



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

RE: 3981398 - IC CONST. = CASTAGNA - WEST RES

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

**Site Information:**

Customer Info: IC CONSTRUCTION Project Name: Castagna-West Res. Model: Custom  
Lot/Block: N/A Subdivision: N/A  
Address: TBD, TBD  
City: Columbia Cty State: FL

**Name Address and License # of Structural Engineer of Record, If there is one, for the building.**

Name: Address: City: State: License #:

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

Design Code: FBC2023/TPI2014 Design Program: MiTek 20/20 8.7  
Wind Code: ASCE 7-22 Wind Speed: 130 mph  
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 30 individual, Truss Design Drawings and 0 Additional Drawings.

With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

| No. | Seal#     | Truss Name | Date   | No. | Seal#     | Truss Name | Date   |
|-----|-----------|------------|--------|-----|-----------|------------|--------|
| 1   | T33717700 | PB01       | 5/1/24 | 15  | T33717714 | T07G       | 5/1/24 |
| 2   | T33717701 | PB01G      | 5/1/24 | 16  | T33717715 | T08        | 5/1/24 |
| 3   | T33717702 | T01        | 5/1/24 | 17  | T33717716 | T09        | 5/1/24 |
| 4   | T33717703 | T01G       | 5/1/24 | 18  | T33717717 | T09G       | 5/1/24 |
| 5   | T33717704 | T02        | 5/1/24 | 19  | T33717718 | T10        | 5/1/24 |
| 6   | T33717705 | T02G       | 5/1/24 | 20  | T33717719 | T11        | 5/1/24 |
| 7   | T33717706 | T03        | 5/1/24 | 21  | T33717720 | T11G       | 5/1/24 |
| 8   | T33717707 | T03G       | 5/1/24 | 22  | T33717721 | T12        | 5/1/24 |
| 9   | T33717708 | T04        | 5/1/24 | 23  | T33717722 | T13        | 5/1/24 |
| 10  | T33717709 | T04G       | 5/1/24 | 24  | T33717723 | T13G       | 5/1/24 |
| 11  | T33717710 | T05        | 5/1/24 | 25  | T33717724 | T14        | 5/1/24 |
| 12  | T33717711 | T06        | 5/1/24 | 26  | T33717725 | T15        | 5/1/24 |
| 13  | T33717712 | T06G       | 5/1/24 | 27  | T33717726 | T15G       | 5/1/24 |
| 14  | T33717713 | T07        | 5/1/24 | 28  | T33717727 | V01        | 5/1/24 |



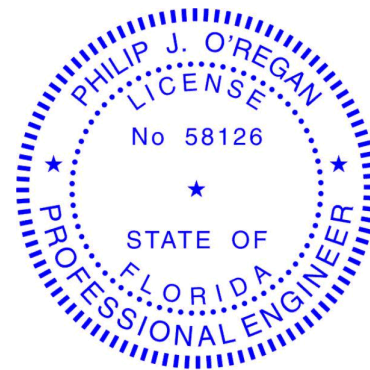
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The truss drawing(s) referenced above have been prepared by  
MiTek USA, Inc. under my direct supervision based on the parameters  
provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name: O'Regan, Philip  
My license renewal date for the state of Florida is February 28, 2025.

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



Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 1, 2024

O'Regan, Philip

1 of 2



RE: 3981398 - IC CONST. = CASTAGNA - WEST RES

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

**Site Information:**

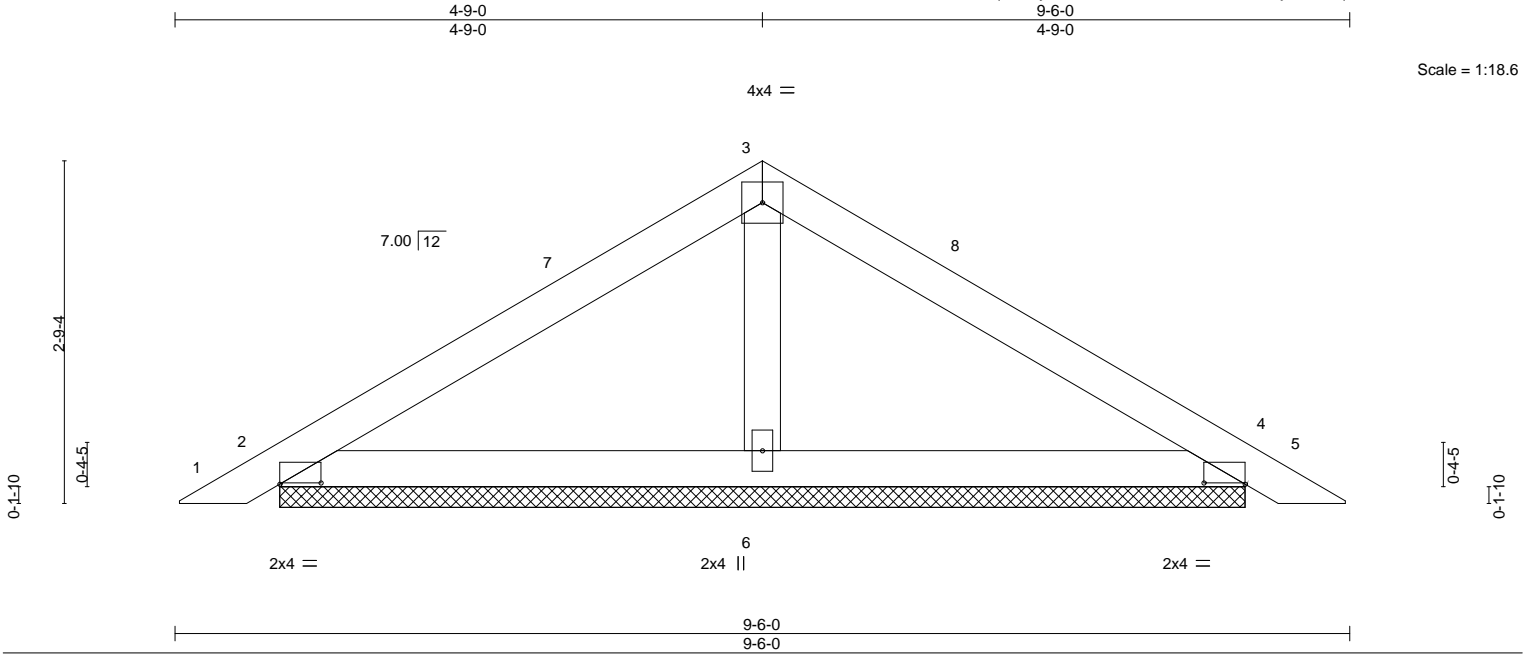
Customer Info: IC CONSTRUCTION   Project Name: Castagna-West Res.   Model: Custom  
Lot/Block: N/A   Subdivision: N/A  
Address: TBD, TBD  
City: Columbia Cty   State: FL

| No. | Seal#     | Truss Name | Date   |
|-----|-----------|------------|--------|
| 29  | T33717728 | V02        | 5/1/24 |
| 30  | T33717729 | V03        | 5/1/24 |

|         |       |            |     |     |                                 |           |
|---------|-------|------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717700 |
| 3981398 | PB01  | Piggyback  | 17  | 1   | Job Reference (optional)        |           |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:08 2024 Page 1  
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|                       |  |                                  |       |          |  |  |  |  |          |          |        |     |               |          |
|-----------------------|--|----------------------------------|-------|----------|--|--|--|--|----------|----------|--------|-----|---------------|----------|
| Plate Offsets (X,Y)-- |  | [2:0-4-0,0-0-2], [4:0-4-0,0-0-2] |       |          |  |  |  |  |          |          |        |     |               |          |
| LOADING (psf)         |  | SPACING-                         | 2-0-0 | CSI.     |  |  |  |  | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP     |
| TCLL 20.0             |  | Plate Grip DOL                   | 1.25  | TC 0.17  |  |  |  |  | Vert(LL) | 0.01 5   | n/r    | 120 | MT20          | 244/190  |
| TCDL 7.0              |  | Lumber DOL                       | 1.25  | BC 0.15  |  |  |  |  | Vert(CT) | 0.01 5   | n/r    | 120 |               |          |
| BCLL 0.0 *            |  | Rep Stress Incr                  | YES   | WB 0.04  |  |  |  |  | Horz(CT) | 0.00 4   | n/a    | n/a |               |          |
| BCDL 10.0             |  | Code FBC2023/TPI2014             |       | Matrix-S |  |  |  |  |          |          |        |     | Weight: 31 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

(size) 2=7-9-11, 4=7-9-11, 6=7-9-11  
Max Horz 2=-64(LC 10)  
Max Uplift 2=-60(LC 12), 4=-68(LC 13), 6=-53(LC 12)  
Max Grav 2=167(LC 1), 4=167(LC 1), 6=302(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 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-3-11 to 3-3-11, Zone1 3-3-11 to 4-9-0, Zone3 4-9-0 to 9-2-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4, 6.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

This item has been digitally signed and sealed by O'Regan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 1,2024

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

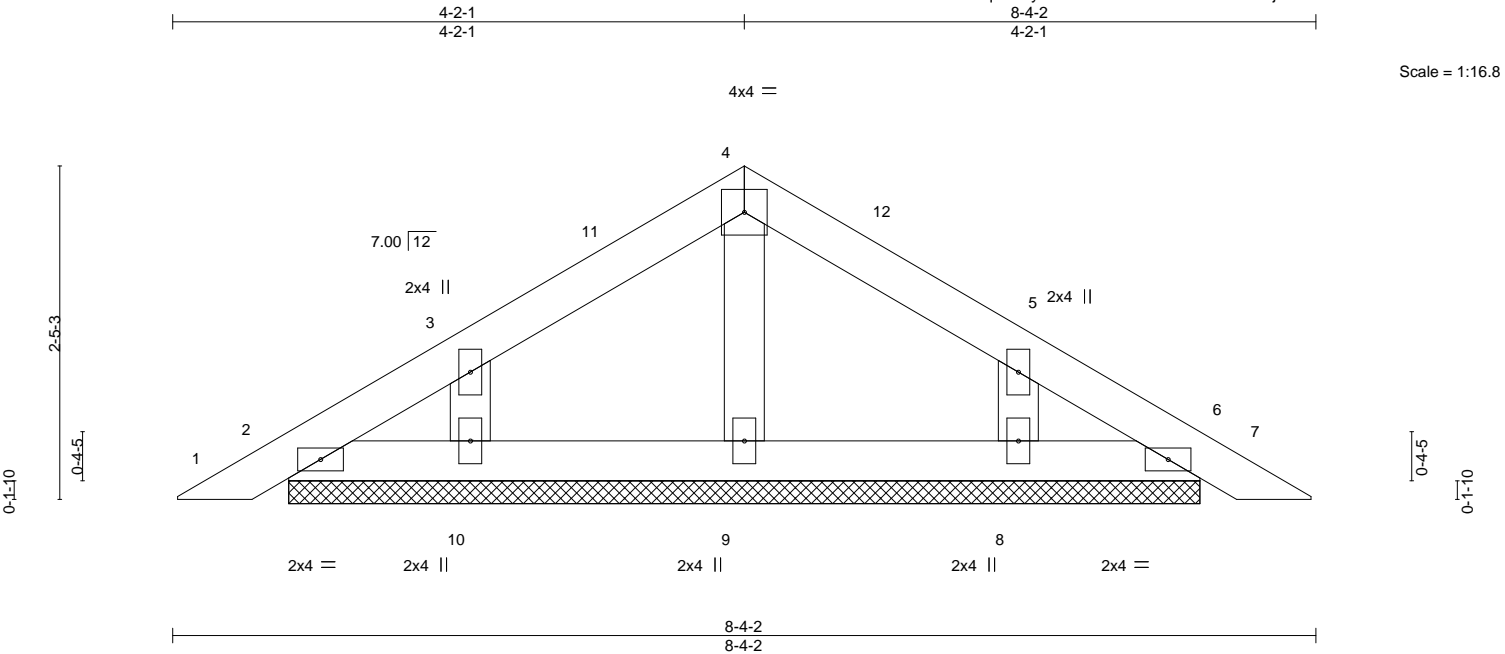
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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|         |       |            |     |     |                                 |           |
|---------|-------|------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717701 |
| 3981398 | PB01G | GABLE      | 2   | 1   | Job Reference (optional)        |           |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:08 2024 Page 1  
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| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.25  | TC 0.06  | Vert(LL) | -0.00    | 6      | n/r | MT20          | 244/190  |
| TCDL 7.0      | Lumber DOL           | 1.25  | BC 0.03  | Vert(CT) | -0.00    | 6      | n/r |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.05  | Horz(CT) | 0.00     | 6      | n/a |               |          |
| BCDL 10.0     | Code FBC2023/TP12014 |       | Matrix-P |          |          |        |     | Weight: 28 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**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 6-7-13.  
(lb) - Max Horz 2=56(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8  
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-3-11 to 3-3-11, Zone1 3-3-11 to 4-2-1, Zone3 4-2-1 to 8-0-7 zone;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) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 10, 8.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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Date:

