



**MiTek USA, Inc.**

16023 Swingley Ridge Rd  
Chesterfield, MO 63017  
314-434-1200

Re: 2818720  
SUMMIT/STONE CREEK #90/MO

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource (Valley Center).

Pages or sheets covered by this seal: I46417933 thru I46417974

My license renewal date for the state of Missouri is December 31, 2021.

Missouri COA: Engineering 001193



June 4, 2021

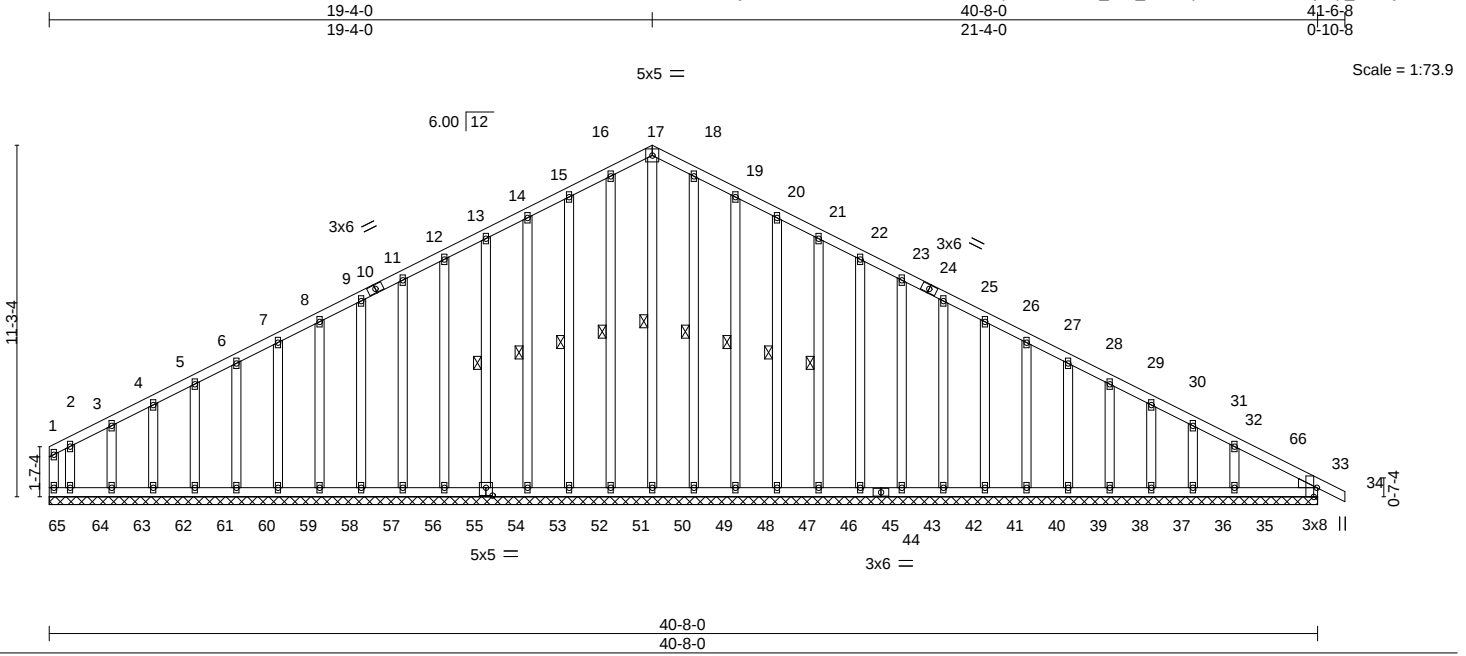
Sevier, Scott ,Engineer

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

|         |       |                        |     |     |                           |           |
|---------|-------|------------------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type             | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417933 |
| 2818720 | A1    | Common Supported Gable | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:44:00 2021 Page 1  
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|                       |      |                                   |      |          |      |                           |      |             |     |     |                |          |
|-----------------------|------|-----------------------------------|------|----------|------|---------------------------|------|-------------|-----|-----|----------------|----------|
| Plate Offsets (X,Y)-- |      | [33:0-3-8,Edge], [54:0-2-8,0-3-0] |      |          |      |                           |      |             |     |     |                |          |
| LOADING (psf)         |      | SPACING- 2-0-0                    |      | CSI.     |      | DEFL. in (loc) l/defl L/d |      | PLATES GRIP |     |     |                |          |
| TCLL                  | 25.0 | Plate Grip DOL                    | 1.15 | TC       | 0.11 | Vert(LL)                  | 0.00 | 33          | n/r | 120 | MT20           | 197/144  |
| TCDL                  | 10.0 | Lumber DOL                        | 1.15 | BC       | 0.08 | Vert(CT)                  | 0.00 | 34          | n/r | 120 |                |          |
| BCLL                  | 0.0  | Rep Stress Incr                   | YES  | WB       | 0.15 | Horz(CT)                  | 0.01 | 33          | n/a | n/a |                |          |
| BCDL                  | 10.0 | Code IRC2018/TPI2014              |      | Matrix-S |      |                           |      |             |     |     | Weight: 297 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
OTHERS 2x4 SPF No.2  
WEDGE  
Right: 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 17-50, 16-51, 15-52, 14-53, 13-54, 18-49, 19-48, 20-47, 21-46

**REACTIONS.**

All bearings 40-8-0.  
(lb) - Max Horz 65=203(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 49, 48, 47, 46, 45, 43, 42, 41, 40, 39, 38, 37, 36, 35, 33 except 65=129(LC 10), 64=291(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 49, 48, 47, 46, 45, 43, 42, 41, 40, 39, 38, 37, 36, 35, 33 except 65=299(LC 12)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 11-12=102/263, 12-13=114/297, 13-14=126/330, 14-15=137/364, 15-16=152/404, 16-17=155/417, 17-18=155/417, 18-19=152/404, 19-20=137/364, 20-21=126/330, 21-22=114/297, 22-23=102/263  
WEBS 17-50=-274/70

**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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 3-4-0, Exterior(2N) 3-4-0 to 19-4-0, Corner(3R) 19-4-0 to 22-4-0, Exterior(2N) 22-4-0 to 41-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 49, 48, 47, 46, 45, 43, 42, 41, 40, 39, 38, 37, 36, 35, 33 except (jt=lb) 65=129, 64=291.
- 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.



June 4, 2021

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                |             |                            |          |          |                                        |
|----------------|-------------|----------------------------|----------|----------|----------------------------------------|
| Job<br>2818720 | Truss<br>A2 | Truss Type<br>Roof Special | Qty<br>6 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>146417934 |
|----------------|-------------|----------------------------|----------|----------|----------------------------------------|

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Valley Center, KS - 67147,

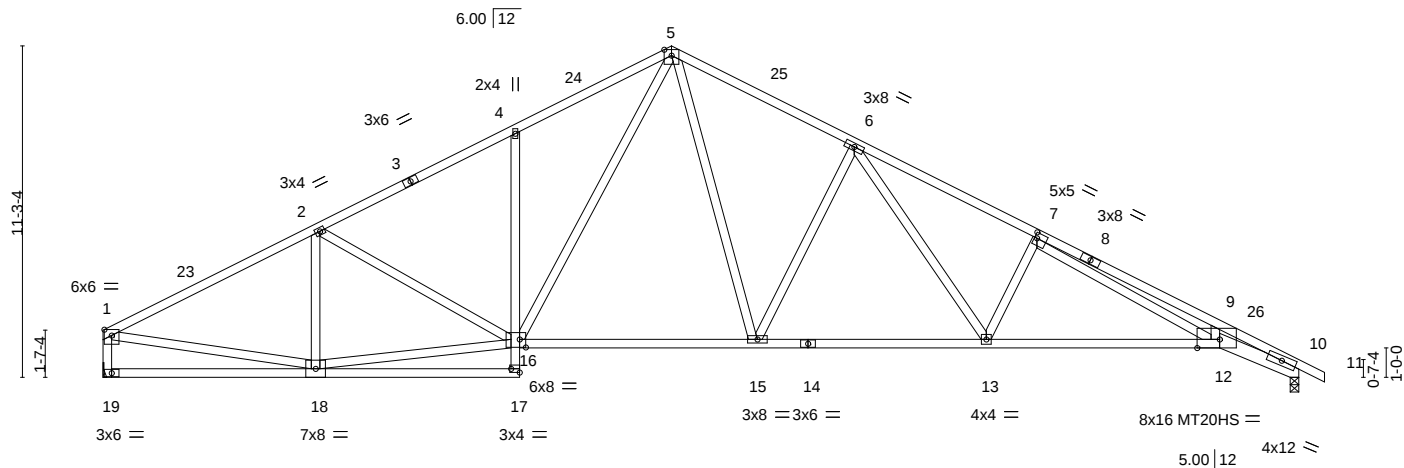
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:44:40 2021 Page 1

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|        |        |        |        |        |          |        |        |
|--------|--------|--------|--------|--------|----------|--------|--------|
| 7-2-12 | 14-2-0 | 19-4-0 | 25-6-9 | 31-9-2 | 37-11-11 | 40-8-0 | 41-6-8 |
| 7-2-12 | 6-11-4 | 5-2-0  | 6-2-9  | 6-2-9  | 6-2-9    | 2-8-5  | 0-10-8 |

6x6 =

Scale = 1:78.4



|        |        |        |        |          |        |
|--------|--------|--------|--------|----------|--------|
| 7-2-12 | 14-2-0 | 22-1-4 | 30-0-7 | 37-11-11 | 40-8-0 |
| 7-2-12 | 6-11-4 | 7-11-4 | 7-11-4 | 7-11-4   | 2-8-5  |

Plate Offsets (X, Y)-- [7:0-1-0,0-2-4], [12:0-9-3,Edge], [16:0-2-8,0-3-4], [17: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 1.00   | Vert(LL) | -0.46    | 12-13  | >999 | 240            | MT20     |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.95   | Vert(CT) | -0.90    | 12-13  | >538 | 180            | MT20HS   |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.95   | Horz(CT) | 0.32     | 10     | n/a  | n/a            |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |          |        |      |                |          |
|               |                      |       |           |          |          |        |      | Weight: 199 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
5-8: 2x4 SPF 1650F 1.5E, 8-11: 2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
10-12: 2x6 SPF 2100F 1.8E, 12-14: 2x4 SPF 1650F 1.5E  
WEBS 2x4 SPF No.2  
OTHERS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 19=Mechanical, 10=0-3-8  
Max Horz 19=204(LC 17)  
Max Uplift 19=289(LC 12), 10=327(LC 13)  
Max Grav 19=1823(LC 1), 10=1885(LC 1)

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

TOP CHORD 1-2=-2612/413, 2-4=-2687/473, 4-5=-2666/589, 5-6=-2487/509, 6-7=-3621/646,  
7-9=-6800/1196, 9-10=-7062/1092, 1-19=-1747/314  
BOT CHORD 18-19=-184/309, 4-16=-434/238, 15-16=-148/1856, 13-15=-230/2545, 12-13=-427/3474,  
10-12=-938/6395  
WEBS 2-18=-579/173, 16-18=-396/2166, 5-16=-343/991, 5-15=-249/1026, 6-15=-924/348,  
6-13=-239/1087, 7-13=-768/286, 7-12=-590/3031, 9-12=0/388, 1-18=-255/2075

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 19-4-0, Exterior(2R) 19-4-0 to 22-4-0, Interior(1) 22-4-0 to 41-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=289, 10=327.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 4, 2021

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|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417935 |
| 2818720 | A3    | ROOF SPECIAL | 1   | 1   |                           |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

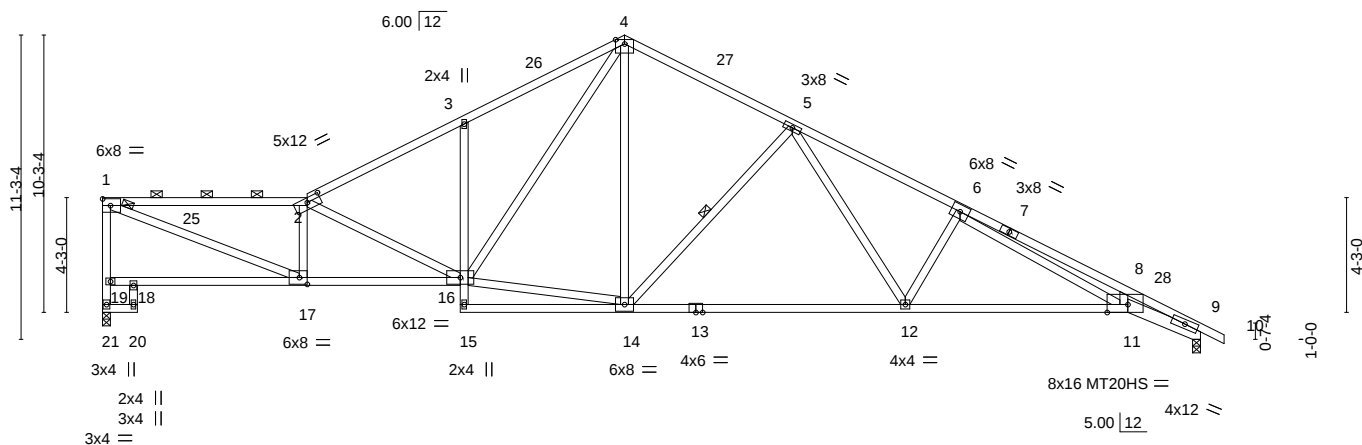
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|       |        |        |        |        |        |          |        |
|-------|--------|--------|--------|--------|--------|----------|--------|
| 1-3-8 | 7-6-15 | 13-3-0 | 19-4-0 | 25-6-9 | 31-9-2 | 37-11-11 | 40-8-0 |
| 1-3-8 | 6-3-7  | 5-8-1  | 6-1-0  | 6-2-9  | 6-2-9  | 6-2-9    | 2-8-5  |

6x8 =

Scale = 1:85.3



|       |        |        |        |         |          |        |
|-------|--------|--------|--------|---------|----------|--------|
| 1-3-8 | 7-6-15 | 13-3-0 | 19-4-0 | 29-8-13 | 37-11-11 | 40-8-0 |
| 1-3-8 | 6-3-7  | 5-8-1  | 6-1-0  | 10-4-13 | 8-2-14   | 2-8-5  |

Plate Offsets (X,Y)-- [2:0-6-0,0-1-15], [11:0-9-3,Edge], [17:0-3-8,0-3-0]

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc)    | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 1.00   | Vert(LL) | -0.49 11-12 | >997   | 240 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.95   | Vert(CT) | -0.93 11-12 | >522   | 180 | MT20HS         | 148/108  |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.94   | Horz(CT) | 0.37 9      | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |             |        |     |                |          |
|               |                      |       |           |          |             |        |     | Weight: 201 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E \*Except\*  
2-4: 2x4 SPF No.2, 4-7: 2x4 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
9-11: 2x6 SPF 2100F 1.8E, 11-13: 2x4 SPF 1650F 1.5E  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-2-10 max.): 1-2.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-14

#### REACTIONS.

(size) 21=0-3-8, 9=0-3-8  
Max Horz 21=-266(LC 8)  
Max Uplift 21=-303(LC 12), 9=-332(LC 13)  
Max Grav 21=1823(LC 1), 9=1885(LC 1)

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

TOP CHORD 19-21=-1779/287, 1-19=-1731/322, 1-2=-3670/536, 2-3=-3177/507, 3-4=-3145/620,  
4-5=-2207/459, 5-6=-3575/636, 6-8=-6797/1222, 8-9=-7060/1120  
BOT CHORD 18-19=-11/322, 17-18=-82/338, 16-17=-525/3732, 3-16=-401/239, 12-14=-220/2537,  
11-12=-435/3478, 9-11=-965/6393  
WEBS 1-17=-572/3814, 2-17=-1318/297, 2-16=-1107/220, 14-16=-100/1789, 4-16=-388/1538,  
4-14=-189/674, 5-14=-979/348, 5-12=-207/1080, 6-12=-770/289, 6-11=-608/3024,  
8-11=0/381

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 19-4-0, Exterior(2R) 19-4-0 to 22-4-0, Interior(1) 22-4-0 to 41-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=303, 9=332.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 4, 2021

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|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417936 |
| 2818720 | A4    | ROOF SPECIAL | 1   | 1   |                           |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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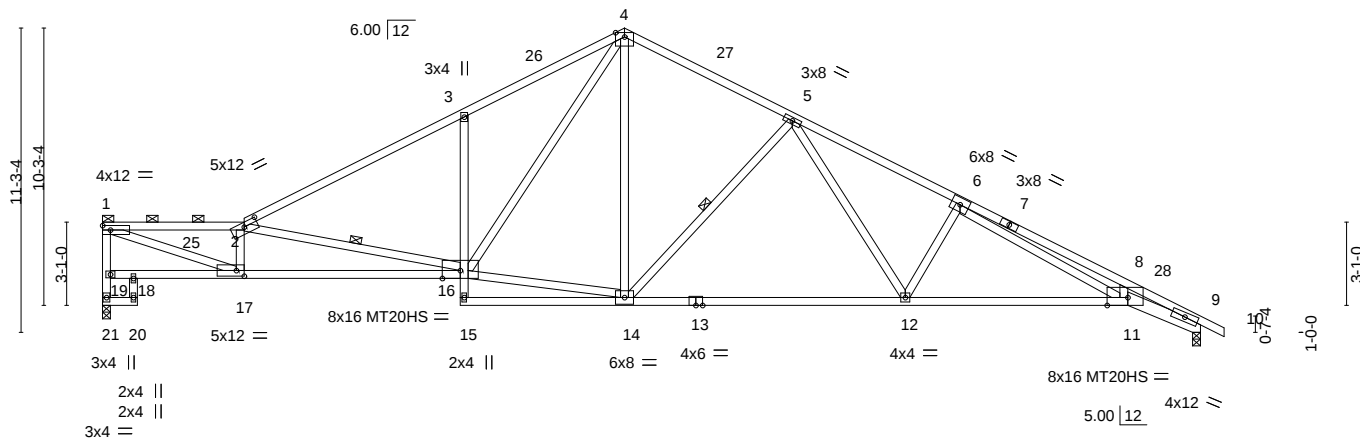
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Job Reference (optional)

1-3-8 5-2-15 13-3-0 19-4-0 25-6-9 31-9-2 37-11-11 40-8-0 41-6-8  
1-3-8 3-11-7 8-0-1 6-1-0 6-2-9 6-2-9 6-2-9 2-8-5 0-10-8

6x8 =

Scale = 1:85.3



1-3-8 5-2-15 13-3-0 19-4-0 29-8-13 37-11-11 40-8-0  
1-3-8 3-11-7 8-0-1 6-1-0 10-4-13 8-2-14 2-8-5

Plate Offsets (X,Y)-- [2:0-6-0,0-1-15], [11:0-9-3,Edge], [17:0-3-8,0-2-8]

| 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 1.00   | Vert(LL) | -0.50 11-12 | >982   | 240 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.95   | Vert(CT) | -0.95 11-12 | >514   | 180 | MT20HS         | 148/108  |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.84   | Horz(CT) | 0.43 9      | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |             |        |     |                |          |
|               |                      |       |           |          |             |        |     | Weight: 195 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E \*Except\*  
1-2: 2x4 SPF No.2, 7-10: 2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
16-19,11-13: 2x4 SPF 1650F 1.5E, 9-11: 2x6 SPF 2100F 1.8E  
WEBS 2x4 SPF No.2 \*Except\*  
1-17: 2x4 SPF 1650F 1.5E

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-4-1 max.): 1-2.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 2-16, 5-14

#### REACTIONS.

(size) 21=0-3-8, 9=0-3-8  
Max Horz 21=-233(LC 8)  
Max Uplift 21=-298(LC 12), 9=-332(LC 13)  
Max Grav 21=1823(LC 1), 9=1885(LC 1)

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

TOP CHORD 19-21=-1783/299, 1-19=-1746/302, 1-2=-4356/671, 2-3=-3253/499, 3-4=-3183/640,  
4-5=-2206/459, 5-6=-3575/636, 6-8=-6798/1223, 8-9=-7061/1122  
BOT CHORD 18-19=-67/309, 17-18=-87/342, 16-17=-732/4467, 3-16=-526/304, 12-14=-227/2538,  
11-12=-436/3477, 9-11=-966/6393  
WEBS 1-17=-693/4476, 2-17=-1433/313, 2-16=-1711/372, 14-16=-75/1821, 4-16=-422/1586,  
4-14=-194/667, 5-14=-983/349, 5-12=-207/1079, 6-12=-768/289, 6-11=-608/3026,  
8-11=0/381

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 19-4-0, Exterior(2R) 19-4-0 to 22-4-0, Interior(1) 22-4-0 to 41-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=298, 9=332.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 4, 2021

**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 | SUMMIT/STONE CREEK #90/MO | 146417937 |
| 2818720 | A5    | ROOF SPECIAL | 1   | 1   |                           |           |

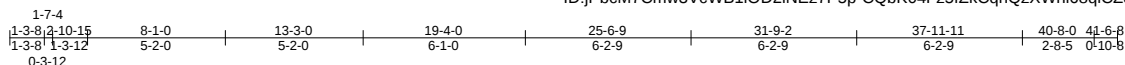
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

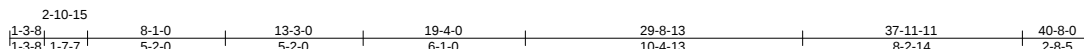
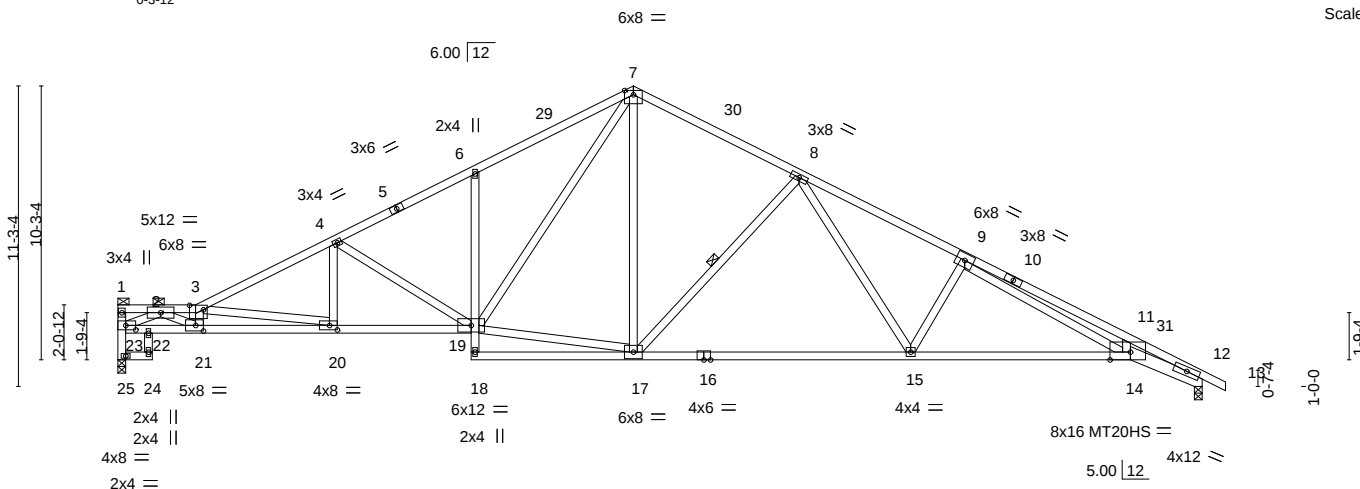
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:44:51 2021 Page 1

