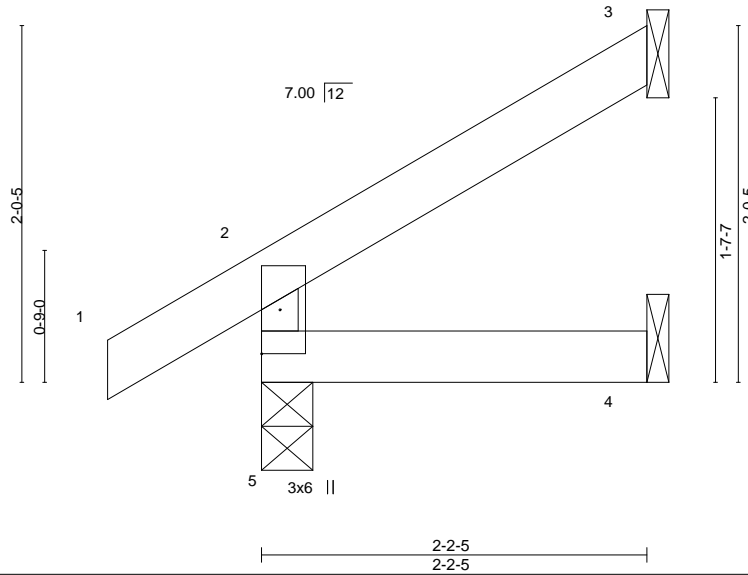
|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671115 |
| MN 83 | J8    | Jack-Open  | 2   | 1   | Job Reference (optional) |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:54 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-XFL\_w5XFBj5Zgkdc1JS\_HdlCVQaCCGwKaot7yI?sF



Scale = 1:13.1



| LOADING (psf) | SPACING-             |       | CSI.     |      | DEFL.    | in    | (loc) | I/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|-------|----------|------|----------|-------|-------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC       | 0.07 | Vert(LL) | -0.00 | 5     | >999   | 360 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC       | 0.03 | Vert(CT) | -0.00 | 4-5   | >999   | 360 |              |          |
| 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-R |      | Wind(LL) | 0.00  | 4-5   | >999   | 240 | Weight: 7 lb | FT = 10% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=71(LC 8)  
Max Uplift 5=-27(LC 8), 3=-49(LC 8)  
Max Grav 5=176(LC 1), 3=63(LC 15), 4=38(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



November 18, 2020

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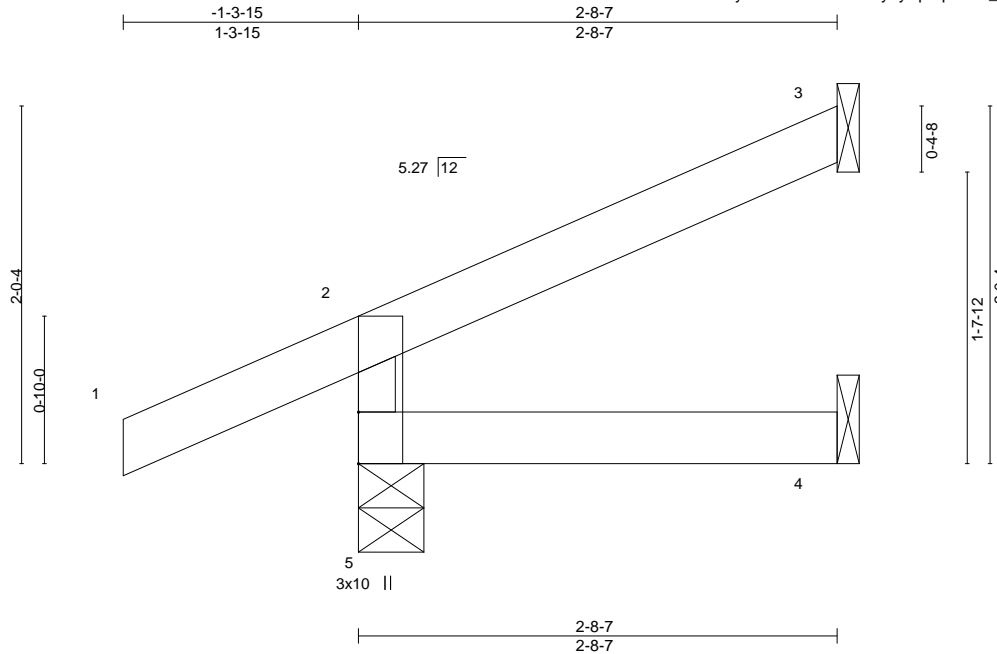


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|       |       |                  |     |     |                          |
|-------|-------|------------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type       | Qty | Ply | Lot 83 MN                |
| MN 83 | J9    | Jack-Open Girder | 1   | 1   |                          |
|       |       |                  |     |     | Job Reference (optional) |

I43671116

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:55 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-?SJM8RYuyIryBpJqAZYy\_CqnHcrDJfSQ9\_KMPZyI?sE

Scale = 1:13.0

| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.15  | Vert(LL) | 0.00  | 4-5   | >999   | 240 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.06  | Vert(CT) | -0.00 | 4-5   | >999   | 360 |              |          |
| BCLL 0.0 *    | Rep Stress Incr      | NO    | WB 0.00  | Horz(CT) | -0.01 | 3     | n/a    | n/a |              |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R |          |       |       |        |     | Weight: 9 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-4-7, 3=Mechanical, 4=Mechanical  
 Max Horz 5=92(LC 12)  
 Max Uplift 5=91(LC 12), 3=67(LC 12), 4=6(LC 19)  
 Max Grav 5=122(LC 1), 3=22(LC 1), 4=34(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 28 lb down and 12 lb up at -1-3-15, and 28 lb down and 12 lb up at -1-3-15 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) 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

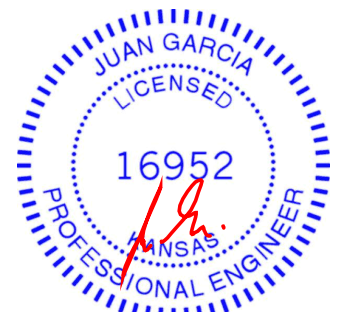
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Concentrated Loads (lb)

Vert: 1=-39(F=-19, B=-19)

Trapezoidal Loads (plf)

Vert: 1=-0(F=35, B=35)-to-2=-37(F=17, B=17), 2=-4(F=33, B=33)-to-3=-49(F=10, B=10), 5=-0(F=10, B=10)-to-4=-14(F=3, B=3)



November 18, 2020

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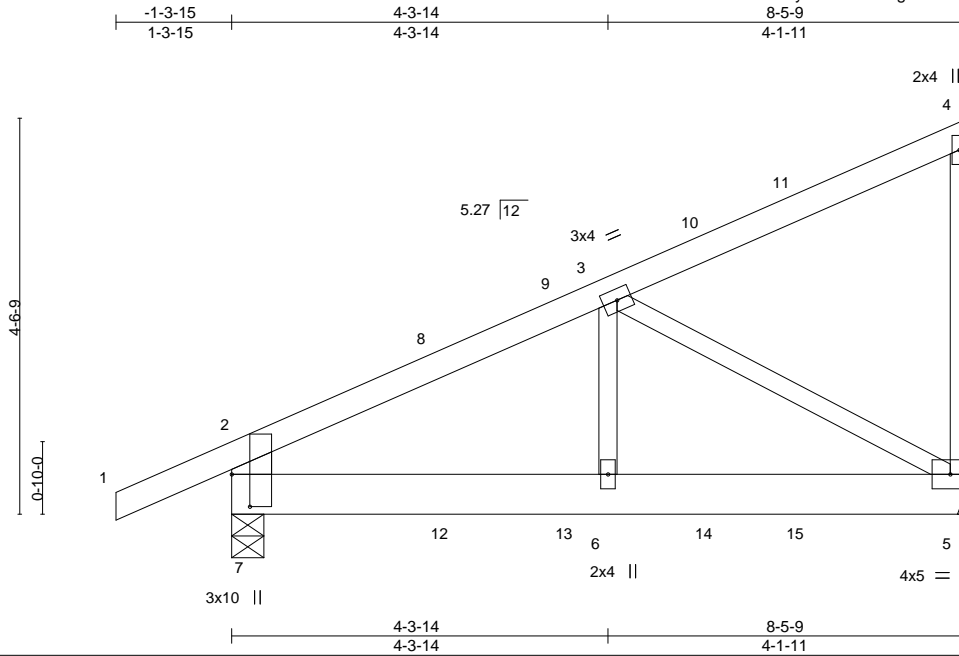
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



|       |       |                     |     |     |                          |
|-------|-------|---------------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type          | Qty | Ply | Lot 83 MN                |
| MN 83 | J11   | Diagonal Hip Girder | 1   | 1   |                          |
|       |       |                     |     |     | Job Reference (optional) |

I43671118

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:29 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-mSlXgYDa4mZe3qJqf54SxjllK7wtDsVbBx1\_U4yl?se

Scale = 1:26.5

Plate Offsets (X,Y)-- [7:0-4-7,0-2-8]

| LOADING (psf) | SPACING-             |  | CSI.     | DEFL.          | in  | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|--|----------|----------------|-----|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  |  | TC 0.31  | Vert(LL) -0.01 | 6   | >999  | 360    |     | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      |  | BC 0.20  | Vert(CT) -0.02 | 5-6 | >999  | 360    |     |               |          |
| BCLL 0.0 *    | Rep Stress Incr NO   |  | WB 0.23  | Horz(CT) 0.00  | 5   | n/a   | n/a    |     |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |  | Matrix-S | Wind(LL) 0.01  | 6   | >999  | 240    |     | Weight: 36 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x6 SPF No.2  
 WEBS 2x3 SPF No.2 \*Except\*  
 2-7: 2x6 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) 7=0-4-7, 5=Mechanical  
 Max Horz 7=218(LC 5)  
 Max Uplift 7=159(LC 8), 5=204(LC 5)  
 Max Grav 7=512(LC 1), 5=425(LC 1)

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

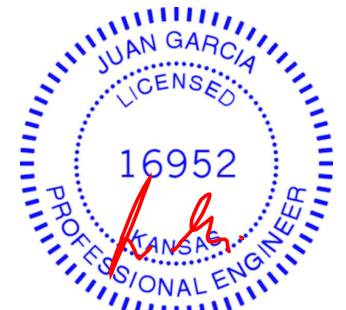
TOP CHORD 2-7=-424/164, 2-3=-550/155  
 BOT CHORD 6-7=-234/398, 5-6=-234/398  
 WEBS 3-5=-430/240

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 7=159, 5=204.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 97 lb down and 49 lb up at 2-5-13, 100 lb down and 70 lb up at 3-10-15, and 138 lb down and 103 lb up at 5-6-4, and 136 lb down and 116 lb up at 6-6-13 on top chord, and 5 lb down and 0 lb up at 2-5-13, 14 lb down and 15 lb up at 3-10-15, and 30 lb down at 5-6-4, and 34 lb down at 6-6-13 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) 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 (plf)  
 Vert: 1-2=-70, 2-4=-70, 5-7=-20  
 Concentrated Loads (lb)  
 Vert: 10=-21(F) 11=-36(B) 12=0(F) 13=-1(B) 14=-17(F) 15=-21(B)



November 18, 2020

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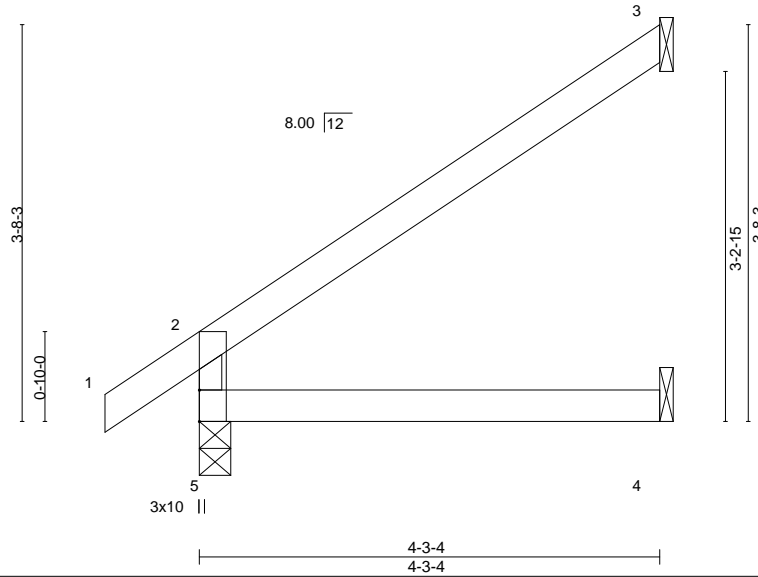
|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J12   | JACK-OPEN  | 1   | 1   |           | I43671119 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:29 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-mSIXgYDa4mZe3qJqf54Sxjll77xdDv0bBx1\_U4yl?se

-0-10-8 4-3-4  
0-10-8 4-3-4

Scale = 1:21.4



| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.26  | Vert(LL) -0.01 | 4-5      | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.16  | Vert(CT) -0.03 | 4-5      | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.00  | Horz(CT) -0.02 | 3        | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-R | Wind(LL) 0.02  | 4-5      | >999   | 240 | Weight: 12 lb | FT = 10% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-3-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=146(LC 8)  
Max Uplift 5=-16(LC 8), 3=-110(LC 8)  
Max Grav 5=261(LC 1), 3=143(LC 15), 4=79(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 3=110.
- 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.



November 18, 2020

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|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J13   | JACK-OPEN  | 1   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671120

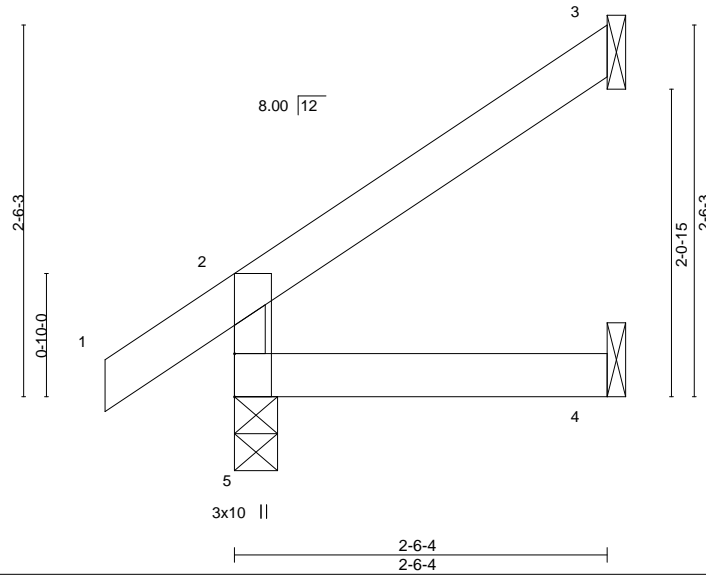
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:30 2020 Page 1

ID: XxAsF4MdGikvF3O7A2bzF0yH?NM-EeJvuuECq3hVh\_u0CpbhTwHWIXJVyMGkPbmX1Wyl?sd

-0-10-8 2-6-4  
0-10-8 2-6-4

Scale = 1:15.6



| LOADING (psf) | SPACING-             |       | CSI.     |  | DEFL.    | in (loc) | I/defl | L/d  | PLATES       | GRIP     |
|---------------|----------------------|-------|----------|--|----------|----------|--------|------|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.10  |  | Vert(LL) | -0.00    | 4-5    | >999 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.05  |  | Vert(CT) | -0.00    | 4-5    | >999 |              |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.00  |  | Horz(CT) | -0.01    | 3      | n/a  |              |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R |  | Wind(LL) | 0.00     | 4-5    | >999 | Weight: 8 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-6-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=91(LC 8)  
Max Uplift 5=-16(LC 8), 3=-65(LC 8), 4=-1(LC 8)  
Max Grav 5=189(LC 1), 3=78(LC 15), 4=45(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 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.