May 1,2024

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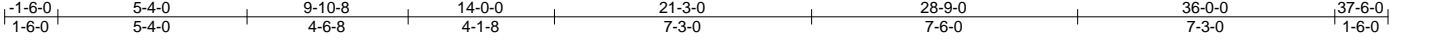
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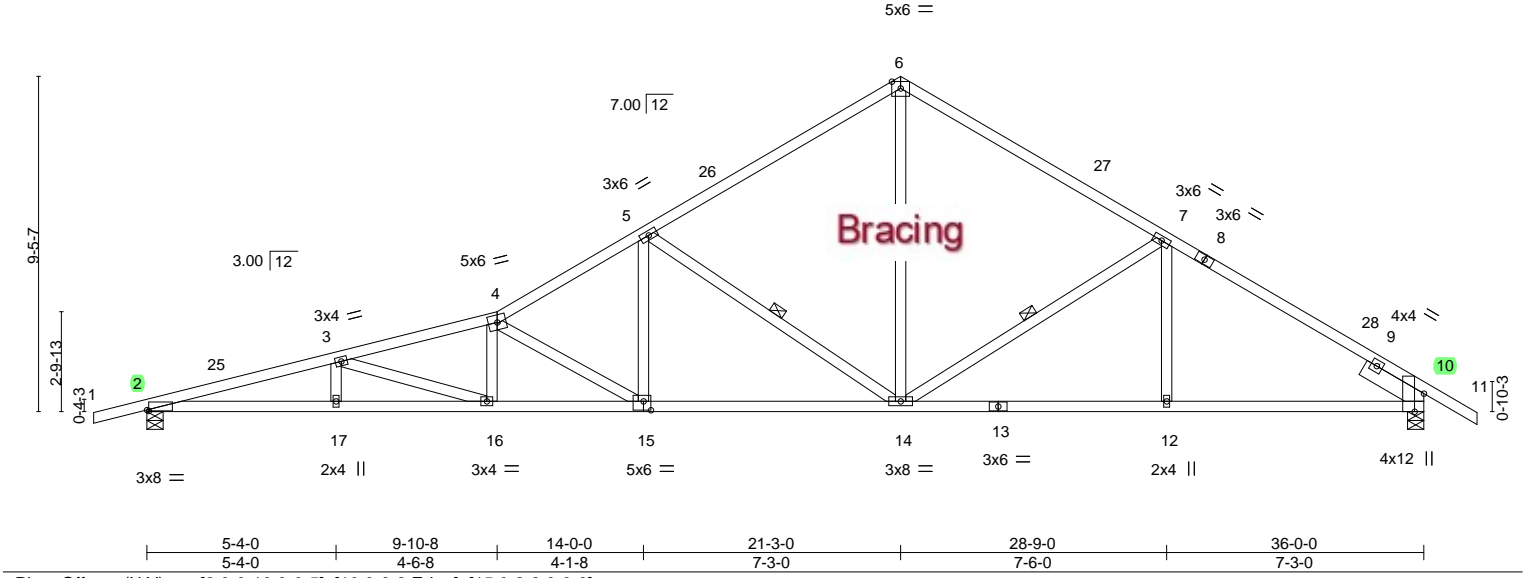
|         |       |              |     |     |                                 |           |
|---------|-------|--------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717702 |
| 3981398 | T01   | Roof Special | 10  | 1   | Job Reference (optional)        |           |

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Scale = 1:65.0



| Plate Offsets (X,Y)-- |                 | [2:0-0-10,0-0-5], [10:0-6-2,Edge], [15:0-2-8,0-3-0] |  |
|-----------------------|-----------------|---|--|
| <b>LOADING</b> (psf)  | <b>SPACING-</b> | 2-0-0   | <b>CSI.</b>                            |
| TCLL 20.0             | Plate Grip DOL  | 1.25  | TC 0.97                                |
| TCDL 7.0              | Lumber DOL      | 1.25  | BC 0.87                                |
| BCLL 0.0 *            | Rep Stress Incr | YES   | WB 0.77                                |
| BCDL 10.0             | Code            | FBC2023/TPI2014                                     | Matrix-MS                              |
|                       |                 |   | <b>DEFL.</b> in (loc) l/defl L/d       |
|                       |                 |   | Vert(LL) -0.32 15-16 >999 240          |
|                       |                 |   | Vert(CT) -0.60 15-16 >723 180          |
|                       |                 |   | Horz(CT) 0.16 10 n/a n/a               |
|                       |                 |   | <b>PLATES</b> MT20 <b>GRIP</b> 244/190 |
|                       |                 |   | Weight: 194 lb FT = 20%                |

|   |   |
|---|---|
| <b>LUMBER-</b>                                      | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.2 *Except*<br>8-11: 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied.         |
| BOT CHORD 2x4 SP No.2 *Except*<br>2-15: 2x4 SP No.1 | BOT CHORD Rigid ceiling directly applied or 5-7-4 oc bracing. |
| WEBS 2x4 SP No.3                                    | WEBS 1 Row at midpt 5-14, 7-14                                |
| SLIDER Right 2x6 SP No.2 1-11-8                     |   |

|                   |  |
|-------------------|--|
| <b>REACTIONS.</b> | (size) 2=0-5-8, 10=0-5-8               |
|                   | Max Horz 2=240(LC 11)                  |
|                   | Max Uplift 2=404(LC 12), 10=349(LC 13) |
|                   | Max Grav 2=1413(LC 1), 10=1413(LC 1)   |

|                |   |
|----------------|---|
| <b>FORCES.</b> | (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.                              |
| TOP CHORD      | 2-3=-4462/1191, 3-4=-3933/1023, 4-5=-2760/724, 5-6=-1599/431, 6-7=-1600/462, 7-10=-1993/463               |
| BOT CHORD      | 2-17=-1269/4299, 16-17=-1269/4299, 15-16=-1059/3772, 14-15=-643/2360, 12-14=-304/1643, 10-12=-304/1643    |
| WEBS           | 3-16=-564/256, 4-16=-55/279, 4-15=-1655/487, 5-15=-216/975, 5-14=-1288/497, 6-14=-282/1118, 7-14=-480/285 |

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 2-1-3, Zone1 2-1-3 to 21-3-0, Zone2 21-3-0 to 26-4-2, Zone1 26-4-2 to 37-6-0 zone; end vertical right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=404, 10=349.

This item has been digitally signed and sealed by O'Regan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
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Date:

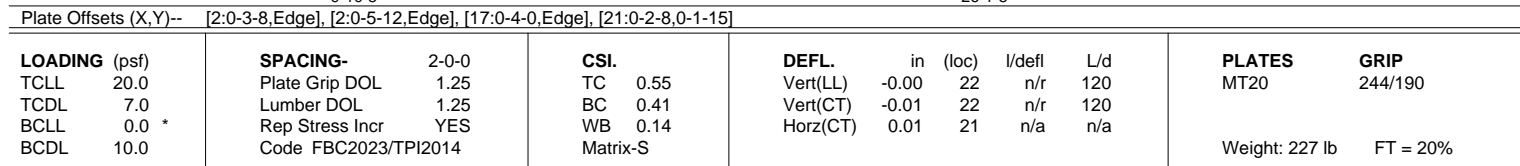
May 1,2024

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 ID:NnmnxELWBeMQMidnRqPzJxylQL\_-lqq?B30BUWQkaZpk7ZjU8mXZkiDDFzxJqvB6eZLVRI  
 1-6-0 9-10-8 21-3-0 36-0-0 37-6-0  
 1-6-0 9-10-8 11-4-8 14-9-0 1-6-0  
 Scale = 1:65.8



**REACTIONS.** All bearings 36-0-0.  
 (lb) - Max Horz 2=233(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 31, 32, 33, 34, 36, 29, 27, 26, 25, 24, 23, 37 except  
 2=145(LC 8), 38=341(LC 1), 39=204(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 31, 32, 33, 34, 36, 38, 29, 27, 26, 25, 24, 23, 21 except  
 2=290(LC 1), 30=255(LC 22), 39=609(LC 1), 37=258(LC 1)

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

|           |   |
|-----------|---|
| TOP CHORD | 11-12=-55/261, 12-13=-55/261                  |
| BOT CHORD | 2-39=-122/252, 38-39=-122/252, 37-38=-122/252 |
| WEBS      | 4-39=-420/348                                 |

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 zone;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) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 5) All plates are 2x4 MT20 unless otherwise indicated.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Gable studs spaced at 2-0-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 31, 32, 33, 34, 36, 29, 27, 26, 25, 24, 23, 37 except (jt=lb) 2=145, 38=341, 39=204.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Date:

May 1, 2024



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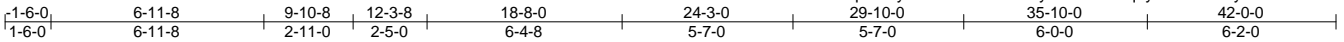
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Chesterfield, MO 63017  
314.434.1200 / [MiTek-US.com](http://MiTek-US.com)



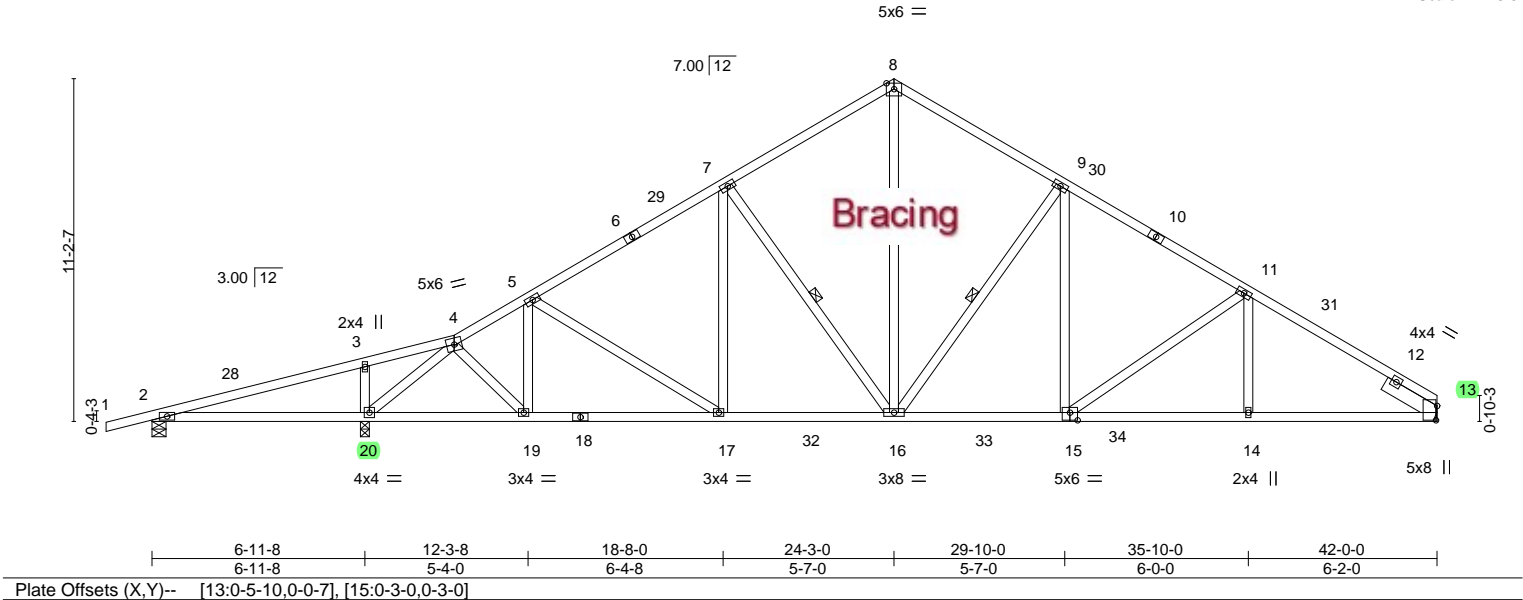
|                          |       |              |     |     |                                 |
|--------------------------|-------|--------------|-----|-----|---------------------------------|
| Job                      | Truss | Truss Type   | Qty | Ply | IC CONST. = CASTAGNA - WEST RES |
| 3981398                  | T02   | Roof Special | 1   | 1   | T33717704                       |
| Job Reference (optional) |       |              |     |     |                                 |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:11 2024 Page 1  
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Scale = 1:75.3



| LOADING (psf)  |       | SPACING-             |      | CSI.      |      | DEFL.    |             | PLATES |      | GRIP     |  |
|----------------|-------|----------------------|------|-----------|------|----------|-------------|--------|------|----------|--|
| TCLL           | 20.0  | Plate Grip DOL       | 1.25 | TC        | 0.84 | in (loc) | l/defl      | L/d    | MT20 | 244/190  |  |
| TCDL           | 7.0   | Lumber DOL           | 1.25 | BC        | 0.93 | Vert(LL) | -0.14 14-15 | >999   |      |          |  |
| BCLL           | 0.0 * | Rep Stress Incr      | YES  | WB        | 0.69 | Vert(CT) | -0.25 14-15 | >999   |      |          |  |
| BCDL           | 10.0  | Code FBC2023/TPI2014 |      | Matrix-MS |      | Horz(CT) | 0.09 13     | n/a    |      |          |  |
| Weight: 250 lb |       |                      |      |           |      |          |             |        |      | FT = 20% |  |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Right 2x6 SP No.2 1-11-8