ID:jPbcM7Cmw3VcWB1iOD2INEz7P5p-CQbK04Fz5fZkCqhQzXWni68qlCZ3cTUS0DgBs0z9yvA

Job Reference (optional)



Scale = 1:86.4



|                                                                                                              |      |                       |      |             |      |                                  |       |       |               |     |                |          |
|--------------------------------------------------------------------------------------------------------------|------|-----------------------|------|-------------|------|----------------------------------|-------|-------|---------------|-----|----------------|----------|
| Plate Offsets (X,Y)-- [3:0-6-4,0-2-0], [14:0-9-3,Edge], [20:0-3-8,0-2-0], [21:0-3-8,0-2-8], [23:0-4-8,0-2-0] |      |                       |      |             |      |                                  |       |       |               |     |                |          |
| <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          | 1.00 | Vert(LL)                         | -0.49 | 14-15 | >983          | 240 | MT20           | 197/144  |
| TCDL                                                                                                         | 10.0 | Lumber DOL            | 1.15 | BC          | 0.95 | Vert(CT)                         | -0.94 | 14-15 | >515          | 180 | MT20HS         | 148/108  |
| BCLL                                                                                                         | 0.0  | Rep Stress Incr       | YES  | WB          | 0.96 | Horz(CT)                         | 0.48  | 12    | n/a           | n/a |                |          |
| BCDL                                                                                                         | 10.0 | Code IRC2018/TPI2014  |      | Matrix-AS   |      |                                  |       |       |               |     | Weight: 201 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
7-10: 2x4 SPF 1650F 1.5E, 10-13: 2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
19-23: 2x4 SP 2400F 2.0E, 12-14: 2x6 SPF 2100F 1.8E  
14-16: 2x4 SPF 1650F 1.5E  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-1-3 max.): 1-3.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 8-17

#### REACTIONS.

(size) 25=0-3-8, 12=0-3-8  
Max Horz 25=225(LC 13)  
Max Uplift 25=295(LC 12), 12=332(LC 13)  
Max Grav 25=1823(LC 1), 12=1885(LC 1)

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

TOP CHORD 23-25=1778/315, 3-4=4037/636, 4-6=3139/511, 6-7=3132/641, 7-8=2207/459,  
8-9=3575/637, 9-11=6797/1224, 11-12=7060/1122, 1-2=342/88, 2-3=5979/1032  
BOT CHORD 22-23=611/3215, 21-22=633/3190, 20-21=1052/5674, 19-20=591/3579, 6-19=400/228,  
15-17=232/2537, 14-15=436/3478, 12-14=967/6393  
WEBS 3-21=1638/319, 3-20=2118/466, 4-20=38/522, 4-19=1000/269, 17-19=110/1745,  
7-19=418/1519, 7-17=190/678, 8-17=978/348, 8-15=207/1080, 9-15=770/289,  
9-14=608/3024, 11-14=0/381, 2-21=541/3154, 2-23=3250/527

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-10-15, Interior(1) 2-10-15 to 19-4-0, Exterior(2R) 19-4-0 to 22-4-0, Interior(1) 22-4-0 to 41-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Bearing at joint(s) 25, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 25=295, 12=332.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 4, 2021

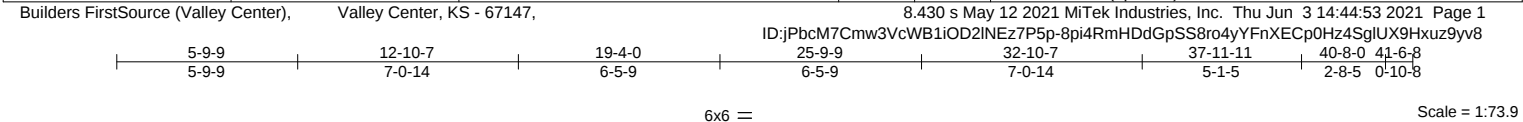
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417938 |
| 2818720 | A6    | ROOF SPECIAL | 1   | 1   | Job Reference (optional)  |           |



|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Plate Offsets (X,Y)-- | [1:0-3-8,Edge], [8:0-3-5,0-1-12], [12:0-9-3,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 0.84   | Vert(LL) | -0.34 12-13 | >999   | 240 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.80   | Vert(CT) | -0.62 12-13 | >783   | 180 | MT20HS         | 148/108  |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.59   | Horz(CT) | 0.28 10     | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |             |        |     |                |          |
|               |                      |       |           |          |             |        |     | Weight: 194 lb | FT = 20% |

|                                                                                        |                                                       |
|----------------------------------------------------------------------------------------|-------------------------------------------------------|
| <b>LUMBER-</b>                                                                         | <b>BRACING-</b>                                       |
| TOP CHORD 2x4 SPF No.2 *Except*<br>7-11: 2x4 SP 2400F 2.0E                             | TOP CHORD Structural wood sheathing directly applied. |
| BOT CHORD 2x4 SP 2400F 2.0E *Except*<br>10-12: 2x6 SPF 2100F 1.8E, 15-17: 2x4 SPF No.2 | BOT CHORD Rigid ceiling directly applied.             |
| WEBS 2x4 SPF No.2                                                                      | WEBS 1 Row at midpt 4-16, 6-16, 8-14                  |
| WEDGE<br>Left: 2x4 SPF No.2                                                            |                                                       |

|                   |                                          |
|-------------------|------------------------------------------|
| <b>REACTIONS.</b> | (size) 1=0-3-8, 10=0-3-8                 |
|                   | Max Horz 1=-226(LC 13)                   |
|                   | Max Uplift 1=-294(LC 12), 10=-333(LC 13) |
|                   | Max Grav 1=1829(LC 1), 10=1892(LC 1)     |

|                |                                                                                                                                                     |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>FORCES.</b> | (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.                                                                        |
| TOP CHORD      | 1-2=-3312/529, 2-4=-2840/486, 4-5=-2219/467, 5-6=-2215/463, 6-8=-3031/506,<br>8-9=-6498/1140, 9-10=-6763/1080                                       |
| BOT CHORD      | 1-19=-539/2876, 18-19=-539/2876, 16-18=-347/2451, 14-16=-235/2607, 13-14=-493/3756,<br>12-13=-493/3758, 10-12=-921/6100                             |
| WEBS           | 2-18=-510/212, 4-18=-29/423, 4-16=-840/297, 5-16=-246/1468, 6-16=-1042/333,<br>6-14=-75/641, 8-14=-1263/335, 8-13=0/339, 9-12=0/331, 8-12=-480/2423 |

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 19-4-0, Exterior(2R) 19-4-0 to 22-4-0, Interior(1) 22-4-0 to 41-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - Bearing at joint(s) 10 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) 1=294, 10=333.
  - 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 4,2021

|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417939 |
| 2818720 | A7    | Roof Special | 1   | 1   |                           |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

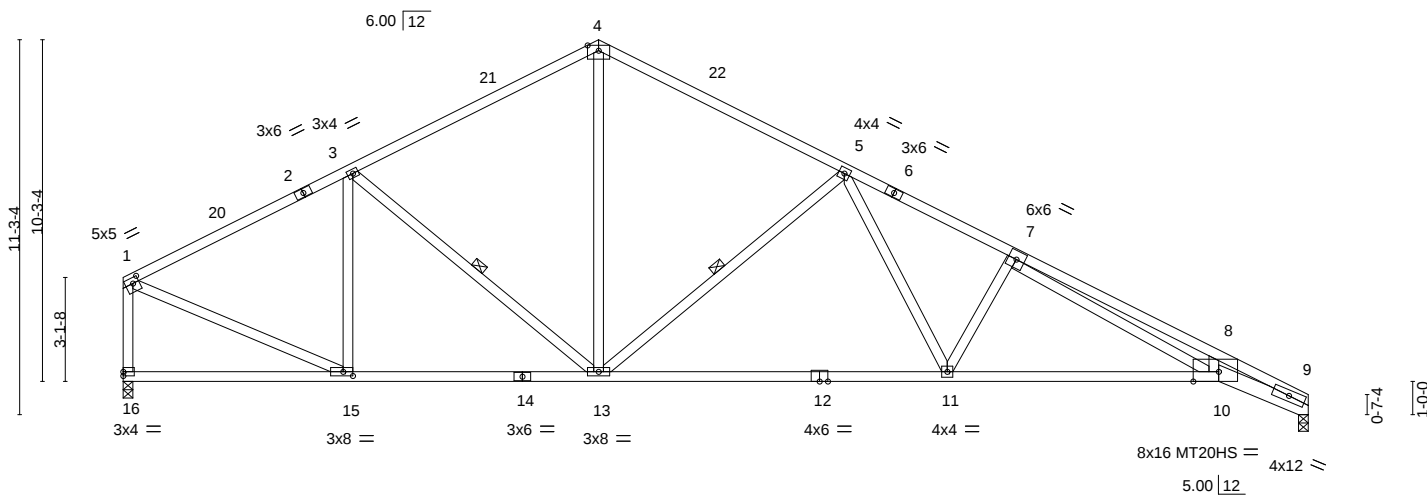
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:44:57 2021 Page 1

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|       |        |        |         |         |        |
|-------|--------|--------|---------|---------|--------|
| 6-9-2 | 14-3-8 | 21-8-2 | 26-8-10 | 32-11-3 | 35-7-8 |
| 6-9-2 | 7-6-6  | 7-4-10 | 5-0-8   | 6-2-9   | 2-8-5  |

5x8 =

Scale = 1:69.3



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

| 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 0.83   | Vert(LL) | -0.38 10-11 | >999   | 240 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.81   | Vert(CT) | -0.73 10-11 | >585   | 180 | MT20HS         | 148/108  |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.69   | Horz(CT) | 0.23 9      | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |             |        |     |                |          |
|               |                      |       |           |          |             |        |     | Weight: 164 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
6-9: 2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SPF 1650F 1.5E \*Except\*  
9-10: 2x6 SPF 2100F 1.8E, 12-14: 2x4 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-13, 5-13

#### REACTIONS.

(size) 16=0-3-8, 9=0-3-8  
Max Horz 16=-229(LC 8)  
Max Uplift 16=-231(LC 12), 9=-287(LC 13)  
Max Grav 16=1597(LC 1), 9=1597(LC 1)

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

TOP CHORD 1-3=-1712/308, 3-4=-1690/367, 4-5=-1681/379, 5-7=-3001/569, 7-8=-6013/1183,  
8-9=-6209/1070, 1-16=-1531/279  
BOT CHORD 13-15=-198/1452, 11-13=-210/2187, 10-11=-393/2942, 9-10=-938/5632  
WEBS 3-15=-474/148, 4-13=-151/889, 5-13=-1031/360, 5-11=-165/946, 7-11=-690/257,  
7-10=-632/2821, 8-10=0/316, 1-15=-217/1517

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 14-3-8, Exterior(2R) 14-3-8 to 17-3-8, Interior(1) 17-3-8 to 35-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=231, 9=287.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 4,2021

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

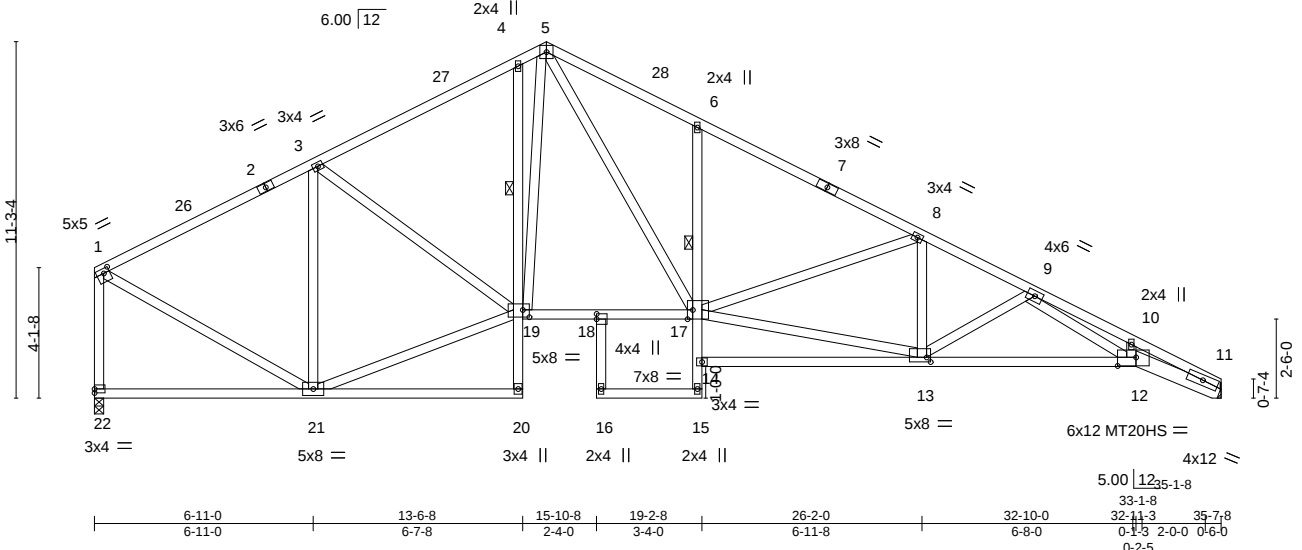
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417940 |
| 2818720 | A8    | Roof Special | 1   | 1   |                           |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:45:20 2021 Page 1  
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 35-1-8  
 6-11-0 13-6-8 14-3-8 15-10-8 19-2-8 26-2-0 29-6-14 32-10-0 33-1-8 35-7-8  
 6-11-0 6-7-8 6-9-0 1-7-0 3-4-0 6-11-8 3-4-14 3-3-2 0-5-8 2-0-0 0-6-0  
 5x5 ||  
 Scale = 1:72.9



|                                                                                                                                   |      |                       |      |             |      |                                  |                      |                |             |
|-----------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|------|-------------|------|----------------------------------|----------------------|----------------|-------------|
| Plate Offsets (X,Y)-- [1:0-2-4,0-1-12], [12:0-7-0,0-3-4], [13:0-1-8,0-1-12], [17:0-2-0,Edge], [18:0-2-0,0-0-0], [19:0-2-8,0-2-12] |      |                       |      |             |      |                                  |                      |                |             |
| <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          | 0.62 | Vert(LL)                         | -0.27 12-13 >999 240 | MT20           | 197/144     |
| TCDL                                                                                                                              | 10.0 | Lumber DOL            | 1.15 | BC          | 0.62 | Vert(CT)                         | -0.51 12-13 >841 180 | MT20HS         | 148/108     |
| BCLL                                                                                                                              | 0.0  | Rep Stress Incr       | YES  | WB          | 0.97 | Horz(CT)                         | 0.24 11 n/a n/a      |                |             |
| BCDL                                                                                                                              | 10.0 | Code IRC2018/TPI2014  |      | Matrix-AS   |      |                                  |                      | Weight: 212 lb | FT = 20%    |

|                                                                                        |                                                                                |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>LUMBER-</b>                                                                         | <b>BRACING-</b>                                                                |
| TOP CHORD 2x4 SPF No.2 *Except*<br>7-11: 2x4 SP 2400F 2.0E                             | TOP CHORD Structural wood sheathing directly applied, except end verticals.    |
| BOT CHORD 2x4 SPF No.2 *Except*<br>12-14: 2x4 SP 2400F 2.0E, 11-12: 2x6 SPF 2100F 1.8E | BOT CHORD Rigid ceiling directly applied. Except:<br>1 Row at midpt 4-19, 6-14 |
| WEBS 2x4 SPF No.2                                                                      |                                                                                |

|                   |                                                                                                                                                 |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>REACTIONS.</b> | (size) 22=0-3-8, 11=Mechanical<br>Max Horz 22=-249(LC 10)<br>Max Uplift 22=-231(LC 12), 11=-282(LC 13)<br>Max Grav 22=1597(LC 1), 11=1597(LC 1) |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                   |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.                                                                                       |  |
| TOP CHORD 1-3=-1498/292, 3-4=-1987/384, 4-5=-1899/455, 5-6=-2678/551, 6-8=-2706/452,<br>8-9=-3215/559, 9-10=-5834/1047, 10-11=-6149/1015, 1-22=-1532/282                          |  |
| BOT CHORD 4-19=-302/169, 18-19=-67/1612, 17-18=-61/1544, 6-17=-446/248, 12-13=-514/3473,<br>11-12=-881/5568                                                                       |  |
| WEBS 3-21=-1037/210, 19-21=-177/1344, 3-19=0/523, 5-19=-241/670, 13-17=-326/2688,<br>1-21=-207/1394, 5-17=-391/1436, 8-17=-593/268, 9-12=-410/2158, 10-12=0/424,<br>9-13=-760/201 |  |

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 14-3-8, Exterior(2R) 14-3-8 to 17-3-8, Interior(1) 17-3-8 to 35-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) 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) 22=231, 11=282.
  - 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 4, 2021

|         |       |              |     |     |                           |
|---------|-------|--------------|-----|-----|---------------------------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/STONE CREEK #90/MO |
| 2818720 | A9    | ROOF SPECIAL | 1   | 1   | 146417941                 |

Builders FirstSource (Valley Center),

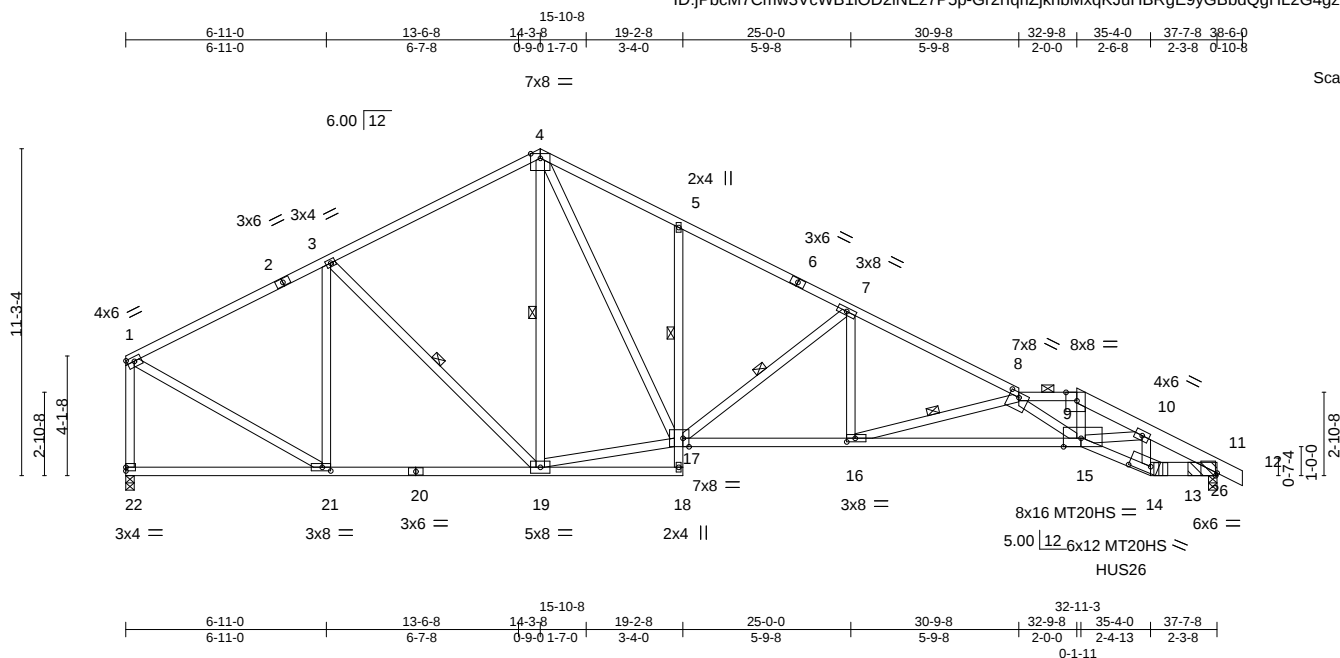
Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:45:40 2021 Page 1

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Job Reference (optional)

Scale = 1:79.4



|                       |      |                                                                                                                                                               |  |           |  |                               |  |  |  |                         |  |
|-----------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------|--|-------------------------------|--|--|--|-------------------------|--|
| Plate Offsets (X,Y)-- |      | [1:Edge,0-1-12], [8:0-4-0,0-1-15], [9:0-4-8,Edge], [11:0-0-10,Edge], [14:0-8-12,0-2-12], [15:0-7-4,Edge], [16:0-3-8,0-1-8], [17:0-2-8,Edge], [21:0-3-8,0-1-8] |  |           |  |                               |  |  |  |                         |  |
| 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 0.89   |  | Vert(LL) -0.33 16 >999 240    |  |  |  | MT20 197/144            |  |
| TCDL                  | 10.0 | Lumber DOL 1.15                                                                                                                                               |  | BC 0.97   |  | Vert(CT) -0.65 15-16 >695 180 |  |  |  | MT20HS 148/108          |  |
| BCLL                  | 0.0  | Rep Stress Incr NO                                                                                                                                            |  | WB 0.91   |  | Horz(CT) 0.23 11 n/a n/a      |  |  |  |                         |  |
| BCDL                  | 10.0 | Code IRC2018/TPI2014                                                                                                                                          |  | Matrix-MS |  |                               |  |  |  |                         |  |
|                       |      |                                                                                                                                                               |  |           |  |                               |  |  |  | Weight: 204 lb FT = 20% |  |

#### LUMBER-

**TOP CHORD** 2x4 SPF No.2 \*Except\*  
8-9: 2x4 SP 2400F 2.0E, 9-12: 2x6 SPF No.2  
6-8: 2x4 SPF 1650F 1.5E  
**BOT CHORD** 2x4 SPF No.2 \*Except\*  
15-17: 2x4 SP 2400F 2.0E, 14-15: 2x4 SPF 1650F 1.5E  
11-14: 2x6 SPF No.2  
**WEBS** 2x4 SPF No.2

#### BRACING-

**TOP CHORD** Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-5-2 max.): 8-9.  
**BOT CHORD** Rigid ceiling directly applied or 7-10-14 oc bracing. Except:  
1 Row at midpt 5-17  
**WEBS** 1 Row at midpt 8-16, 7-17, 4-19, 3-19

#### REACTIONS.

(size) 11=(0-3-8 + bearing block) (req. 0-4-4), 22=0-3-8  
Max Horz 22=-258(LC 6)  
Max Uplift 11=-524(LC 9), 22=-248(LC 8)  
Max Grav 11=2694(LC 1), 22=1737(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 1-3=-1649/287, 3-4=-1740/404, 4-5=-2557/600, 5-7=-2595/483, 7-8=-3890/670,  
8-9=-5432/985, 9-10=-6260/1106, 10-11=-4414/850, 1-22=-1677/269  
**BOT CHORD** 19-21=-175/1397, 5-17=-375/212, 16-17=-414/3413, 15-16=-1116/6637, 14-15=-778/4314,  
11-14=-706/3895  
**WEBS** 3-21=-635/160, 7-16=-131/1084, 8-16=-3351/730, 9-15=-398/2350, 10-15=-310/1682,  
10-14=-1029/288, 1-21=-187/1573, 7-17=-1493/373, 8-15=-1522/398, 4-19=-256/61,  
17-19=-58/1381, 4-17=-432/1801

#### NOTES-

- 2x6 SPF No.2 bearing block 12" long at jt. 11 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. Bearing is assumed to be SPF No.2.
- 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=4.2psf; h=25ft; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=524, 22=248.
- 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.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent at 35-8-4 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
- Fill all nail holes where hanger is in contact with lumber.