November 18, 2020

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|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J14   | Jack-Open  | 1   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671121

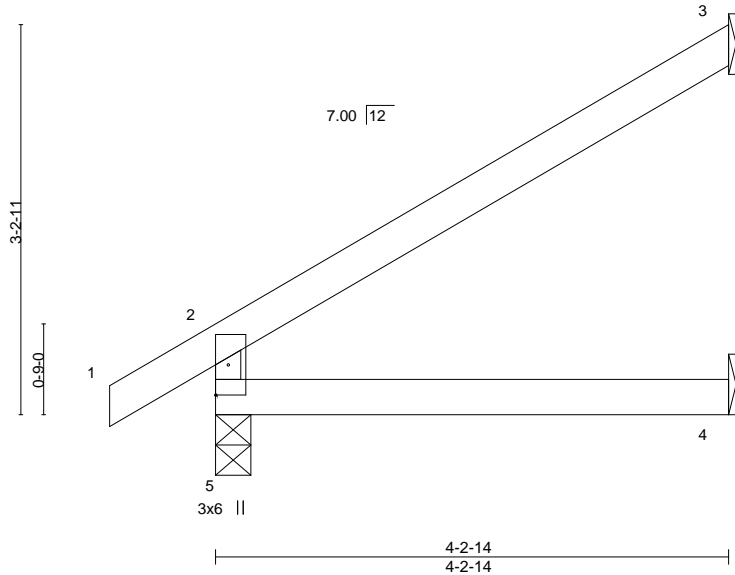
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:30 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-EeJvuueCq3hVh\_u0CpbhTwHU\_XHwyMGkPbmX1Wyl?sd

-0-10-8  
0-10-8

4-2-14  
4-2-14

Scale = 1:19.0



| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 2-0-0 | TC 0.25  | Vert(LL) -0.01 | 4-5      | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.15  | Vert(CT) -0.03 | 4-5      | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.00  | Horz(CT) -0.02 | 3        | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-R | Wind(LL) 0.02  | 4-5      | >999   | 240 | Weight: 12 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-2-14 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

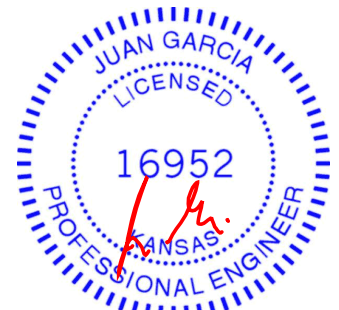
**REACTIONS.**

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=127(LC 8)  
Max Uplift 5=-31(LC 8), 3=-97(LC 8)  
Max Grav 5=260(LC 1), 3=138(LC 15), 4=78(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



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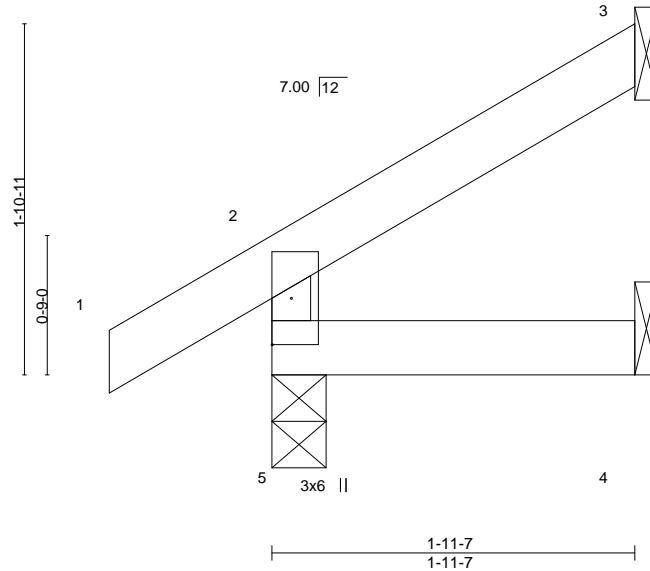
|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J15   | Jack-Open  | 1   | 1   |           | I43671122 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:31 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-iqsl5EFqbNpMI7TCmW6w08qhcxf7hoVteFW4Zyyl?sc

-0-10-8 1-11-7  
0-10-8 1-11-7

Scale = 1:12.4



| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | l/def | L/d | PLATES       | GRIP     |
|---------------|----------------------|----------|----------------|----------|-------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.07  | Vert(LL) -0.00 | 5        | >999  | 360 | MT20         | 197/144  |
| TCCL 10.0     | Lumber DOL 1.15      | BC 0.03  | Vert(CT) -0.00 | 4-5      | >999  | 360 |              |          |
| 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-R | Wind(LL) 0.00  | 5        | >999  | 240 | Weight: 6 lb | FT = 10% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-11-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=66(LC 8)  
Max Uplift 5=-27(LC 8), 3=-44(LC 8)  
Max Grav 5=169(LC 1), 3=55(LC 15), 4=34(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



November 18, 2020

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|       |       |             |     |     |                          |
|-------|-------|-------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type  | Qty | Ply | Lot 83 MN                |
| MN 83 | J16   | Jack-Closed | 2   | 1   |                          |
|       |       |             |     |     | Job Reference (optional) |

I43671123

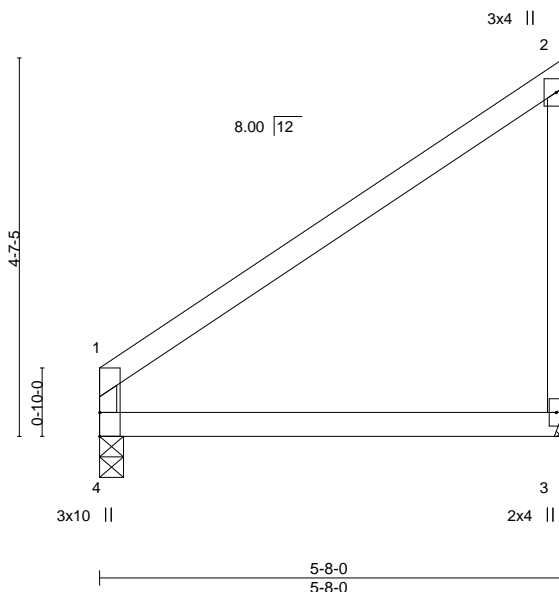
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:32 2020 Page 1

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5-8-0

5-8-0



Scale = 1:28.1

| LOADING (psf) | SPACING-             |       | CSI.     |      | DEFL.    | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC       | 0.47 | Vert(LL) | -0.04 | 3-4   | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC       | 0.27 | Vert(CT) | -0.09 | 3-4   | >764   | 360 |               |          |
| 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-R |      | Wind(LL) | 0.03  | 3-4   | >999   | 240 | Weight: 18 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 5-8-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 4=0-3-8, 3=Mechanical  
 Max Horz 4=193(LC 5)  
 Max Uplift 4=-26(LC 8), 3=-101(LC 8)  
 Max Grav 4=246(LC 1), 3=281(LC 15)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 3=101.
- 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.



November 18, 2020

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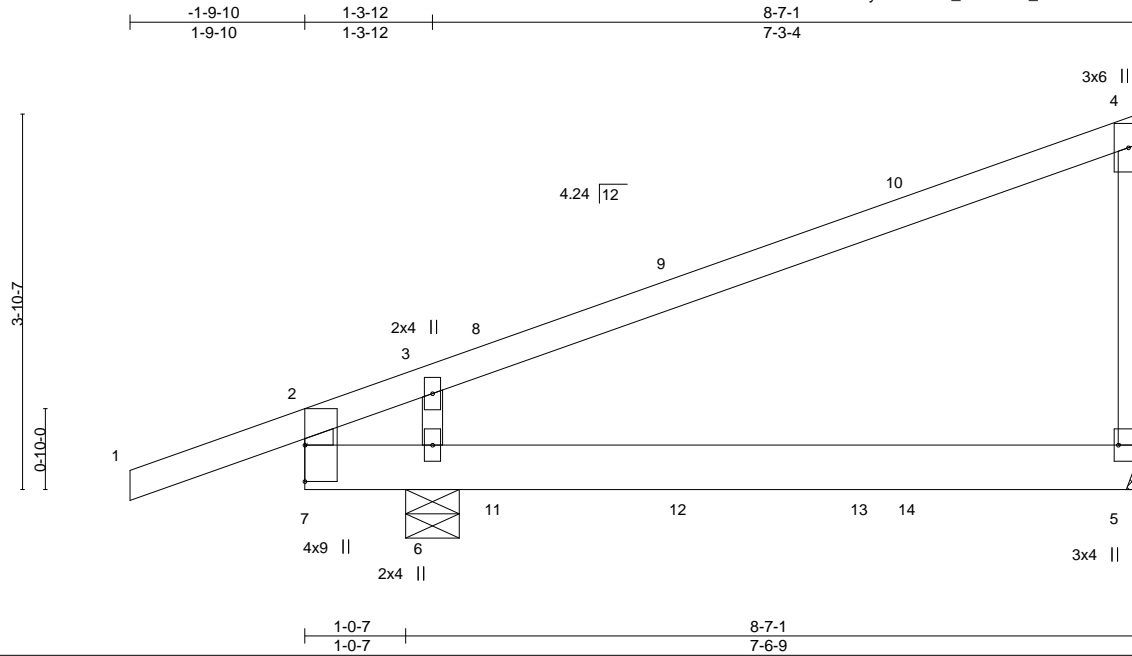
|       |       |                     |     |     |                          |
|-------|-------|---------------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type          | Qty | Ply | Lot 83 MN                |
| MN 83 | J17   | Diagonal Hip Girder | 1   | 1   |                          |
|       |       |                     |     |     | Job Reference (optional) |

I43671124

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Scale = 1:23.7

| Plate Offsets (X,Y)-- |                      | [5.Edge,0-2-8] |                             |
|-----------------------|----------------------|----------------|-----------------------------|
| <b>LOADING</b> (psf)  | <b>SPACING-</b>      | <b>CSI.</b>    | <b>DEFL.</b>                |
| TCLL 25.0             | Plate Grip DOL 1.15  | TC 0.73        | in (loc) l/defl L/d         |
| TCDL 10.0             | Lumber DOL 1.15      | BC 0.40        | Vert(LL) 0.08 5-6 >999 240  |
| BCLL 0.0 *            | Rep Stress Incr NO   | WB 0.10        | Vert(CT) -0.08 5-6 >999 360 |
| BCDL 10.0             | Code IRC2018/TPI2014 | Matrix-R       | Horz(CT) -0.00 5 n/a n/a    |
|                       |                      |                | <b>PLATES</b> MT20          |
|                       |                      |                | <b>GRIP</b> 197/144         |
|                       |                      |                | Weight: 31 lb FT = 10%      |

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x6 SPF No.2  
 WEBS 2x3 SPF No.2 \*Except\*  
 2-7: 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) 5=Mechanical, 6=0-6-10  
 Max Horz 6=193(LC 5)  
 Max Uplift 5=-185(LC 8), 6=-316(LC 4)  
 Max Grav 5=379(LC 1), 6=667(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-6=-571/353

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=185, 6=316.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 103 lb down and 51 lb up at 2-0-8, and 83 lb down and 37 lb up at 3-11-5, and 97 lb down and 74 lb up at 6-3-10 on top chord, and at 2-0-8, 4 lb down and 54 lb up at 3-11-5, and 191 lb down and 110 lb up at 5-9-12, and 19 lb down and 18 lb up at 6-3-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) 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 (plf)  
 Vert: 1-2=-70, 2-4=-70, 5-7=-20  
 Concentrated Loads (lb)  
 Vert: 12=25(B) 13=-191(F) 14=6(B)



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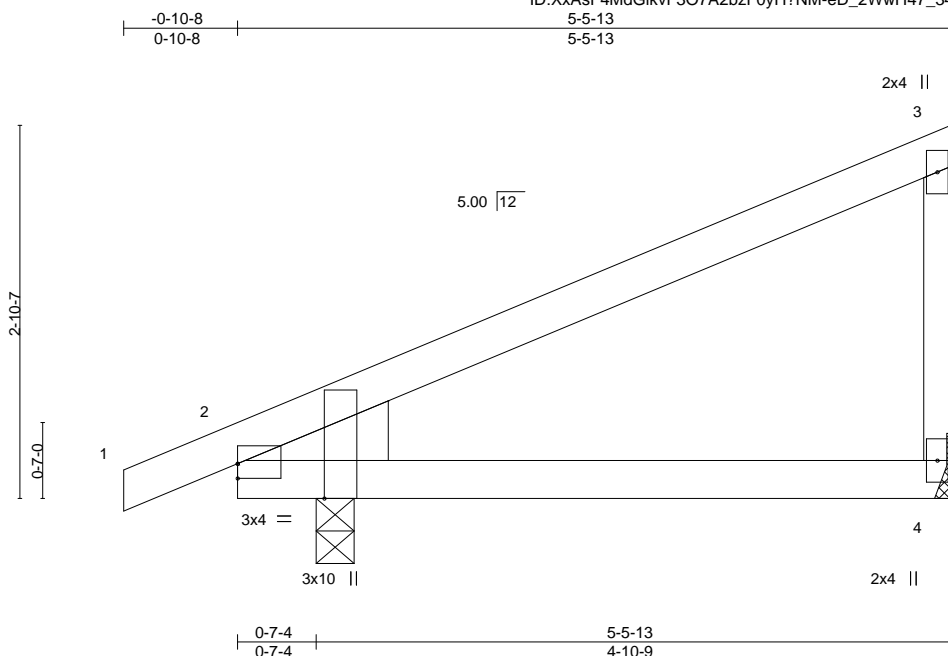


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|                          |       |             |     |     |           |           |
|--------------------------|-------|-------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type  | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J18   | Jack-Closed | 1   | 1   |           | I43671125 |
| Job Reference (optional) |       |             |     |     |           |           |

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8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:33 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-eD\_2WwH47\_34YRdbux9O5ZvxPkG49i?A5Z?BdryI?sa



| Plate Offsets (X,Y)-- |       | [2:0-0-0,0-1-6], [2:0-3-3,Edge] |       |             |      |              |       |       |        |     |               |
|-----------------------|-------|---------------------------------|-------|-------------|------|--------------|-------|-------|--------|-----|---------------|
| <b>LOADING</b> (psf)  |       | <b>SPACING-</b>                 | 2-0-0 | <b>CSI.</b> |      | <b>DEFL.</b> | in    | (loc) | I/defl | L/d | <b>PLATES</b> |
| TCLL                  | 25.0  | Plate Grip DOL                  | 1.15  | TC          | 0.49 | Vert(LL)     | -0.04 | 2-4   | >999   | 360 | MT20          |
| TCDL                  | 10.0  | Lumber DOL                      | 1.15  | BC          | 0.32 | Vert(CT)     | -0.09 | 2-4   | >698   | 360 | GRIP          |
| BCLL                  | 0.0 * | Rep Stress Incr                 | YES   | WB          | 0.00 | Horz(CT)     | -0.00 | 4     | n/a    | n/a | 197/144       |
| BCDL                  | 10.0  | Code IRC2018/TPI2014            |       | Matrix-P    |      | Wind(LL)     | 0.00  | 2     | ****   | 240 | Weight: 18 lb |
|                       |       |                                 |       |             |      |              |       |       |        |     | FT = 10%      |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2  
WEDGE  
Left: 2x6 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-5-13 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

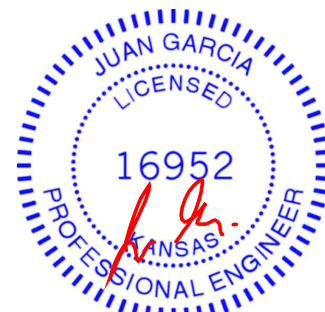
#### REACTIONS.

(size) 4=Mechanical, 2=0-3-8  
Max Horz 2=129(LC 5)  
Max Uplift 4=73(LC 8), 2=78(LC 8)  
Max Grav 4=228(LC 1), 2=314(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.