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 7-16, 9-16

**REACTIONS.** (size) 2=0-5-8, 20=0-3-8, 13=Mechanical  
Max Horz 2=281(LC 9)  
Max Uplift 2=193(LC 8), 20=505(LC 12), 13=321(LC 13)  
Max Grav 2=153(LC 25), 20=2016(LC 2), 13=1449(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-279/1017, 3-4=-218/997, 4-5=-1524/336, 5-7=-1664/394, 7-8=-1383/418,  
8-9=-1357/425, 9-11=-1807/453, 11-13=-2128/491  
BOT CHORD 2-20=-903/237, 19-20=-254/926, 17-19=-358/1455, 16-17=-286/1492, 15-16=-203/1486,  
14-15=-330/1751, 13-14=-330/1751  
WEBS 3-20=-377/202, 4-20=-2287/479, 4-19=-150/765, 5-19=-376/153, 7-17=-9/261,  
7-16=-530/256, 8-16=-291/1091, 9-16=-731/305, 9-15=-80/463, 11-15=-359/200

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 2-8-6, Zone1 2-8-6 to 24-3-0, Zone2 24-3-0 to 30-2-5, Zone1 30-2-5 to 42-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - All plates are 3x6 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=193, 20=505, 13=321.

This item has been digitally signed and sealed by O'Regan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 1,2024

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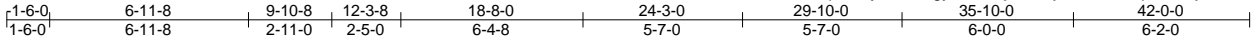
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|         |       |            |     |     |                                 |           |
|---------|-------|------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717705 |
| 3981398 | T02G  | GABLE      | 1   | 1   | Job Reference (optional)        |           |

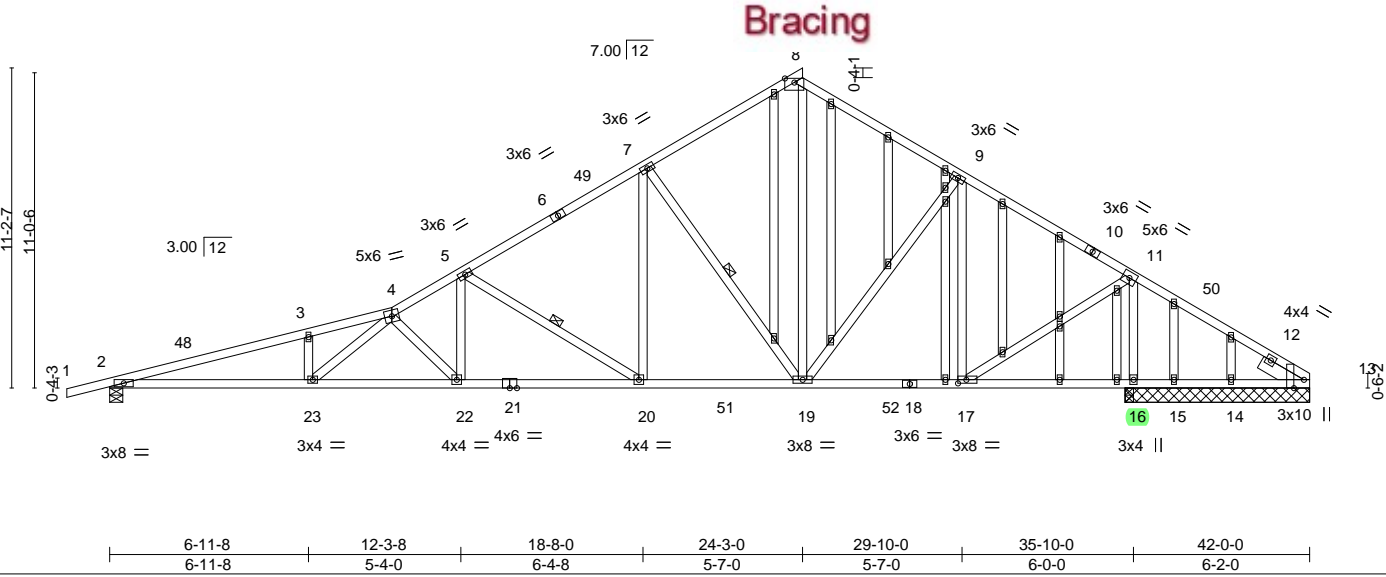
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:12 2024 Page 1

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Scale = 1:80.6



|                       |       |                                   |  |             |  |                                  |  |  |  |                |  |             |  |
|-----------------------|-------|-----------------------------------|--|-------------|--|----------------------------------|--|--|--|----------------|--|-------------|--|
| Plate Offsets (X,Y)-- |       | [13:0-3-8,Edge], [17:0-3-8,0-1-8] |  |             |  |                                  |  |  |  |                |  |             |  |
| <b>LOADING</b> (psf)  |       | <b>SPACING-</b> 2-0-0             |  | <b>CSI.</b> |  | <b>DEFL.</b> in (loc) l/defl L/d |  |  |  | <b>PLATES</b>  |  | <b>GRIP</b> |  |
| TCLL                  | 20.0  | Plate Grip DOL 1.25               |  | TC 0.75     |  | Vert(LL) -0.31 22-23 >999 240    |  |  |  | MT20           |  | 244/190     |  |
| TCDL                  | 7.0   | Lumber DOL 1.25                   |  | BC 0.82     |  | Vert(CT) -0.53 20-22 >806 180    |  |  |  |                |  |             |  |
| BCLL                  | 0.0 * | Rep Stress Incr YES               |  | WB 0.96     |  | Horz(CT) 0.09 16 n/a n/a         |  |  |  |                |  |             |  |
| BCDL                  | 10.0  | Code FBC2023/TPI2014              |  | Matrix-MS   |  |                                  |  |  |  | Weight: 317 lb |  | FT = 20%    |  |

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3  
SLIDER Right 2x6 SP No.2 1-7-6

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 4-9-13 oc bracing.  
WEBS 1 Row at midpt 5-20, 7-19

**REACTIONS.**

All bearings 6-5-8 except (jt=length) 2=0-5-8.  
(lb) - Max Horz 2=278(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) except 2=-371(LC 12), 16=-605(LC 12), 13=-867(LC 27), 15=-187(LC 20), 14=-122(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 15 except 2=1348(LC 2), 16=2786(LC 2), 16=2517(LC 1), 13=254(LC 12), 14=394(LC 20)

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

TOP CHORD 2-3=-4103/1024, 3-4=-4103/1072, 4-5=-2927/723, 5-7=-1642/418, 7-8=-932/328,  
8-9=-941/341, 9-11=-571/215, 11-13=-442/1741  
BOT CHORD 2-23=-1126/3958, 22-23=-951/3460, 20-22=-698/2650, 19-20=-307/1493, 17-19=0/434,  
16-17=-1441/421, 15-16=-1441/421, 14-15=-1441/421, 13-14=-1441/421  
WEBS 3-23=-291/181, 4-23=-249/687, 4-22=-1309/366, 5-22=-227/1148, 5-20=-1382/459,  
7-20=-203/971, 7-19=-1147/416, 8-19=-192/634, 9-19=-144/649, 9-17=-937/292,  
11-17=-471/2169, 11-16=-2501/612

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCdL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 2-8-6, Zone1 2-8-6 to 24-0-6, Zone2 24-0-6 to 29-10-0, Zone1 29-10-0 to 42-0-0 zone;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.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 371 lb uplift at joint 2, 605 lb uplift at joint 16, 867 lb uplift at joint 13, 187 lb uplift at joint 15 and 122 lb uplift at joint 14.

This item has been digitally signed and sealed by ORegan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 1,2024

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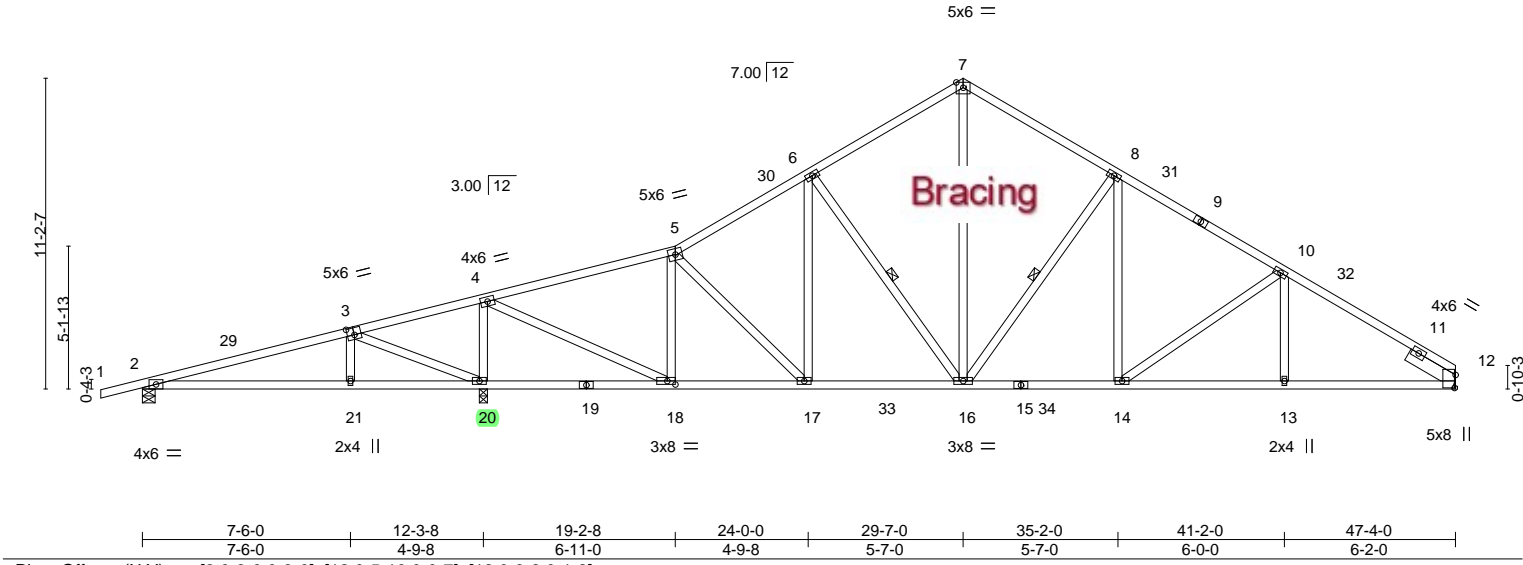
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|         |       |              |     |     |                                 |           |
|---------|-------|--------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717706 |
| 3981398 | T03   | Roof Special | 6   | 1   | Job Reference (optional)        |           |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:13 2024 Page 1  
ID:NnmnxELWBeMQMidhRqPZJxyLfQL-OsWodC5vUPu\_b1lOPF7Q6nO\_txcFQRXQ?o7rjzzLVRi  
1-6-0 7-6-0 12-3-8 19-2-8 24-0-0 29-7-0 35-2-0 41-2-0 47-4-0  
1-6-0 7-6-0 4-9-8 6-11-0 4-9-8 5-7-0 5-7-0 6-0-0 6-2-0  
Scale = 1:83.1