2) In the CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



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**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 | SUMMIT/STONE CREEK #90/MO | I46417941 |
| 2818720 | A9    | ROOF SPECIAL | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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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: 1-4=-70, 4-8=-70, 8-9=-70, 9-12=-70, 18-22=-20, 15-17=-20, 14-15=-20, 14-23=-20
- Concentrated Loads (lb)
  - Vert: 26=-997(F)

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|                |              |                            |          |          |                                        |
|----------------|--------------|----------------------------|----------|----------|----------------------------------------|
| Job<br>2818720 | Truss<br>A10 | Truss Type<br>Roof Special | Qty<br>1 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>146417942 |
|----------------|--------------|----------------------------|----------|----------|----------------------------------------|

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Valley Center, KS - 67147,

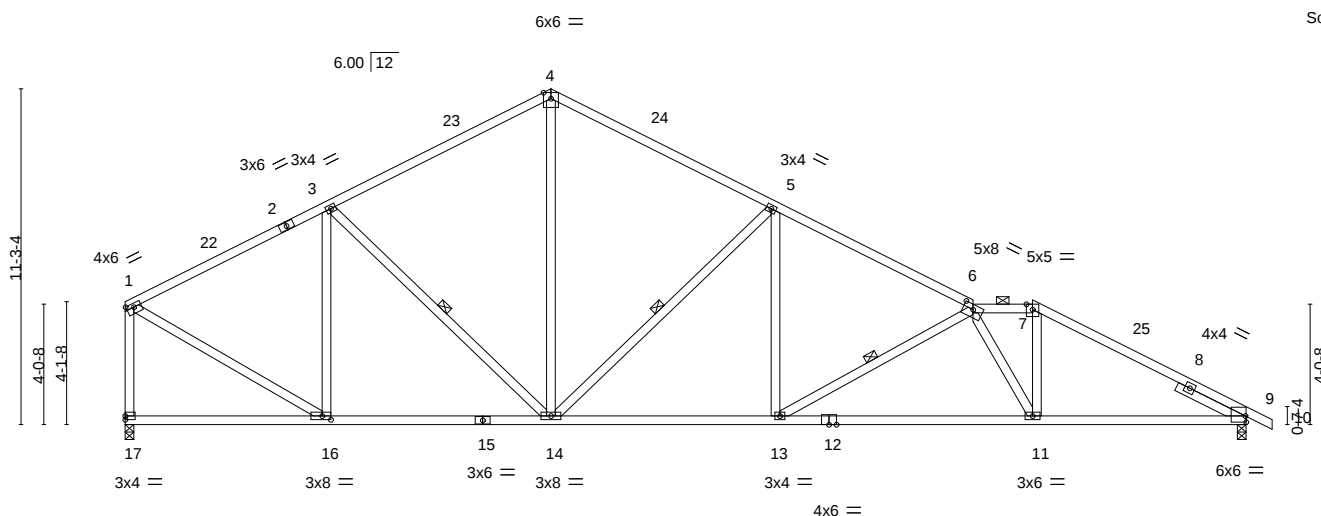
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Job Reference (optional)

|       |        |         |        |        |        |        |
|-------|--------|---------|--------|--------|--------|--------|
| 6-9-2 | 14-3-8 | 21-10-0 | 28-5-8 | 30-5-8 | 37-7-8 | 38-6-0 |
| 6-9-2 | 7-6-6  | 7-6-8   | 6-7-8  | 2-0-0  | 7-2-0  | 0-10-8 |

Scale = 1:77.3



|                        |                                                                     |
|------------------------|---------------------------------------------------------------------|
| Plate Offsets (X, Y)-- | [1:0-3-0,0-1-8], [6:0-4-0,0-1-15], [9:Edge,0-2-8], [16:0-3-8,0-1-8] |
|------------------------|---------------------------------------------------------------------|

| 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 0.85   | Vert(LL) | -0.19 11-13 | >999   | 240 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.87   | Vert(CT) | -0.47 11-13 | >960   | 180 |                |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.56   | Horz(CT) | 0.12 9      | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |             |        |     | Weight: 176 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Right 2x4 SPF No.2 - t 2-6-0

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-6-12 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-14, 5-14, 6-13

#### REACTIONS.

(size) 17=0-3-8, 9=0-3-8  
Max Horz 17=-258(LC 10)  
Max Uplift 17=-237(LC 12), 9=-328(LC 13)  
Max Grav 17=1679(LC 1), 9=1752(LC 1)

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

TOP CHORD 1-3=-1573/308, 3-4=-1661/387, 4-5=-1661/403, 5-6=-2542/472, 6-7=-2485/508, 7-9=-2909/520, 1-17=-1617/299  
BOT CHORD 14-16=-167/1329, 13-14=-199/2186, 11-13=-440/3018, 9-11=-354/2526  
WEBS 3-16=-613/185, 4-14=-175/878, 5-14=-1125/365, 5-13=-73/654, 6-13=-960/293, 6-11=-1085/203, 7-11=-112/1074, 1-16=-230/1495

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 14-3-8, Exterior(2R) 14-3-8 to 17-3-8, Interior(1) 17-3-8 to 30-5-8, Exterior(2R) 30-5-8 to 33-5-8, Interior(1) 33-5-8 to 38-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=237, 9=328.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 4, 2021

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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 | SUMMIT/STONE CREEK #90/MO | 146417943 |
| 2818720 | A11   | Roof Special | 1   | 1   |                           |           |

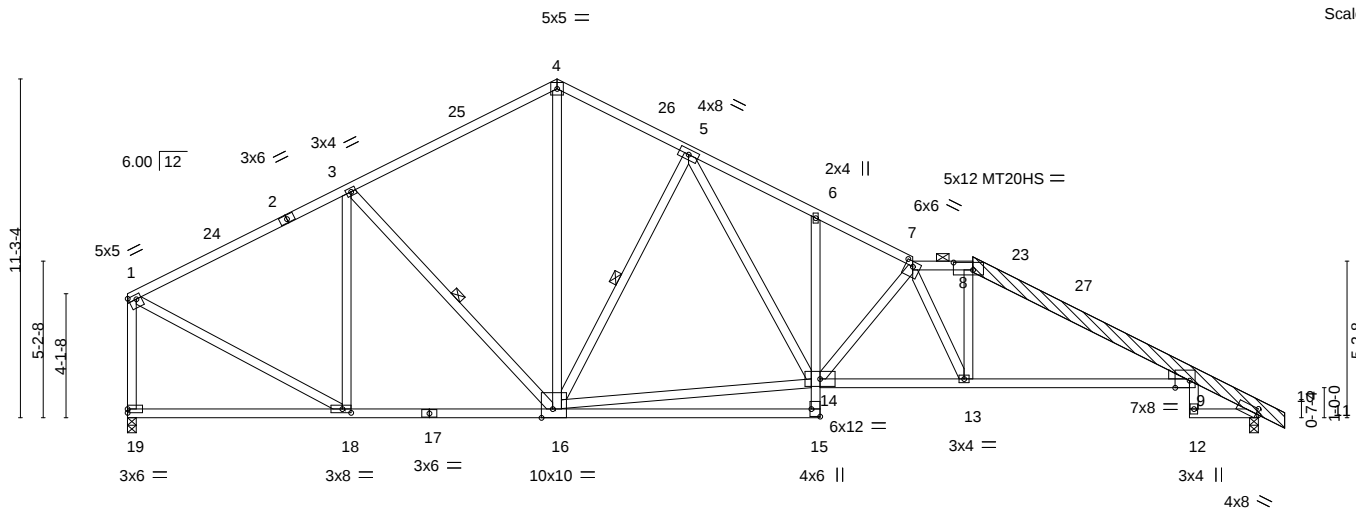
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|       |        |        |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|--------|--------|
| 7-3-8 | 14-3-8 | 18-8-0 | 23-0-8 | 26-1-8 | 28-1-8 | 35-4-0 | 37-7-8 |
| 7-3-8 | 7-0-0  | 4-4-8  | 4-4-8  | 3-1-0  | 2-0-0  | 7-2-8  | 2-3-8  |

Scale = 1:76.7



|                       |                                                                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Plate Offsets (X,Y)-- | [1:Edge,0-1-12], [7:0-3-0,0-1-15], [8:0-7-12,0-3-0], [9:0-5-12,Edge], [10:0-1-2,0-2-3], [15:Edge,0-3-8], [16:0-4-8,Edge], [18:0-3-8,0-1-8] |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|

| 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 0.84   | Vert(LL) | -0.47    | 9-13   | >956 | 240            | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.81   | Vert(CT) | -0.87    | 9-13   | >514 | 180            | 148/108  |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.57   | Horz(CT) | 0.39     | 10     | n/a  | n/a            |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |          |        |      |                |          |
|               |                      |       |           |          |          |        |      | Weight: 223 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
8-11: 2x6 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
9-14: 2x4 SP 2400F 2.0E  
WEBS 2x4 SPF No.2  
OTHERS 2x6 SPF 2100F 1.8E  
LBR SCAB 8-11 2x6 SPF 2100F 1.8E one side  
WEDGE  
Right: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 7-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-16, 5-16

#### REACTIONS.

(size) 19=0-3-8, 10=0-3-8  
Max Horz 19=-258(LC 10)  
Max Uplift 19=-237(LC 12), 10=-327(LC 13)  
Max Grav 19=1686(LC 1), 10=1749(LC 1)

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

TOP CHORD 1-3=-1623/319, 3-4=-1663/393, 4-5=-1602/417, 5-6=-3015/636, 6-7=-3021/550,  
7-8=-3226/605, 8-9=-3484/579, 9-10=-868/190, 1-19=-1615/307  
BOT CHORD 16-18=-162/1364, 15-16=0/301, 13-14=-414/3378, 9-13=-395/3200  
WEBS 3-18=-577/176, 4-16=-234/998, 5-16=-1160/358, 14-16=-141/1604, 5-14=-346/1559,  
7-14=-1138/272, 7-13=-380/88, 8-13=-32/511, 1-18=-233/1494

#### NOTES-

- Attached 11-9-15 scab 8 to 11, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-3 from end at joint 8, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 7-2-11 from end at joint 8, nail 2 row(s) at 3" o.c. for 4-4-13.
- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 14-3-8, Exterior(2R) 14-3-8 to 17-3-8, Interior(1) 17-3-8 to 28-1-8, Exterior(2R) 28-1-8 to 31-1-8, Interior(1) 31-1-8 to 38-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=237, 10=327.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 4, 2021

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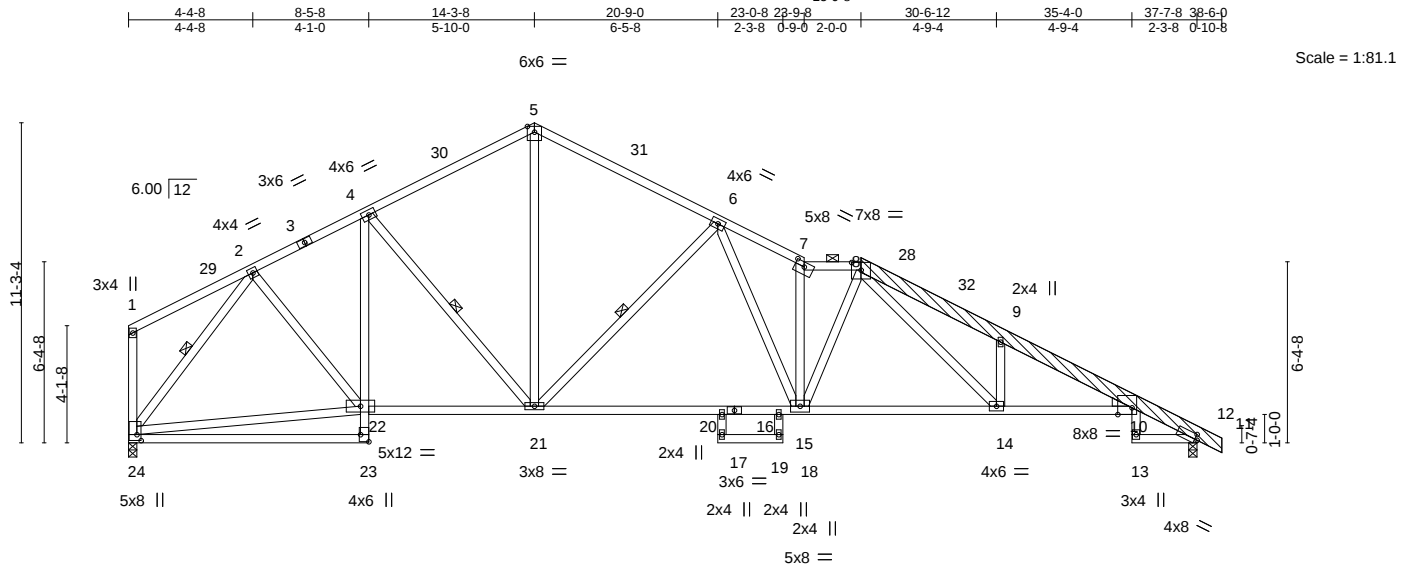


16023 Swingley Ridge Rd  
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|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417944 |
| 2818720 | A12   | Roof Special | 1   | 1   | Job Reference (optional)  |           |

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|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>LUMBER-</b>                                              | <b>BRACING-</b>                                                                                                     |
| TOP CHORD 2x4 SPF No.2 *Except*<br>8-12: 2x6 SPF 2100F 1.8E | TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-3-8 max.): 7-8. |
| BOT CHORD 2x4 SPF No.2 *Except*<br>10-17: 2x4 SP 2400F 2.0E | BOT CHORD Rigid ceiling directly applied.                                                                           |
| WEBS 2x4 SPF No.2                                           | WEBS 1 Row at midpt 4-21, 6-21, 2-24                                                                                |
| OTHERS 2x6 SPF 2100F 1.8E                                   |                                                                                                                     |
| LBR SCAB 8-12 2x6 SPF 2100F 1.8E one side                   |                                                                                                                     |
| WEDGE Right: 2x4 SP No.3                                    |                                                                                                                     |

**REACTIONS.** (size) 11=0-3-8, 24=0-3-8  
Max Horz 24=258(LC 10)  
Max Uplift 11=327(LC 13), 24=237(LC 12)  
Max Grav 11=1749(LC 1), 24=1686(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-1797/361, 4-5=-1794/401, 5-6=-1804/414, 6-7=-3204/610, 7-8=-2883/527,  
8-9=-4334/858, 9-10=-3987/685, 10-11=-868/190  
BOT CHORD 4-22=-284/98, 21-22=-166/1570, 20-21=-212/2343, 16-20=-204/2307, 15-16=-212/2343,  
14-15=-281/2697, 10-14=-545/3789  
WEBS 5-21=-196/1091, 6-21=-1187/375, 22-24=-183/981, 2-22=-42/674, 2-24=-1915/334,  
7-15=-1421/282, 8-15=-39/467, 6-15=-239/1254, 8-14=-382/1568, 9-14=-1112/330

- NOTES-**
- 1) Attached 14-5-4 scab 8 to 12, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 4-5-15 from end at joint 8, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 9-10-0 from end at joint 8, nail 2 row(s) at 3" o.c. for 4-4-13.
  - 2) Unbalanced roof live loads have been considered for this design.
  - 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 14-3-8, Exterior(2R) 14-3-8 to 17-3-8, Interior(1) 17-3-8 to 25-9-8, Exterior(2R) 25-9-8 to 28-9-8, Interior(1) 28-9-8 to 38-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=327, 24=237.
  - 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 4,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

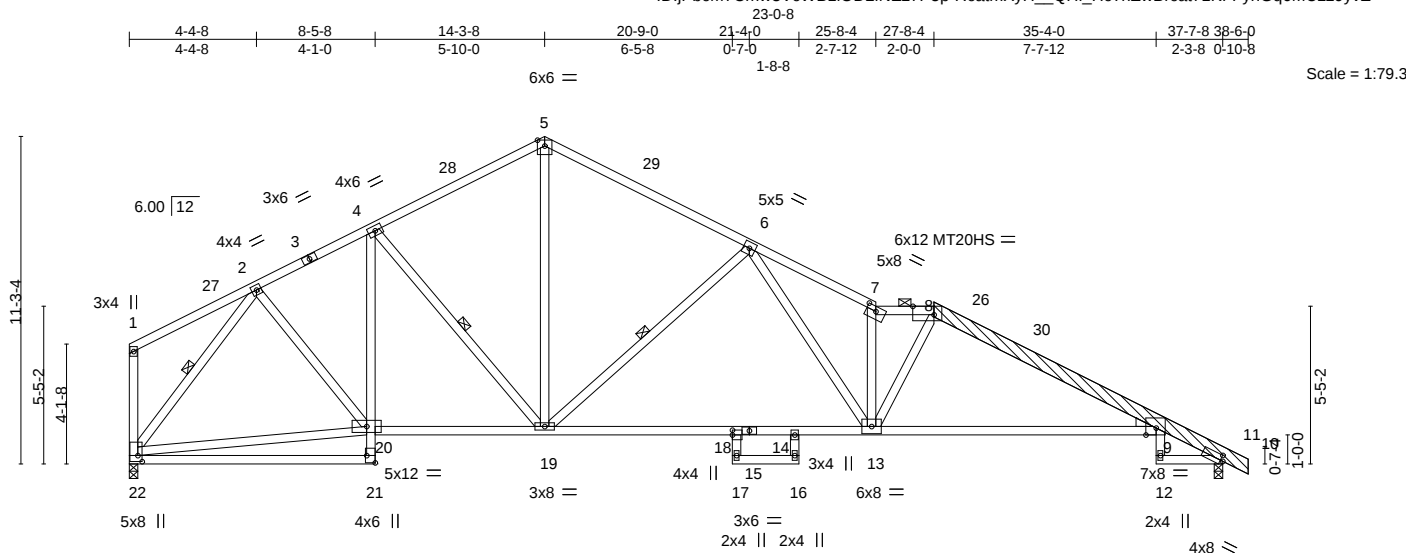
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|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417945 |
| 2818720 | A13   | Roof Special | 1   | 1   |                           |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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Job Reference (optional)



Scale = 1:79.3

|                       |                   |                  |                 |                   |                   |                  |                   |        |
|-----------------------|-------------------|------------------|-----------------|-------------------|-------------------|------------------|-------------------|--------|
|                       | 8-5-8             | 14-3-8           | 20-9-0          | 23-0-8            | 25-8-4            | 27-8-4           | 35-4-0            | 37-7-8 |
|                       | 8-5-8             | 5-10-0           | 6-5-8           | 2-3-8             | 2-7-12            | 2-0-0            | 7-7-12            | 2-3-8  |
| Plate Offsets (X,Y)-- | [7:0-4-0,0-1-15], | [8:0-8-12,Edge], | [9:0-4-4,Edge], | [10:0-1-2,0-2-3], | [18:0-2-0,0-0-0], | [21:Edge,0-3-8], | [22:0-2-8,0-1-12] |        |

| 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 0.95   | Vert(LL) | -0.59 9-13 | >764   | 240 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.94   | Vert(CT) | -1.15 9-13 | >390   | 180 | MT20HS         | 148/108  |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.53   | Horz(CT) | 0.47 10    | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |            |        |     |                |          |
|               |                      |       |           |          |            |        |     | Weight: 215 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
8-11: 2x6 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
9-15: 2x4 SPF 1650F 1.5E  
WEBS 2x4 SPF No.2  
OTHERS 2x6 SPF 2100F 1.8E  
LBR SCAB 8-11 2x6 SPF 2100F 1.8E one side  
WEDGE  
Right: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-1-0 max.): 7-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 4-19, 6-19, 2-22

#### REACTIONS.

(size) 10=0-3-8, 22=0-3-8  
Max Horz 22=-258(LC 10)  
Max Uplift 10=-327(LC 13), 22=-237(LC 12)  
Max Grav 10=1749(LC 1), 22=1686(LC 1)

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

TOP CHORD 2-4=-1796/361, 4-5=-1796/396, 5-6=-1819/407, 6-7=-3702/693, 7-8=-3334/586,  
8-9=-3394/568, 9-10=-781/177  
BOT CHORD 4-20=-286/91, 19-20=-167/1569, 18-19=-235/2439, 14-18=-264/2376, 13-14=-235/2439,  
9-13=-381/3120  
WEBS 5-19=-186/1076, 6-19=-1241/401, 6-13=-280/1523, 7-13=-1493/301, 8-13=-23/447,  
20-22=-189/978, 2-20=-42/672, 2-22=-1915/332

#### NOTES-

- Attached 12-3-13 scab 8 to 11, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-3 from end at joint 8, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 7-8-9 from end at joint 8, nail 2 row(s) at 4" o.c. for 4-4-13.
- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 14-3-8, Exterior(2R) 14-3-8 to 17-3-8, Interior(1) 17-3-8 to 27-8-4, Exterior(2R) 27-8-4 to 30-8-4, Interior(1) 30-8-4 to 38-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=327, 22=237.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheathing be applied directly to the bottom chord.