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Chesterfield, MO 63017







|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J20   | Jack-Open  | 1   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671127

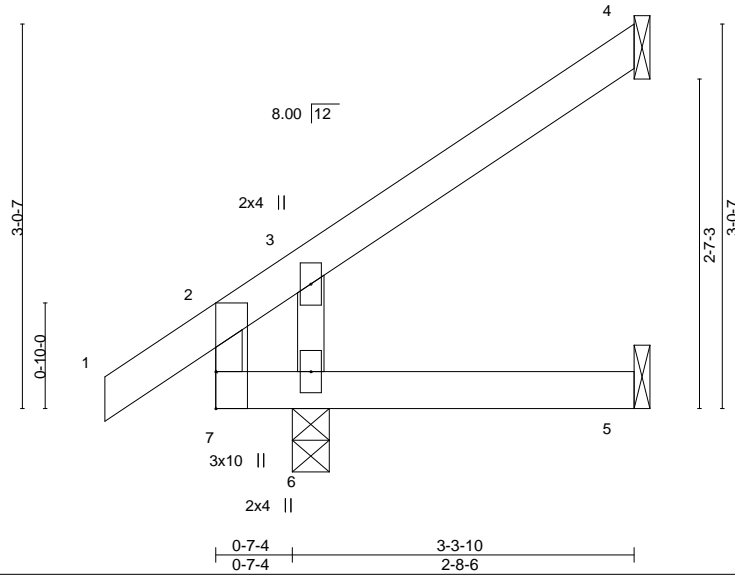
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:36 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-3ogB8xJzQvSePvMAZ3i5jBXydyLIM3FdoXDrEAyI?sX

-0-10-8  
0-10-8

3-3-10  
3-3-10

Scale = 1:18.2



| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.11  | Vert(LL) | 0.00  | 5-6   | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.09  | Vert(CT) | -0.00 | 5-6   | >999   | 180 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.03  | Horz(CT) | -0.02 | 4     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P | Wind(LL) | 0.00  | 5-6   | >999   | 240 | Weight: 11 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 3-3-10 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 4=Mechanical, 5=Mechanical, 6=0-3-8  
Max Horz 6=116(LC 8)  
Max Uplift 4=-73(LC 8), 5=-7(LC 8), 6=-20(LC 8)  
Max Grav 4=77(LC 15), 5=40(LC 3), 6=277(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5, 6.
- 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.



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|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J21   | Jack-Open  | 1   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671128

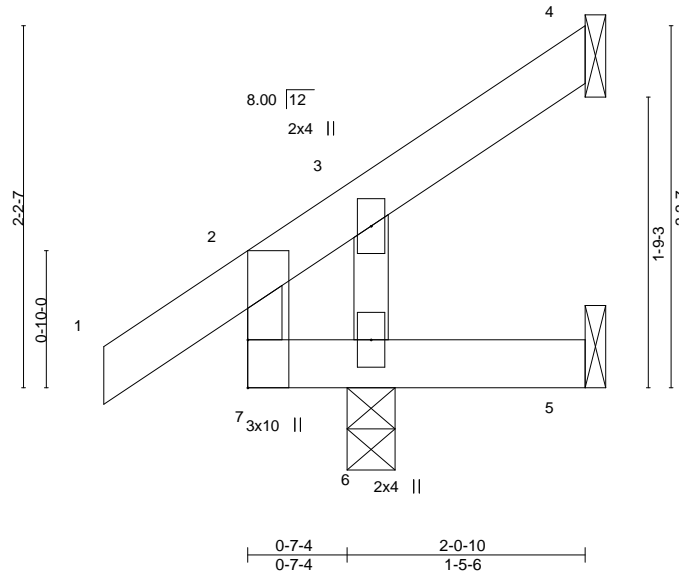
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:36 2020 Page 1

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Scale = 1:14.0



| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | I/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL 2-0-0 | TC 0.08  | Vert(LL) 0.00  | 6        | >999   | 360 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.10  | Vert(CT) 0.00  | 5-6      | >999   | 360 |              |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.02  | Horz(CT) -0.01 | 4        | n/a    | n/a |              |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-P | Wind(LL) -0.00 | 6        | >999   | 240 | Weight: 7 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 4=Mechanical, 5=Mechanical, 6=0-3-8  
 Max Horz 6=76(LC 8)  
 Max Uplift 4=-41(LC 8), 5=-30(LC 1), 6=-25(LC 8)  
 Max Grav 4=22(LC 6), 5=10(LC 4), 6=260(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5, 6.
- 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.



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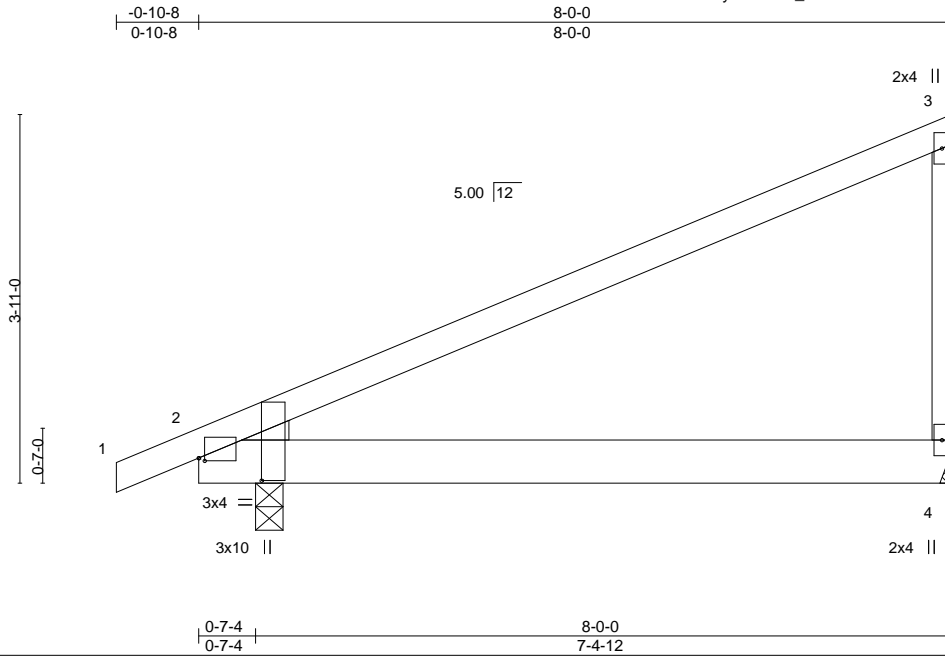


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 Chesterfield, MO 63017

|                          |       |             |     |     |           |           |
|--------------------------|-------|-------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type  | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J22   | Jack-Closed | 2   | 1   |           | I43671129 |
| Job Reference (optional) |       |             |     |     |           |           |

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8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:37 2020 Page 1  
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Scale = 1:24.5

|                       |                      |                                    |             |               |                     |
|-----------------------|----------------------|------------------------------------|-------------|---------------|---------------------|
| Plate Offsets (X,Y)-- |                      | [2:0-0-12,0-0-6], [2:0-2-14,0-8-0] |             |               |                     |
| <b>LOADING</b> (psf)  | <b>SPACING-</b>      | 2-0-0                              | <b>CSI.</b> | <b>DEFL.</b>  | in (loc) l/defl L/d |
| TCLL 25.0             | Plate Grip DOL       | 1.15                               | TC 0.75     | Vert(LL)      | -0.06 2-4 >999 360  |
| TCDL 10.0             | Lumber DOL           | 1.15                               | BC 0.34     | Vert(CT)      | -0.11 2-4 >834 360  |
| 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    | Wind(LL)      | 0.00 2 **** 240     |
|                       |                      |                                    |             | <b>PLATES</b> | <b>GRIP</b>         |
|                       |                      |                                    |             | MT20          | 197/144             |
|                       |                      |                                    |             | Weight: 28 lb | FT = 10%            |

#### LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E  
BOT CHORD 2x6 SPF No.2  
WEBS 2x3 SPF No.2  
WEDGE  
Left: 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) 4=Mechanical, 2=0-3-8  
Max Horz 2=180(LC 5)  
Max Uplift 4=107(LC 8), 2=102(LC 8)  
Max Grav 4=344(LC 1), 2=425(LC 1)

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

TOP CHORD 3-4=267/153

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=107, 2=102.
- 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.



November 18,2020

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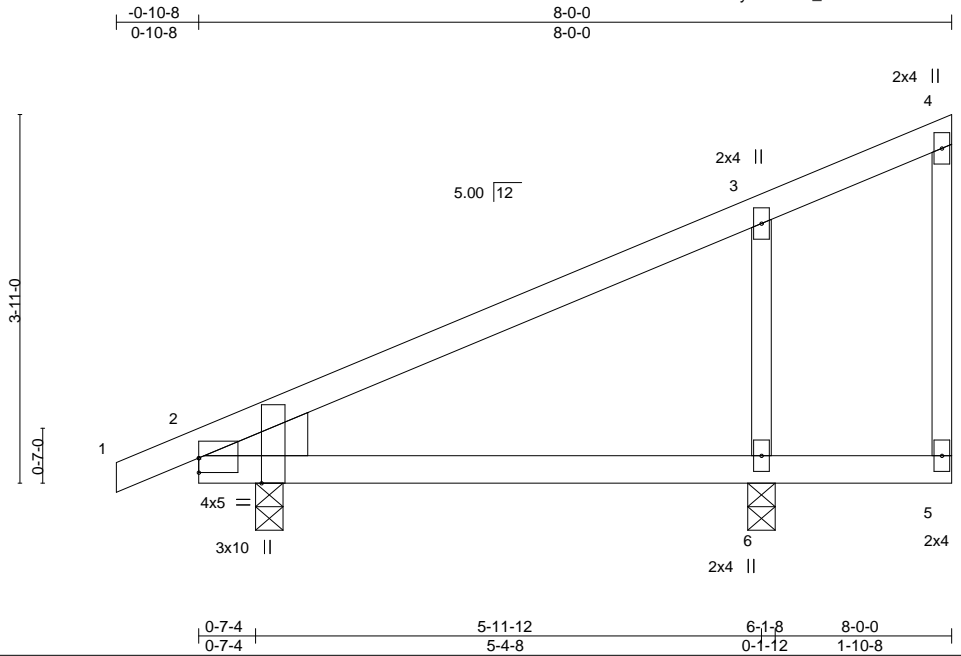


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Chesterfield, MO 63017

|                          |       |             |     |     |           |           |
|--------------------------|-------|-------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type  | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J23   | Jack-Closed | 3   | 1   |           | I43671130 |
| Job Reference (optional) |       |             |     |     |           |           |

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8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:37 2020 Page 1  
ID: XxAsF4MdGikvF3O7A2bzF0yH?NM-X\_EZMHKbBDaV12xM7nDKGP4eILdg5Vem0BzPncyl?sW



| Plate Offsets (X,Y)-- |       | [2:0-0-0,0-1-14], [2:0-3-3,Edge] |       |             |      |              |           |        |     |               |             |
|-----------------------|-------|----------------------------------|-------|-------------|------|--------------|-----------|--------|-----|---------------|-------------|
|                       |       |                                  |       |             |      |              |           |        |     |               |             |
| <b>LOADING</b> (psf)  |       | <b>SPACING-</b>                  | 2-0-0 | <b>CSI.</b> |      | <b>DEFL.</b> | in (loc)  | I/defl | L/d | <b>PLATES</b> | <b>GRIP</b> |
| TCLL                  | 25.0  | Plate Grip DOL                   | 1.15  | TC          | 0.41 | Vert(LL)     | -0.04 2-6 | >999   | 360 | MT20          | 197/144     |
| TCDL                  | 10.0  | Lumber DOL                       | 1.15  | BC          | 0.34 | Vert(CT)     | -0.08 2-6 | >827   | 360 |               |             |
| BCLL                  | 0.0 * | Rep Stress Incr                  | YES   | WB          | 0.09 | Horz(CT)     | -0.00 6   | n/a    | n/a |               |             |
| BCDL                  | 10.0  | Code IRC2018/TPI2014             |       | Matrix-S    |      | Wind(LL)     | 0.04 2-6  | >999   | 240 | Weight: 27 lb | FT = 10%    |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2  
WEDGE  
Left: 2x6 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) 6=0-3-8, 2=0-3-8  
Max Horz 2=183(LC 5)  
Max Uplift 6=143(LC 8), 2=66(LC 8)  
Max Grav 6=457(LC 1), 2=312(LC 1)

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

WEBS 3-6=-356/212

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6=143.
- 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.



November 18, 2020

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Chesterfield, MO 63017

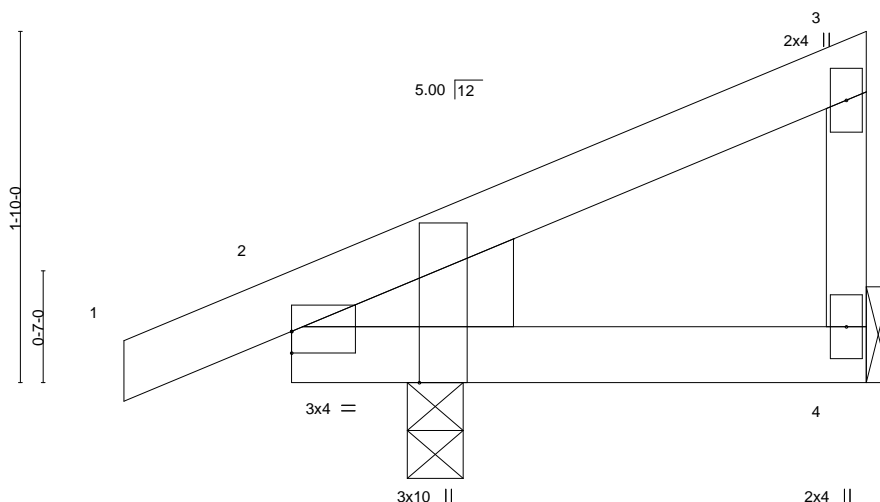
|                          |       |             |     |     |           |           |
|--------------------------|-------|-------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type  | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J24   | Jack-Closed | 6   | 1   |           | I43671131 |
| Job Reference (optional) |       |             |     |     |           |           |

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8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:38 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-?AnxZdKDyXiMeCVZgUIZocdu2l0vqzEvFryJ2yl?sV



Scale: 1"=1'



|                       |                                 |
|-----------------------|---------------------------------|
| Plate Offsets (X,Y)-- | [2-0-0-0,0-1-6], [2-0-3-3,Edge] |
|-----------------------|---------------------------------|

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.12  | Vert(LL) | -0.00 | 2-4   | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.15  | Vert(CT) | -0.01 | 2-4   | >999   | 360 |               |          |
| 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 | Wind(LL) | 0.00  | 2     | ****   | 240 | Weight: 11 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2  
WEDGE  
Left: 2x6 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 4=Mechanical, 2=0-3-8  
Max Horz 2=77(LC 5)  
Max Uplift 4=-36(LC 8), 2=-57(LC 8)  
Max Grav 4=110(LC 1), 2=208(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.