| LOADING (psf) |       | SPACING-             |      | CSI.      |      | DEFL.    |                      | PLATES         |  | GRIP     |  |
|---------------|-------|----------------------|------|-----------|------|----------|----------------------|----------------|--|----------|--|
| TCLL          | 20.0  | Plate Grip DOL       | 1.25 | TC        | 0.81 | Vert(LL) | -0.14 13-14 >999 240 | MT20           |  | 244/190  |  |
| TCDL          | 7.0   | Lumber DOL           | 1.25 | BC        | 0.90 | Vert(CT) | -0.26 13-14 >999 180 |                |  |          |  |
| BCLL          | 0.0 * | Rep Stress Incr      | YES  | WB        | 0.86 | Horz(CT) | 0.07 12 n/a n/a      |                |  |          |  |
| BCDL          | 10.0  | Code FBC2023/TPI2014 |      | Matrix-MS |      |          |                      |                |  |          |  |
|               |       |                      |      |           |      |          |                      | Weight: 277 lb |  | FT = 20% |  |

| LUMBER-   |                          | BRACING-  |   |
|-----------|--------------------------|-----------|---|
| TOP CHORD | 2x4 SP No.2              | TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins. |
| BOT CHORD | 2x4 SP No.2              | BOT CHORD | Rigid ceiling directly applied or 5-10-3 oc bracing.            |
| WEBS      | 2x4 SP No.3              | WEBS      | 1 Row at midpt 6-16, 8-16                                       |
| SLIDER    | Right 2x6 SP No.2 1-11-8 |           |   |

| REACTIONS. |   |
|------------|---|
| (size)     | 2=0-5-8, 20=0-3-8, 12=Mechanical            |
| Max Horz   | 2=288(LC 9)                                 |
| Max Uplift | 2=202(LC 8), 20=584(LC 12), 12=321(LC 13)   |
| Max Grav   | 2=348(LC 25), 20=2247(LC 2), 12=1420(LC 20) |

| FORCES.  |  |
|--|--|
| (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. |  |
| TOP CHORD  | 2-3=-119/282, 3-4=-284/951, 4-5=-1275/320, 5-6=-1526/398, 6-7=-1327/416, 7-8=-1304/430, 8-10=-1746/460, 10-12=-2082/507                              |
| BOT CHORD  | 18-20=-938/232, 17-18=-270/1230, 16-17=-242/1331, 14-16=-192/1410, 13-14=-330/1712, 12-13=-330/1712  |
| WEBS   | 3-21=0/260, 3-20=-879/292, 4-20=-1715/512, 4-18=-482/2246, 5-18=-736/240, 6-16=-391/217, 7-16=-287/1031, 8-16=-736/304, 8-14=-78/464, 10-14=-373/200 |

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 3-2-13, Zone1 3-2-13 to 29-7-0, Zone2 29-7-0 to 36-3-5, Zone1 36-3-5 to 47-4-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - All plates are 3x6 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 202 lb uplift at joint 2, 584 lb uplift at joint 20 and 321 lb uplift at joint 12.

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MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

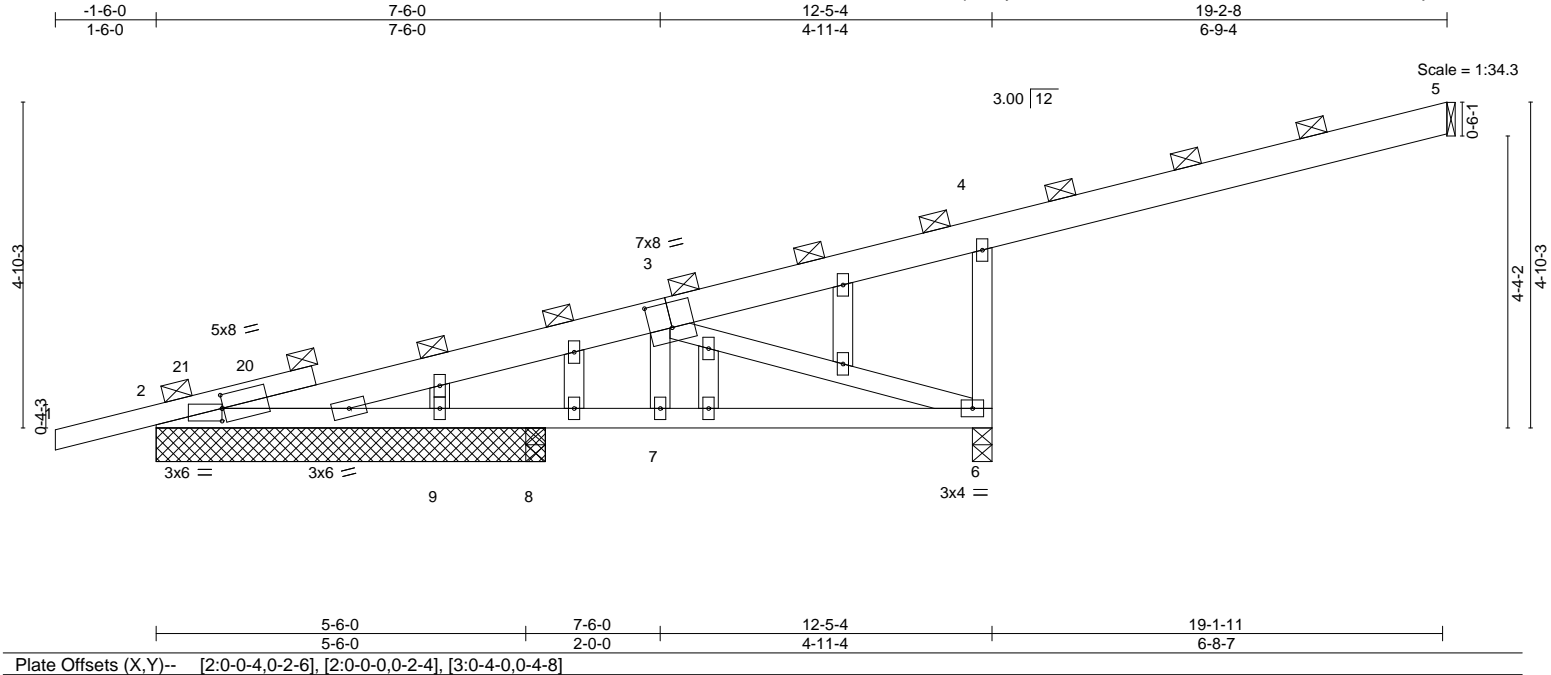
May 1,2024

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|         |       |                            |     |     |                                 |           |
|---------|-------|----------------------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type                 | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717707 |
| 3981398 | T03G  | Monopitch Structural Gable | 1   | 1   | Job Reference (optional)        |           |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:13 2024 Page 1  
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| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc) | l/defl | L/d  | PLATES        | GRIP     |
|---------------|----------------------|-------|-----------|----------|----------|--------|------|---------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.25  | TC 0.26   | Vert(LL) | -0.03    | 6-7    | >999 | MT20          | 244/190  |
| TCDL 7.0      | Lumber DOL           | 1.25  | BC 0.29   | Vert(CT) | -0.06    | 6-7    | >999 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.30   | Horz(CT) | 0.01     | 6      | n/a  |               |          |
| BCDL 10.0     | Code FBC2023/TPI2014 |       | Matrix-MS |          |          |        |      | Weight: 86 lb | FT = 20% |

|  |  |
|--|--|
| <b>LUMBER-</b>                                     | <b>BRACING-</b>  |
| TOP CHORD 2x6 SP No.2 *Except*<br>1-2: 2x4 SP No.2 | TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals. |
| BOT CHORD 2x4 SP No.2                              | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS 2x4 SP No.3                                   |  |
| OTHERS 2x4 SP No.3                                 |  |

**REACTIONS.** All bearings 5-9-8 except (jt=length) 5=Mechanical, 6=0-3-8, 8=0-3-8.  
(lb) - Max Horz 2=211(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 5, 9, 8 except 2=221(LC 8), 6=288(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 5, 9, 8 except 2=510(LC 1), 6=619(LC 1), 2=510(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-624/99, 4-6=-367/224  
BOT CHORD 2-9=-236/572, 8-9=-236/572, 7-8=-236/572, 6-7=-241/572  
WEBS 3-6=-604/262

- NOTES-**
- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 19-1-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 9, 8 except (jt=lb) 2=221, 6=288, 2=221.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been digitally signed and sealed by O'Regan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 1,2024

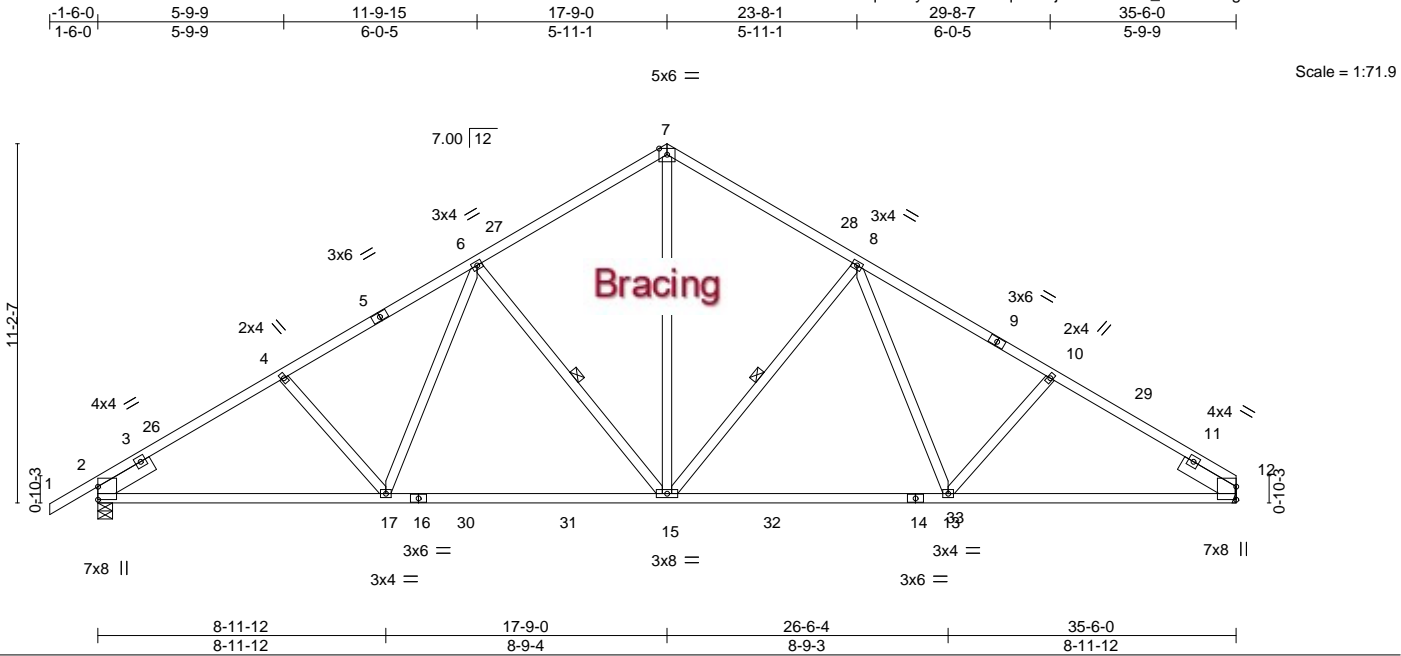
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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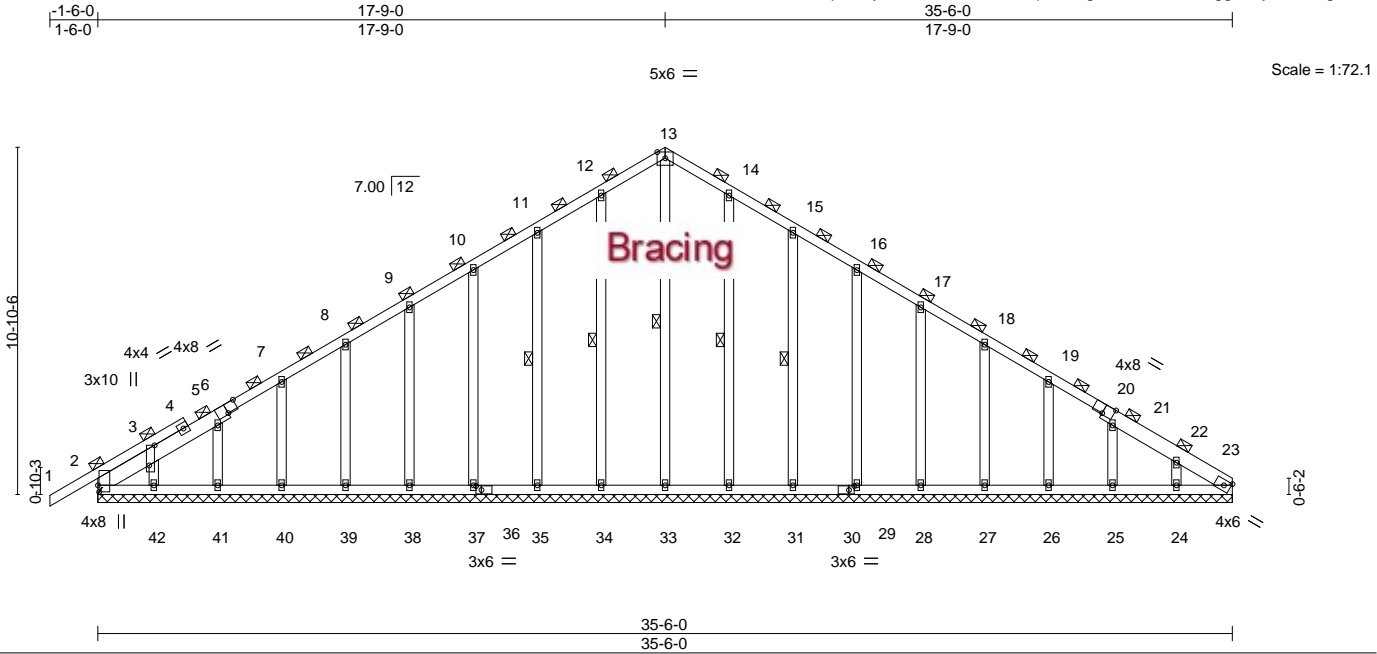
|         |       |            |     |     |                                 |           |
|---------|-------|------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717708 |
| 3981398 | T04   | Common     | 2   | 1   | Job Reference (optional)        |           |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:14 2024 Page 1  
ID:NnmnxELWBEMQMdnRqPZJxylQL-s33AqY6XFj0rCBtazzeFe\_x7eLx89gxXESrPFpZLVRh