June 4, 2021

**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 | SUMMIT/STONE CREEK #90/MO | I46417945 |
| 2818720 | A13   | Roof Special | 1   | 1   | Job Reference (optional)  |           |

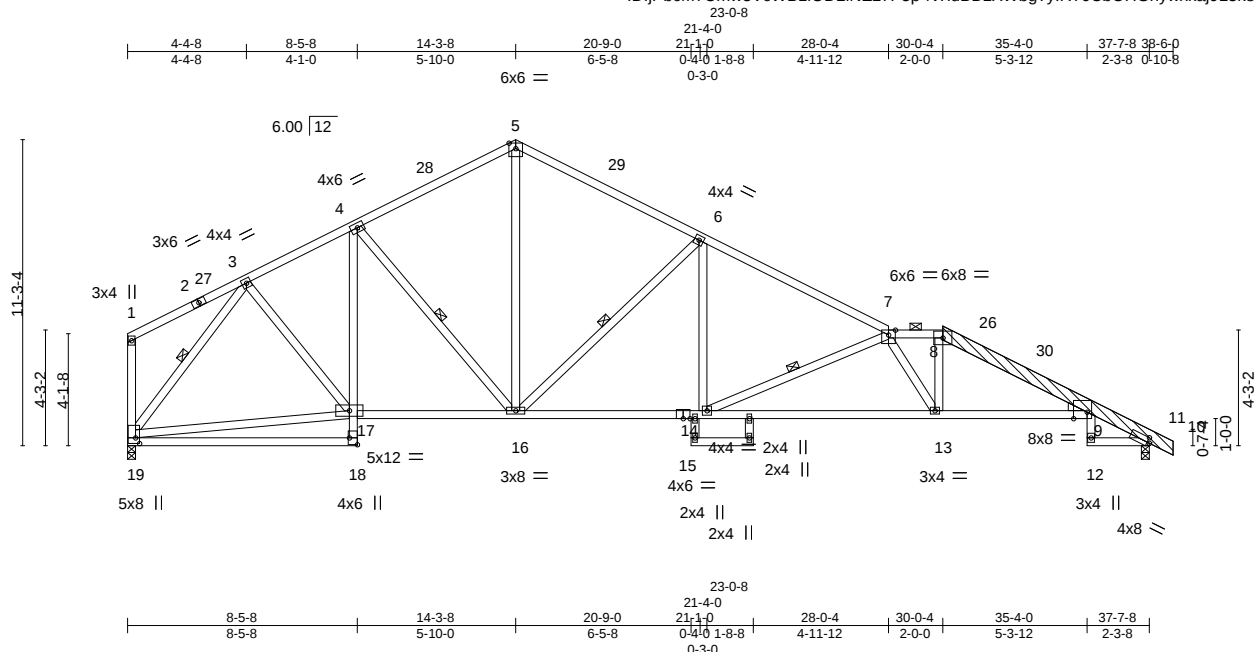
**NOTES-**  
 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417946 |
| 2818720 | A14   | Roof Special | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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|                       |                      |                                                                      |             |              |            |        |                         |
|-----------------------|----------------------|----------------------------------------------------------------------|-------------|--------------|------------|--------|-------------------------|
| Plate Offsets (X,Y)-- |                      | [9:0-6-0,Edge], [10:0-1-2,0-2-3], [18:Edge,0-3-8], [19:0-2-8,0-1-12] |             |              |            |        |                         |
| <b>LOADING</b> (psf)  | <b>SPACING-</b>      | 2-0-0                                                                | <b>CSI.</b> | <b>DEFL.</b> | in (loc)   | L/defl | <b>PLATES</b>           |
| TCLL 25.0             | Plate Grip DOL       | 1.15                                                                 | TC 0.79     | Vert(LL)     | -0.38 9-13 | >999   | MT20                    |
| TCDL 10.0             | Lumber DOL           | 1.15                                                                 | BC 0.83     | Vert(CT)     | -0.69 9-13 | >652   | GRIP                    |
| BCLL 0.0              | Rep Stress Incr      | YES                                                                  | WB 0.54     | Horz(CT)     | 0.38 10    | n/a    | 197/144                 |
| BCDL 10.0             | Code IRC2018/TPI2014 |                                                                      | Matrix-AS   |              |            |        | Weight: 223 lb FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
5-7: 2x4 SP 2400F 2.0E, 8-11: 2x6 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
9-15: 2x4 SP 2400F 2.0E  
WEBS 2x4 SPF No.2  
OTHERS 2x6 SPF 2100F 1.8E  
LBR SCAB 8-11 2x6 SPF 2100F 1.8E one side  
WEDGE  
Right: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-5-3 max.): 7-8.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 4-16, 3-19, 6-16, 7-14

#### REACTIONS.

(size) 10=0-3-8, 19=0-3-8  
Max Horz 19=258(LC 10)  
Max Uplift 10=327(LC 13), 19=237(LC 12)  
Max Grav 10=1749(LC 1), 19=1686(LC 1)

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

TOP CHORD 3-4=-1799/357, 4-5=-1788/399, 5-6=-1813/412, 6-7=-2842/493, 7-8=-3614/647, 8-9=-3811/624, 9-10=-868/190  
BOT CHORD 4-17=-272/104, 16-17=-165/1573, 14-16=-213/2451, 13-14=-566/4004, 9-13=-473/3574  
WEBS 5-16=-196/1088, 8-13=-87/736, 3-17=-42/675, 3-19=-1917/326, 17-19=-176/996, 7-13=-758/184, 6-14=-96/833, 6-16=-1286/380, 7-14=-1699/415

#### NOTES-

- 1) Attached 9-8-8 scab 8 to 11, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-3 from end at joint 8, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 5-1-4 from end at joint 8, nail 2 row(s) at 3" o.c. for 4-4-13.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 14-3-8, Exterior(2R) 14-3-8 to 17-3-8, Interior(1) 17-3-8 to 30-0-4, Exterior(2R) 30-0-4 to 33-0-4, Interior(1) 33-0-4 to 38-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=327, 19=237.
- 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417947 |
| 2818720 | A15   | Roof Special | 1   | 1   |                           |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

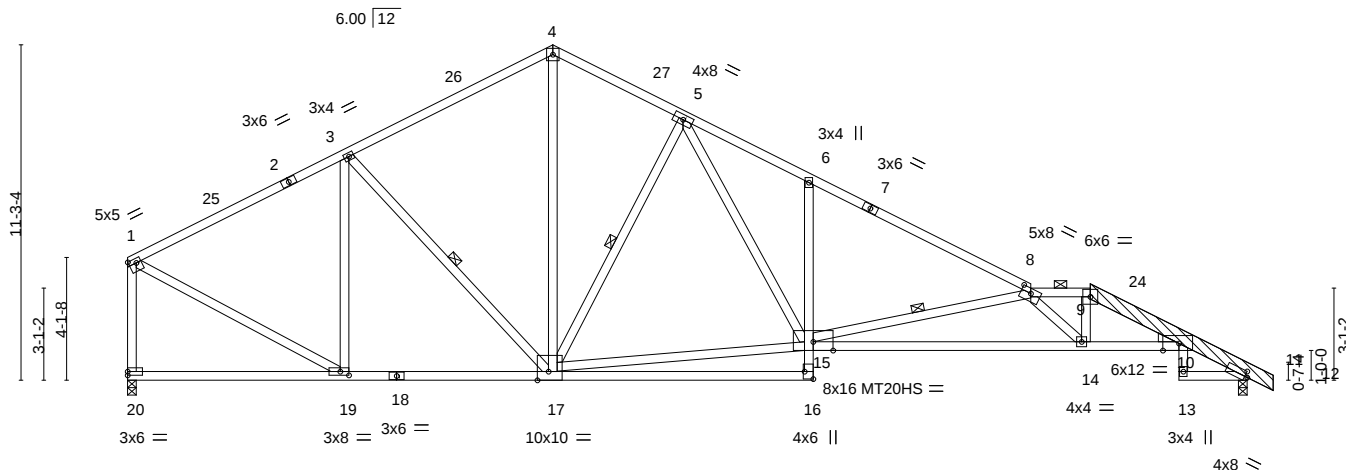
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:44:30 2021 Page 1

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|       |        |        |        |        |        |         |        |        |
|-------|--------|--------|--------|--------|--------|---------|--------|--------|
| 7-3-8 | 14-3-8 | 18-8-0 | 23-0-8 | 30-4-4 | 32-4-4 | 35-4-0  | 37-7-8 | 38-6-0 |
| 7-3-8 | 7-0-0  | 4-4-8  | 4-4-8  | 7-3-12 | 2-0-0  | 2-11-12 | 2-3-8  | 0-10-8 |

5x5 =

Scale = 1:77.4



|       |        |        |        |        |         |        |
|-------|--------|--------|--------|--------|---------|--------|
| 7-3-8 | 14-3-8 | 23-0-8 | 30-4-4 | 32-4-4 | 35-4-0  | 37-7-8 |
| 7-3-8 | 7-0-0  | 8-9-0  | 7-3-12 | 2-0-0  | 2-11-12 | 2-3-8  |

|                       |      |                                                                                                                          |  |       |  |           |  |          |  |             |  |        |  |     |  |                |  |          |  |
|-----------------------|------|--------------------------------------------------------------------------------------------------------------------------|--|-------|--|-----------|--|----------|--|-------------|--|--------|--|-----|--|----------------|--|----------|--|
| Plate Offsets (X,Y)-- |      | [1:Edge,0-1-12], [8:0-4-0,0-1-15], [10:0-6-8,Edge], [11:0-1-2,0-2-3], [16:Edge,0-3-8], [17:0-4-8,Edge], [19:0-3-8,0-1-8] |  |       |  |           |  |          |  |             |  |        |  |     |  |                |  |          |  |
| 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) |  | -0.40 14-15 |  | >999   |  | 240 |  | MT20           |  | 197/144  |  |
| TCDL                  | 10.0 | Lumber DOL                                                                                                               |  | 1.15  |  | BC 0.86   |  | Vert(CT) |  | -0.83 14-15 |  | >543   |  | 180 |  | MT20HS         |  | 148/108  |  |
| BCLL                  | 0.0  | Rep Stress Incr                                                                                                          |  | YES   |  | WB 0.80   |  | Horz(CT) |  | 0.34 11     |  | n/a    |  | n/a |  |                |  |          |  |
| BCDL                  | 10.0 | Code IRC2018/TPI2014                                                                                                     |  |       |  | Matrix-AS |  |          |  |             |  |        |  |     |  |                |  |          |  |
|                       |      |                                                                                                                          |  |       |  |           |  |          |  |             |  |        |  |     |  | Weight: 210 lb |  | FT = 20% |  |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
9-12: 2x6 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
10-15: 2x4 SP 2400F 2.0E  
WEBS 2x4 SPF No.2  
OTHERS 2x6 SPF 2100F 1.8E  
LBR SCAB 9-12 2x6 SPF 2100F 1.8E one side  
WEDGE  
Right: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-5-3 max.): 8-9.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-17, 5-17, 8-15

#### REACTIONS.

(size) 20=0-3-8, 11=0-3-8  
Max Horz 20=258(LC 10)  
Max Uplift 20=237(LC 12), 11=327(LC 13)  
Max Grav 20=1686(LC 1), 11=1749(LC 1)

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

TOP CHORD 1-3=-1623/316, 3-4=-1663/389, 4-5=-1599/411, 5-6=-3073/655, 6-8=-3166/534,  
8-9=-4437/742, 9-10=-4480/715, 10-11=-868/190, 1-20=-1615/302  
BOT CHORD 17-19=-162/1364, 6-15=-414/246, 14-15=-851/5338, 10-14=-613/4367  
WEBS 3-19=-577/173, 4-17=-228/990, 5-17=-1165/348, 15-17=-100/1706, 5-15=-371/1632,  
8-15=-2691/608, 8-14=-1282/327, 9-14=-126/857, 1-19=-227/1494

#### NOTES-

- 1) Attached 7-1-3 scab 9 to 12, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-3 from end at joint 9, nail 2 row(s) at 3" o.c. for 2-0-0; starting at 2-5-15 from end at joint 9, nail 2 row(s) at 2" o.c. for 4-4-13.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 14-3-8, Exterior(2R) 14-3-8 to 17-3-8, Interior(1) 17-3-8 to 32-4-4, Exterior(2R) 32-4-4 to 35-5-12, Interior(1) 35-5-12 to 38-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=237, 11=327.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 4,2021

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Chesterfield, MO 63017

|         |       |              |     |     |                           |           |
|---------|-------|--------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417948 |
| 2818720 | A16   | ROOF SPECIAL | 1   | 1   |                           |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

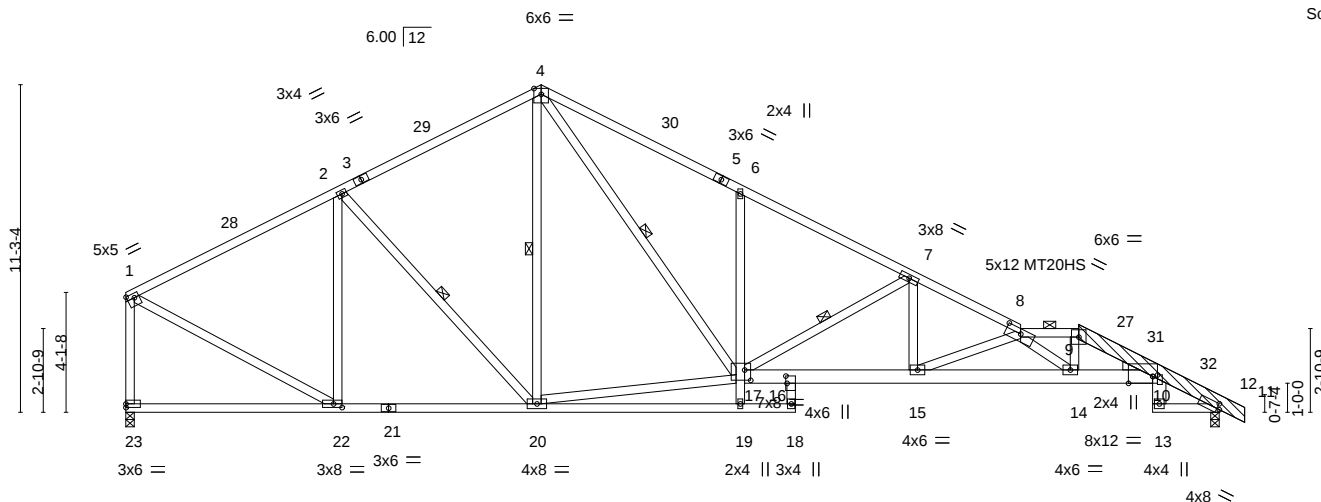
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Job Reference (optional)

|       |        |        |         |         |        |        |        |        |        |        |        |
|-------|--------|--------|---------|---------|--------|--------|--------|--------|--------|--------|--------|
| 7-3-8 | 14-3-8 | 18-8-0 | 21-1-12 | 23-0-8  | 26-0-0 | 27-1-3 | 30-9-8 | 32-9-8 | 35-4-0 | 37-7-8 | 38-6-0 |
| 7-3-8 | 7-0-0  | 4-4-8  | 2-5-12  | 1-10-12 | 2-11-8 | 1-1-3  | 3-8-5  | 2-0-0  | 2-6-8  | 2-3-8  | 0-10-8 |

Scale = 1:79.3



|       |        |         |         |        |        |        |        |        |
|-------|--------|---------|---------|--------|--------|--------|--------|--------|
| 7-3-8 | 14-3-8 | 21-1-12 | 23-0-8  | 27-1-3 | 30-9-8 | 32-9-8 | 35-4-0 | 37-7-8 |
| 7-3-8 | 7-0-0  | 6-10-4  | 1-10-12 | 4-0-11 | 3-8-5  | 2-0-0  | 2-6-8  | 2-3-8  |

|                       |                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Plate Offsets (X,Y)-- | [1:Edge,0-1-12], [8:0-6-4,0-2-0], [10:0-10-0,Edge], [10:0-0-10,0-2-0], [11:0-1-2,0-2-3], [16:0-3-0,0-0-8], [17:0-2-8,0-4-4], [22:0-3-8,0-1-8] |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|

| 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 0.72   | Vert(LL) | -0.36    | 15-16  | >999 | 240            | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.79   | Vert(CT) | -0.64    | 15-16  | >701 | 180            | 148/108  |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.72   | Horz(CT) | 0.27     | 11     | n/a  | n/a            |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |          |        |      |                |          |
|               |                      |       |           |          |          |        |      | Weight: 216 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
9-12: 2x6 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
10-17: 2x6 SPF 2100F 1.8E, 10-13: 2x6 SPF No.2  
WEBS 2x4 SPF No.2  
OTHERS 2x6 SPF 2100F 1.8E  
LBR SCAB 9-12 2x6 SPF 2100F 1.8E one side  
WEDGE  
Right: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-4-3 max.): 8-9.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 2-20, 4-20, 4-17, 7-17

#### REACTIONS.

(size) 23=0-3-8, 11=0-3-8  
Max Horz 23=-258(LC 10)  
Max Uplift 23=-237(LC 12), 11=-327(LC 13)  
Max Grav 23=1686(LC 1), 11=1749(LC 1)

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

TOP CHORD 1-2=-1622/322, 2-4=-1663/399, 4-6=-2840/663, 6-7=-2810/503, 7-8=-4198/717,  
8-9=-4807/835, 9-10=-4907/827, 10-11=-914/197, 1-23=-1615/312  
BOT CHORD 20-22=-162/1363, 19-20=-32/287, 16-17=-450/3470, 15-16=-482/3706, 14-15=-927/5917,  
10-14=-705/4685  
WEBS 2-22=-575/178, 9-14=-154/1114, 1-22=-232/1491, 6-17=-493/277, 17-20=-32/1108,  
4-17=-464/1832, 7-17=-1479/349, 7-15=-144/1090, 8-15=-2400/483, 8-14=-1457/269

#### NOTES-

- Attached 6-7-5 scab 9 to 12, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-3 from end at joint 9, nail 3 row(s) at 2" o.c. for 6-4-11.
- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-10-14, Interior(1) 3-10-14 to 14-3-8, Exterior(2R) 14-3-8 to 18-0-10, Interior(1) 18-0-10 to 32-9-8, Exterior(2R) 32-9-8 to 36-6-10, Interior(1) 36-6-10 to 38-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 23=237, 11=327.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheathing be applied directly to the bottom chord.



June 4, 2021

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**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 | SUMMIT/STONE CREEK #90/MO | I46417948 |
| 2818720 | A16   | ROOF SPECIAL | 1   | 1   | Job Reference (optional)  |           |

**NOTES-**  
 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

|         |       |                     |     |     |                           |           |
|---------|-------|---------------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type          | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417949 |
| 2818720 | A17   | Roof Special Girder | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

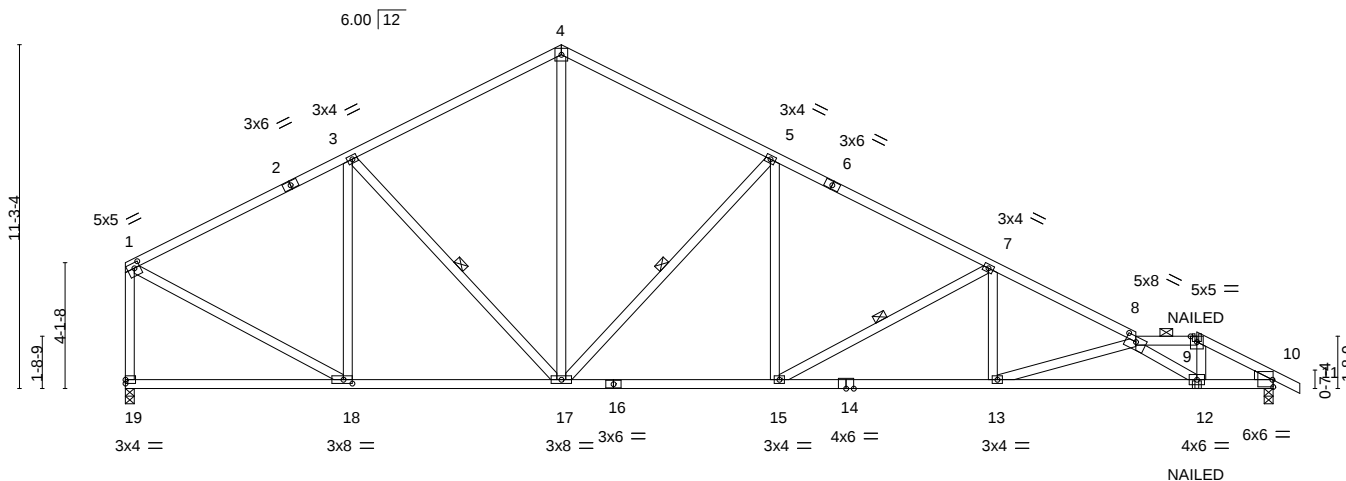
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:44:35 2021 Page 1

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|       |        |         |        |         |        |        |        |        |        |
|-------|--------|---------|--------|---------|--------|--------|--------|--------|--------|
| 7-3-8 | 14-3-8 | 20-6-13 | 21-3-8 | 26-10-3 | 28-3-8 | 33-1-8 | 35-1-8 | 37-7-8 | 38-6-0 |
| 7-3-8 | 7-0-0  | 6-3-5   | 0-8-11 | 5-6-11  | 1-5-5  | 4-10-0 | 2-0-0  | 2-6-0  | 0-10-8 |

5x5 =

Scale = 1:75.5



|       |        |         |        |         |        |        |        |        |
|-------|--------|---------|--------|---------|--------|--------|--------|--------|
| 7-3-8 | 14-3-8 | 20-6-13 | 21-3-8 | 26-10-3 | 28-3-8 | 33-1-8 | 35-1-8 | 37-7-8 |
| 7-3-8 | 7-0-0  | 6-3-5   | 0-8-11 | 5-6-11  | 1-5-5  | 4-10-0 | 2-0-0  | 2-6-0  |

Plate Offsets (X,Y)-- [1:0-2-4,0-2-0], [8:0-4-0,0-2-0], [10:Edge,0-2-13], [18:0-3-8,0-1-8]

| 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 0.79   | Vert(LL) | -0.23    | 13     | >999 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.97   | Vert(CT) | -0.44    | 13-15  | >999 |                |          |
| BCLL 0.0      | Rep Stress Incr      | NO    | WB 0.62   | Horz(CT) | 0.11     | 10     | n/a  |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-MS |          |          |        |      |                |          |
|               |                      |       |           |          |          |        |      | Weight: 179 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2 \*Except\*  
 10-14: 2x4 SPF 1650F 1.5E  
 WEBS 2x4 SPF No.2  
 WEDGE  
 Right: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-11 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-5 max.): 8-9.  
 BOT CHORD Rigid ceiling directly applied or 8-3-0 oc bracing.  
 WEBS 1 Row at midpt 3-17, 5-17, 7-15

#### REACTIONS.

(size) 19=0-3-8, 10=0-3-8  
 Max Horz 19=257(LC 6)  
 Max Uplift 19=238(LC 8), 10=327(LC 9)  
 Max Grav 19=1686(LC 1), 10=1747(LC 1)

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

TOP CHORD 1-3=-1624/282, 3-4=-1660/390, 4-5=-1658/363, 5-7=-2493/469, 7-8=-3504/625,  
 8-9=-2429/446, 9-10=-2901/502, 1-19=-1620/262  
 BOT CHORD 17-18=-166/1367, 15-17=-171/2135, 13-15=-442/3083, 12-13=-763/4419,  
 10-12=-400/2549  
 WEBS 3-18=-574/148, 4-17=-198/943, 8-12=-2414/463, 9-12=-175/1219, 1-18=-174/1510,  
 5-15=-87/654, 5-17=-1112/366, 7-13=-43/585, 7-15=-1079/308, 8-13=-1400/337

#### 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=4.2psf; h=25ft; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=238, 10=327.
- 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.
- "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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, 4-8=-70, 8-9=-70, 9-11=-70, 19-20=-20