November 18,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017





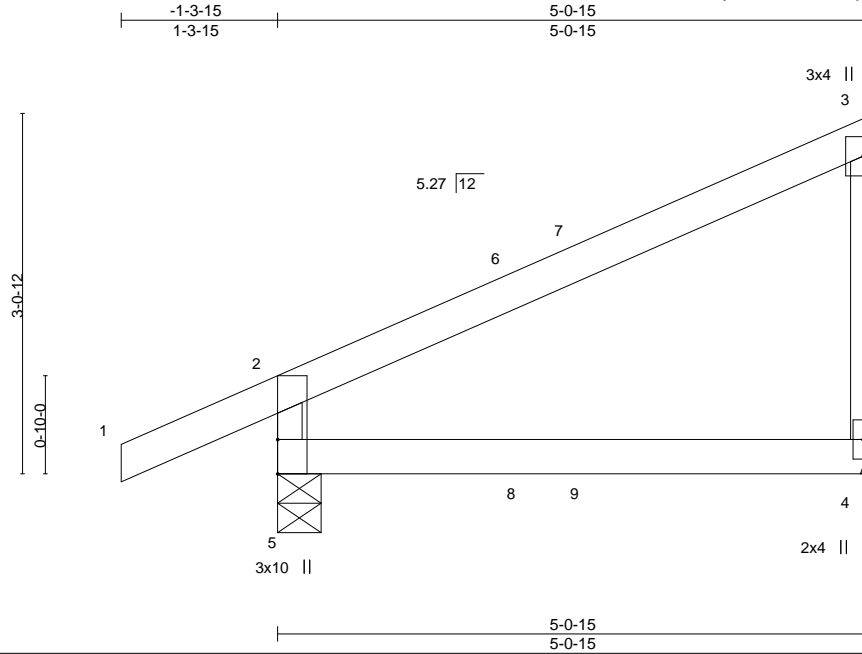




|       |       |                     |     |     |                          |
|-------|-------|---------------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type          | Qty | Ply | Lot 83 MN                |
| MN 83 | J27   | Diagonal Hip Girder | 2   | 1   |                          |
|       |       |                     |     |     | Job Reference (optional) |

I43671134

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:39 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-TNLJnzLrjqqDGM4IECGoLq9?79K1ZQU3UVSVrUyl?sU

Scale = 1:19.6

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | I/defl | L/d  | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|------|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.35  | Vert(LL) | -0.02    | 4-5    | >999 | 360           | MT20     |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.22  | Vert(CT) | -0.05    | 4-5    | >999 | 360           | 197/144  |
| BCLL 0.0 *    | Rep Stress Incr      | NO    | WB 0.00  | Horz(CT) | -0.00    | 4      | n/a  | n/a           |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R | Wind(LL) | 0.02     | 4-5    | >999 | 240           |          |
|               |                      |       |          |          |          |        |      | Weight: 16 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 5-0-15 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-4-7, 4=Mechanical  
 Max Horz 5=147(LC 5)  
 Max Uplift 5=-97(LC 8), 4=-78(LC 8)  
 Max Grav 5=333(LC 1), 4=203(LC 1)

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

TOP CHORD 2-5=-293/124

**NOTES-**

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 95 lb down and 41 lb up at 2-1-10, and 88 lb down and 46 lb up at 2-8-1 on top chord, and 5 lb down and 9 lb up at 2-1-10, and 7 lb down and 12 lb up at 2-8-1 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

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 4-5=-20

Concentrated Loads (lb)

Vert: 8=1(B) 9=1(F)



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Chesterfield, MO 63017

|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J28   | Jack-Open  | 10  | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671135

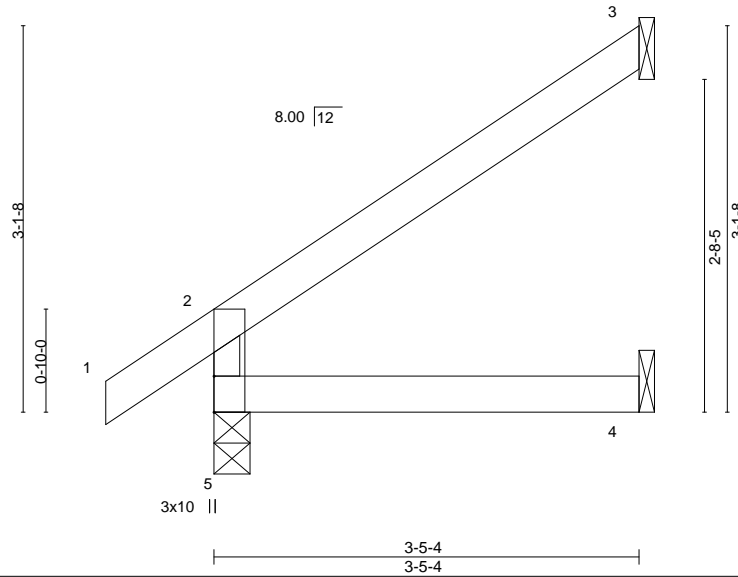
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:40 2020 Page 1

ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-xZvh\_JMTU8y4uWfxovn1t1iD?Zi9ItkCi9B3NxyI?sT

-0-10-8 3-5-4  
0-10-8 3-5-4

Scale = 1:18.6



| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | L/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 2-0-0 | TC 0.15  | Vert(LL) -0.01 | 4-5      | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.10  | Vert(CT) -0.01 | 4-5      | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.00  | Horz(CT) -0.01 | 3        | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-R | Wind(LL) 0.01  | 4-5      | >999   | 240 | Weight: 10 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 3-5-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=84(LC 8)  
Max Uplift 3=57(LC 8)  
Max Grav 5=226(LC 1), 3=109(LC 13), 4=63(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
- 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.



November 18, 2020

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|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J29   | Jack-Open  | 3   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671136

Wheeler Lumber, Waverly, KS - 66871,

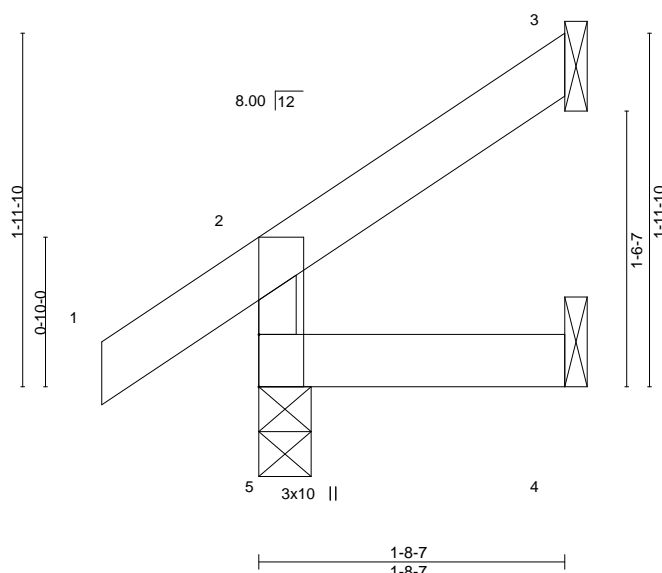
8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:40 2020 Page 1

ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-xZvh\_JMTU8y4uWfxovn1t1iEJZjCltkCi9B3NxyI?sT

-0-10-8  
0-10-8

1-8-7  
1-8-7

Scale = 1:12.8



| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in    | (loc) | l/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.07  | Vert(LL) | 0.00  | 5     | >999   | 240 | MT20         | 197/144  |
| TCCL 10.0     | Lumber DOL           | 1.15  | BC 0.03  | Vert(CT) | -0.00 | 5     | >999   | 360 |              |          |
| 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-R |          |       |       |        |     | Weight: 6 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 1-8-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=67(LC 8)  
Max Uplift 5=-17(LC 8), 3=-44(LC 8), 4=-4(LC 8)  
Max Grav 5=161(LC 1), 3=46(LC 15), 4=30(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 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.



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|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J30   | Jack-Open  | 3   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

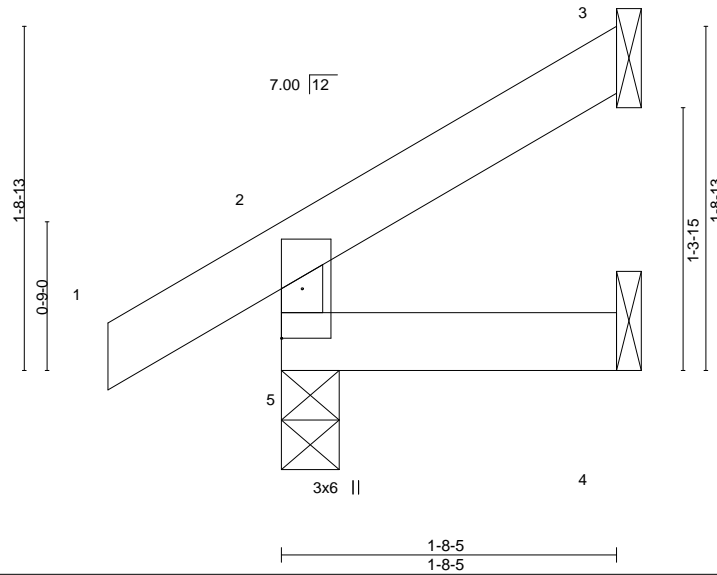
I43671137

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:41 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-PIT4BfN6FS4xVgE7MdlGQFEO4z3Z1K\_MxpcwNyl?sS

-0-10-8 1-8-5  
0-10-8 1-8-5

Scale = 1:11.6



| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | L/def | L/d | PLATES       | GRIP     |
|---------------|----------------------|----------|----------------|----------|-------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.07  | Vert(LL) -0.00 | 5        | >999  | 360 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.02  | Vert(CT) -0.00 | 5        | >999  | 360 |              |          |
| 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-R | Wind(LL) 0.00  | 5        | >999  | 240 | Weight: 6 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 1-8-5 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=58(LC 8)  
Max Uplift 5=27(LC 8), 3=37(LC 8)  
Max Grav 5=161(LC 1), 3=44(LC 15), 4=29(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



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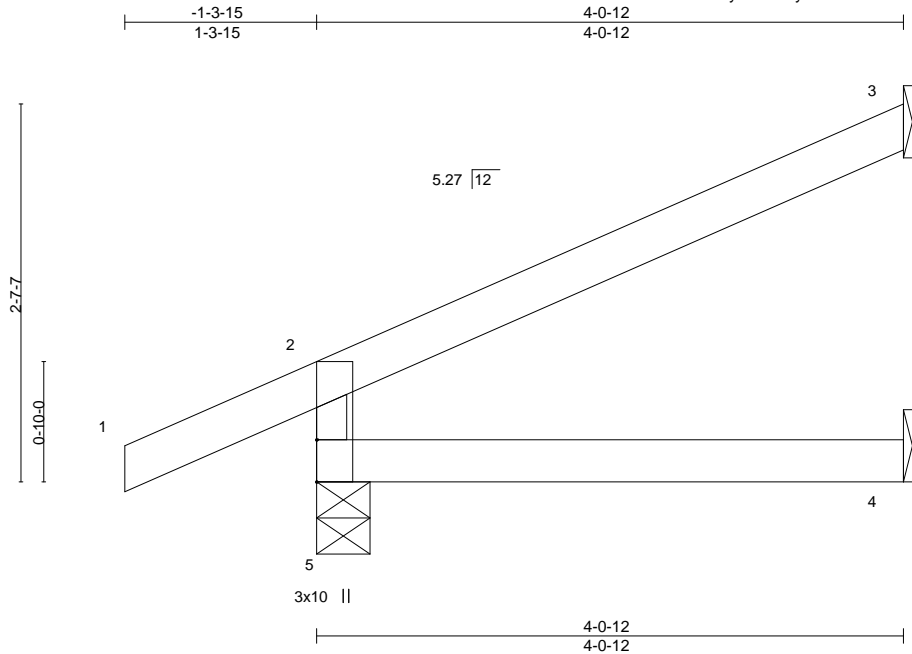
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|       |       |                  |     |     |                          |
|-------|-------|------------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type       | Qty | Ply | Lot 83 MN                |
| MN 83 | J31   | Jack-Open Girder | 2   | 1   |                          |
|       |       |                  |     |     | Job Reference (optional) |

I43671138

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:42 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-ty1SP?Ok0lCo7qKvKpVzSnX8MOQmnEVATgASpyl?sR

Scale: 3/4"=1'

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in  | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|-----|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.24  | Vert(LL) -0.01 | 4-5 | >999  | 360    |     | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.11  | Vert(CT) -0.02 | 4-5 | >999  | 360    |     |               |          |
| BCLL 0.0 *    | Rep Stress Incr NO   | WB 0.00  | Horz(CT) -0.02 | 3   | n/a   | n/a    |     |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-R | Wind(LL) 0.01  | 4-5 | >999  | 240    |     | Weight: 12 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-0-12 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-4-7, 3=Mechanical, 4=Mechanical  
 Max Horz 5=119(LC 12)  
 Max Uplift 5=103(LC 12), 3=77(LC 12)  
 Max Grav 5=148(LC 1), 3=76(LC 1), 4=61(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 5=103.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 35 lb down and 15 lb up at -1-3-15, and 35 lb down and 15 lb up at -1-3-15 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) 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

Concentrated Loads (lb)

Vert: 1=-48(F=-24, B=-24)

Trapezoidal Loads (plf)

Vert: 1=-0(F=35, B=35)-to-2=-25(F=22, B=22), 2=-2(F=34, B=34)-to-3=-71(F=-1, B=-1), 5=-0(F=10, B=10)-to-4=-20(F=-0, B=-0)



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 Chesterfield, MO 63017



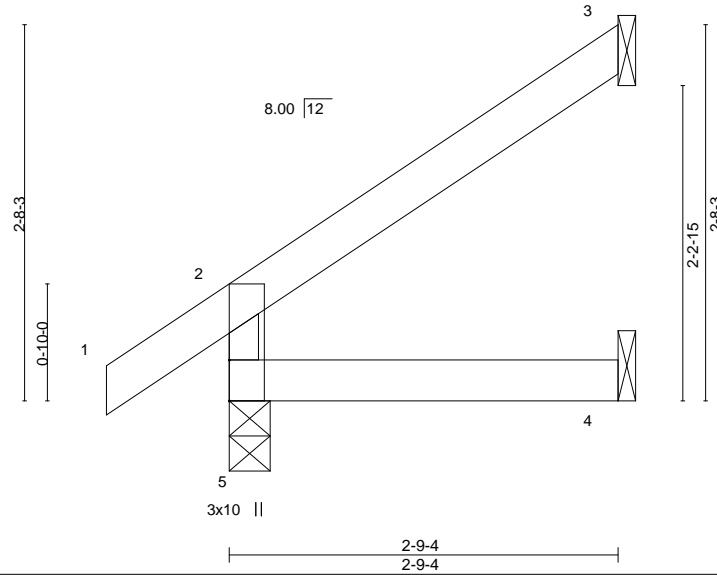
|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J32   | Jack-Open  | 1   | 1   |           | I43671139 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:43 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-M8bqcLOm3KfzOWT2KkVgKknmIPVEUeP7Qj\_Gyl?sQ

-0-10-8 2-9-4  
0-10-8 2-9-4

Scale = 1:16.4



| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.12  | Vert(LL) | -0.00 | 4-5   | >999   | 360 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.06  | Vert(CT) | -0.00 | 4-5   | >999   | 360 |              |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.00  | Horz(CT) | -0.01 | 3     | n/a    | n/a |              |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R | Wind(LL) | 0.00  | 4-5   | >999   | 240 | Weight: 9 lb | FT = 10% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=99(LC 8)  
Max Uplift 5=-16(LC 8), 3=-72(LC 8)  
Max Grav 5=199(LC 1), 3=88(LC 15), 4=50(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



November 18, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

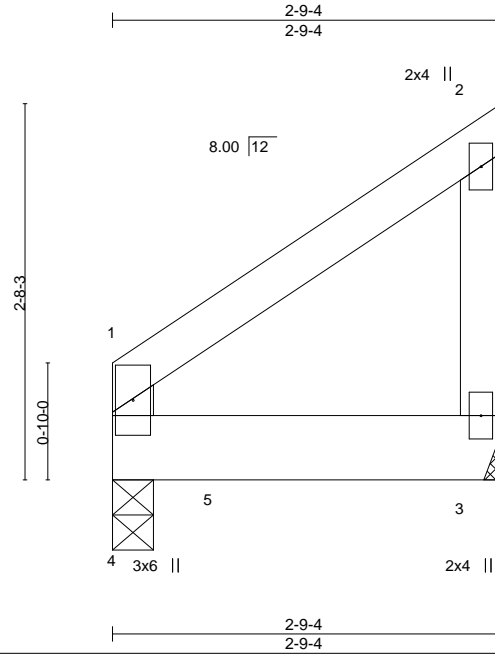
|       |       |                    |     |     |                          |
|-------|-------|--------------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type         | Qty | Ply | Lot 83 MN                |
| MN 83 | J33   | Jack-Closed Girder | 1   | 1   |                          |
|       |       |                    |     |     | Job Reference (optional) |

I43671140

Wheeler Lumber, Waverly, KS - 66871,

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ID: XxAsF4MdGikvF3O7A2bzF0yH?NM-M8bqclOMm3KflzOWT2KkVgKjUmeRVEUeP7Qj\_sQ



Scale = 1:16.4

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | 2-0-0                | TC 0.14  | Vert(LL) -0.01 | 3-4      | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.51  | Vert(CT) -0.01 | 3-4      | >999   | 360 |               |          |
| 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-R | Wind(LL) 0.01  | 3-4      | >999   | 240 | Weight: 11 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x6 SPF No.2  
 WEBS 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-9-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 4=0-3-8, 3=Mechanical  
 Max Horz 4=99(LC 5)  
 Max Uplift 4=155(LC 8), 3=104(LC 8)  
 Max Grav 4=900(LC 2), 3=419(LC 31)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=155, 3=104.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1112 lb down and 209 lb up at 0-10-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) 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 (plf)  
 Vert: 1-2=-70, 3-4=-20  
 Concentrated Loads (lb)  
 Vert: 5=-1056(B)



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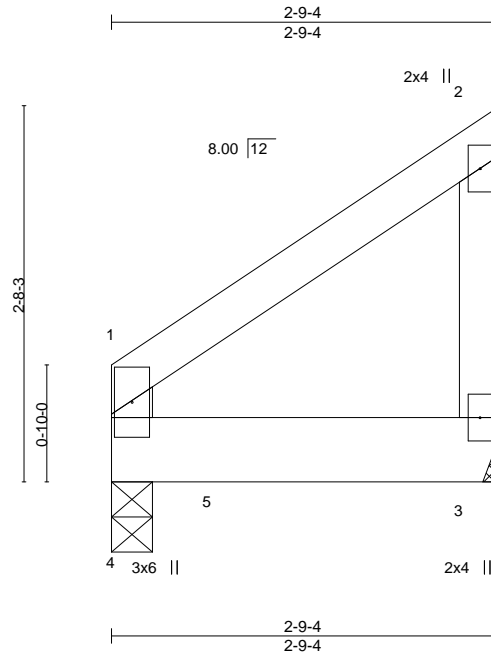