|         |       |                        |     |     |                                 |           |
|---------|-------|------------------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type             | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717709 |
| 3981398 | T04G  | Common Supported Gable | 1   | 1   | Job Reference (optional)        |           |

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ID:NmnmXELWBeMQMidnRqPZJxylfQL-LFdZ2u79008iqLSnWg9uBCUTzIVeUXggS6cynrzLVRg



|  |        |                      |      |          |      |                           |             |             |                         |
|--|--------|----------------------|------|----------|------|---------------------------|-------------|-------------|-------------------------|
| Plate Offsets (X,Y)-- [2:0-2-8,0-0-7], [3:0-7-8,Edge], [6:0-4-0,Edge], [20:0-4-0,Edge], [30:0-2-0,0-1-8], [36:0-2-0,0-1-8] |        |                      |      |          |      |                           |             |             |                         |
| LOADING (psf)  |        | SPACING- 2-0-0       |      | CSI.     |      | DEFL. in (loc) l/defl L/d |             | PLATES GRIP |                         |
| TCLL   | 20.0   | Plate Grip DOL       | 1.25 | TC       | 0.13 | Vert(LL)                  | -0.00 1 n/r | 120         | MT20 244/190            |
| TCDL   | 7.0    | Lumber DOL           | 1.25 | BC       | 0.03 | Vert(CT)                  | -0.00 1 n/r | 120         |                         |
| BCLL   | 0.0 ** | Rep Stress Incr      | YES  | WB       | 0.11 | Horz(CT)                  | 0.01 23 n/a | n/a         |                         |
| BCDL   | 10.0   | Code FBC2023/TPI2014 |      | Matrix-S |      |                           |             |             | Weight: 264 lb FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
2-6,20-23: 2x6 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 13-33, 12-34, 11-35, 14-32, 15-31

REACTIONS.

All bearings 35-6-0.  
(lb) - Max Horz 2=266(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 34, 35, 37, 38, 39, 40, 41, 42, 32, 31, 29, 28, 27, 26, 25, 24, 23  
Max Grav All reactions 250 lb or less at joint(s) 2, 33, 34, 35, 37, 38, 39, 40, 41, 42, 32, 31, 29, 28, 27, 26, 25, 24, 23

FORCES.

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

TOP CHORD 2-3=-262/207

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 zone;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.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 34, 35, 37, 38, 39, 40, 41, 42, 32, 31, 29, 28, 27, 26, 25, 24, 23.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been digitally signed and sealed by ORegan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 1,2024

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|         |       |              |     |     |                                 |           |
|---------|-------|--------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type   | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717710 |
| 3981398 | T05   | Roof Special | 5   | 1   | Job Reference (optional)        |           |

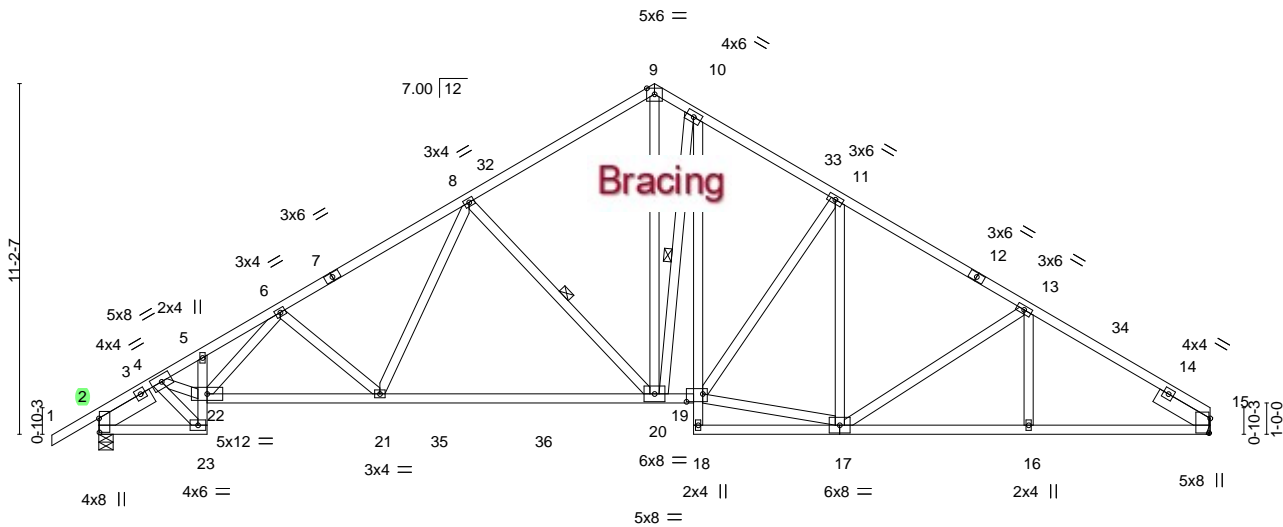
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:16 2024 Page 1

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Scale = 1:73.6



|                       |  |
|-----------------------|--|
| Plate Offsets (X,Y)-- | [2:0-5-6,0-0-3], [15:0-5-10,0-0-7], [19:0-6-4,0-3-0] |
|-----------------------|--|

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc)    | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.25  | TC 0.88   | Vert(LL) | -0.29 20-21 | >999   | 240 | MT20           | 244/190  |
| TCDL 7.0      | Lumber DOL           | 1.25  | BC 0.97   | Vert(CT) | -0.51 20-21 | >835   | 180 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.68   | Horz(CT) | 0.20 15     | n/a    | n/a |                |          |
| BCDL 10.0     | Code FBC2023/TPI2014 |       | Matrix-MS |          |             |        |     | Weight: 254 lb | FT = 20% |

| LUMBER-  | BRACING-  |
|--|---|
| TOP CHORD 2x4 SP No.2                                    | TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins. |
| BOT CHORD 2x4 SP No.2 *Except*<br>10-18: 2x4 SP No.3     | BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.             |
| WEBS 2x4 SP No.3 *Except*<br>4-22: 2x4 SP No.2           | WEBS 1 Row at midpt 8-20, 10-20   |
| SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8 |   |

|            |   |
|------------|---|
| REACTIONS. | (size) 2=0-5-8, 15=Mechanical<br>Max Horz 2=270(LC 9)<br>Max Uplift 2=366(LC 12), 15=328(LC 13)<br>Max Grav 2=1584(LC 19), 15=1491(LC 20) |
|------------|---|

|           |   |
|-----------|---|
| FORCES.   | (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  |
| TOP CHORD | 2-4=-1997/447, 4-5=-3431/818, 5-6=-3582/880, 6-8=-2562/599, 8-9=-1633/428,<br>9-10=-1536/447, 10-11=-1708/457, 11-13=-1897/455, 13-15=-2209/497                                   |
| BOT CHORD | 2-23=-479/1689, 22-23=-410/1493, 21-22=-694/2724, 20-21=-420/1982, 19-20=-200/1474,<br>10-19=-229/451, 16-17=-347/1821, 15-16=-347/1821   |
| WEBS      | 4-23=-2004/576, 4-22=-795/3044, 6-22=-236/839, 6-21=-577/284, 8-21=-159/780,<br>8-20=-797/347, 9-20=-362/1359, 10-20=-471/300, 17-19=-235/1479, 11-19=-406/249,<br>13-17=-337/194 |

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 1-9-4, Zone1 1-9-4 to 17-9-0, Zone2 17-9-0 to 22-9-4, Zone1 22-9-4 to 35-6-0 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=366, 15=328.

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May 1,2024

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|         |       |            |     |     |                                 |           |
|---------|-------|------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717712 |
| 3981398 | T06G  | GABLE      | 1   | 1   | Job Reference (optional)        |           |

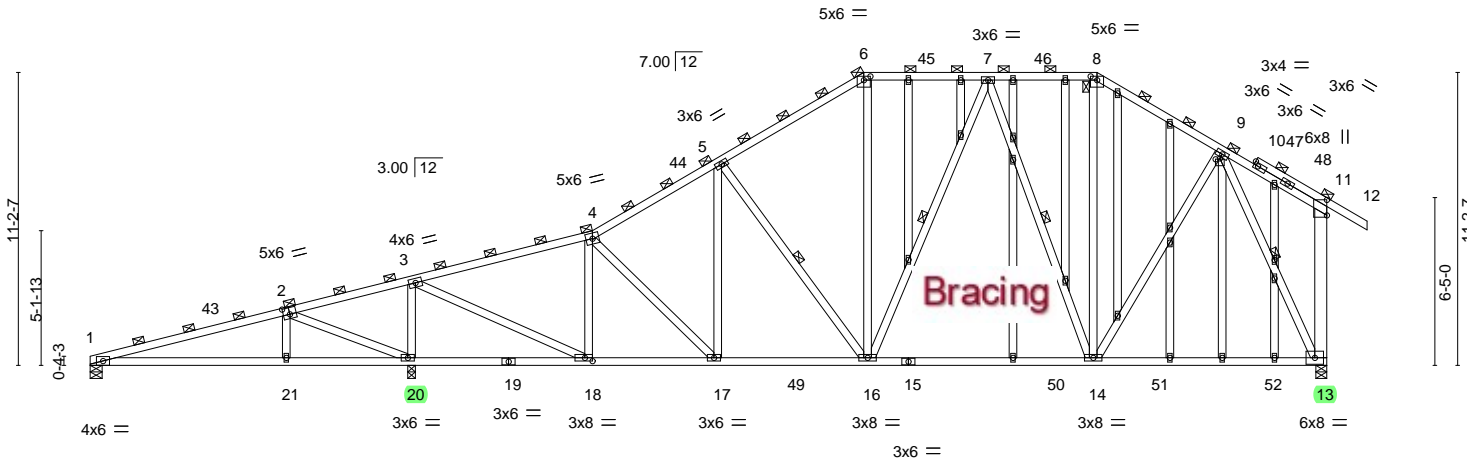
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:18 2024 Page 1