June 4, 2021

Continued on page 2

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

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

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

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



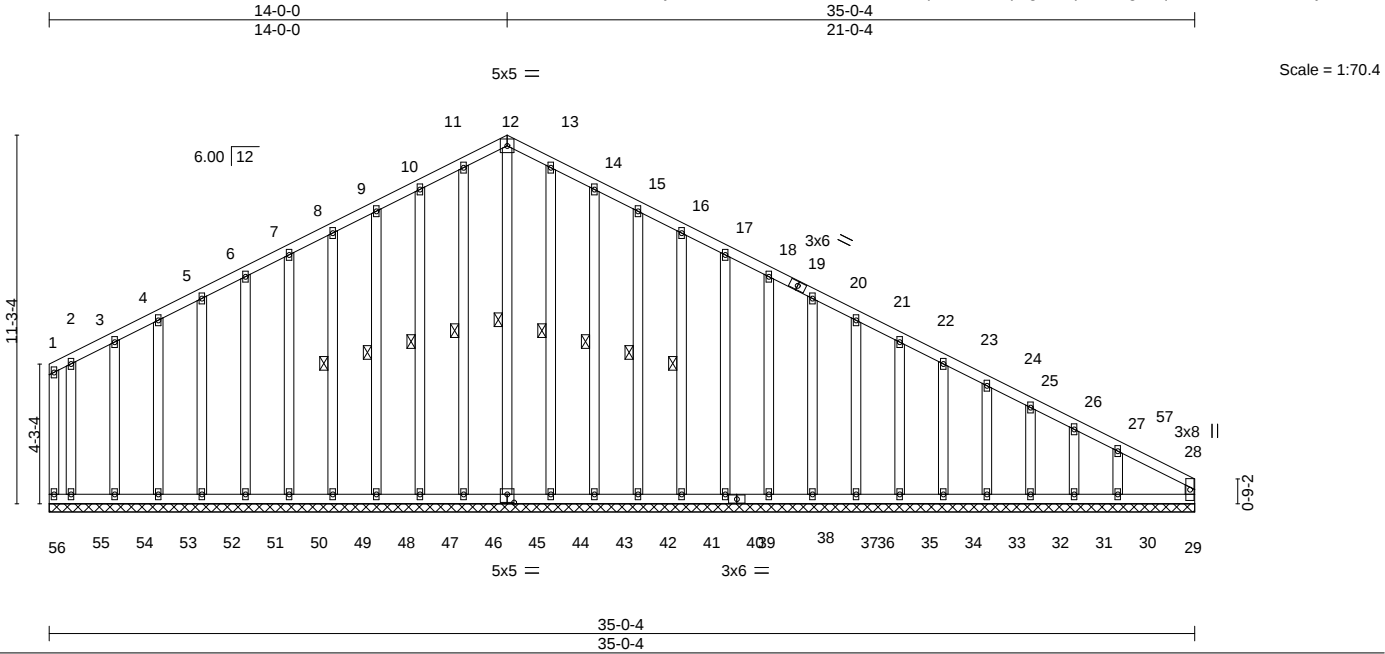
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

|         |       |                     |     |     |                           |           |
|---------|-------|---------------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type          | Qty | Ply | SUMMIT/STONE CREEK #90/MO | I46417949 |
| 2818720 | A17   | Roof Special Girder | 1   | 1   | Job Reference (optional)  |           |

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 12=1(B)

|                          |       |                        |     |     |                           |
|--------------------------|-------|------------------------|-----|-----|---------------------------|
| Job                      | Truss | Truss Type             | Qty | Ply | SUMMIT/STONE CREEK #90/MO |
| 2818720                  | A18   | Common Supported Gable | 1   | 1   | 146417950                 |
| Job Reference (optional) |       |                        |     |     |                           |

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:44:38 2021 Page 1
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|                       |                      |                  |                          |
|-----------------------|----------------------|------------------|--------------------------|
| Plate Offsets (X,Y)-- |                      | [45:0-2-8,0-3-0] |                          |
| <b>LOADING</b> (psf)  | <b>SPACING-</b>      | <b>CSI.</b>      | <b>DEFL.</b>             |
| TCLL 25.0             | Plate Grip DOL 1.15  | TC 0.10          | in (loc) l/defl L/d      |
| TCDL 10.0             | Lumber DOL 1.15      | BC 0.13          | Vert(LL) n/a - n/a 999   |
| BCLL 0.0              | Rep Stress Incr YES  | WB 0.14          | Vert(CT) n/a - n/a 999   |
| BCDL 10.0             | Code IRC2018/TPI2014 | Matrix-R         | Horz(CT) 0.01 29 n/a n/a |
|                       |                      |                  | <b>PLATES</b> MT20       |
|                       |                      |                  | <b>GRIP</b> 197/144      |
|                       |                      |                  | Weight: 274 lb FT = 20%  |

|                        |                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------|
| <b>LUMBER-</b>         | <b>BRACING-</b>                                                                                 |
| TOP CHORD 2x4 SPF No.2 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD 2x4 SPF No.2 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.                                  |
| WEBS 2x4 SPF No.2      | WEBS 1 Row at midpt 12-45, 11-46, 10-47, 9-48, 8-49, 13-44, 14-43, 15-42, 16-41                 |
| OTHERS 2x4 SPF No.2    |                                                                                                 |

**REACTIONS.** All bearings 35-0-4.

(lb) - Max Horz 56=-255(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 56, 29, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31 except 30=-170(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 56, 29, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31, 30

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

TOP CHORD 7-8=-137/274, 8-9=-149/307, 9-10=-161/341, 10-11=-175/380, 11-12=-177/394, 12-13=-177/394, 13-14=-175/380, 14-15=-161/341, 15-16=-149/307, 16-17=-137/274

WEBS 12-45=-256/87

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 3-4-0, Exterior(2N) 3-4-0 to 14-0-0, Corner(3R) 14-0-0 to 17-0-0, Exterior(2N) 17-0-0 to 34-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 7) Gable studs spaced at 1-4-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 56, 29, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31 except (jt=lb) 30=170.
  - 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.



June 4,2021

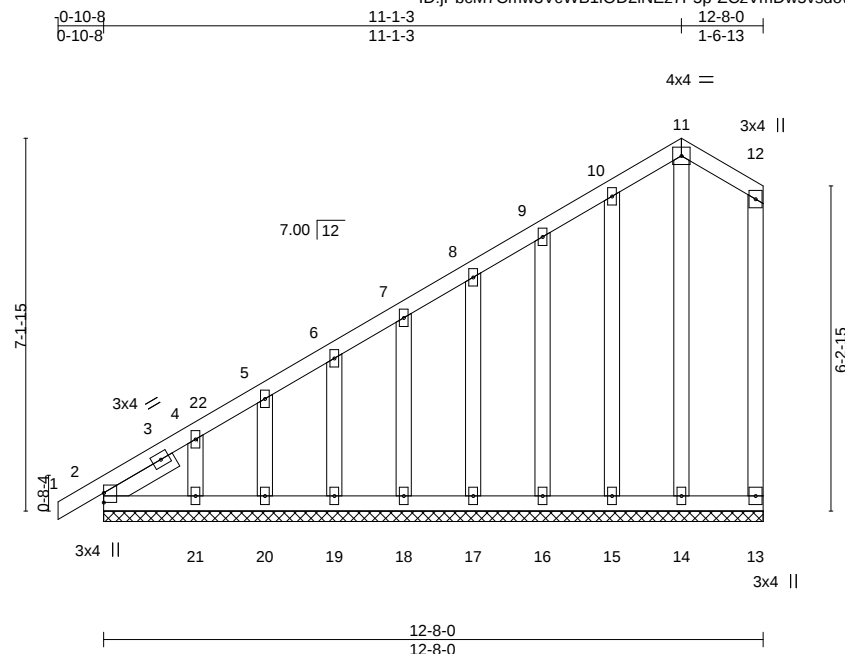
|                          |       |                        |     |     |                           |
|--------------------------|-------|------------------------|-----|-----|---------------------------|
| Job                      | Truss | Truss Type             | Qty | Ply | SUMMIT/STONE CREEK #90/MO |
| 2818720                  | B1    | Common Supported Gable | 1   | 1   | 146417951                 |
| Job Reference (optional) |       |                        |     |     |                           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:45:47 2021 Page 1

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Scale = 1:44.3

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.26  | Vert(LL) | -0.00 | 1     | n/r    | 120 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.12  | Vert(CT) | -0.00 | 1     | n/r    | 120 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.15  | Horz(CT) | 0.00  | 13    | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |          |       |       |        |     | Weight: 77 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 OTHERS 2x4 SPF No.2  
 SLIDER Left 2x4 SPF No.2 - t 1-6-10

#### 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.

All bearings 12-8-0.  
 (lb) - Max Horz 2=264(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 13, 2, 14, 15, 16, 17, 18, 19, 20 except 21=102(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 13, 2, 14, 15, 16, 17, 18, 19, 20, 21

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-436/295, 4-5=-324/236, 5-6=-283/218

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 11-1-3, Corner(3E) 11-1-3 to 12-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 2, 14, 15, 16, 17, 18, 19, 20 except (jt=lb) 21=102.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- 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.



June 4, 2021

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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 | SUMMIT/STONE CREEK #90/MO | 146417952 |
| 2818720 | B2    | Common     | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

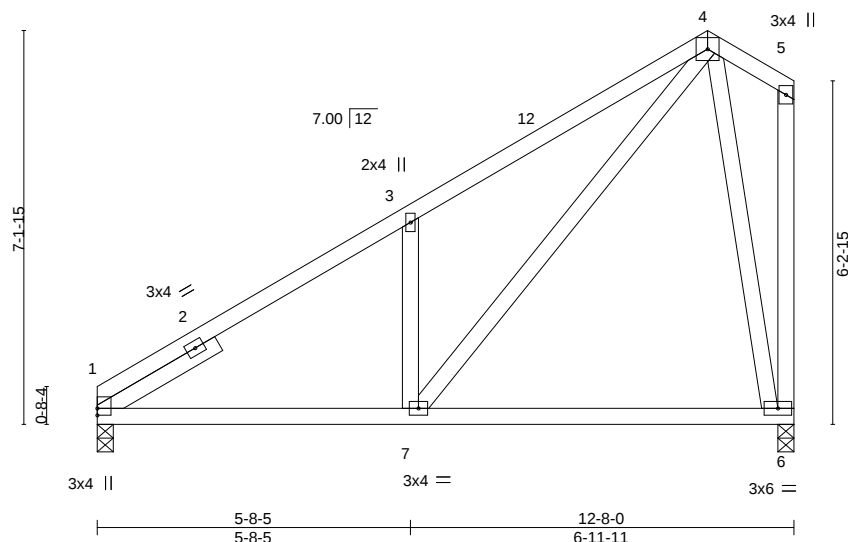
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:45:55 2021 Page 1

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5x5 =

Scale = 1:41.9



| 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 0.29   | Vert(LL) | -0.06 | 6-7   | >999   | 240 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.33   | Vert(CT) | -0.12 | 6-7   | >999   | 180 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.45   | Horz(CT) | 0.01  | 1     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |       |       |        |     | Weight: 62 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 SLIDER Left 2x4 SPF No.2 - t 2-6-0

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 1=0-3-8, 6=0-3-8  
 Max Horz 1=257(LC 11)  
 Max Uplift 1=-89(LC 12), 6=-142(LC 12)  
 Max Grav 1=563(LC 1), 6=563(LC 1)

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

TOP CHORD 1-3=-553/175, 3-4=-738/337  
 BOT CHORD 1-7=-302/593  
 WEBS 3-7=-422/268, 4-7=-282/728, 4-6=-556/341

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 11-1-3, Exterior(2E) 11-1-3 to 12-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 6=142.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 4, 2021

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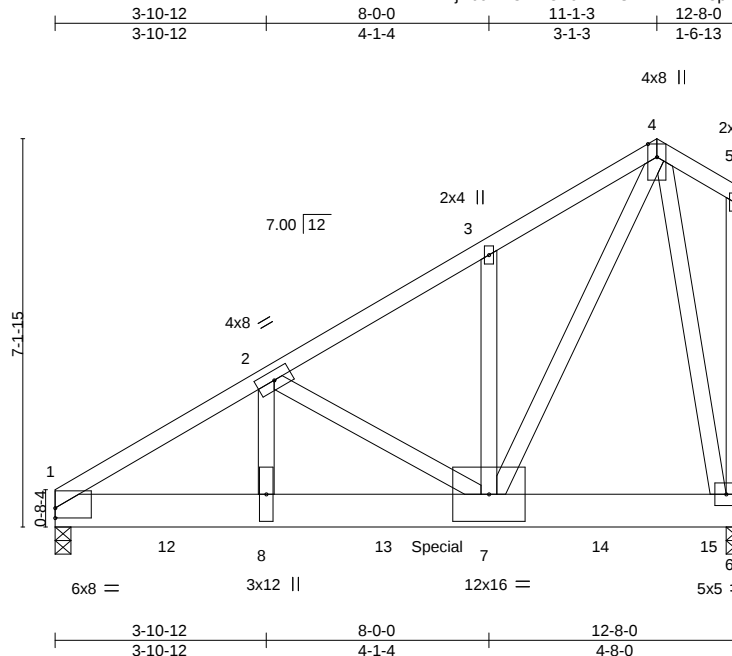


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

|                |             |                             |          |          |                                        |
|----------------|-------------|-----------------------------|----------|----------|----------------------------------------|
| Job<br>2818720 | Truss<br>B3 | Truss Type<br>COMMON GIRDER | Qty<br>1 | Ply<br>2 | SUMMIT/STONE CREEK #90/MO<br>146417953 |
|----------------|-------------|-----------------------------|----------|----------|----------------------------------------|

Builders First Source, Valley Center, KS 67147

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8.430 s Nov 18 2020 MiTek Industries, Inc. Thu Jun 3 16:21:54 2021 Page 1



Scale = 1:42.5

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

| LOADING (psf) | SPACING-             | CSI.      | DEFL.          | in (loc) | l/defl | L/d | PLATES | GRIP    |
|---------------|----------------------|-----------|----------------|----------|--------|-----|--------|---------|
| TCLL 25.0     | Plate Grip DOL 1.15  | TC 0.32   | Vert(LL) -0.07 | 7-8      | >999   | 240 | MT20   | 197/144 |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.35   | Vert(CT) -0.13 | 7-8      | >999   | 180 |        |         |
| BCLL 0.0      | Rep Stress Incr NO   | WB 0.86   | Horz(CT) 0.02  | 6        | n/a    | n/a |        |         |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-MS |                |          |        |     |        |         |

Weight: 180 lb FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Sheathed or 4-4-1 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=0-3-8, 6=0-3-8  
Max Horz 1=253(LC 7)  
Max Uplift 1=-875(LC 8), 6=-1140(LC 8)  
Max Grav 1=5312(LC 1), 6=6637(LC 1)

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

TOP CHORD 1-2=-7719/1274, 2-3=-4557/767, 3-4=-4537/868  
BOT CHORD 1-12=-1170/6609, 8-12=-1170/6609, 8-13=-1170/6609, 7-13=-1170/6609, 7-14=-223/928,  
14-15=-223/928, 6-15=-223/928  
WEBS 2-8=-475/3012, 2-7=-3199/622, 3-7=-1286/7010, 4-6=-4307/746

#### 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 0-7-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 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; TCCL=6.0psf; BCDL=4.2psf; h=25ft; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 875 lb uplift at joint 1 and 1140 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1803 lb down and 309 lb up at 2-0-12, 1803 lb down and 309 lb up at 4-0-12, 1803 lb down and 309 lb up at 6-0-12, 1803 lb down and 309 lb up at 8-0-12, and 1803 lb down and 309 lb up at 10-0-12, and 1808 lb down and 304 lb up at 12-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- Special hanger(s) or other connection device(s) shall be provided at 7-0-12 from the left end sufficient to connect trusses to front face of bottom chord, skewed 0.0 deg. to the right, sloping 0.0 deg down.. The design/selection of such special connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard



June 4, 2021

Continued on page 2

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

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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 | SUMMIT/STONE CREEK #90/MO | I46417953 |
| 2818720 | B3    | COMMON GIRDER | 1   | 2   | Job Reference (optional)  |           |

Builders First Source, Valley Center, KS 67147

8.430 s Nov 18 2020 MiTek Industries, Inc. Thu Jun 3 16:21:54 2021 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: 1-4=-70, 4-5=-70, 6-9=-20

Concentrated Loads (lb)

Vert: 8=-1803(F) 7=-1803(F) 12=-1803(F) 13=-1803(F) 14=-1803(F) 15=-1808(F)

|                          |             |                                      |          |          |                                        |
|--------------------------|-------------|--------------------------------------|----------|----------|----------------------------------------|
| Job<br>2818720           | Truss<br>C1 | Truss Type<br>Common Supported Gable | Qty<br>1 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>146417954 |
| Job Reference (optional) |             |                                      |          |          |                                        |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

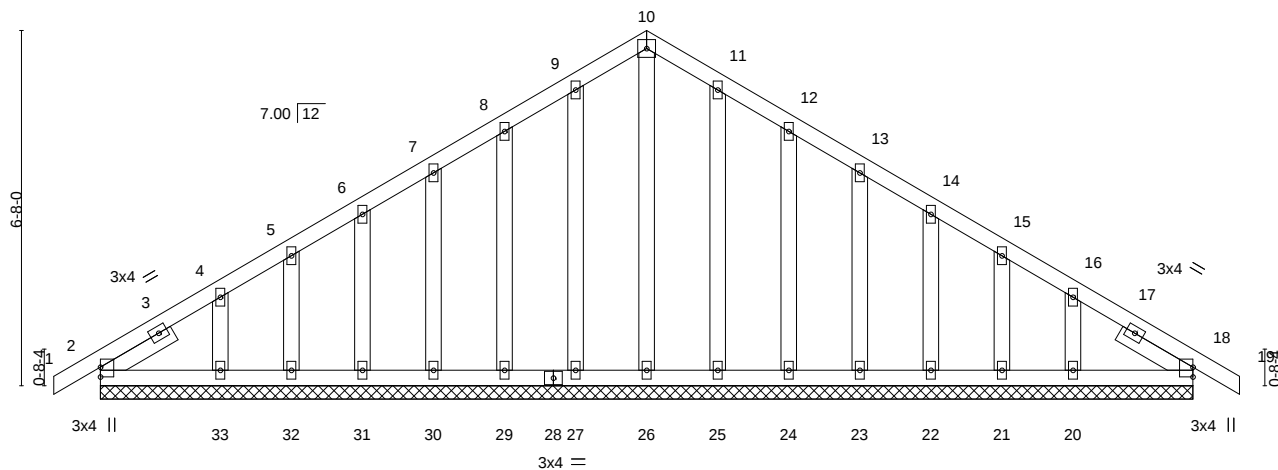
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:04 2021 Page 1

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0-10-8 10-3-0 20-6-0 21-4-8  
0-10-8 10-3-0 10-3-0 0-10-8

4x4 =

Scale = 1:43.2



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.06  | Vert(LL) | -0.00 | 18    | n/r    | 120 | MT20           | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.03  | Vert(CT) | 0.00  | 18    | n/r    | 120 |                |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.09  | Horz(CT) | 0.00  | 18    | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |          |       |       |        |     | Weight: 110 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
OTHERS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 -t 1-6-9, Right 2x4 SPF No.2 -t 1-6-9

#### 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 20-6-0.

(lb) - Max Horz 2=-169(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 2, 27, 29, 30, 31, 32, 25, 24, 23, 22, 21, 20 except

33=-102(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 2, 26, 27, 29, 30, 31, 32, 33, 25, 24, 23, 22, 21, 20, 18

**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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-3-0, Exterior(2N) 2-3-0 to 10-3-0, Corner(3R) 10-3-0 to 13-3-0, Exterior(2N) 13-3-0 to 21-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 27, 29, 30, 31, 32, 25, 24, 23, 22, 21, 20 except (jt=lb) 33=102.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 18.
- 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.



June 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |            |     |     |                           |           |
|---------|-------|------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | SUMMIT/STONE CREEK #90/MO | I46417955 |
| 2818720 | C2    | Common     | 8   | 1   |                           |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

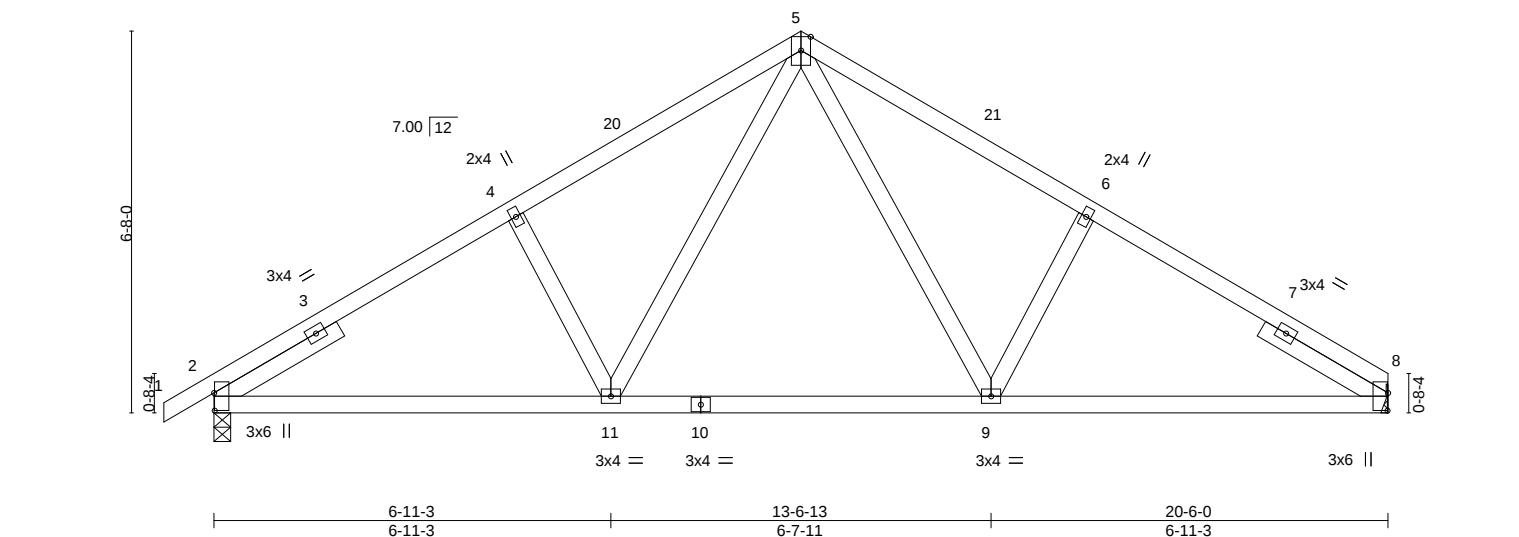
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:13 2021 Page 1

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|        |       |         |         |        |
|--------|-------|---------|---------|--------|
| 0-10-8 | 5-3-4 | 10-3-0  | 15-2-12 | 20-6-0 |
| 0-10-8 | 5-3-4 | 4-11-12 | 4-11-12 | 5-3-4  |

4x6 ||

Scale = 1:40.2



| Plate Offsets (X,Y)-- [2:0-3-11,0-0-2], [8:0-3-11,0-0-2] |      |                      |      |           |      |                |            |            |     |               |          |
|----------------------------------------------------------|------|----------------------|------|-----------|------|----------------|------------|------------|-----|---------------|----------|
| 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        | 0.24 | Vert(LL)       | -0.04 9-11 | >999       | 240 | MT20          | 197/144  |
| TCDL                                                     | 10.0 | Lumber DOL           | 1.15 | BC        | 0.37 | Vert(CT)       | -0.10 9-11 | >999       | 180 |               |          |
| BCLL                                                     | 0.0  | Rep Stress Incr      | YES  | WB        | 0.13 | Horz(CT)       | 0.03 8     | n/a        | n/a |               |          |
| BCDL                                                     | 10.0 | Code IRC2018/TPI2014 |      | Matrix-AS |      |                |            |            |     | Weight: 82 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 SLIDER Left 2x4 SPF No.2 -t 2-6-0, Right 2x4 SPF No.2 -t 2-6-0

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 8=Mechanical, 2=0-3-8  
 Max Horz 2=165(LC 11)  
 Max Uplift 8=147(LC 13), 2=167(LC 12)  
 Max Grav 8=921(LC 1), 2=985(LC 1)