16023 Swingley Ridge Rd  
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|                          |       |                    |     |     |           |
|--------------------------|-------|--------------------|-----|-----|-----------|
| Job                      | Truss | Truss Type         | Qty | Ply | Lot 83 MN |
| MN 83                    | J33A  | Jack-Closed Girder | 1   | 1   | I43671141 |
| Job Reference (optional) |       |                    |     |     |           |

Wheeler Lumber, Waverly, KS - 66871,

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| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.12  | Vert(LL) -0.01 | 3-4      | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.26  | Vert(CT) -0.01 | 3-4      | >999   | 360 |               |          |
| 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-R | Wind(LL) 0.01  | 3-4      | >999   | 240 | Weight: 13 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x6 SP DSS  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 4=0-3-8, 3=Mechanical  
Max Horz 4=99(LC 5)  
Max Uplift 4=-147(LC 8), 3=-101(LC 8)  
Max Grav 4=969(LC 2), 3=442(LC 31)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=147, 3=101.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1207 lb down and 198 lb up at 0-10-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) 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 (plf)  
Vert: 1-2=-70, 3-4=-20  
Concentrated Loads (lb)  
Vert: 5=-1145(F)



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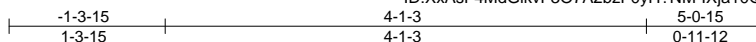
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                          |       |                     |     |     |           |           |
|--------------------------|-------|---------------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type          | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J34   | Diagonal Hip Girder | 1   | 1   |           | I43671142 |
| Job Reference (optional) |       |                     |     |     |           |           |

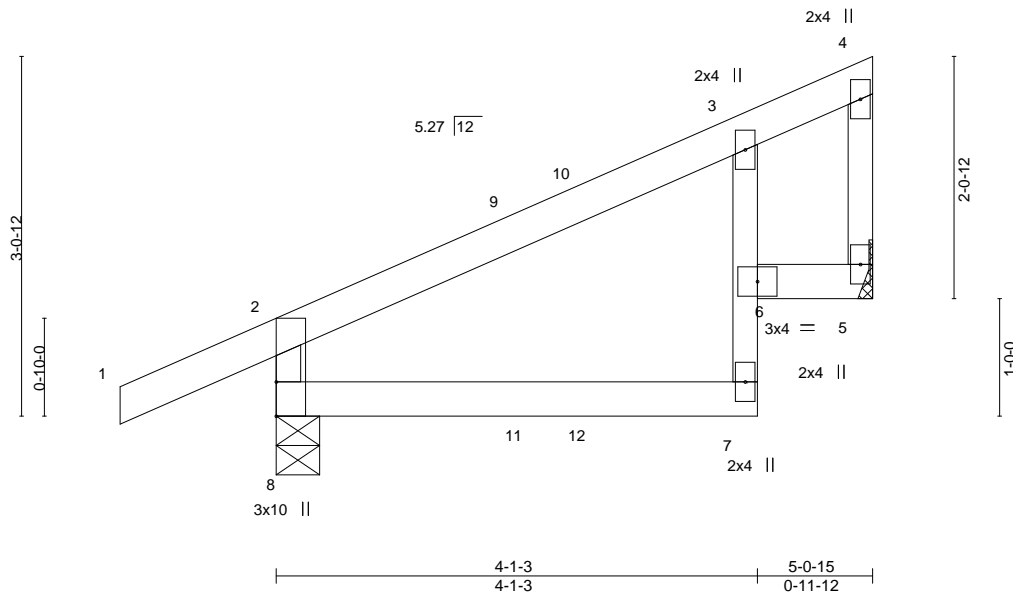
Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:19.6



| LOADING (psf) | SPACING-             |       | CSI.     |      | DEFL.    | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC       | 0.21 | Vert(LL) | -0.01 | 7-8   | >999   | 360 | MT20          | 197/144  |
| TCCL 10.0     | Lumber DOL           | 1.15  | BC       | 0.27 | Vert(CT) | -0.02 | 7-8   | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | NO    | WB       | 0.00 | Horz(CT) | -0.01 | 5     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R |      | Wind(LL) | 0.01  | 6     | >999   | 240 | Weight: 17 lb | FT = 10% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-0-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 8=0-4-7, 5=Mechanical  
Max Horz 8=128(LC 22)  
Max Uplift 8=95(LC 8), 5=81(LC 8)  
Max Grav 8=333(LC 1), 5=203(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-8=297/117

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 5.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 95 lb down and 41 lb up at 2-1-10, and 88 lb down and 46 lb up at 2-8-1 on top chord, and 5 lb down and 9 lb up at 2-1-10, and 7 lb down and 12 lb up at 2-8-1 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) 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 (plf)  
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20  
Concentrated Loads (lb)  
Vert: 11=1(F) 12=1(B)



November 18, 2020

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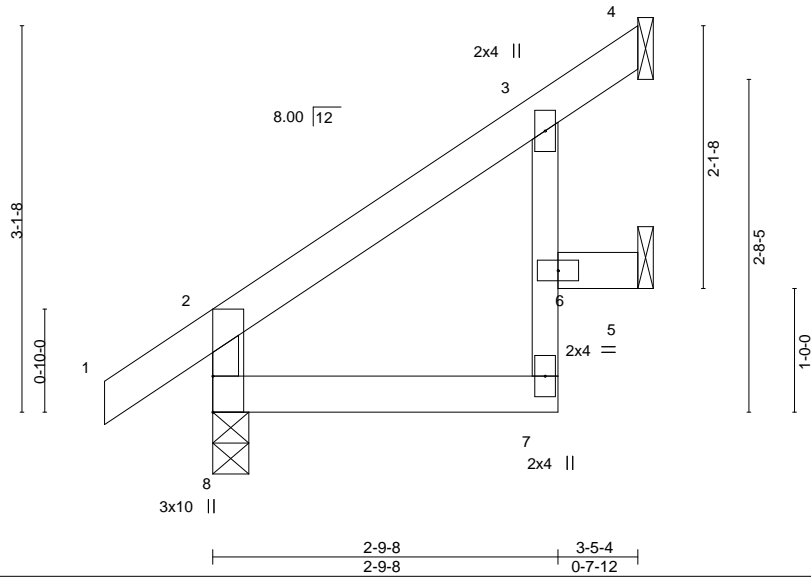
|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J35   | Jack-Open  | 5   | 1   |           | I43671143 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:45 2020 Page 1  
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-0-10-8 2-9-8 3-5-4  
0-10-8 2-9-8 0-7-12

Scale = 1:18.6



| LOADING (psf) | SPACING-             |       | CSI.     |  | DEFL.    | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|--|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.08  |  | Vert(LL) | -0.00 | 6     | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.11  |  | Vert(CT) | -0.01 | 6     | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.00  |  | Horz(CT) | -0.01 | 4     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R |  | Wind(LL) | 0.00  | 6     | >999   | 240 | Weight: 12 lb | FT = 10% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 8=0-3-8, 4=Mechanical, 5=Mechanical  
Max Horz 8=84(LC 8)  
Max Uplift 4=-9(LC 8), 5=-41(LC 8)  
Max Grav 8=226(LC 1), 4=54(LC 1), 5=95(LC 13)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 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.



November 18, 2020

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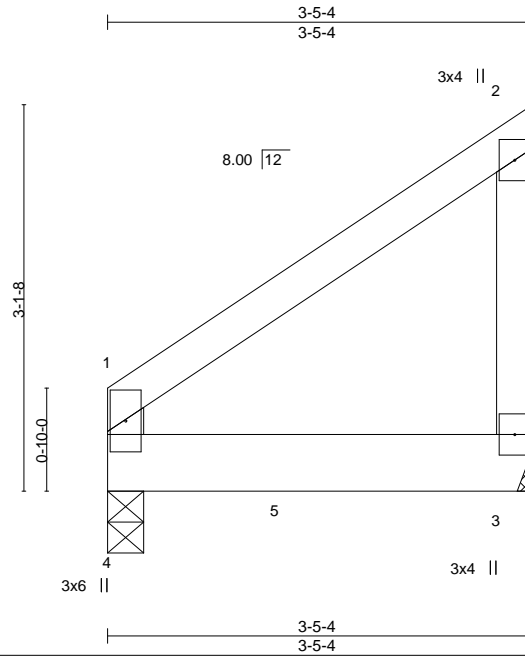
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|       |       |                    |     |     |                          |
|-------|-------|--------------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type         | Qty | Ply | Lot 83 MN                |
| MN 83 | J36   | Jack-Closed Girder | 1   | 1   |                          |
|       |       |                    |     |     | Job Reference (optional) |

I43671144

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:46 2020 Page 1  
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Scale = 1:18.6

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | 2-0-0                | TC 0.20  | Vert(LL) -0.02 | 3-4      | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.66  | Vert(CT) -0.03 | 3-4      | >999   | 360 |               |          |
| 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-R | Wind(LL) 0.02  | 3-4      | >999   | 240 | Weight: 14 lb | FT = 10% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x6 SPF No.2  
 WEBS 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-5-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 4=0-3-8, 3=Mechanical  
 Max Horz 4=97(LC 5)  
 Max Uplift 4=-149(LC 8), 3=-152(LC 5)  
 Max Grav 4=648(LC 1), 3=524(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=149, 3=152.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 889 lb down and 271 lb up at 1-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) 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 (plf)  
 Vert: 1-2=-70, 3-4=-20  
 Concentrated Loads (lb)  
 Vert: 5=-889(B)



November 18, 2020

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 Chesterfield, MO 63017

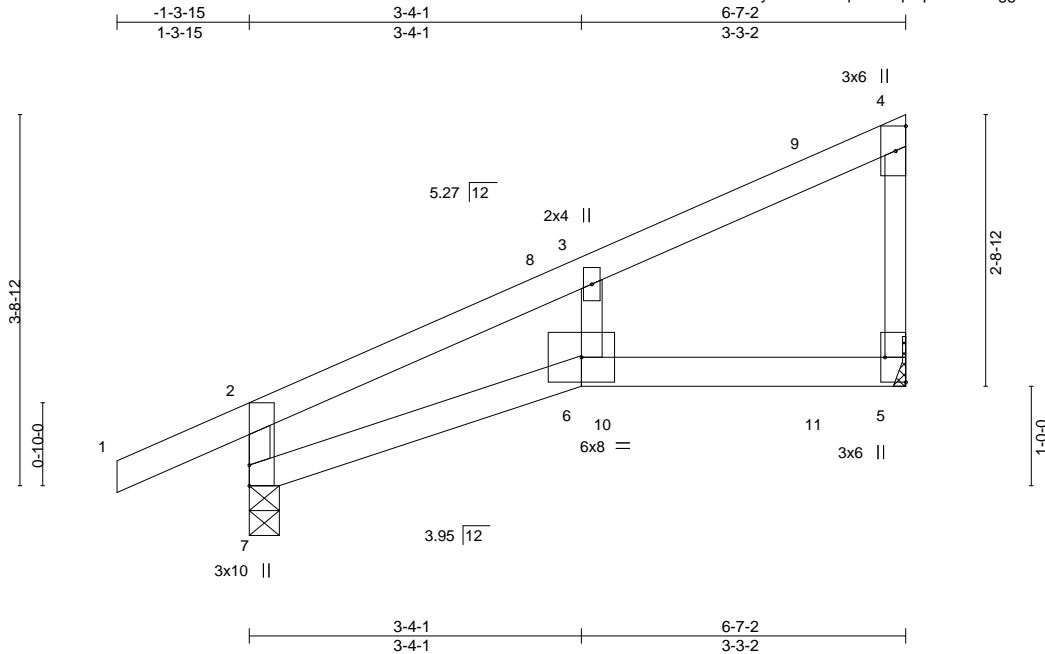


|                          |       |                     |     |     |           |           |
|--------------------------|-------|---------------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type          | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J37   | Diagonal Hip Girder | 2   | 1   |           | I43671145 |
| Job Reference (optional) |       |                     |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

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ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-EvqLSiRsqHq5DbhHitPggWUK8N26R27EJkOx71yl?sM



Scale = 1:23.2

Plate Offsets (X,Y)-- [5:Edge,0-2-8], [7:0-2-8,Edge]

| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.          | in | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------------|----|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | 2-0-0 | TC 0.48  | Vert(LL) -0.11 | 6  | >695  | 360    |     | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      |       | BC 0.27  | Vert(CT) -0.20 | 6  | >388  | 360    |     |               |          |
| BCLL 0.0 *    | Rep Stress Incr NO   |       | WB 0.02  | Horz(CT) 0.07  | 5  | n/a   | n/a    |     |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R | Wind(LL) 0.16  | 6  | >482  | 240    |     | Weight: 20 lb | FT = 10% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF 2100F 1.8E  
WEBS 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) 7=0-3-10, 5=Mechanical  
Max Horz 7=162(LC 5)  
Max Uplift 7=-114(LC 8), 5=-163(LC 5)  
Max Grav 7=407(LC 1), 5=330(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-7=-339/114

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss connections.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=114, 5=163.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 92 lb down and 57 lb up at 3-1-7, and 111 lb down and 74 lb up at 3-7-14, and 116 lb down and 106 lb up at 5-9-5 on top chord, and 9 lb down and 14 lb up at 3-4-1, and 14 lb down at 3-7-14, and 31 lb down at 5-9-5 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 (plf)  
Vert: 1-2=-70, 2-4=-70, 6-7=-20, 5-6=-20  
Concentrated Loads (lb)  
Vert: 6=0(B) 9=-40(B) 10=-2(F) 11=-20(B)



November 18, 2020

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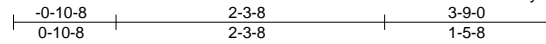


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J38   | Jack-Open  | 2   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671146

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:47 2020 Page 1  
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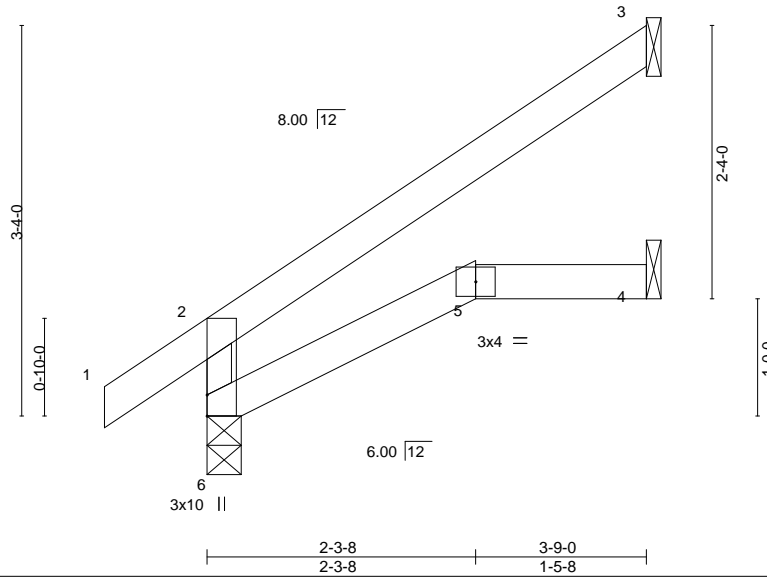


Plate Offsets (X,Y)-- [6:0-2-3,Edge]

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.20  | Vert(LL) | -0.01 | 5     | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.11  | Vert(CT) | -0.02 | 5-6   | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.00  | Horz(CT) | -0.02 | 3     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R | Wind(LL) | 0.01  | 5-6   | >999   | 240 |               |          |
|               |                      |       |          |          |       |       |        |     | Weight: 12 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-9-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.**

(size) 6=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 6=128(LC 8)  
 Max Uplift 6=13(LC 8), 3=99(LC 8)  
 Max Grav 6=239(LC 1), 3=125(LC 15), 4=68(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.