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|       |        |        |        |        |        |        |        |        |         |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 7-6-0 | 12-3-8 | 19-2-8 | 24-0-0 | 29-7-0 | 34-4-0 | 38-6-1 | 43-2-0 | 47-3-8 | 48-10-0 |
| 7-6-0 | 4-9-8  | 6-11-0 | 4-9-8  | 5-7-0  | 4-9-0  | 4-2-1  | 4-7-15 | 4-1-8  | 1-6-8   |

Scale = 1:88.1



|                       |  |
|-----------------------|--|
| Plate Offsets (X,Y)-- | [2:0-3-0,0-3-0], [6:0-3-0,0-1-12], [8:0-3-0,0-1-12], [9:0-2-0,0-0-7], [11:0-7-2,0-0-0], [18:0-3-8,0-1-8] |
|-----------------------|--|

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc)    | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.25  | TC 0.61   | Vert(LL) | -0.22 13-14 | >999   | 240 | MT20           | 244/190  |
| TCDL 7.0      | Lumber DOL           | 1.25  | BC 0.98   | Vert(CT) | -0.35 13-14 | >999   | 180 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.82   | Horz(CT) | 0.04 13     | n/a    | n/a |                |          |
| BCDL 10.0     | Code FBC2023/TPI2014 |       | Matrix-MS |          |             |        |     | Weight: 414 lb | FT = 20% |

| LUMBER-                   | BRACING-  |
|---------------------------|---|
| TOP CHORD 2x4 SP No.2     | TOP CHORD 2-0-0 oc purlins (4-2-11 max.), except end verticals. |
| BOT CHORD 2x4 SP No.2     | BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.   |
| WEBS 2x4 SP No.3 *Except* | WEBS 1 Row at midpt 5-16, 7-16, 7-14, 9-13                      |
| OTHERS 11-13: 2x6 SP No.2 |   |
| 2x4 SP No.3               |   |

|            |   |
|------------|---|
| REACTIONS. | (size) 1=0-5-8, 20=0-3-8, 13=0-5-0                      |
|            | Max Horz 1=369(LC 11)                                   |
|            | Max Uplift 1=-128(LC 8), 20=-574(LC 12), 13=-282(LC 13) |
|            | Max Grav 1=287(LC 27), 20=2195(LC 2), 13=1507(LC 2)     |

|           |   |
|-----------|---|
| FORCES.   | (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  |
| TOP CHORD | 1-2=-286/217, 2-3=-268/750, 3-4=-1339/353, 4-5=-1552/439, 5-6=-1323/446, 6-7=-1089/416, 7-8=-867/390, 8-9=-1055/401, 11-13=-271/214   |
| BOT CHORD | 18-20=-728/246, 17-18=-372/1303, 16-17=-396/1347, 14-16=-286/1011, 13-14=-198/572   |
| WEBS      | 2-21=-5/261, 2-20=-893/303, 3-20=-1661/499, 3-18=-477/2164, 4-18=-694/238, 5-16=-426/229, 6-16=-100/434, 7-16=-92/300, 7-14=-472/204, 8-14=-88/348, 9-14=-135/578, 9-13=-1274/332 |

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-0-0 to 4-8-12, Zone1 4-8-12 to 29-7-0, Zone2 29-7-0 to 36-3-4, Zone1 36-3-4 to 38-6-1, Zone2 38-6-1 to 45-2-5, Zone1 45-2-5 to 48-10-0 zone; end vertical 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.
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=128, 20=574, 13=282.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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May 1,2024

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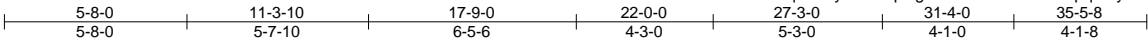
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|         |       |                |     |     |                                 |           |
|---------|-------|----------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type     | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717713 |
| 3981398 | T07   | Piggyback Base | 4   | 1   | Job Reference (optional)        |           |

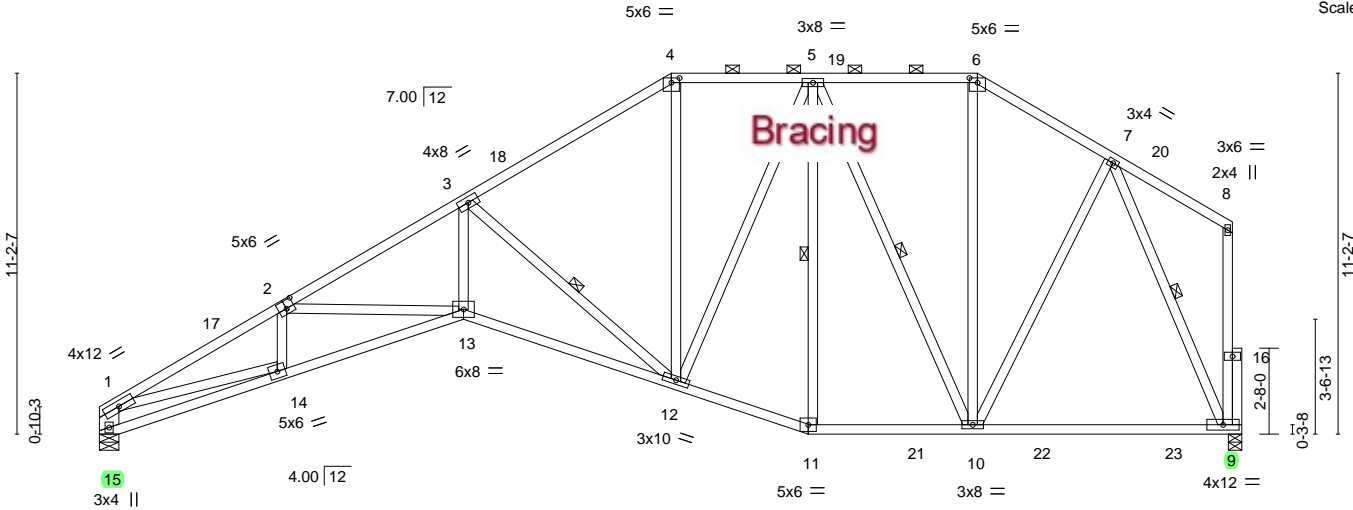
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8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:18 2024 Page 1

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Scale = 1:71.5



|                       |   |
|-----------------------|---|
| Plate Offsets (X,Y)-- | [2:0-3-0,0-3-0], [4:0-3-0,0-1-12], [6:0-3-0,0-1-12] |
|-----------------------|---|

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc)    | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|-----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.25  | TC 0.53   | Vert(LL) | -0.30 12-13 | >999   | 240 | MT20           | 244/190  |
| TCDL 7.0      | Lumber DOL           | 1.25  | BC 0.94   | Vert(CT) | -0.55 12-13 | >766   | 180 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 1.00   | Horz(CT) | 0.33 9      | n/a    | n/a |                |          |
| BCDL 10.0     | Code FBC2023/TPI2014 |       | Matrix-MS |          |             |        |     | Weight: 269 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
8-9,1-14: 2x4 SP No.2, 1-15: 2x8 SP 2400F 2.0E  
OTHERS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-7-10 oc purlins, except end verticals, and 2-0-0 oc purlins (5-0-4 max.): 4-6.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 3-12, 5-11, 5-10, 7-9

**REACTIONS.**

(size) 15=0-7-4, 9=0-5-0  
Max Horz 15=353(LC 9)  
Max Uplift 15=355(LC 12), 9=297(LC 13)  
Max Grav 15=1427(LC 19), 9=1458(LC 2)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-3760/1017, 2-3=-3692/1007, 3-4=-1599/485, 4-5=-1321/475, 5-6=-849/302, 6-7=-1027/324, 1-15=-1479/451  
BOT CHORD 14-15=-403/524, 13-14=-1043/3574, 12-13=-933/3491, 11-12=-311/1172, 10-11=-295/1084, 9-10=-200/565  
WEBS 2-14=-279/150, 3-13=-587/2417, 3-12=-2555/795, 4-12=-95/545, 5-12=-199/724, 5-11=-270/114, 5-10=-602/233, 6-10=-102/318, 7-10=-166/634, 7-9=-1325/328, 1-14=-737/2942

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-3-10 to 3-10-3, Zone1 3-10-3 to 17-9-0, Zone2 17-9-0 to 22-9-3, Zone1 22-9-3 to 27-3-0, Zone2 27-3-0 to 32-3-3, Zone1 32-3-3 to 35-0-4 zone; 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
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 15 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) 15=355, 9=297.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been digitally signed and sealed by O'Regan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 1,2024

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

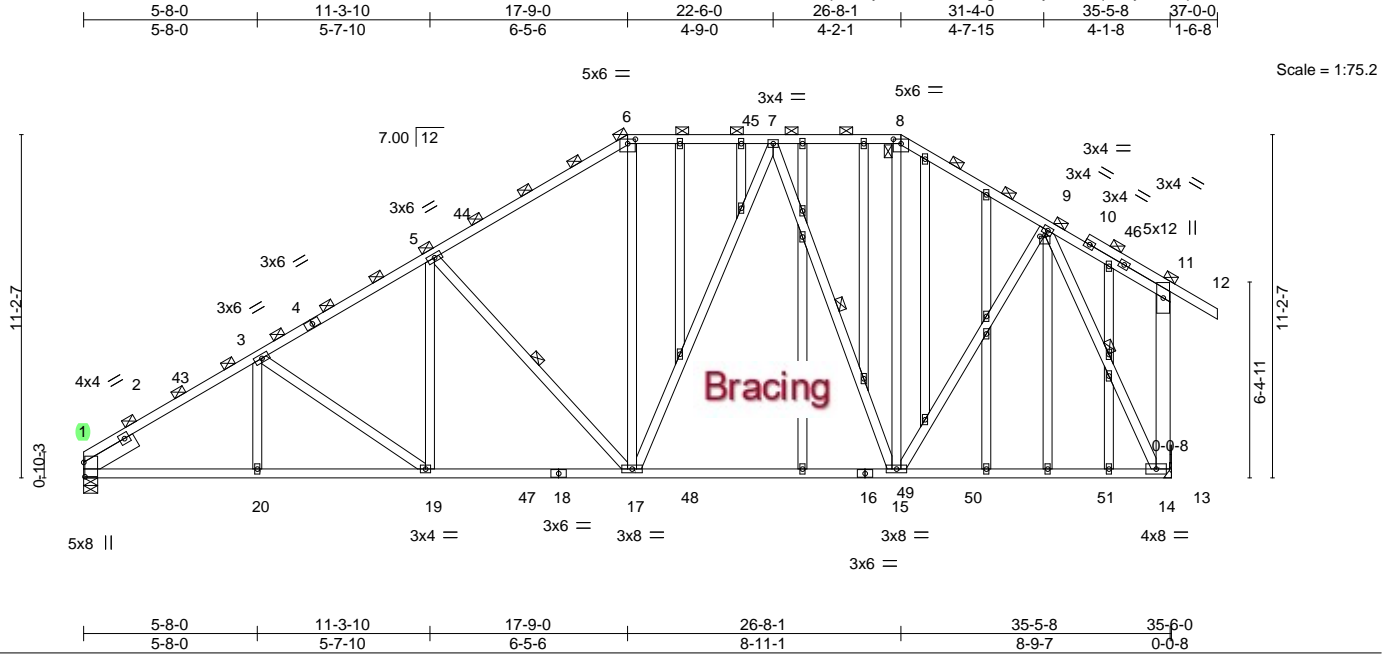
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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|         |       |            |     |     |                                 |           |
|---------|-------|------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717714 |
| 3981398 | T07G  | GABLE      | 1   | 1   | Job Reference (optional)        |           |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:19 2024 Page 1  
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|   |       |                      |  |           |      |                           |             |             |     |                |          |
|---|-------|----------------------|--|-----------|------|---------------------------|-------------|-------------|-----|----------------|----------|
| Plate Offsets (X,Y)-- [1:0-5-10,0-0-7], [6:0-3-0,0-1-12], [8:0-3-0,0-1-12], [9:0-2-0,0-0-7] |       |                      |  |           |      |                           |             |             |     |                |          |
| LOADING (psf)   |       | SPACING- 2-0-0       |  | CSI.      |      | DEFL. in (loc) l/defl L/d |             | PLATES GRIP |     |                |          |
| TCLL  | 20.0  | Plate Grip DOL 1.25  |  | TC        | 0.97 | Vert(LL)                  | -0.21 15-17 | >999        | 240 | MT20           | 244/190  |
| TCDL  | 7.0   | Lumber DOL 1.25      |  | BC        | 0.99 | Vert(CT)                  | -0.35 15-17 | >999        | 180 |                |          |
| BCLL  | 0.0 * | Rep Stress Incr YES  |  | WB        | 0.57 | Horz(CT)                  | 0.07 14     | n/a         | n/a |                |          |
| BCDL  | 10.0  | Code FBC2023/TPI2014 |  | Matrix-MS |      |                           |             |             |     | Weight: 358 lb | FT = 20% |