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

TOP CHORD 2-4=-1188/223, 4-5=-1188/265, 5-6=-1192/267, 6-8=-1192/225  
 BOT CHORD 2-11=-222/1074, 9-11=-68/754, 8-9=-129/1079  
 WEBS 5-9=-141/459, 6-9=-305/198, 5-11=-140/453, 4-11=-301/197

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-3-0, Exterior(2R) 10-3-0 to 13-3-0, Interior(1) 13-3-0 to 20-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) 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) 8=147, 2=167.
- 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 4, 2021

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

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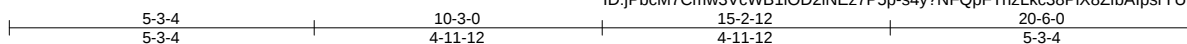
|         |       |            |     |     |                           |           |
|---------|-------|------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417956 |
| 2818720 | C3    | COMMON     | 3   | 1   |                           |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

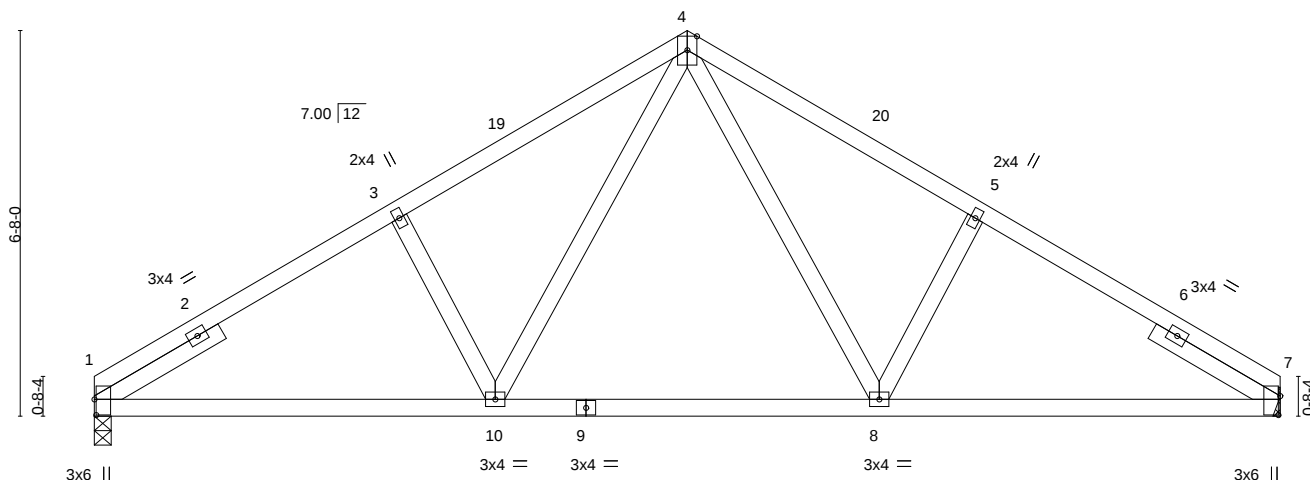
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:28 2021 Page 1

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4x6 ||

Scale = 1:39.8



|                       |                                   |
|-----------------------|-----------------------------------|
| Plate Offsets (X,Y)-- | [1:0-3-4,0-0-6], [7:0-3-15,0-0-6] |
|-----------------------|-----------------------------------|

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc) | l/defl | L/d  | PLATES        | GRIP     |
|---------------|----------------------|-------|-----------|----------|----------|--------|------|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.24   | Vert(LL) | -0.04    | 8-10   | >999 | 240           |          |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.37   | Vert(CT) | -0.10    | 8-10   | >999 | 180           |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.13   | Horz(CT) | 0.03     | 7      | n/a  | n/a           |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |          |        |      |               |          |
|               |                      |       |           |          |          |        |      | Weight: 80 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 SLIDER Left 2x4 SPF No.2 -t 2-6-0, Right 2x4 SPF No.2 -t 2-6-0

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 1=0-3-8, 7=Mechanical  
 Max Horz 1=-156(LC 8)  
 Max Uplift 1=-147(LC 12), 7=-147(LC 13)  
 Max Grav 1=923(LC 1), 7=923(LC 1)

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

TOP CHORD 1-3=-1194/225, 3-4=-1194/267, 4-5=-1194/267, 5-7=-1194/225  
 BOT CHORD 1-10=-224/1081, 8-10=-69/756, 7-8=-129/1081  
 WEBS 4-8=-141/459, 5-8=-305/198, 4-10=-141/459, 3-10=-305/198

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-3-0, Exterior(2R) 10-3-0 to 13-3-0, Interior(1) 13-3-0 to 20-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- 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) 1=147, 7=147.
- 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.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 4,2021

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



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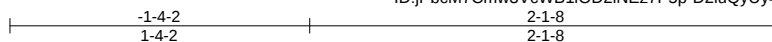
|                |              |                         |          |          |                                        |
|----------------|--------------|-------------------------|----------|----------|----------------------------------------|
| Job<br>2818720 | Truss<br>CJ1 | Truss Type<br>Jack-Open | Qty<br>1 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>I46417957 |
|----------------|--------------|-------------------------|----------|----------|----------------------------------------|

Builders FirstSource (Valley Center),

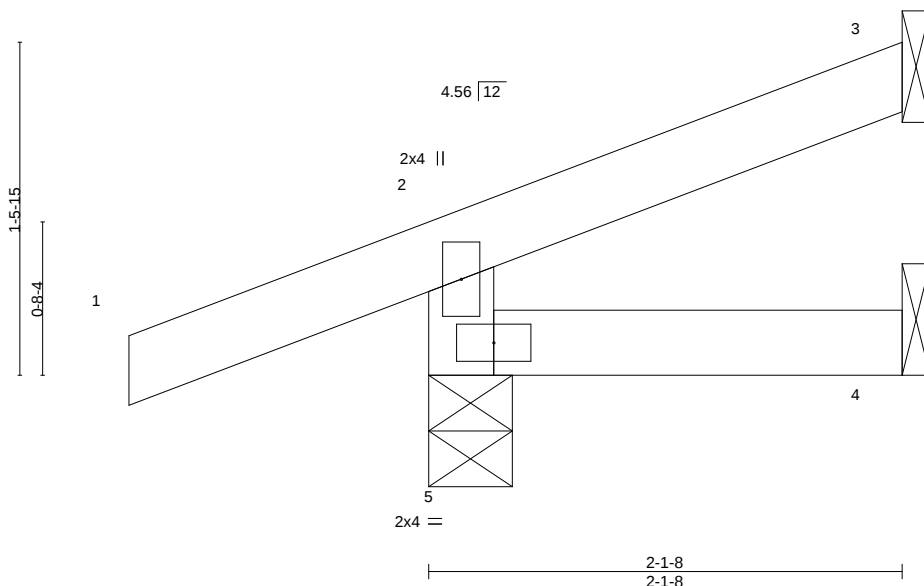
Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:33 2021 Page 1

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Scale = 1:10.3



| 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 0.15   | 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   | 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-MR |          |       |       |        |     | Weight: 7 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-1-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-4-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=49(LC 8)  
Max Uplift 5=-84(LC 8), 3=-25(LC 12)  
Max Grav 5=231(LC 1), 3=38(LC 1), 4=32(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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) 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.
- 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.



June 4, 2021

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|                |              |                         |          |          |                                        |
|----------------|--------------|-------------------------|----------|----------|----------------------------------------|
| Job<br>2818720 | Truss<br>CJ2 | Truss Type<br>Jack-Open | Qty<br>1 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>I46417958 |
|----------------|--------------|-------------------------|----------|----------|----------------------------------------|

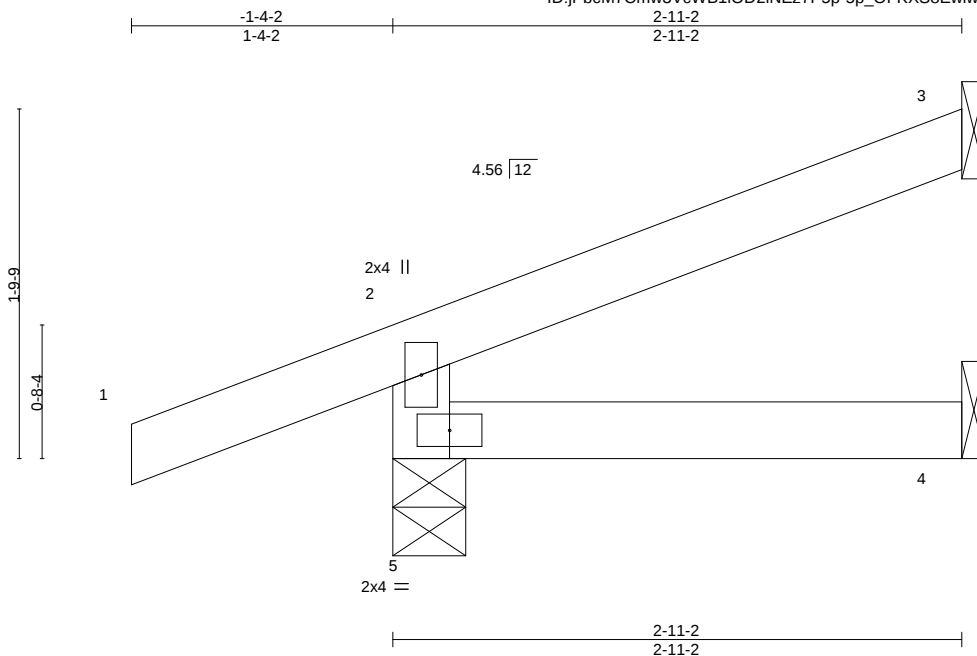
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:37 2021 Page 1

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Job Reference (optional)



Scale = 1:11.9

| 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 0.15   | 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   | 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-MR |          |       |       |        |     | Weight: 9 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-2 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-4-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=60(LC 8)  
Max Uplift 5=-82(LC 8), 3=-39(LC 12)  
Max Grav 5=255(LC 1), 3=71(LC 1), 4=48(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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) 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.
- 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.



June 4, 2021

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**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 | SUMMIT/STONE CREEK #90/MO | 146417959 |
| 2818720 | D1    | Common Supported Gable | 1   | 1   |                           |           |

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

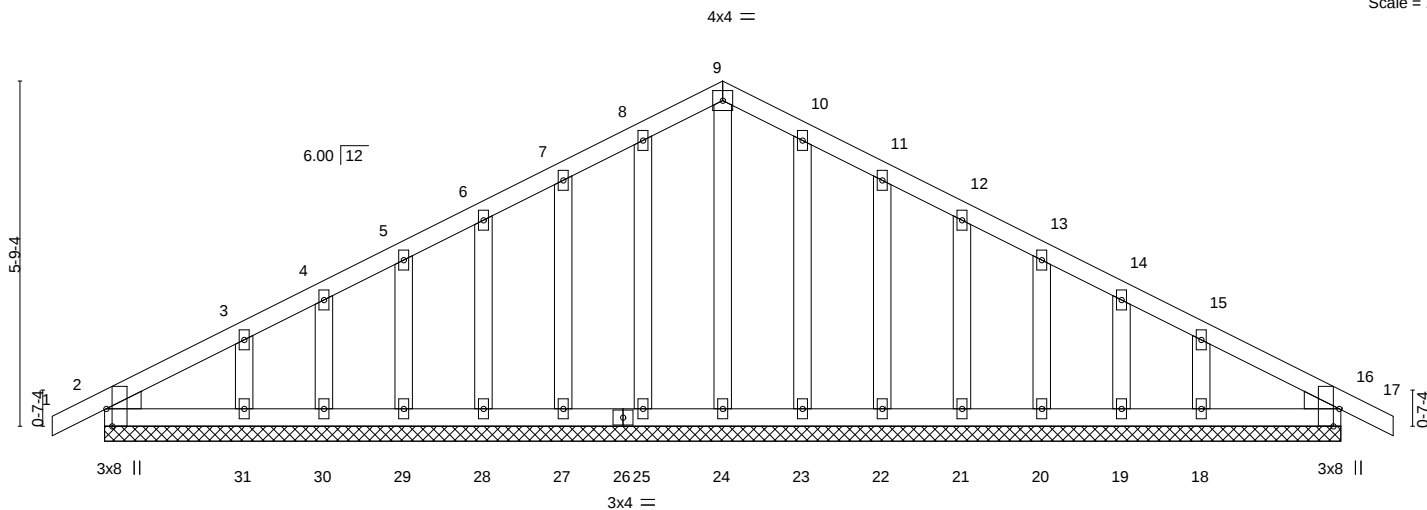
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:40 2021 Page 1

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Job Reference (optional)

0-10-8 10-4-0 20-8-0 21-6-8  
0-10-8 10-4-0 10-4-0 0-10-8

Scale = 1:38.5



|                       |                                 |
|-----------------------|---------------------------------|
| Plate Offsets (X,Y)-- | [2:0-3-8,Edge], [16:0-3-8,Edge] |
|-----------------------|---------------------------------|

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.05  | Vert(LL) | -0.00    | 16     | n/r | 120           |          |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.03  | Vert(CT) | 0.00     | 16     | n/r | 120           |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.05  | Horz(CT) | 0.00     | 16     | n/a | n/a           |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |          |          |        |     |               |          |
|               |                      |       |          |          |          |        |     | Weight: 99 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
OTHERS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2 , Right: 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 20-8-0.  
(lb) - Max Horz 2--99(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19, 18, 16  
Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19, 18, 16

**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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-10-8 to 2-4-0, Exterior(2N) 2-4-0 to 10-4-0, Corner(3R) 10-4-0 to 13-4-0, Exterior(2N) 13-4-0 to 21-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19, 18, 16.
- 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.



June 4,2021

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |            |     |     |                           |           |
|---------|-------|------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417960 |
| 2818720 | D2    | Common     | 4   | 1   |                           |           |

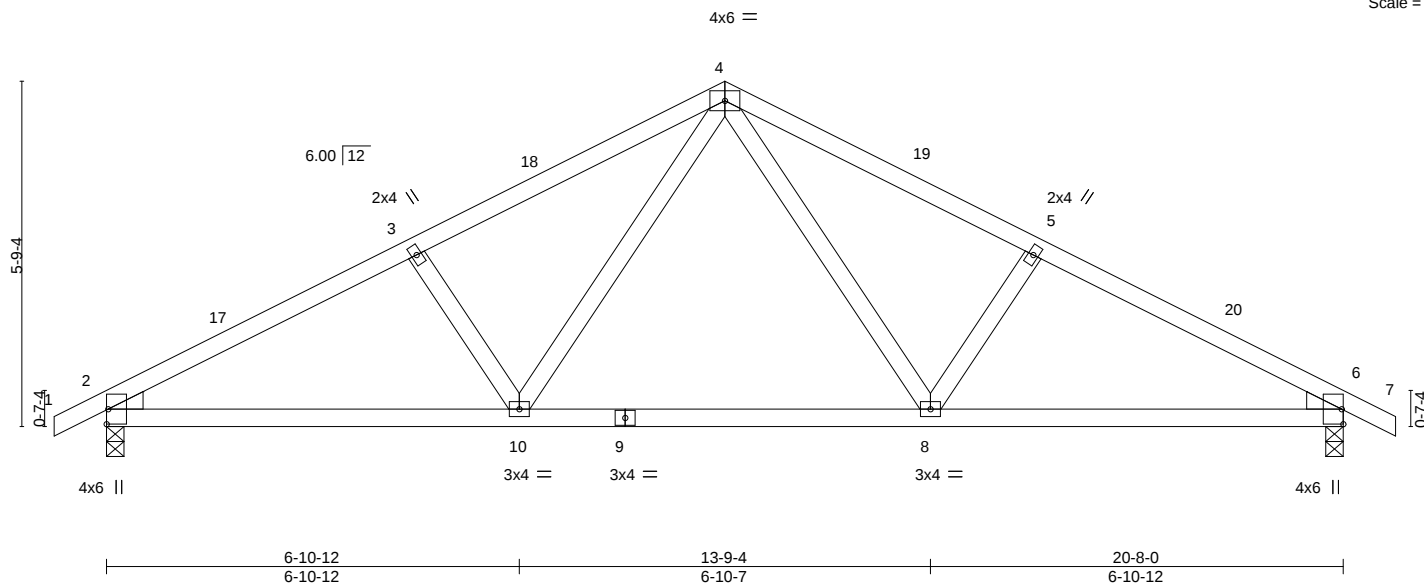
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:43 2021 Page 1

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|        |       |        |         |        |        |
|--------|-------|--------|---------|--------|--------|
| 0-10-8 | 5-2-3 | 10-4-0 | 15-5-13 | 20-8-0 | 21-6-8 |
| 0-10-8 | 5-2-3 | 5-1-13 | 5-1-13  | 5-2-3  | 0-10-8 |

Scale = 1:38.5



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.26   | Vert(LL) | -0.07 | 8-10  | >999   | 240 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.42   | Vert(CT) | -0.15 | 8-10  | >999   | 180 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.12   | Horz(CT) | 0.04  | 6     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-AS |          |       |       |        |     | Weight: 75 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2

#### REACTIONS.

(size) 2=0-3-8, 6=0-3-8

Max Horz 2=-99(LC 13)

Max Uplift 2=-173(LC 12), 6=-173(LC 13)

Max Grav 2=991(LC 1), 6=991(LC 1)

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

TOP CHORD 2-3=-1507/353, 3-4=-1337/365, 4-5=-1337/365, 5-6=-1507/353

BOT CHORD 2-10=-247/1282, 8-10=-93/888, 6-8=-237/1282

WEBS 4-8=-120/473, 5-8=-320/186, 4-10=-120/473, 3-10=-320/186

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-4-0, Exterior(2R) 10-4-0 to 13-4-0, Interior(1) 13-4-0 to 21-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=173, 6=173.

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.

6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 4,2021

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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

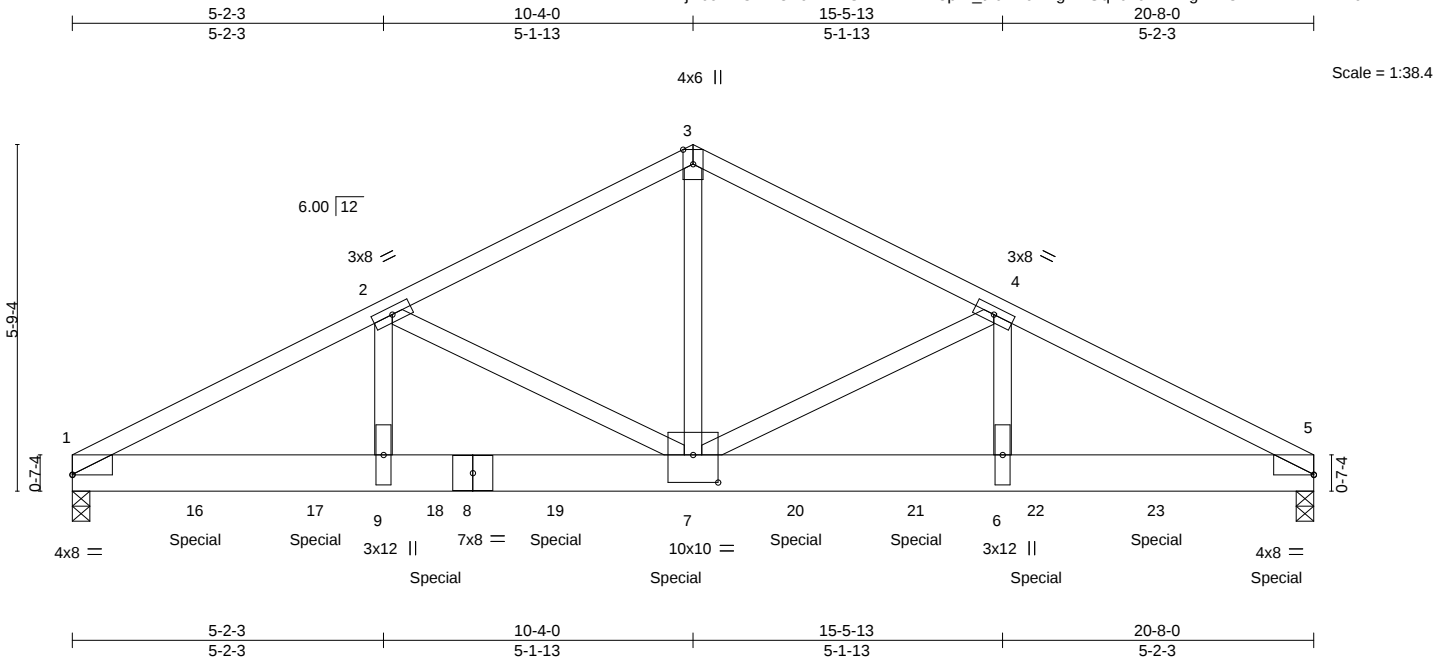


16023 Swingley Ridge Rd  
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|                |             |                             |          |          |                           |           |
|----------------|-------------|-----------------------------|----------|----------|---------------------------|-----------|
| Job<br>2818720 | Truss<br>D3 | Truss Type<br>COMMON GIRDER | Qty<br>1 | Ply<br>2 | SUMMIT/STONE CREEK #90/MO | I46417961 |
|----------------|-------------|-----------------------------|----------|----------|---------------------------|-----------|

Builders First Source, Valley Center, KS 67147

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8.430 s Nov 18 2020 MiTek Industries, Inc. Thu Jun 3 16:22:21 2021 Page 1



|                                                                        |                      |       |             |              |           |                         |     |
|------------------------------------------------------------------------|----------------------|-------|-------------|--------------|-----------|-------------------------|-----|
| Plate Offsets (X,Y)-- [1:Edge,0-0-1], [5:0-0-0,0-0-1], [7:0-5-0,0-5-8] |                      |       |             |              |           |                         |     |
| <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 0.57     | Vert(LL)     | -0.12 6-7 | >999                    | 240 |
| TCDL 10.0                                                              | Lumber DOL           | 1.15  | BC 0.34     | Vert(CT)     | -0.22 6-7 | >999                    | 180 |
| BCLL 0.0                                                               | Rep Stress Incr      | NO    | WB 0.65     | Horz(CT)     | 0.04 5    | n/a                     | n/a |
| BCDL 10.0                                                              | Code IRC2018/TPI2014 |       | Matrix-MS   |              |           |                         |     |
|                                                                        |                      |       |             |              |           | Weight: 227 lb FT = 20% |     |

#### LUMBER-

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

#### BRACING-

TOP CHORD Sheathed or 3-8-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=0-3-8, 5=0-3-8  
Max Horz 1=91(LC 33)  
Max Uplift 1=-872(LC 8), 5=-983(LC 9)  
Max Grav 1=5109(LC 1), 5=5771(LC 1)

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

TOP CHORD 1-2=-8912/1519, 2-3=-6436/1121, 3-4=-6436/1121, 4-5=-9057/1545  
BOT CHORD 1-16=-1383/7908, 16-17=-1383/7908, 17-18=-1383/7908, 18-19=-1383/7908, 19-20=-1383/7908, 20-21=-1315/8040, 21-22=-1315/8040, 22-23=-1315/8040, 23-24=-1315/8040, 24-25=-1315/8040  
WEBS 3-7=-883/5316, 4-7=-2695/571, 4-6=-316/2101, 2-7=-2545/544, 2-9=-293/1969