November 18, 2020

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|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J39   | Jack-Open  | 2   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671147

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:48 2020 Page 1  
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0-10-8 2-0-0

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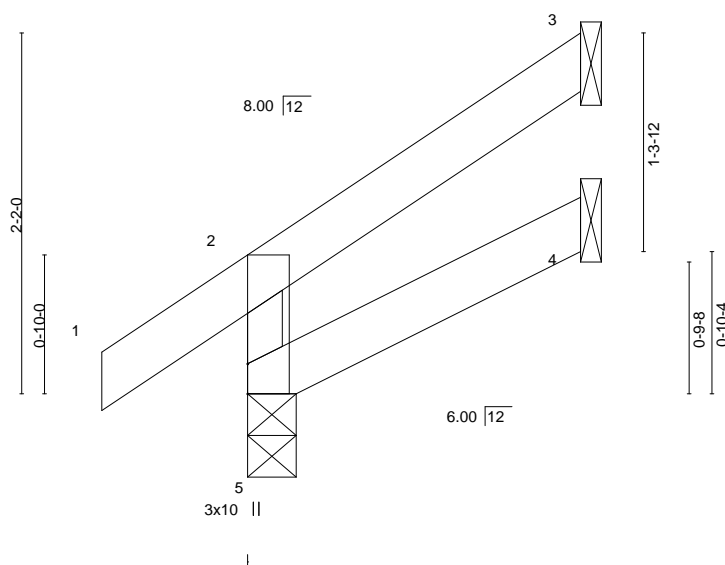


Plate Offsets (X,Y)-- [5:0-2-3,Edge]

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.08  | Vert(LL) | 0.00  | 5     | >999   | 240 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.04  | Vert(CT) | -0.00 | 4-5   | >999   | 360 |              |          |
| 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-R |          |       |       |        |     | Weight: 7 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=75(LC 8)  
Max Uplift 5=14(LC 8), 3=54(LC 8), 4=4(LC 8)  
Max Grav 5=171(LC 1), 3=60(LC 15), 4=35(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 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.



November 18, 2020

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|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671148 |
| MN 83 | J40   | Jack-Open  | 2   | 1   | Job Reference (optional) |           |

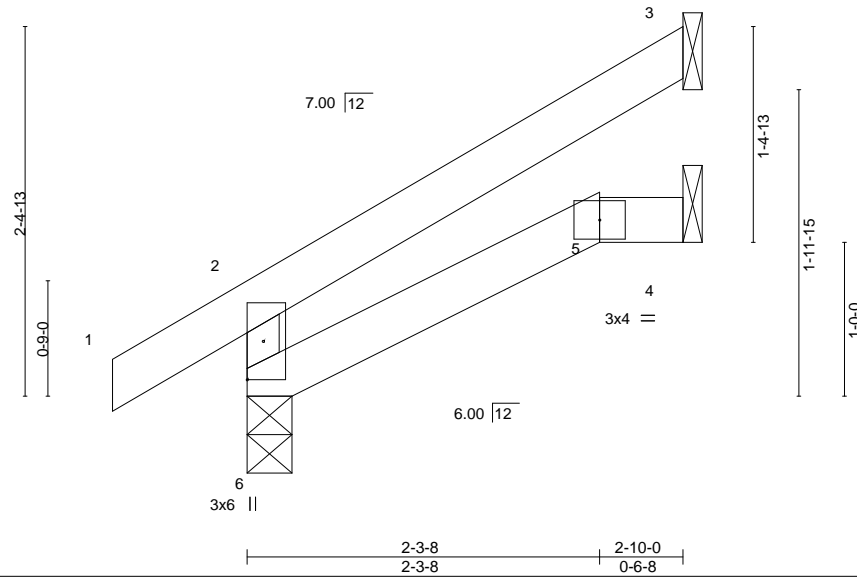
Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:15.0



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/def | L/d  | PLATES       | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|-------|------|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.11  | Vert(LL) | -0.00    | 5-6   | >999 | MT20         | 197/144  |
| TCCL 10.0     | Lumber DOL           | 1.15  | BC 0.06  | Vert(CT) | -0.01    | 5-6   | >999 |              |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.00  | Horz(CT) | -0.01    | 3     | n/a  |              |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R | Wind(LL) | 0.00     | 5-6   | >999 | Weight: 9 lb | FT = 10% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS.

(size) 6=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 6=87(LC 8)  
Max Uplift 6=-25(LC 8), 3=-67(LC 8)  
Max Grav 6=201(LC 1), 3=89(LC 15), 4=51(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.



November 18, 2020

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Chesterfield, MO 63017

|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | J41   | Jack-Open  | 1   | 1   |           | I43671149 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:50 2020 Page 1  
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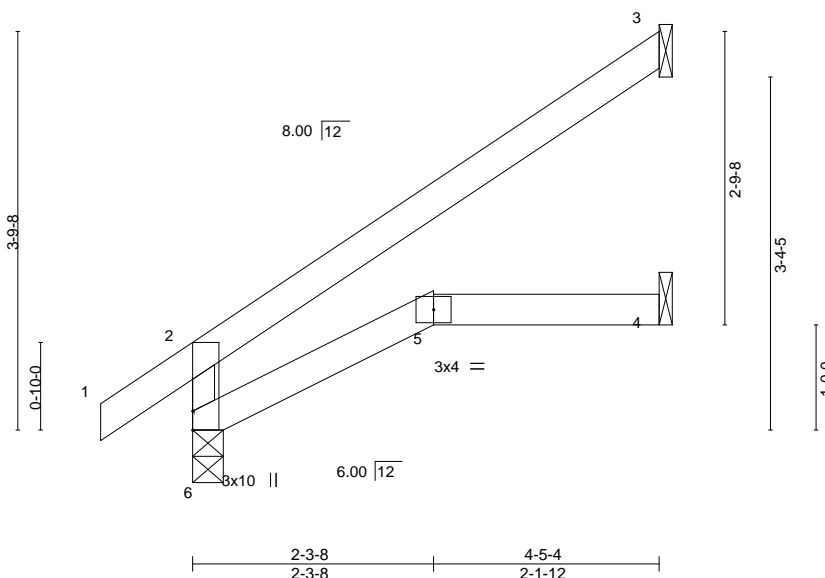


Plate Offsets (X,Y)-- [6:0-2-3,Edge]

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.28  | Vert(LL) | -0.02 | 5     | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.15  | Vert(CT) | -0.04 | 5     | >999   | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.00  | Horz(CT) | -0.03 | 3     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-R | Wind(LL) | 0.03  | 5-6   | >999   | 240 | Weight: 13 lb | FT = 10% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-5-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

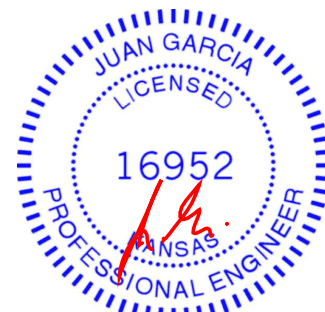
#### REACTIONS.

(size) 6=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 6=150(LC 8)  
Max Uplift 6=14(LC 8), 3=-116(LC 8)  
Max Grav 6=269(LC 1), 3=150(LC 15), 4=82(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 3=116.
- 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.



November 18, 2020

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Chesterfield, MO 63017



|       |       |                     |     |     |                          |
|-------|-------|---------------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type          | Qty | Ply | Lot 83 MN                |
| MN 83 | J42   | Diagonal Hip Girder | 2   | 1   |                          |
|       |       |                     |     |     | Job Reference (optional) |

I43671150

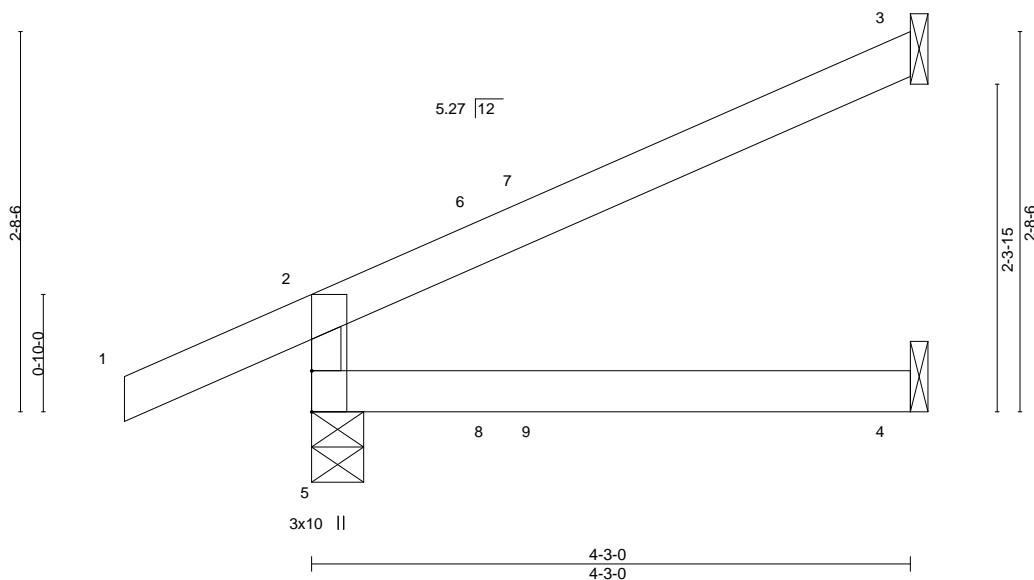
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:50 2020 Page 1  
ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-fUWT4kUI7CCf42QsN0yNH86ulb6PeOCg0icbkMyI?sJ

-1-3-15  
1-3-15

4-3-0  
4-3-0

Scale = 1:16.4



| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | I/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | 2-0-0                | TC 0.26  | Vert(LL) -0.01 | 4-5      | >999   | 360 | MT20          | 197/144  |
| TCDL 10.0     | Plate Grip DOL 1.15  | BC 0.17  | Vert(CT) -0.03 | 4-5      | >999   | 360 |               |          |
| BCLL 0.0 *    | Lumber DOL 1.15      | WB 0.00  | Horz(CT) -0.01 | 3        | n/a    | n/a |               |          |
| BCDL 10.0     | Rep Stress Incr NO   | Matrix-R | Wind(LL) 0.02  | 4-5      | >999   | 240 | Weight: 12 lb | FT = 10% |
|               | Code IRC2018/TPI2014 |          |                |          |        |     |               |          |

**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 4-3-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-4-7, 3=Mechanical, 4=Mechanical  
Max Horz 5=101(LC 8)  
Max Uplift 5=77(LC 8), 3=83(LC 8)  
Max Grav 5=298(LC 1), 3=122(LC 1), 4=77(LC 3)

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

TOP CHORD 2-5=264/101

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 90 lb down and 18 lb up at 1-4-1, and 84 lb down and 20 lb up at 1-8-2 on top chord, and 6 lb down and 8 lb up at 1-4-1, and 8 lb down and 12 lb up at 1-8-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) 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

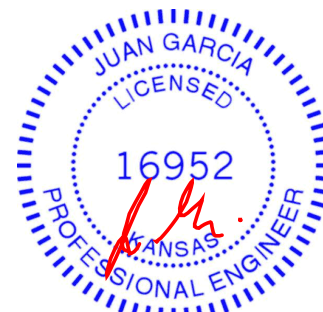
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 4-5=-20

Concentrated Loads (lb)

Vert: 8=3(F) 9=3(B)



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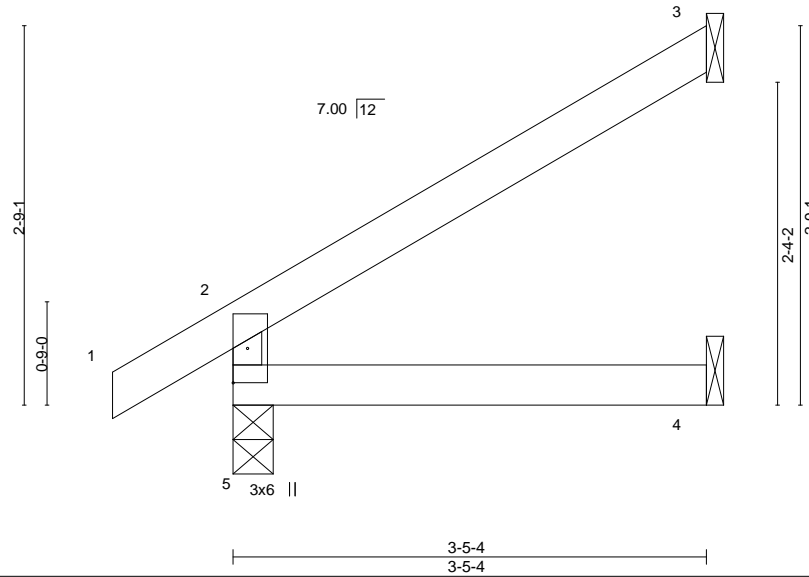
|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671151 |
| MN 83 | J43   | Jack-Open  | 3   | 1   | Job Reference (optional) |           |

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ID: XxAsF4MdGikvF3O7A2bzF0yH?NM-7h4sl4VNuWKWIC?3xjTcqMf5E?TINrSqEMM8GoyI?sl

-0-10-8 3-5-4  
0-10-8 3-5-4

Scale = 1:16.7



| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | L/def | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------------|----------|-------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 2-0-0 | TC 0.15  | Vert(LL) -0.01 | 4-5      | >999  | 360 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.09  | Vert(CT) -0.01 | 4-5      | >999  | 360 |               |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.00  | Horz(CT) -0.01 | 3        | n/a   | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-R | Wind(LL) 0.01  | 4-5      | >999  | 240 | Weight: 10 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 3-5-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=105(LC 8)  
Max Uplift 5=-29(LC 8), 3=-79(LC 8)  
Max Grav 5=226(LC 1), 3=110(LC 15), 4=62(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



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|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J44   | Jack-Open  | 2   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671152

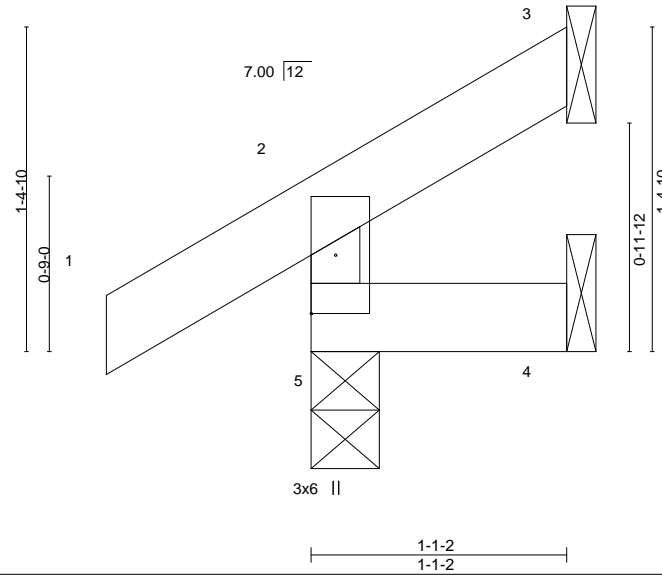
Wheeler Lumber, Waverly, KS - 66871,

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ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-7h4sl4VNuWKWic?3xjTcqMf6Y?U2NrSqEMM8Goyl?sl

-0-10-8 1-1-2  
0-10-8 1-1-2

Scale = 1:9.8



| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in    | (loc) | I/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.07  | Vert(LL) | -0.00 | 5     | >999   | 240 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.01  | Vert(CT) | -0.00 | 5     | >999   | 180 |              |          |
| 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-R |          |       |       |        |     | Weight: 4 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 1-1-2 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=42(LC 8)  
Max Uplift 5=-29(LC 8), 3=-18(LC 8), 4=-3(LC 8)  
Max Grav 5=147(LC 1), 3=12(LC 6), 4=17(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 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.