|                                |  |
|--------------------------------|--|
| LUMBER-                        | BRACING-   |
| TOP CHORD 2x4 SP No.2          | TOP CHORD 2-0-0 oc purlins (2-2-0 max.), except end verticals. |
| BOT CHORD 2x4 SP No.2          | BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  |
| WEBS 2x4 SP No.3 *Except*      | WEBS 1 Row at midpt 5-17, 7-15, 9-14                           |
| 11-14: 2x6 SP No.2             |  |
| OTHERS 2x4 SP No.3             |  |
| SLIDER Left 2x6 SP No.2 1-11-8 |  |

|            |  |
|------------|--|
| REACTIONS. | (size) 1=0-5-8, 14=Mechanical          |
|            | Max Horz 1=350(LC 11)                  |
|            | Max Uplift 1=360(LC 12), 14=344(LC 13) |
|            | Max Grav 1=1486(LC 19), 14=1605(LC 2)  |

|           |  |
|-----------|--|
| FORCES.   | (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.   |
| TOP CHORD | 1-3=-2192/549, 3-5=-1934/523, 5-6=-1501/455, 6-7=-1232/448, 7-8=-935/316, 8-9=-1134/341, 11-14=-285/147                              |
| BOT CHORD | 1-20=-556/2004, 19-20=-556/2004, 17-19=-423/1774, 15-17=-272/1114, 14-15=-178/617  |
| WEBS      | 3-19=-279/160, 5-19=-57/414, 5-17=-738/310, 6-17=-82/491, 7-17=-132/433, 7-15=-557/234, 8-15=-114/385, 9-15=-151/620, 9-14=-1342/300 |

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-0-0 to 3-6-9, Zone1 3-6-9 to 17-9-0, Zone2 17-9-0 to 22-6-0, Zone1 22-6-0 to 26-8-1, Zone2 26-8-1 to 31-4-14, Zone1 31-4-14 to 37-0-0 zone; 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) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) All plates are 2x4 MT20 unless otherwise indicated.
  - 7) Gable studs spaced at 2-0-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 10) Refer to girder(s) for truss to truss connections.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=360, 14=344.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
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Date:

May 1,2024

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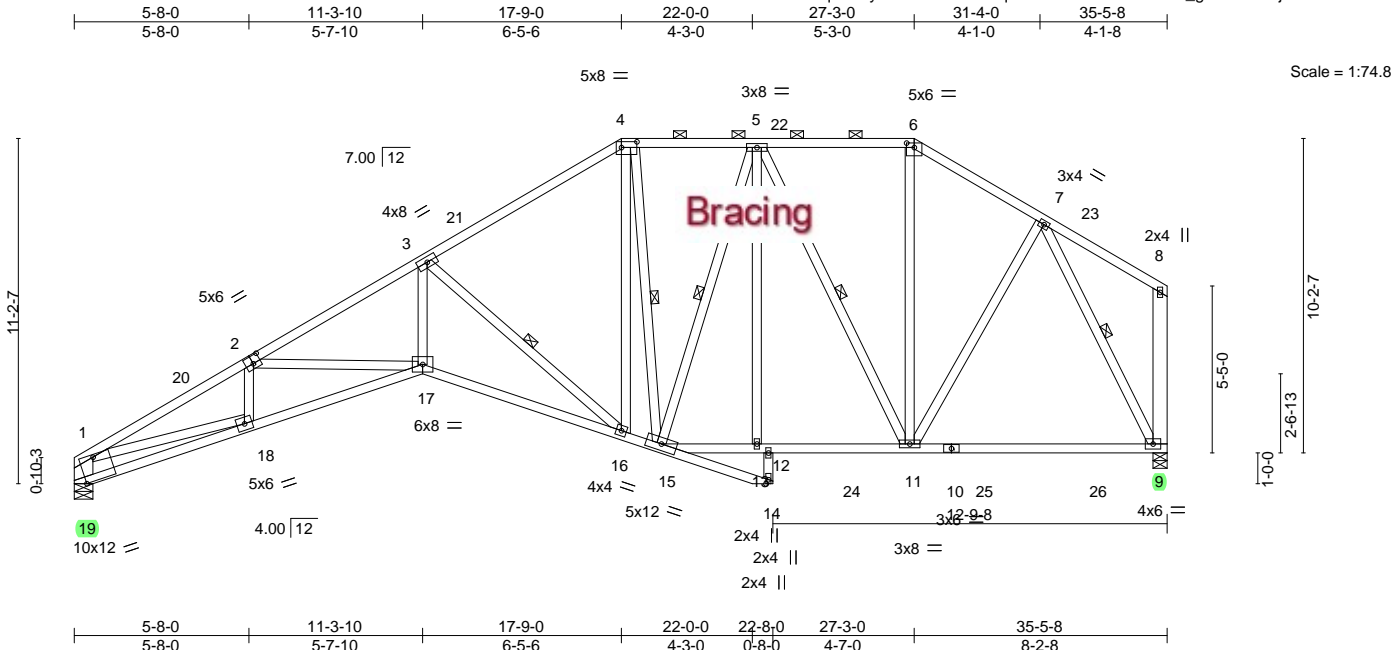
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|         |       |                |     |     |                                 |           |
|---------|-------|----------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type     | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717715 |
| 3981398 | T08   | Piggyback Base | 5   | 1   | Job Reference (optional)        |           |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

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|  |       |                       |                 |             |           |                                  |       |       |               |     |                |          |
|--|-------|-----------------------|-----------------|-------------|-----------|----------------------------------|-------|-------|---------------|-----|----------------|----------|
| Plate Offsets (X,Y)-- [2:0-3-0,0-3-0], [4:0-6-0,0-2-4], [6:0-3-0,0-1-12], [19:0-5-8,0-9-0] |       |                       |                 |             |           |                                  |       |       |               |     |                |          |
| <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   | 20.0  | Plate Grip DOL        | 1.25            | TC          | 0.53      | Vert(LL)                         | -0.33 | 16-17 | >999          | 240 | MT20           | 244/190  |
| TCDL   | 7.0   | Lumber DOL            | 1.25            | BC          | 0.98      | Vert(CT)                         | -0.58 | 16-17 | >717          | 180 |                |          |
| BCLL   | 0.0 * | Rep Stress Incr       | YES             | WB          | 1.00      | Horz(CT)                         | 0.33  | 9     | n/a           | n/a |                |          |
| BCDL   | 10.0  | Code                  | FBC2023/TPI2014 |             | Matrix-MS |                                  |       |       |               |     | Weight: 282 lb | FT = 20% |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
8-9: 2x6 SP No.2, 1-19: 2x8 SP 2400F 2.0E, 1-18: 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-4 max.): 4-6.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 3-16, 5-15, 5-11, 7-9, 4-15

**REACTIONS.** (size) 19=0-7-4, 9=0-5-8  
Max Horz 19=291(LC 12)  
Max Uplift 19=-345(LC 12), 9=-295(LC 13)  
Max Grav 19=1452(LC 19), 9=1489(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-3787/1102, 2-3=-3730/1111, 3-4=-1641/483, 4-5=-1273/438, 5-6=-962/299, 6-7=-1157/316, 1-19=-1488/481  
BOT CHORD 18-19=-403/473, 17-18=-1243/3554, 16-17=-1125/3481, 15-16=-386/1455, 13-15=-301/1238, 12-13=-301/1236, 11-12=-301/1236, 9-11=-143/664  
WEBS 2-18=-281/161, 3-17=-720/2412, 3-16=-2551/916, 4-16=-313/1208, 5-15=-131/274, 5-11=-646/251, 6-11=-100/382, 7-11=-140/608, 7-9=-1384/316, 1-18=-807/2970, 4-15=-682/240

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-3-10 to 3-10-3, Zone1 3-10-3 to 17-9-0, Zone2 17-9-0 to 22-9-3, Zone1 22-9-3 to 27-3-0, Zone2 27-3-0 to 32-3-3, Zone1 32-3-3 to 35-2-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Bearing at joint(s) 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=345, 9=295.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Date:

May 1,2024

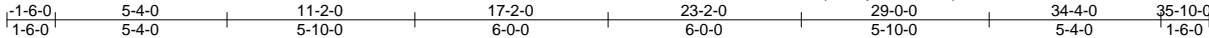
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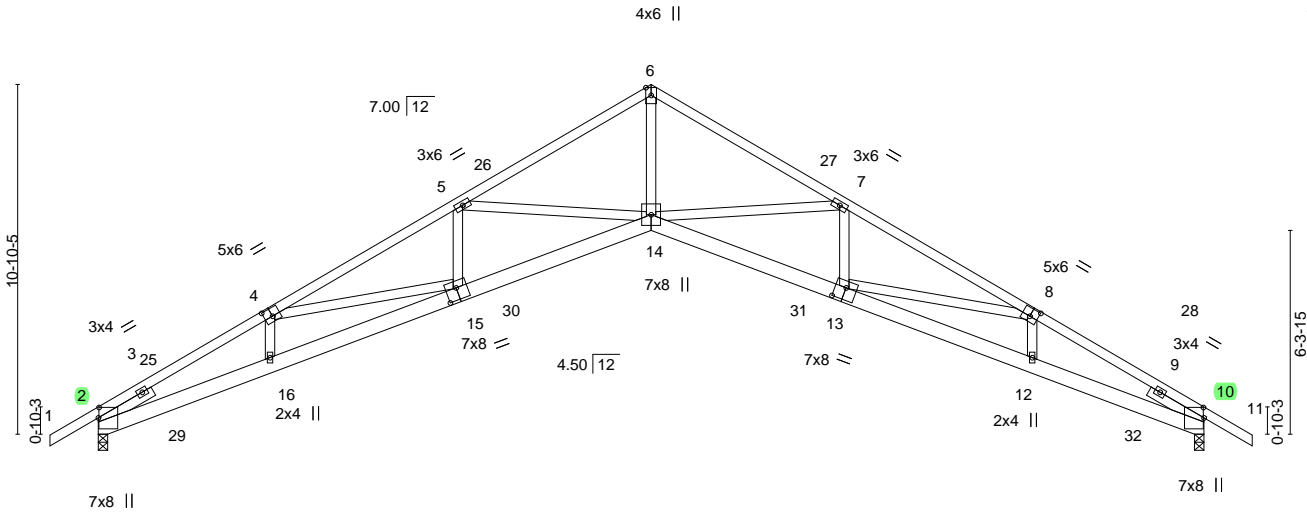
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|                          |       |            |     |     |                                 |           |
|--------------------------|-------|------------|-----|-----|---------------------------------|-----------|
| Job                      | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717716 |
| 3981398                  | T09   | Scissor    | 2   | 1   |                                 |           |
| Job Reference (optional) |       |            |     |     |                                 |           |

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Scale = 1:71.5



|                       |   |
|-----------------------|---|
| Plate Offsets (X,Y)-- | [2:0-3-14,0-0-4], [4:0-3-0,0-3-0], [8:0-3-0,0-3-0], [10:0-3-14,0-0-4], [13:0-4-0,0-4-8], [15:0-4-0,0-4-8] |
|-----------------------|---|

| LOADING (psf)  | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc) | l/defl | L/d  | PLATES | GRIP     |
|----------------|----------------------|-------|-----------|----------|----------|--------|------|--------|----------|
| TCLL 20.0      | Plate Grip DOL       | 1.25  | TC 0.85   | Vert(LL) | -0.43    | 14     | >965 | 240    | MT20     |
| TCDL 7.0       | Lumber DOL           | 1.25  | BC 0.61   | Vert(CT) | -0.79    | 14     | >519 | 180    | 244/190  |
| BCLL 0.0 *     | Rep Stress Incr      | YES   | WB 0.63   | Horz(CT) | 0.68     | 10     | n/a  | n/a    |          |
| BCDL 10.0      | Code FBC2023/TPI2014 |       | Matrix-MS |          |          |        |      |        |          |
| Weight: 208 lb |                      |       |           |          |          |        |      |        | FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\*  
2-15,10-13: 2x6 SP M 26  
WEBS 2x4 SP No.3 \*Except\*  
6-14: 2x4 SP No.2  
SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-1-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-9-3 oc bracing.