#### 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 0-7-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 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=4.2psf; h=25ft; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 872 lb uplift at joint 1 and 983 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 901 lb down and 167 lb up at 2-0-12, 901 lb down and 167 lb up at 4-0-12, 901 lb down and 167 lb up at 6-0-12, 901 lb down and 167 lb up at 8-0-12, 901 lb down and 167 lb up at 10-0-12, 901 lb down and 167 lb up at 12-0-12, 901 lb down and 167 lb up at 14-0-12, 903 lb down and 167 lb up at 16-0-12, and 903 lb down and 167 lb up at 18-0-12, and 906 lb down and 163 lb up at 20-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard



June 4, 2021

Continued on page 2

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Chesterfield, MO 63017

|         |       |               |     |     |                           |           |
|---------|-------|---------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type    | Qty | Ply | SUMMIT/STONE CREEK #90/MO | I46417961 |
| 2818720 | D3    | COMMON GIRDER | 1   | 2   | Job Reference (optional)  |           |

Builders First Source, Valley Center, KS 67147

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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, 3-5=-70, 10-13=-20

Concentrated Loads (lb)

Vert: 7=-901(F) 15=-906(F) 16=-901(F) 17=-901(F) 18=-901(F) 19=-901(F) 20=-901(F) 21=-901(F) 22=-903(F) 23=-903(F)

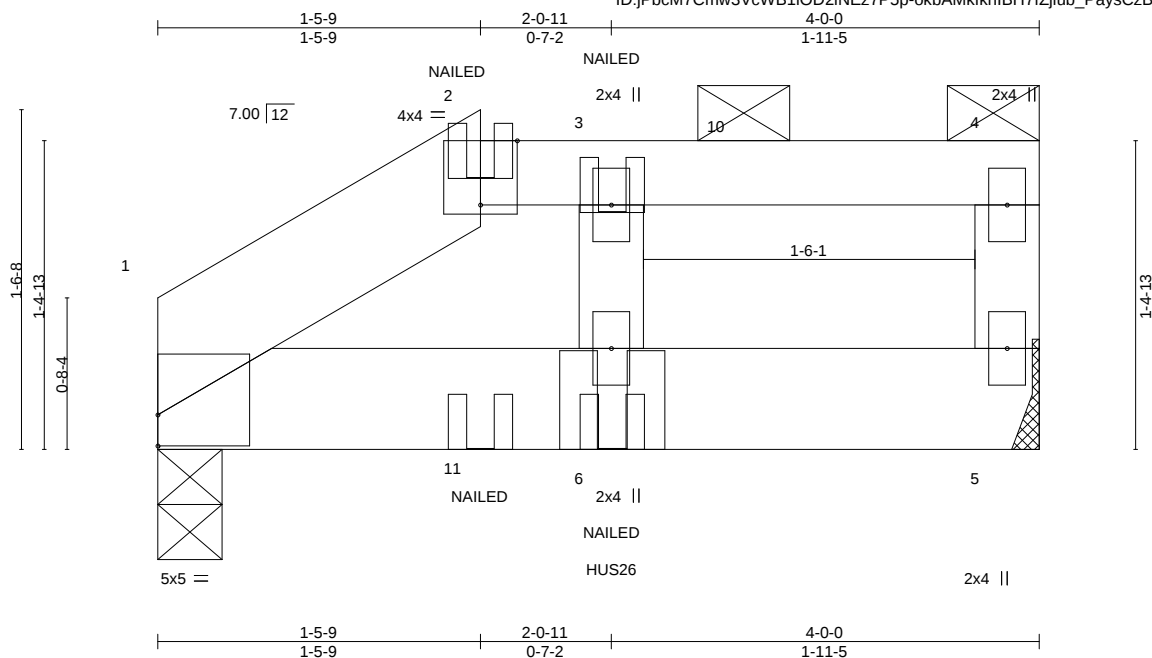
|                |             |                               |          |          |                                        |
|----------------|-------------|-------------------------------|----------|----------|----------------------------------------|
| Job<br>2818720 | Truss<br>J1 | Truss Type<br>Half Hip Girder | Qty<br>1 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>146417962 |
|----------------|-------------|-------------------------------|----------|----------|----------------------------------------|

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Valley Center, KS - 67147,

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Scale = 1:10.5

| Plate Offsets (X,Y)-- [1:0-0-0,0-1-11], [2:0-2-0,Edge] |      |                       |      |             |      |                                  |       |   |               |             |               |          |
|--------------------------------------------------------|------|-----------------------|------|-------------|------|----------------------------------|-------|---|---------------|-------------|---------------|----------|
| <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          | 0.19 | Vert(LL)                         | -0.05 | 6 | >857          | 240         | MT20          | 197/144  |
| TCDL                                                   | 10.0 | Lumber DOL            | 1.15 | BC          | 0.81 | Vert(CT)                         | -0.10 | 6 | >482          | 180         |               |          |
| BCLL                                                   | 0.0  | Rep Stress Incr       | NO   | WB          | 0.03 | Horz(CT)                         | 0.01  | 1 | n/a           | n/a         |               |          |
| BCDL                                                   | 10.0 | Code IRC2018/TPI2014  |      | Matrix-MP   |      |                                  |       |   |               |             | Weight: 15 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x6 SPF No.2 \*Except\*  
2-4: 2x4 SPF No.2  
BOT CHORD 2x6 SPF 2100F 1.8E  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-4.  
BOT CHORD Rigid ceiling directly applied or 8-7-2 oc bracing.

#### REACTIONS.

(size) 1=0-3-8, 5=Mechanical  
Max Horz 1=39(LC 7)  
Max Uplift 1=-174(LC 8), 5=-201(LC 5)  
Max Grav 1=908(LC 1), 5=1017(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=4.2psf; h=25ft; 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.
- 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) 1=174, 5=201.
- 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.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent at 2-0-12 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
- Fill all nail holes where hanger is in contact with lumber.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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, 5-7=-20  
Concentrated Loads (lb)  
Vert: 6=-1583(F=-6, B=-1577) 11=5(F)



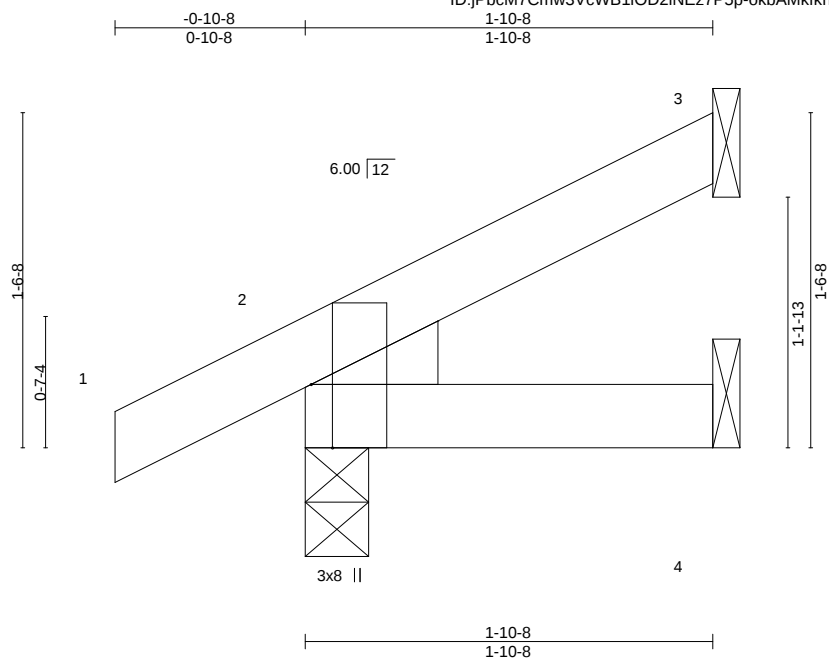
June 4,2021

**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



| Plate Offsets (X,Y)-- |       | [2:0-3:8,Edge]       |       |           |      |          |       |       |        |     |              |          |
|-----------------------|-------|----------------------|-------|-----------|------|----------|-------|-------|--------|-----|--------------|----------|
| LOADING               | (psf) | SPACING-             | 2-0-0 | CSI.      |      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES       | GRIP     |
| TCLL                  | 25.0  | Plate Grip DOL       | 1.15  | TC        | 0.05 | Vert(LL) | -0.00 | 7     | >999   | 240 | MT20         | 197/144  |
| TCDL                  | 10.0  | Lumber DOL           | 1.15  | BC        | 0.03 | Vert(CT) | -0.00 | 7     | >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-MP |      |          |       |       |        |     | Weight: 6 lb | FT = 20% |

**LUMBER-**

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

**BRACING-**

|           |                                                                  |
|-----------|------------------------------------------------------------------|
| TOP CHORD | Structural wood sheathing directly applied or 1-10-8 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=53(LC 12)  
 Max Uplift 3=-27(LC 12), 2=-28(LC 12), 4=-4(LC 12)  
 Max Grav 3=46(LC 1), 2=159(LC 1), 4=31(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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 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.



June 4, 2021



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Chesterfield, MO 63017

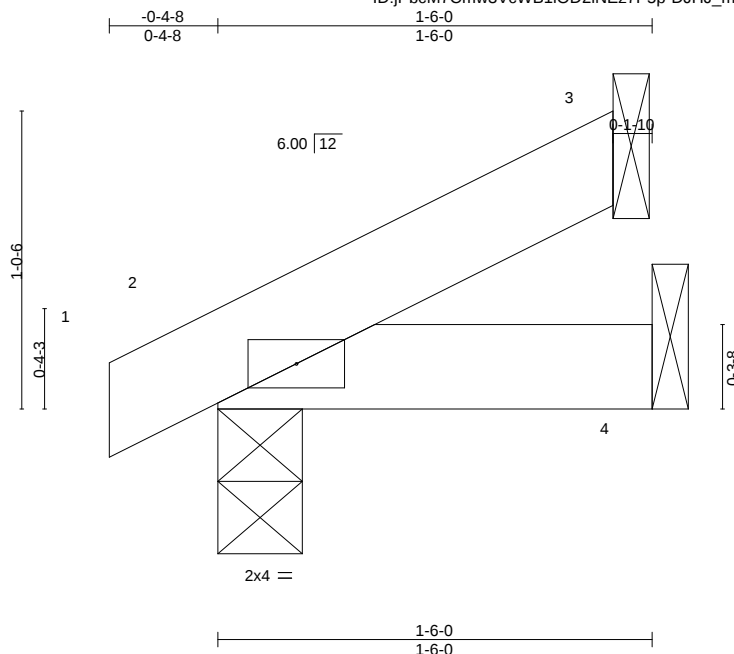
|         |       |             |     |     |                           |           |
|---------|-------|-------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type  | Qty | Ply | SUMMIT/STONE CREEK #90/MO | I46417964 |
| 2818720 | J3    | Jack-Closed | 4   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:50 2021 Page 1

ID:jPbcM7Cmw3VcWB1iOD2INEz7P5p-DJHJ\_mhc4DZs\_6IHR08h1CaPjANY?VvzOE?\_Ycz9ytJ



Scale: 1.5"=1'

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES       | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------|-------|--------|-----|--------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.04   | Vert(LL) | -0.00 | 7     | >999   | 240 | MT20         | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.08   | Vert(CT) | -0.00 | 7     | >999   | 180 |              |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.00   | Horz(CT) | 0.00  | 2     | n/a    | n/a |              |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-MP |          |       |       |        |     | Weight: 4 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 1-6-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 4=Mechanical  
Max Horz 2=32(LC 12)  
Max Uplift 2=-17(LC 12), 4=-15(LC 9)  
Max Grav 2=96(LC 1), 4=55(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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 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.



June 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                |             |                      |          |          |                                        |
|----------------|-------------|----------------------|----------|----------|----------------------------------------|
| Job<br>2818720 | Truss<br>V1 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>146417965 |
|----------------|-------------|----------------------|----------|----------|----------------------------------------|

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

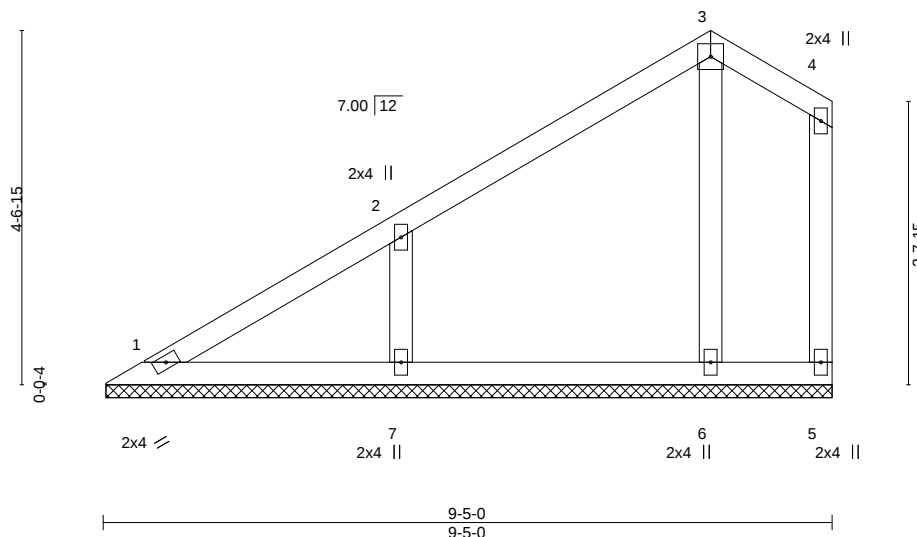
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:51 2021 Page 1

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4x4 =

Scale = 1:29.8



| 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 0.20  | Vert(LL) | n/a   | -     | n/a    | 999 | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.09  | Vert(CT) | n/a   | -     | n/a    | 999 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.07  | Horz(CT) | -0.00 | 5     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |          |       |       |        |     | Weight: 33 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 9-4-9.

(lb) - Max Horz 1=158(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6 except 7=-152(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=271(LC 19), 7=402(LC 19)

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

WEBS 2-7=-312/232

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 7-10-3, Exterior(2E) 7-10-3 to 9-3-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 6 except (jt=lb) 7=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.



June 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

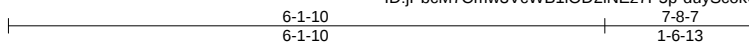
|                          |             |                      |          |          |                                        |
|--------------------------|-------------|----------------------|----------|----------|----------------------------------------|
| Job<br>2818720           | Truss<br>V2 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>I46417966 |
| Job Reference (optional) |             |                      |          |          |                                        |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

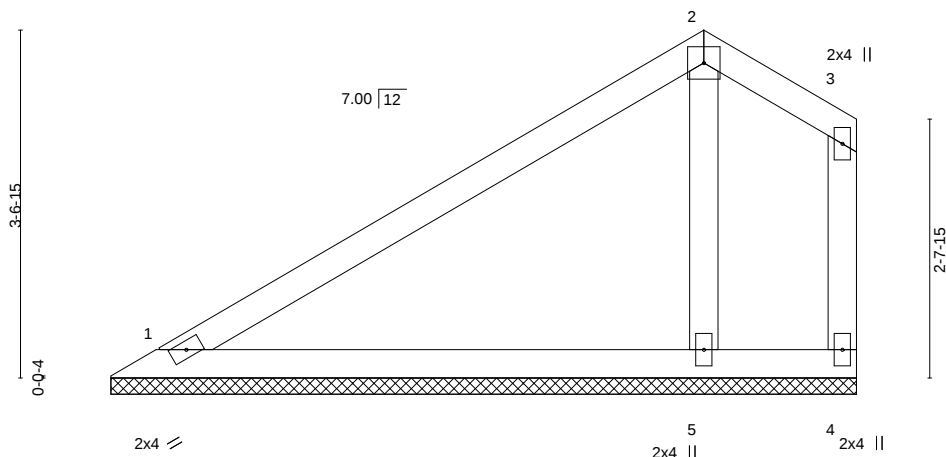
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:53 2021 Page 1

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4x4 =

Scale = 1:23.7



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.62  | Vert(LL) | n/a      | -      | n/a | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.22  | Vert(CT) | n/a      | -      | n/a |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.05  | Horz(CT) | -0.00    | 4      | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P |          |          |        |     | Weight: 24 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=7-8-0, 4=7-8-0, 5=7-8-0  
Max Horz 1=119(LC 9)  
Max Uplift 1=-48(LC 12), 4=-46(LC 3), 5=-29(LC 12)  
Max Grav 1=240(LC 1), 4=36(LC 20), 5=380(LC 19)

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

WEBS 2-5=-254/199

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 6-1-10, Exterior(2E) 6-1-10 to 7-6-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



June 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|         |       |            |     |     |                           |           |
|---------|-------|------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | SUMMIT/STONE CREEK #90/MO | I46417967 |
| 2818720 | V3    | Valley     | 1   | 1   |                           |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:54 2021 Page 1

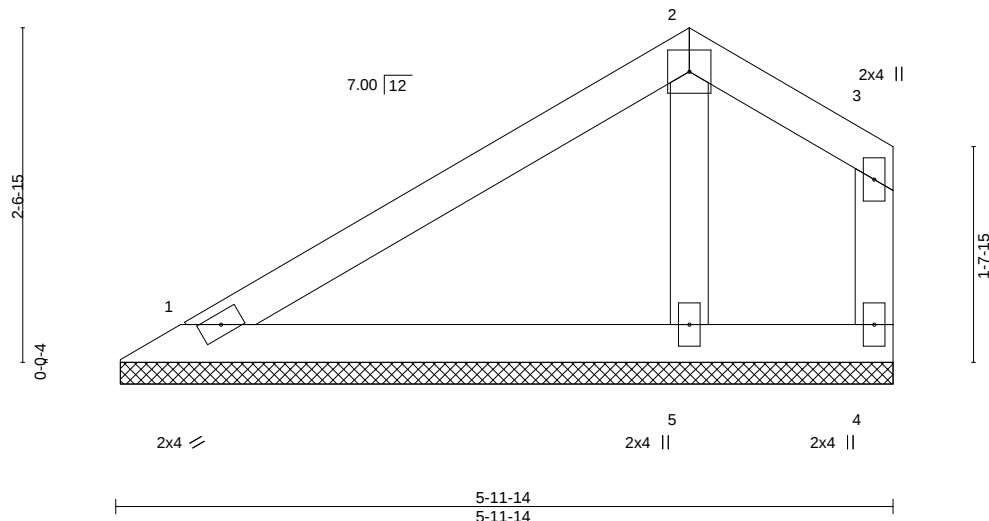
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Job Reference (optional)

4-5-1 4-5-1 5-11-14 1-6-13

4x4 =

Scale = 1:17.8



| 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 0.28  | Vert(LL) | n/a      | -      | n/a | 999    | MT20                   |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.10  | Vert(CT) | n/a      | -      | n/a | 999    | 197/144                |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.03  | Horz(CT) | 0.00     | 4      | n/a | n/a    |                        |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P |          |          |        |     |        |                        |
|               |                      |       |          |          |          |        |     |        | Weight: 18 lb FT = 20% |

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-14 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=5-11-7, 4=5-11-7, 5=5-11-7  
Max Horz 1=79(LC 9)  
Max Uplift 1=-35(LC 12), 4=-27(LC 13), 5=-23(LC 12)  
Max Grav 1=167(LC 1), 4=54(LC 20), 5=268(LC 19)

**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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 4-5-1, Exterior(2E) 4-5-1 to 5-10-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 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.



June 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

|                |             |                      |          |          |                                        |
|----------------|-------------|----------------------|----------|----------|----------------------------------------|
| Job<br>2818720 | Truss<br>V4 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>I46417968 |
|----------------|-------------|----------------------|----------|----------|----------------------------------------|

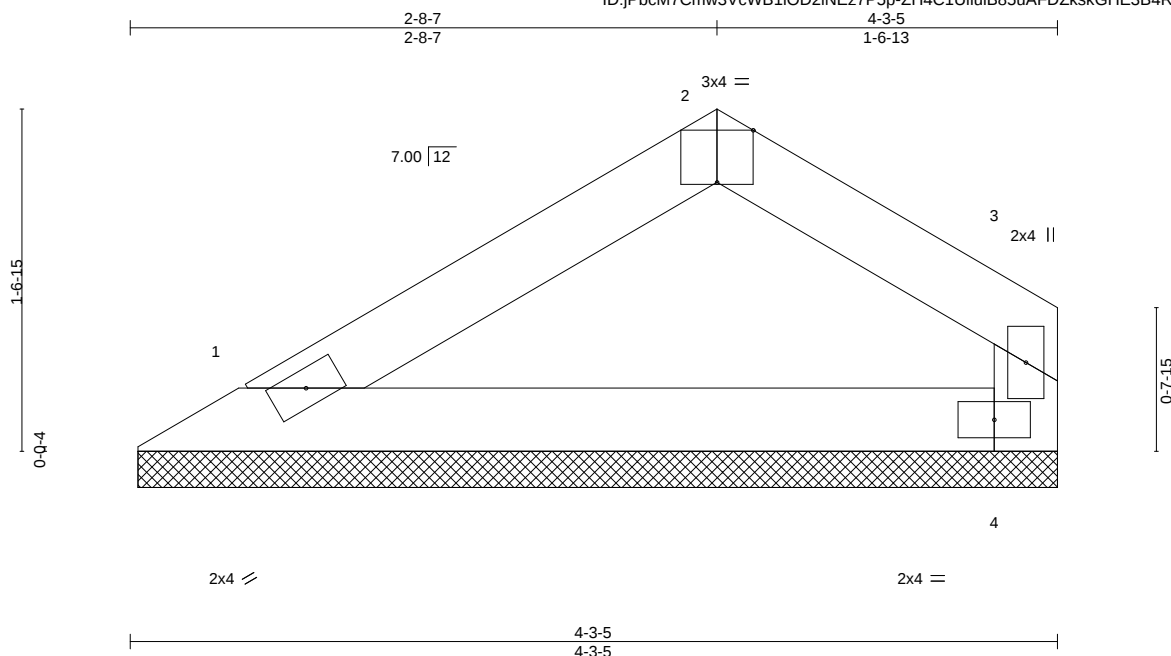
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:55 2021 Page 1

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Job Reference (optional)



Scale = 1:10.6

| Plate Offsets (X,Y)-- |                 | [2:0-2:0,Edge]  |                         |
|-----------------------|-----------------|-----------------|-------------------------|
| <b>LOADING</b> (psf)  | <b>SPACING-</b> | 2-0-0           | <b>CSI.</b>             |
| TCLL 25.0             | Plate Grip DOL  | 1.15            | TC 0.07                 |
| TCDL 10.0             | Lumber DOL      | 1.15            | BC 0.10                 |
| BCLL 0.0              | Rep Stress Incr | YES             | WB 0.00                 |
| BCDL 10.0             | Code            | IRC2018/TPI2014 | Matrix-R                |
|                       |                 |                 | <b>DEFL.</b>            |
|                       |                 |                 | in (loc) l/defl L/d     |
|                       |                 |                 | Vert(LL) n/a - n/a 999  |
|                       |                 |                 | Vert(CT) n/a - n/a 999  |
|                       |                 |                 | Horz(CT) 0.00 4 n/a n/a |
|                       |                 |                 | <b>PLATES</b>           |
|                       |                 |                 | MT20                    |
|                       |                 |                 | <b>GRIP</b>             |
|                       |                 |                 | 197/144                 |
|                       |                 |                 | Weight: 10 lb FT = 20%  |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=4-2-14, 4=4-2-14  
Max Horz 1=39(LC 9)  
Max Uplift 1=-28(LC 12), 4=-23(LC 13)  
Max Grav 1=161(LC 1), 4=161(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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Bearing at joint(s) 4 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) 1, 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.