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|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | J45   | Jack-Open  | 2   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671153

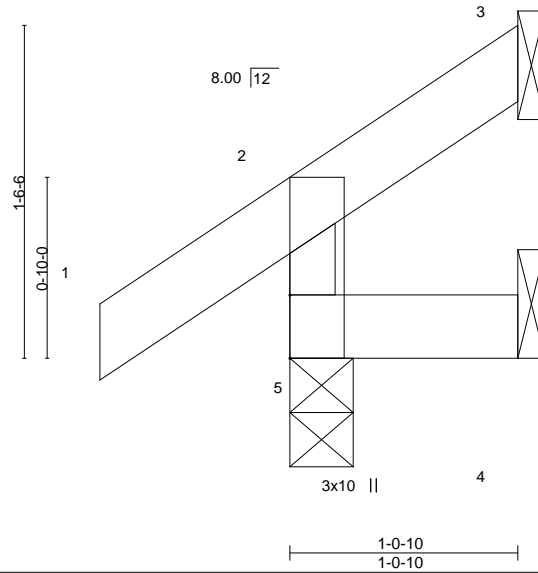
Wheeler Lumber, Waverly, KS - 66871,

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ID:XxAsF4MdGikvF3O7A2bzF0yH?NM-bteEVPV?fqTNKMaFVR?rNZCHOpC6lizT05hoEyl?sH

-0-10-8 1-0-10  
0-10-8 1-0-10

Scale = 1:10.6



| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|----------|----------------|----------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL 2-0-0 | TC 0.07  | Vert(LL) -0.00 | 5        | >999   | 240 | MT20         | 197/144  |
| TCCL 10.0     | Lumber DOL 1.15      | BC 0.02  | Vert(CT) -0.00 | 5        | >999   | 180 |              |          |
| 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-R |                |          |        |     | Weight: 4 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 1-0-10 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=46(LC 8)  
Max Uplift 5=-21(LC 8), 3=-21(LC 8), 4=-8(LC 8)  
Max Grav 5=146(LC 1), 3=13(LC 6), 4=17(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 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.



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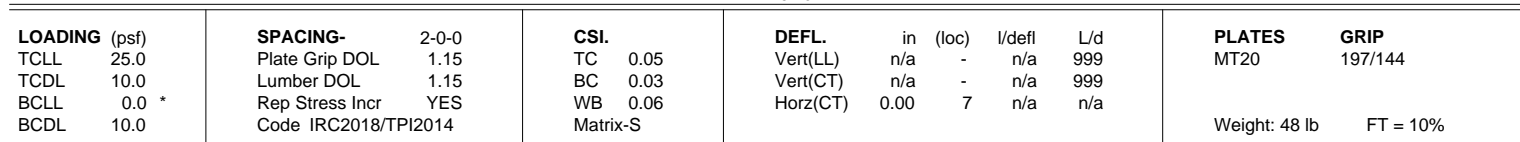


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ID:XxAsF4MdGikvF3O7A2bzF0yH?NM=?SJM8RYuyIryBpJqAZYY CgpicrhJeSQ9 KMPZyl?sE

|        |         |
|--------|---------|
| 5-8-13 | 11-5-10 |
| 5-8-13 | 5-8-13  |

Scale = 1:36.6

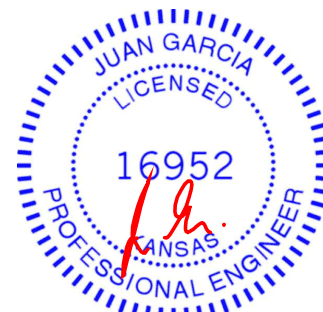


**REACTIONS.** All bearings 11-5-10.  
(lb) - Max Horz 1=174(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=161(LC 8), 12=141(LC 8), 9=160(LC 9),  
8=142(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 11=161, 12=141, 9=160, 8=142.
- 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.



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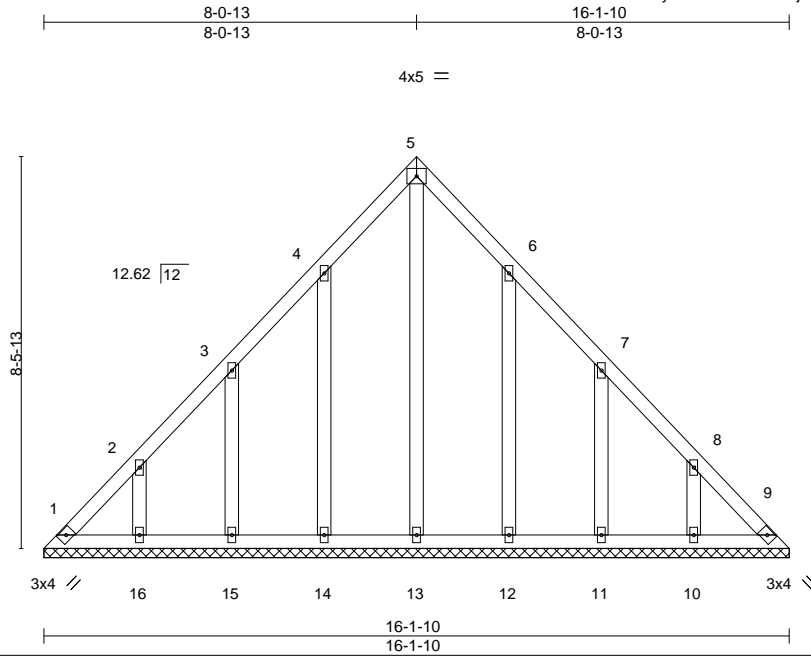


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|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | LAY3  | GABLE      | 1   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671155

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8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:56 2020 Page 1  
ID:XxAsF4MdGkvF3O7A2bzF0yH?NM-TetLnYwJ2zpozuoK3nXPM\_L0Bf23FZOe3vy?yI?sD

Scale = 1:49.9

| LOADING (psf) | SPACING-             | CSI.     | DEFL.    | in   | (loc) | l/def | L/d | PLATES        | GRIP     |
|---------------|----------------------|----------|----------|------|-------|-------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.06  | Vert(LL) | n/a  | -     | n/a   | 999 | MT20          | 197/144  |
| 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 0.22  | Horz(CT) | 0.01 | 9     | n/a   | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-S |          |      |       |       |     | Weight: 78 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.**

All bearings 16-1-10.  
 (lb) - Max Horz 1=249(LC 4)  
 Max Uplift All uplift 100 lb or less at joint(s) 9 except 1=104(LC 6), 14=154(LC 8), 15=152(LC 8),  
 16=156(LC 8), 12=152(LC 9), 11=152(LC 9), 10=156(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

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

TOP CHORD 1-2=323/209, 8-9=284/151

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 1=104, 14=154, 15=152, 16=156, 12=152, 11=152, 10=156.
- 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.



November 18, 2020

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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 design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



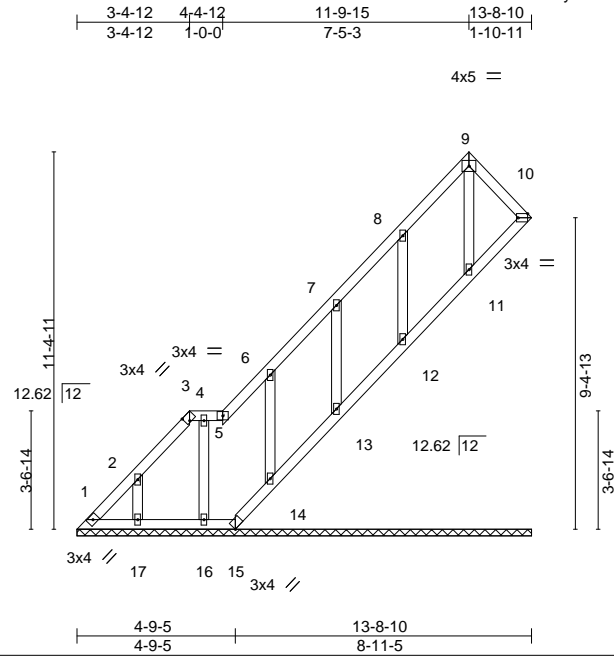
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



|                          |       |            |     |     |           |
|--------------------------|-------|------------|-----|-----|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |
| MN 83                    | LAY4  | GABLE      | 1   | 1   | I43671156 |
| Job Reference (optional) |       |            |     |     |           |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:57 2020 Page 1  
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Scale = 1:69.5

| Plate Offsets (X,Y)-- |       | [3:0-1-7,Edge], [10:Edge,0-1-8] |                 |             |      |              |          |        |     |               |             |
|-----------------------|-------|---------------------------------|-----------------|-------------|------|--------------|----------|--------|-----|---------------|-------------|
| <b>LOADING</b> (psf)  |       | <b>SPACING-</b>                 | 2-0-0           | <b>CSI.</b> |      | <b>DEFL.</b> | in (loc) | l/defl | L/d | <b>PLATES</b> | <b>GRIP</b> |
| TCLL                  | 25.0  | Plate Grip DOL                  | 1.15            | TC          | 0.07 | Vert(LL)     | n/a      | -      | n/a | MT20          | 197/144     |
| TCDL                  | 10.0  | Lumber DOL                      | 1.15            | BC          | 0.03 | Vert(CT)     | n/a      | -      | n/a |               |             |
| BCLL                  | 0.0 * | Rep Stress Incr                 | YES             | WB          | 0.07 | Horz(CT)     | -0.01    | 10     | n/a |               |             |
| BCDL                  | 10.0  | Code                            | IRC2018/TPI2014 | Matrix-S    |      |              |          |        |     | Weight: 63 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, except 2-0-0 oc purlins (6-0-0 max.): 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 10-11.

#### REACTIONS.

All bearings 13-8-10.  
(lb) - Max Horz 1=473(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 15, 11, 14 except 10=388(LC 8), 12=151(LC 8), 13=171(LC 8), 16=129(LC 8), 17=197(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 10, 15, 12, 13, 14, 16, 17 except 1=287(LC 8), 11=362(LC 8)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=407/177, 8-9=113/263, 9-10=131/289  
BOT CHORD 14-15=263/155, 13-14=263/156, 12-13=263/155, 11-12=263/155, 10-11=263/151  
WEBS 9-11=338/103

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 15, 11, 14 except (jt=lb) 10=388, 12=151, 13=171, 16=129, 17=197.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10, 11, 12, 13, 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|       |       |            |     |     |           |           |
|-------|-------|------------|-----|-----|-----------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83 | LAY5  | GABLE      | 1   | 1   |           | I43671157 |

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:10:58 2020 Page 1  
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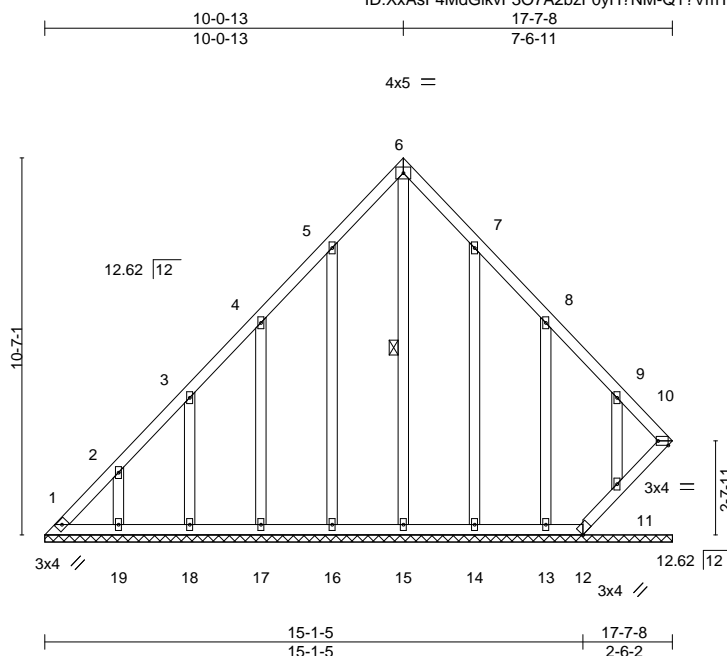


Plate Offsets (X,Y)-- [10:Edge,0-1-8]

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.07  | Vert(LL) | n/a      | -      | n/a | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.05  | Vert(CT) | n/a      | -      | n/a |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.21  | Horz(CT) | 0.01     | 10     | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |          |          |        |     | Weight: 102 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.  
WEBS 1 Row at midpt 6-15

#### REACTIONS.

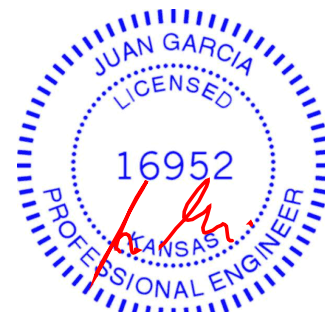
All bearings 17-7-8.  
(lb) - Max Horz 1=304(LC 5)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=135(LC 6), 10=185(LC 7), 12=215(LC 9), 16=150(LC 8), 17=155(LC 8), 18=149(LC 8), 19=157(LC 8), 14=147(LC 9), 13=164(LC 9), 11=134(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 12, 15, 16, 17, 18, 19, 14, 13, 11 except 1=308(LC 8), 10=395(LC 9)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=447/253, 2-3=306/199, 9-10=263/153  
BOT CHORD 11-12=160/309, 10-11=166/304

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 135 lb uplift at joint 1, 185 lb uplift at joint 10, 215 lb uplift at joint 12, 150 lb uplift at joint 16, 155 lb uplift at joint 17, 149 lb uplift at joint 18, 157 lb uplift at joint 19, 147 lb uplift at joint 14, 164 lb uplift at joint 13 and 134 lb uplift at joint 11.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10, 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 18,2020

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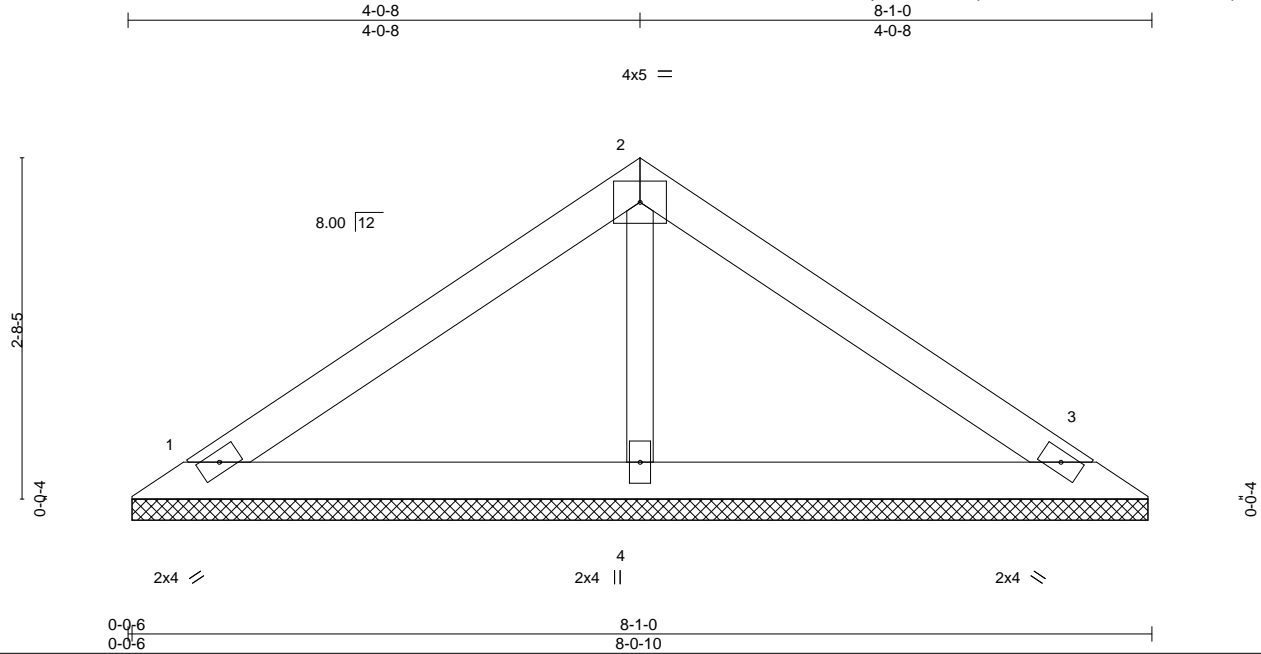
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671158 |
| MN 83 | V1    | Valley     | 1   | 1   | Job Reference (optional) |           |

Wheeler Lumber, Waverly, KS - 66871,

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|                      |                      |          |             |              |      |       |        |     |               |             |
|----------------------|----------------------|----------|-------------|--------------|------|-------|--------|-----|---------------|-------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | 2'-0"-0" | <b>CSI.</b> | <b>DEFL.</b> | in   | (loc) | l/defl | L/d | <b>PLATES</b> | <b>GRIP</b> |
| TCLL 25.0            | Plate Grip DOL       | 1.15     | TC 0.23     | Vert(LL)     | n/a  | -     | n/a    | 999 | MT20          | 197/144     |
| TCDL 10.0            | Lumber DOL           | 1.15     | BC 0.11     | Vert(CT)     | n/a  | -     | n/a    | 999 |               |             |
| BCLL 0.0 *           | Rep Stress Incr      | YES      | WB 0.04     | Horz(CT)     | 0.00 | 3     | n/a    | n/a |               |             |
| BCDL 10.0            | Code IRC2018/TPI2014 |          | Matrix-P    |              |      |       |        |     | Weight: 21 lb | FT = 20%    |

#### 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=8'-0"-4, 3=8'-0"-4, 4=8'-0"-4  
Max Horz 1=-72(LC 4)  
Max Uplift 1=-53(LC 8), 3=-62(LC 9), 4=-8(LC 8)  
Max Grav 1=180(LC 1), 3=180(LC 1), 4=280(LC 1)

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

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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'-6"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 1, 62 lb uplift at joint 3 and 8 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.