June 4, 2021

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**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 | SUMMIT/STONE CREEK #90/MO | I46417969 |
| 2818720 | V5    | Valley     | 1   | 1   |                           |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:56 2021 Page 1

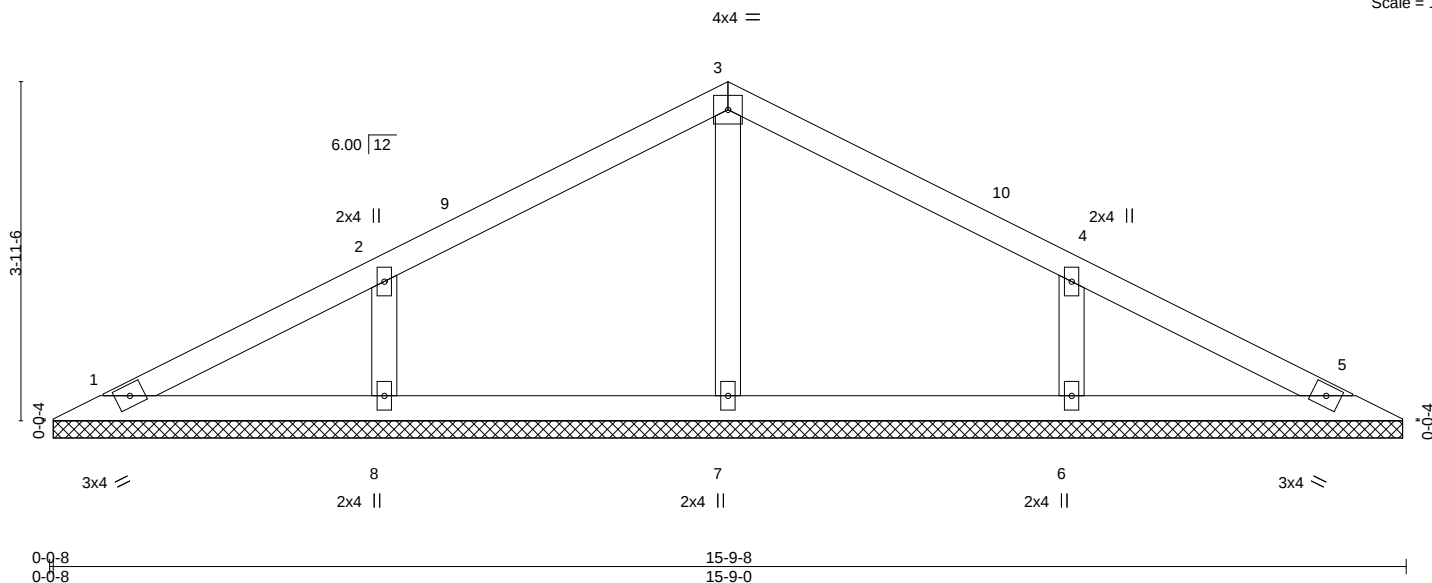
ID:jPbcM7Cmw3VcWB1iOD2INEz7P5p-1TeaFpmNf3J?i1IRnHF5GTqOwbQIPDWsmASIGz9ytD

Job Reference (optional)

15-9-8  
7-10-12

7-10-12  
7-10-12

Scale = 1:26.8



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in   | (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|------|-------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.19  | Vert(LL) | n/a  | -     | n/a    | 999 | MT20          | 197/144  |
| BCDL 10.0     | Lumber DOL           | 1.15  | BC 0.09  | Vert(CT) | n/a  | -     | n/a    | 999 |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.06  | Horz(CT) | 0.00 | 5     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |          |      |       |        |     | Weight: 43 lb | FT = 20% |

#### 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 15-8-8.  
(lb) - Max Horz 1=64(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-137(LC 12), 6=-136(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=307(LC 1), 8=388(LC 25), 6=388(LC 26)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-303/196, 4-6=-303/196

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-10-12, Interior(1) 3-10-12 to 7-10-12, Exterior(2R) 7-10-12 to 10-10-12, Interior(1) 10-10-12 to 15-1-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=137, 6=136.
- 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.



June 4, 2021

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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

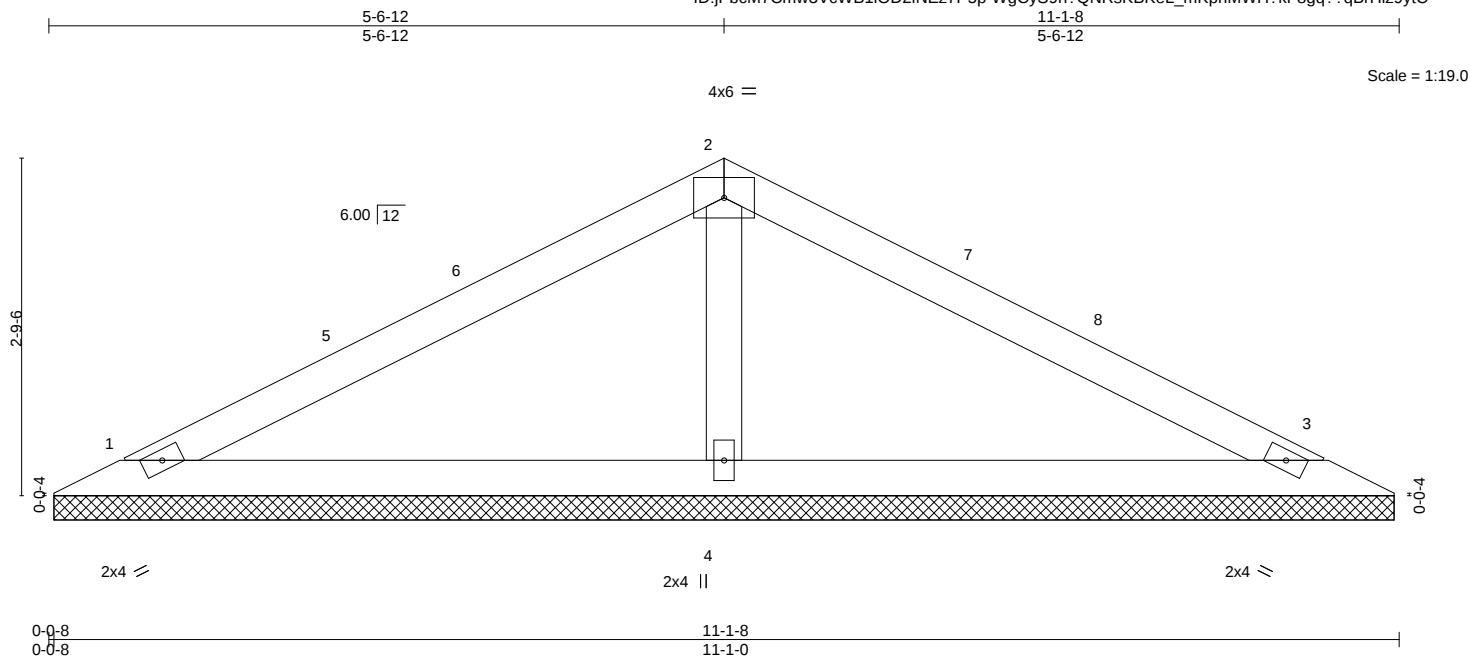
|         |       |            |     |     |                           |           |
|---------|-------|------------|-----|-----|---------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | SUMMIT/STONE CREEK #90/MO | 146417970 |
| 2818720 | V6    | Valley     | 1   | 1   | Job Reference (optional)  |           |

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:57 2021 Page 1

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| 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 0.34  | Vert(LL) | n/a      | -      | n/a | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.20  | Vert(CT) | n/a      | -      | n/a |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.05  | Horz(CT) | 0.00     | 3      | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-S |          |          |        |     | Weight: 28 lb | FT = 20% |

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=11-0-8, 3=11-0-8, 4=11-0-8  
Max Horz 1=44(LC 12)  
Max Uplift 1=-48(LC 12), 3=-56(LC 13), 4=-51(LC 12)  
Max Grav 1=205(LC 25), 3=205(LC 26), 4=483(LC 1)

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

WEBS 2-4=-334/193

#### 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-6-12, Exterior(2R) 5-6-12 to 8-6-12, Interior(1) 8-6-12 to 10-5-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 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.



June 4, 2021

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Chesterfield, MO 63017

|                |             |                      |          |          |                                        |
|----------------|-------------|----------------------|----------|----------|----------------------------------------|
| Job<br>2818720 | Truss<br>V7 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>146417971 |
|----------------|-------------|----------------------|----------|----------|----------------------------------------|

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

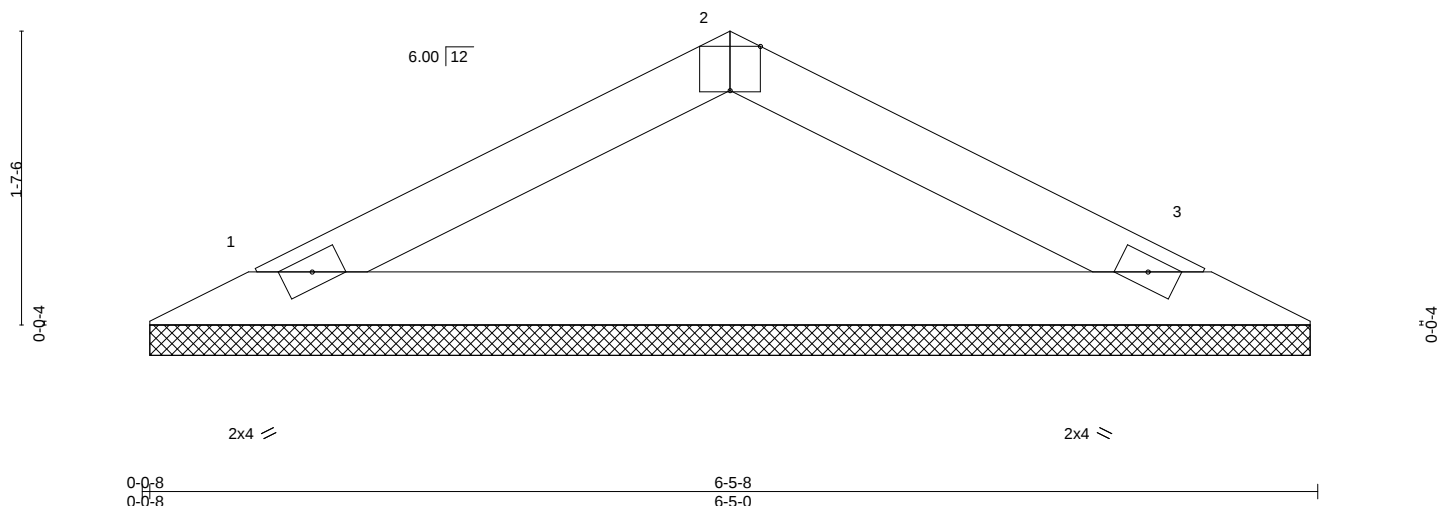
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:57 2021 Page 1

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6-5-8

3-2-12

Scale = 1:12.7



| Plate Offsets (X,Y)-- [2:0-2-0,Edge] |      |                 |                 |             |      |              |          |               |             |
|--------------------------------------|------|-----------------|-----------------|-------------|------|--------------|----------|---------------|-------------|
| <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          | 0.14 | Vert(LL)     | n/a      | -             | n/a         |
| TCDL                                 | 10.0 | Lumber DOL      | 1.15            | BC          | 0.29 | Vert(CT)     | n/a      | -             | n/a         |
| BCLL                                 | 0.0  | Rep Stress Incr | YES             | WB          | 0.00 | Horz(CT)     | 0.00     | 3             | n/a         |
| BCDL                                 | 10.0 | Code            | IRC2018/TPI2014 | Matrix-P    |      |              |          |               |             |
|                                      |      |                 |                 |             |      |              |          | <b>PLATES</b> | <b>GRIP</b> |
|                                      |      |                 |                 |             |      |              |          | MT20          | 197/144     |
|                                      |      |                 |                 |             |      |              |          | Weight: 14 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 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=6-4-8, 3=6-4-8  
Max Horz 1=-23(LC 13)  
Max Uplift 1=-39(LC 12), 3=-39(LC 13)  
Max Grav 1=234(LC 1), 3=234(LC 1)

**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; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



June 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

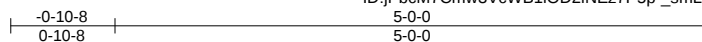
|                          |       |            |     |     |                           |
|--------------------------|-------|------------|-----|-----|---------------------------|
| Job                      | Truss | Truss Type | Qty | Ply | SUMMIT/STONE CREEK #90/MO |
| 2818720                  | V8    | Valley     | 1   | 1   | I46417972                 |
| Job Reference (optional) |       |            |     |     |                           |

Builders FirstSource (Valley Center),

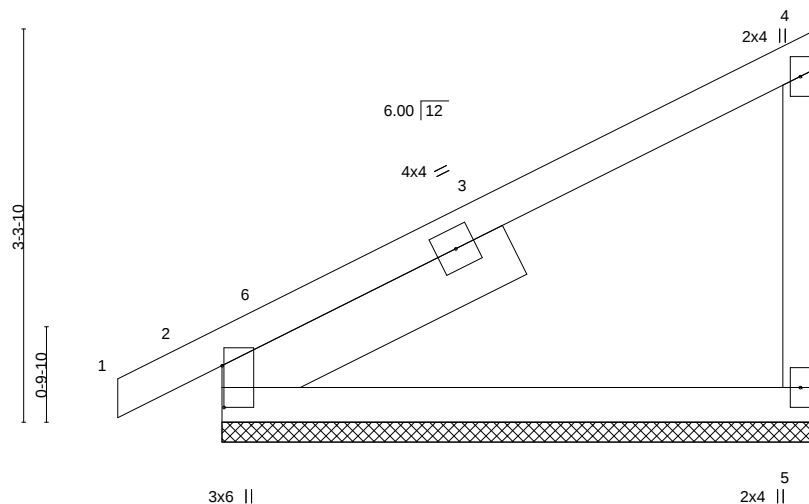
Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:58 2021 Page 1

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Scale = 1:19.3



| Plate Offsets (X,Y)-- |      | [2:0-4-3,0-0-3]      |       |             |      |              |          |        |     |               |               |          |
|-----------------------|------|----------------------|-------|-------------|------|--------------|----------|--------|-----|---------------|---------------|----------|
| <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          | 0.44 | Vert(LL)     | -0.00    | 1      | n/r | 120           | MT20          | 197/144  |
| TCDL                  | 10.0 | Lumber DOL           | 1.15  | BC          | 0.24 | Vert(CT)     | 0.00     | 1      | n/r | 120           |               |          |
| BCLL                  | 0.0  | Rep Stress Incr      | YES   | WB          | 0.00 | Horz(CT)     | 0.00     | 5      | n/a | n/a           |               |          |
| BCDL                  | 10.0 | Code IRC2018/TPI2014 |       | Matrix-P    |      |              |          |        |     |               | Weight: 21 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x6 SPF No.2 -t 2-8-9

#### BRACING-

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

#### REACTIONS.

(size) 5=5-0-0, 2=5-0-0  
Max Horz 2=120(LC 9)  
Max Uplift 5=-66(LC 12), 2=-53(LC 12)  
Max Grav 5=213(LC 1), 2=285(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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 4, 2021

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Chesterfield, MO 63017

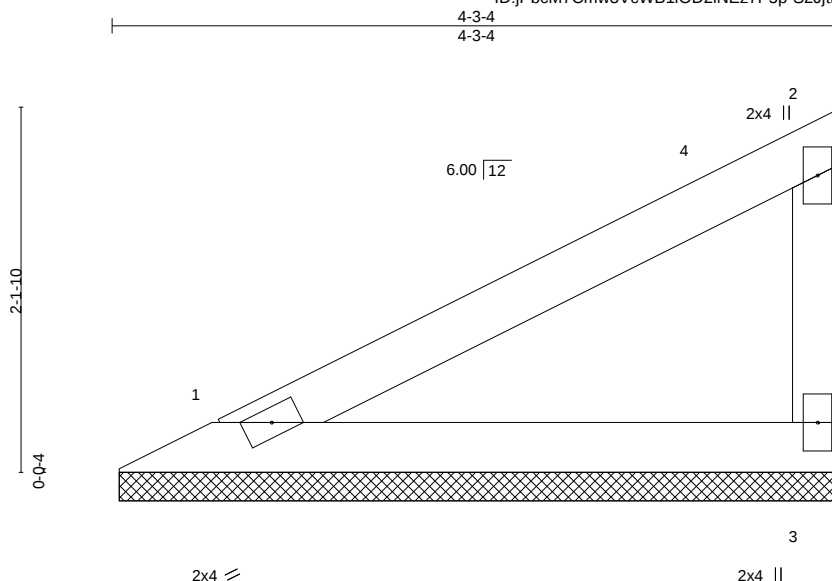
|                |             |                      |          |          |                                        |
|----------------|-------------|----------------------|----------|----------|----------------------------------------|
| Job<br>2818720 | Truss<br>V9 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>I46417973 |
|----------------|-------------|----------------------|----------|----------|----------------------------------------|

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:59 2021 Page 1

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Scale = 1:13.5

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 25.0     | Plate Grip DOL       | 1.15  | TC 0.22  | Vert(LL) | n/a      | -      | n/a | MT20          | 197/144  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.12  | Vert(CT) | n/a      | -      | n/a |               |          |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.00  | Horz(CT) | 0.00     | 3      | n/a |               |          |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-P |          |          |        |     | Weight: 11 lb | FT = 20% |

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 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) 1=4-2-12, 3=4-2-12

Max Horz 1=73(LC 9)

Max Uplift 1=-26(LC 12), 3=-45(LC 12)

Max Grav 1=157(LC 1), 3=157(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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-1-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



June 4, 2021

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Chesterfield, MO 63017

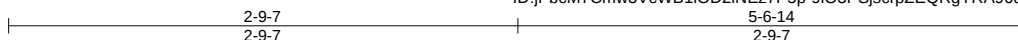
|                |              |                      |          |          |                                        |
|----------------|--------------|----------------------|----------|----------|----------------------------------------|
| Job<br>2818720 | Truss<br>V10 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | SUMMIT/STONE CREEK #90/MO<br>146417974 |
|----------------|--------------|----------------------|----------|----------|----------------------------------------|

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

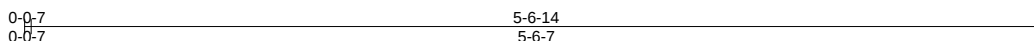
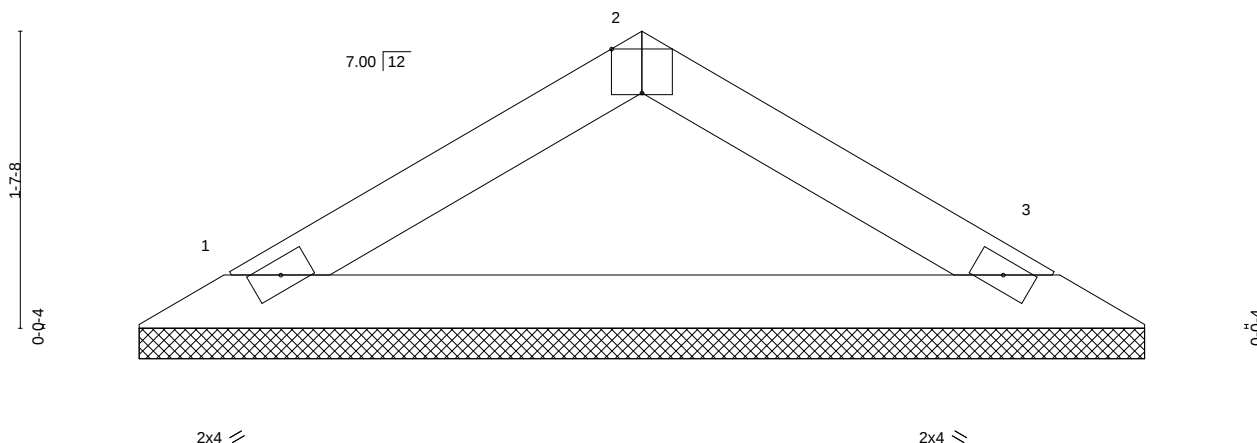
8.430 s May 12 2021 MiTek Industries, Inc. Thu Jun 3 14:46:52 2021 Page 1

ID:jPbcM7Cmw3VcWB1iOD2INEz7P5p-9iO3PSjsrPZEQRgYRA96dfkW\_1uTPPGYU4cVz9ytH



3x4 =

Scale = 1:12.6



| Plate Offsets (X,Y)-- |      | [2:0-2-0,Edge]       |      |          |      |                           |            |        |               |          |  |
|-----------------------|------|----------------------|------|----------|------|---------------------------|------------|--------|---------------|----------|--|
| LOADING (psf)         |      | SPACING- 2-0-0       |      | CSI.     |      | DEFL. in (loc) l/defl L/d |            | PLATES |               | GRIP     |  |
| TCLL                  | 25.0 | Plate Grip DOL       | 1.15 | TC       | 0.09 | Vert(LL)                  | n/a - n/a  | 999    | MT20          | 197/144  |  |
| TCDL                  | 10.0 | Lumber DOL           | 1.15 | BC       | 0.21 | 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: 12 lb | FT = 20% |  |

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

#### BRACING-

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied or 5-6-14 oc purlins.

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

#### REACTIONS.

(size) 1=5-6-1, 3=5-6-1

Max Horz 1=-34(LC 8)

Max Uplift 1=-33(LC 12), 3=-33(LC 13)

Max Grav 1=202(LC 1), 3=202(LC 1)

**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; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



June 4, 2021

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

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

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

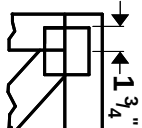
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



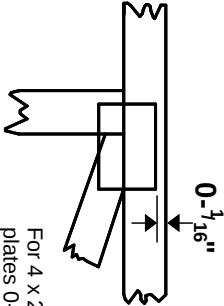
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless X, Y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0-  $\frac{3}{16}$ " from outside edge of truss.

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

**\* Plate location details available in MiTek 2012 software or upon request.**

## PLATE SIZE

4 X 4

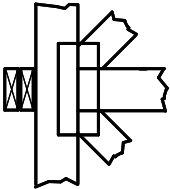
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



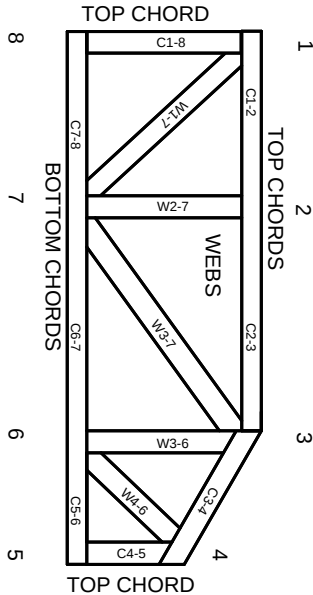
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



**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/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.