November 18, 2020

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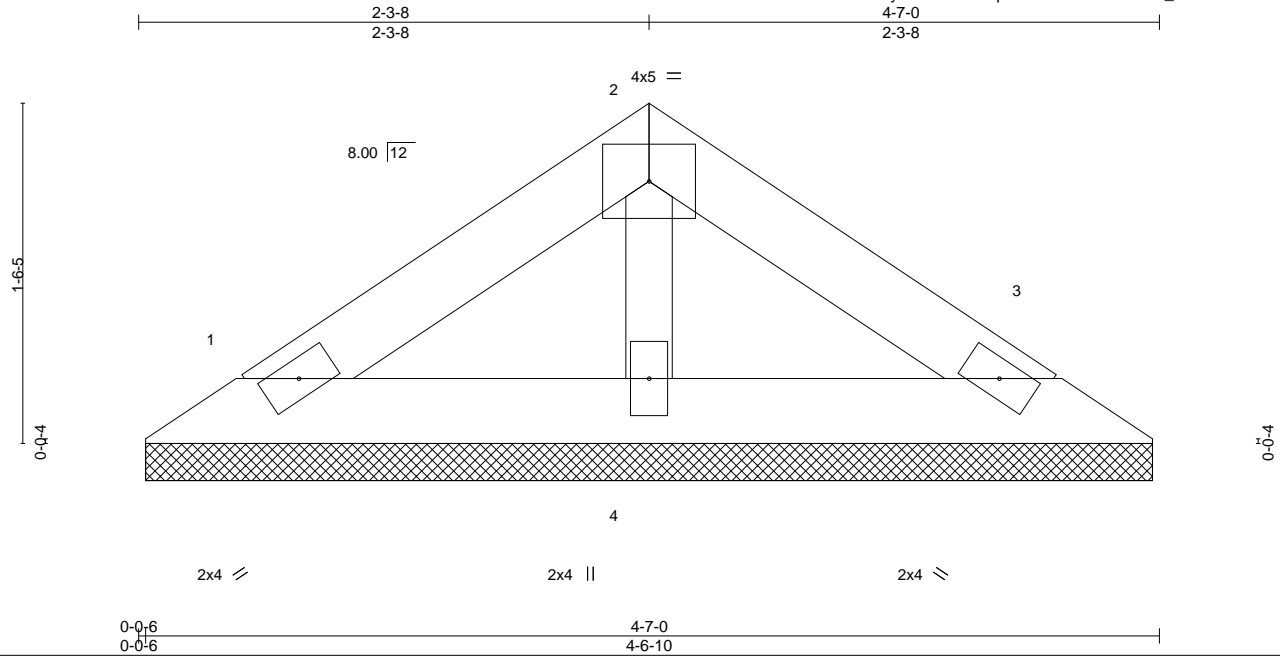


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | V2    | Valley     | 1   | 1   |           | I43671159 |
| Job Reference (optional) |       |            |     |     |           |           |

Wheeler Lumber, Waverly, KS - 66871,

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|                      |       |                      |       |             |      |              |       |               |      |             |  |
|----------------------|-------|----------------------|-------|-------------|------|--------------|-------|---------------|------|-------------|--|
| <b>LOADING</b> (psf) |       | <b>SPACING-</b>      |       | <b>CSI.</b> |      | <b>DEFL.</b> |       | <b>PLATES</b> |      | <b>GRIP</b> |  |
| TCLL                 | 25.0  | Plate Grip DOL       | 2-0-0 | TC          | 0.05 | in (loc)     | l/def | L/d           | MT20 | 197/144     |  |
| TCDL                 | 10.0  | Lumber DOL           | 1.15  | BC          | 0.03 | Vert(LL)     | n/a   | 999           |      |             |  |
| BCLL                 | 0.0 * | Rep Stress Incr      | YES   | WB          | 0.02 | Vert(CT)     | n/a   | 999           |      |             |  |
| BCDL                 | 10.0  | Code IRC2018/TPI2014 |       | Matrix-P    |      | Horz(CT)     | 0.00  | n/a           |      |             |  |
|                      |       |                      |       |             |      |              |       | Weight: 11 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 4-7-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=4-6-4, 3=4-6-4, 4=4-6-4  
Max Horz 1=36(LC 7)  
Max Uplift 1=27(LC 8), 3=31(LC 9), 4=4(LC 8)  
Max Grav 1=92(LC 1), 3=92(LC 1), 4=142(LC 1)

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

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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 4 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.



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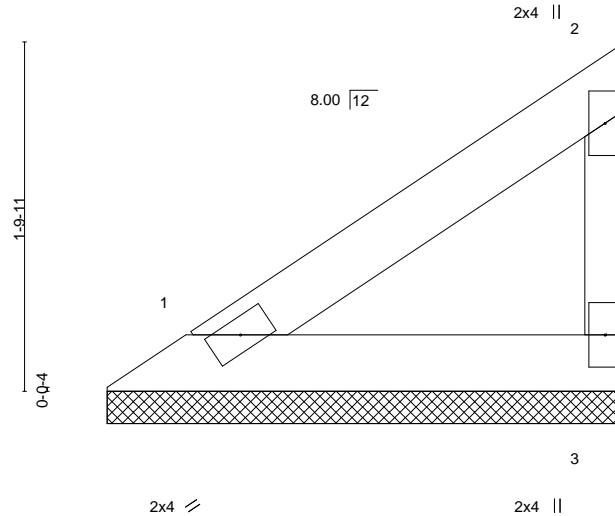
|       |       |            |     |     |                          |
|-------|-------|------------|-----|-----|--------------------------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                |
| MN 83 | V3    | Valley     | 1   | 1   |                          |
|       |       |            |     |     | Job Reference (optional) |

I43671160

Wheeler Lumber, Waverly, KS - 66871,

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2-8-8  
2-8-8

Scale: 1"=1'

| LOADING (psf) | SPACING-             |       | CSI.     |  | DEFL.    | in    | (loc) | I/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|-------|----------|--|----------|-------|-------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.08  |  | Vert(LL) | n/a   | -     | n/a    | 999 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.04  |  | Vert(CT) | n/a   | -     | n/a    | 999 |              |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.00  |  | Horz(CT) | -0.00 | 3     | n/a    | n/a |              |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P |  |          |       |       |        |     | Weight: 7 lb | FT = 10% |

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-8-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

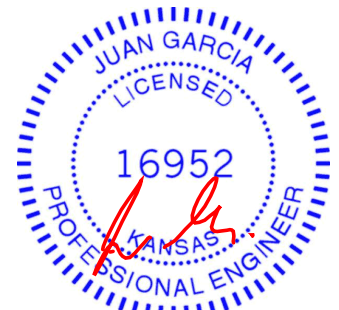
**REACTIONS.**

(size) 1=2-8-2, 3=2-8-2  
 Max Horz 1=65(LC 5)  
 Max Uplift 1=-13(LC 8), 3=-36(LC 8)  
 Max Grav 1=95(LC 1), 3=106(LC 15)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 36 lb uplift at joint 3.
- 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.



November 18, 2020

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 Chesterfield, MO 63017

|                          |       |            |     |     |           |           |
|--------------------------|-------|------------|-----|-----|-----------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | Lot 83 MN |           |
| MN 83                    | V4    | Valley     | 1   | 1   |           | I43671161 |
| Job Reference (optional) |       |            |     |     |           |           |

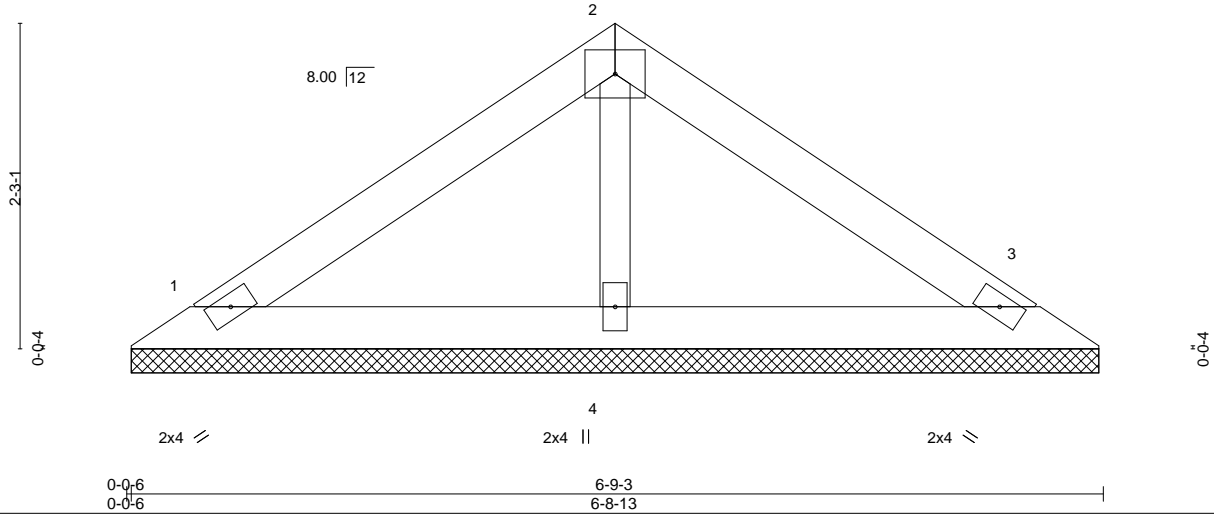
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 18 08:11:00 2020 Page 1  
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3-4-10 3-4-10 6-9-3 3-4-9

4x5 =

Scale: 3/4"=1'



| LOADING (psf) | SPACING-             |       | CSI.     | DEFL.    | in   | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 2-0-0 | TC 0.15  | Vert(LL) | n/a  | -     | n/a    | 999 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.07  | Vert(CT) | n/a  | -     | n/a    | 999 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.03  | Horz(CT) | 0.00 | 3     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P |          |      |       |        |     | Weight: 17 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=6-8-7, 3=6-8-7, 4=6-8-7  
Max Horz 1=-58(LC 4)  
Max Uplift 1=-43(LC 8), 3=-50(LC 9), 4=-6(LC 8)  
Max Grav 1=147(LC 1), 3=147(LC 1), 4=228(LC 1)

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

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 1, 50 lb uplift at joint 3 and 6 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.



November 18,2020

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

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



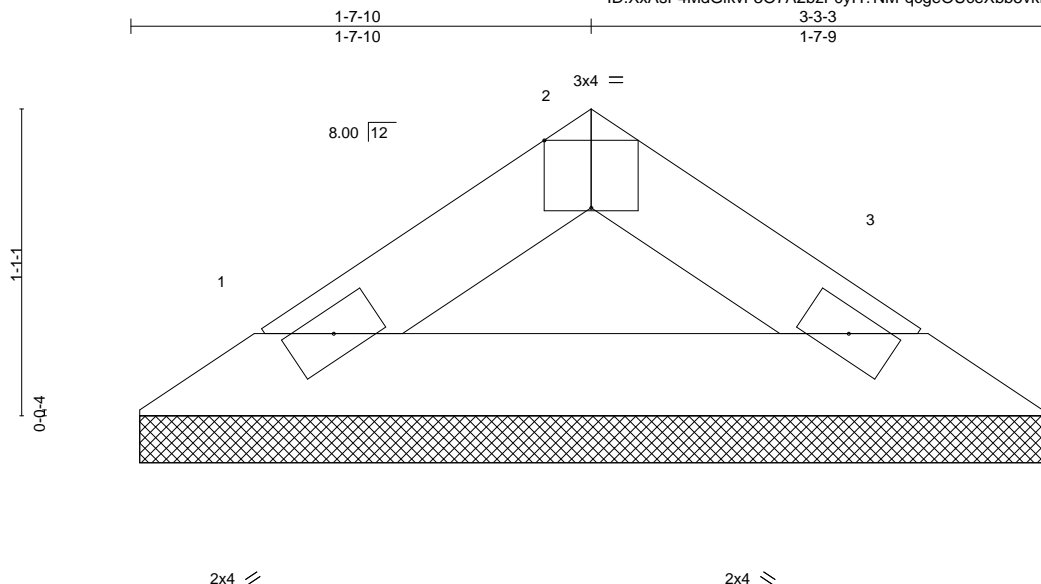
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



|       |       |            |     |     |                          |           |
|-------|-------|------------|-----|-----|--------------------------|-----------|
| Job   | Truss | Truss Type | Qty | Ply | Lot 83 MN                | I43671162 |
| MN 83 | V5    | Valley     | 1   | 1   | Job Reference (optional) |           |

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Scale = 1:8.2

| Plate Offsets (X,Y)-- |       | [2:0-2:0,Edge]       |       | 3-3-3       |      | 3-2-13        |                     |
|-----------------------|-------|----------------------|-------|-------------|------|---------------|---------------------|
| <b>LOADING</b> (psf)  |       | <b>SPACING-</b>      | 2-0-0 | <b>CSI.</b> |      | <b>DEFL.</b>  | in (loc) l/defl L/d |
| TCLL                  | 25.0  | Plate Grip DOL       | 1.15  | TC          | 0.02 | Vert(LL)      | n/a - n/a 999       |
| 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          | 0.00 | Horz(CT)      | 0.00 3 n/a n/a      |
| BCDL                  | 10.0  | Code IRC2018/TPI2014 |       | Matrix-P    |      |               |                     |
|                       |       |                      |       |             |      | <b>PLATES</b> | <b>GRIP</b>         |
|                       |       |                      |       |             |      | MT20          | 197/144             |
|                       |       |                      |       |             |      | Weight: 7 lb  | FT = 10%            |

#### LUMBER-

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

#### BRACING-

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

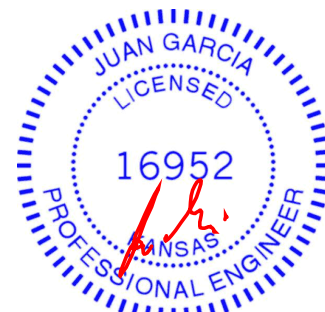
#### REACTIONS.

(size) 1=3-2-7, 3=3-2-7  
Max Horz 1=-23(LC 6)  
Max Uplift 1=-18(LC 8), 3=-18(LC 9)  
Max Grav 1=104(LC 1), 3=104(LC 1)

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

#### 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=50ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 18 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 18,2020

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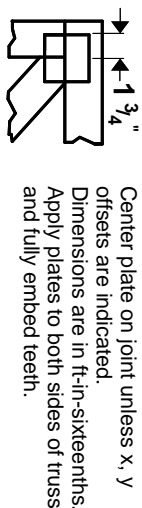


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# Symbols

## 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.

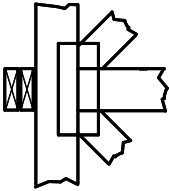
## PLATE SIZE

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

## LATERAL BRACING LOCATION



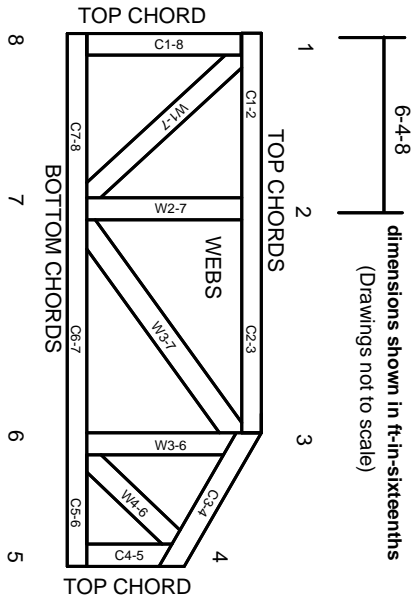
## BEARING



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

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

# Numbering System



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

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

## PRODUCT CODE APPROVALS

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

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

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

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



# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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