REACTIONS.

(size) 2=0-3-8, 10=0-3-8  
Max Horz 2=-269(LC 10)  
Max Uplift 2=-355(LC 12), 10=-355(LC 13)  
Max Grav 2=1351(LC 1), 10=1351(LC 1)

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

TOP CHORD 2-4=-3684/1564, 4-5=-3981/1585, 5-6=-3155/1129, 6-7=-3155/1120, 7-8=-3981/1596,  
8-10=-3685/1572  
BOT CHORD 2-16=-1270/3226, 15-16=-1287/3377, 14-15=-1177/3643, 13-14=-1205/3643,  
12-13=-1310/3377, 10-12=-1295/3226  
WEBS 6-14=-1007/2799, 7-14=-812/526, 7-13=-170/273, 8-13=-128/352, 8-12=-311/99,  
5-14=-812/528, 5-15=-157/273, 4-15=-24/304, 4-16=-311/129

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind= ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 1-6-0 to 1-11-3, Zone1 1-11-3 to 17-2-0, Zone2 17-2-0 to 22-0-4, Zone1 22-0-4 to 35-10-0 zone; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2, 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) 2=355, 10=355.

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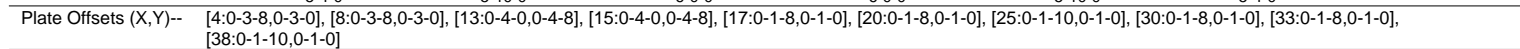
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**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**TOP CHORD**  
2-4=-4384/1870, 4-5=-4547/1800, 5-6=-3420/1218, 6-7=-3420/1209, 7-8=-4547/1815,  
8-10=-4384/1882

**BOT CHORD**  
2-16=-1593/3976, 15-16=-1613/4113, 14-15=-1382/4139, 13-14=-1414/4140,  
12-13=-1640/4113, 10-12=-1621/3976

**WEBS**  
6-14=-1095/3062, 7-14=-1021/635, 7-13=-201/360, 8-13=-131/279, 8-12=-383/129,  
5-14=-1021/636, 5-15=-201/360, 4-16=-383/161

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 1-11-3, Zone1 1-11-3 to 17-2-0, Zone2 17-2-0 to 22-0-4, Zone1 22-0-4 to 35-10-0 zone; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 5) 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.
- 6) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 1, 2024

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|         |       |            |     |     |                                 |           |
|---------|-------|------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717717 |
| 3981398 | T09G  | GABLE      | 1   | 2   | Job Reference (optional)        |           |

- NOTES-**
- 11) Bearing at joint(s) 2, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=356, 10=356.
  - 13) Studding applied to ply: 1(Front)

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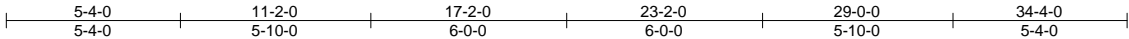
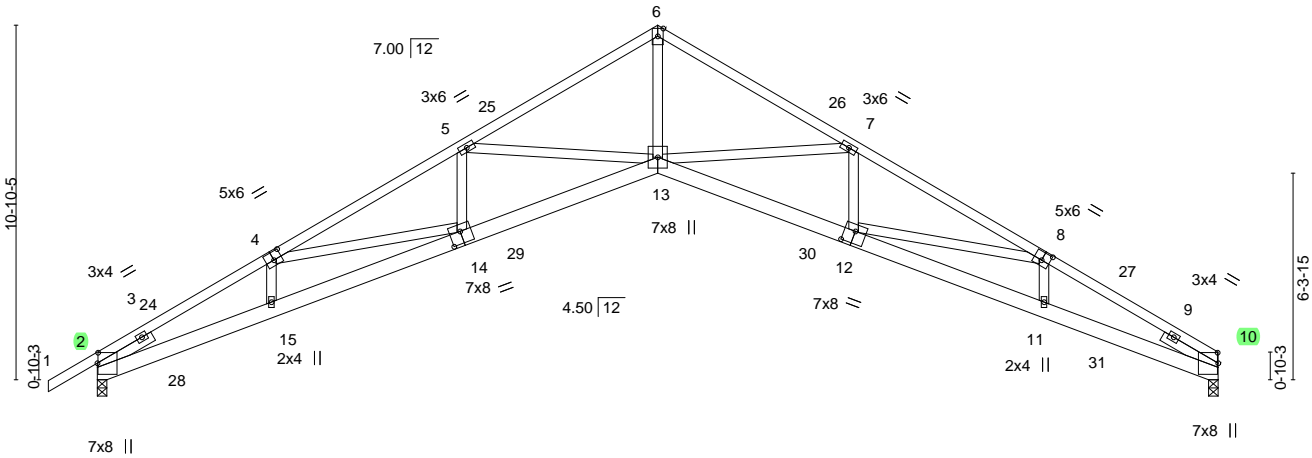
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|         |       |            |     |     |                                 |           |
|---------|-------|------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717718 |
| 3981398 | T10   | Scissor    | 5   | 1   | Job Reference (optional)        |           |

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4x6 || Scale = 1:70.6



|   |       |                      |  |           |      |          |       |                     |      |             |                         |
|---|-------|----------------------|--|-----------|------|----------|-------|---------------------|------|-------------|-------------------------|
| Plate Offsets (X,Y)-- [2:0-3-14,0-0-4], [4:0-3-0,0-3-0], [8:0-3-0,0-3-0], [10:0-3-14,0-0-4], [12:0-4-0,0-4-8], [14:0-4-0,0-4-8] |       |                      |  |           |      |          |       |                     |      |             |                         |
| LOADING (psf)   |       | SPACING- 2-0-0       |  | CSI.      |      | DEFL.    |       | in (loc) l/defl L/d |      | PLATES GRIP |                         |
| TCLL  | 20.0  | Plate Grip DOL 1.25  |  | TC        | 0.85 | Vert(LL) | -0.43 | 13                  | >962 | 240         | MT20 244/190            |
| TCDL  | 7.0   | Lumber DOL 1.25      |  | BC        | 0.62 | Vert(CT) | -0.80 | 13                  | >518 | 180         |                         |
| BCLL  | 0.0 * | Rep Stress Incr YES  |  | WB        | 0.63 | Horz(CT) | 0.68  | 10                  | n/a  | n/a         |                         |
| BCDL  | 10.0  | Code FBC2023/TPI2014 |  | Matrix-MS |      |          |       |                     |      |             | Weight: 206 lb FT = 20% |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\*  
2-14,10-12: 2x6 SP M 26  
WEBS 2x4 SP No.3 \*Except\*  
6-13: 2x4 SP No.2  
SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-0-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-6-15 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
Max Horz 2=262(LC 11)  
Max Uplift 2=355(LC 12), 10=317(LC 13)  
Max Grav 2=1353(LC 1), 10=1269(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-3690/1608, 4-5=-3989/1645, 5-6=-3164/1172, 6-7=-3164/1181, 7-8=-3997/1643,  
8-10=-3726/1639  
BOT CHORD 2-15=-1351/3231, 14-15=-1369/3383, 13-14=-1276/3650, 12-13=-1259/3657,  
11-12=-1383/3415, 10-11=-1368/3268  
WEBS 6-13=-1060/2807, 7-13=-818/526, 7-12=-169/274, 8-12=-131/334, 8-11=-301/100,  
5-13=-812/523, 5-14=-156/273, 4-14=-30/306, 4-15=-312/131

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 1-11-3, Zone1 1-11-3 to 17-2-0, Zone2 17-2-0 to 22-0-4, Zone1 22-0-4 to 34-4-0 zone; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Bearing at joint(s) 2, 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) 2=355, 10=317.

This item has been digitally signed and sealed by O'Regan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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Date:

May 1,2024

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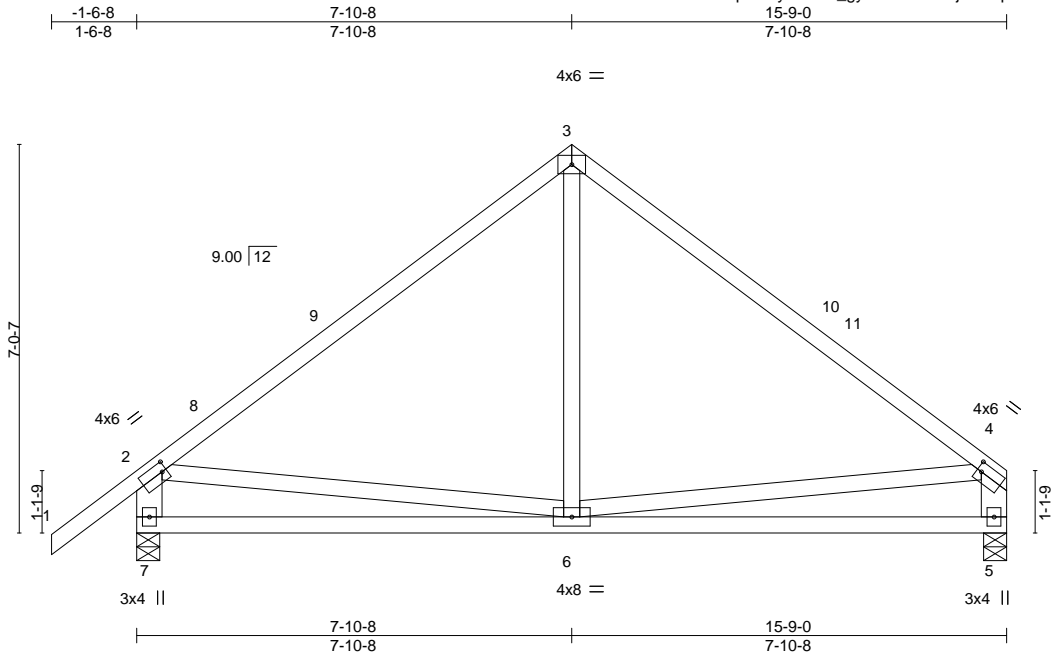
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|         |       |            |     |     |                                 |           |
|---------|-------|------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717719 |
| 3981398 | T11   | Common     | 1   | 1   | Job Reference (optional)        |           |

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8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:24 2024 Page 1  
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|                       |                                  |       |           |          |       |       |        |     |               |          |
|-----------------------|----------------------------------|-------|-----------|----------|-------|-------|--------|-----|---------------|----------|
| Plate Offsets (X,Y)-- | [2:0-1-0,0-2-0], [4:0-1-0,0-2-0] |       |           |          |       |       |        |     |               |          |
| LOADING (psf)         | SPACING-                         | 2-0-0 | CSI.      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
| TCLL 20.0             | Plate Grip DOL                   | 1.25  | TC 0.72   | Vert(LL) | -0.07 | 6-7   | >999   | 240 | MT20          | 244/190  |
| TCDL 7.0              | Lumber DOL                       | 1.25  | BC 0.51   | Vert(CT) | -0.13 | 6-7   | >999   | 180 |               |          |
| BCLL 0.0 *            | Rep Stress Incr                  | YES   | WB 0.17   | Horz(CT) | 0.01  | 5     | n/a    | n/a |               |          |
| BCDL 10.0             | Code FBC2023/TPI2014             |       | Matrix-MS |          |       |       |        |     | Weight: 91 lb | FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
2-7,4-5: 2x6 SP No.2

BRACING-

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

REACTIONS.

(size) 7=0-5-0, 5=0-5-0  
Max Horz 7=199(LC 9)  
Max Uplift 7=-176(LC 12), 5=-130(LC 13)  
Max Grav 7=667(LC 1), 5=560(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-582/176, 3-4=-572/179, 2-7=-600/279, 4-5=-493/199  
BOT CHORD 6-7=-335/454  
WEBS 3-6=0/312, 2-6=-152/304

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-8 to 1-5-8, Zone1 1-5-8 to 7-10-8, Zone2 7-10-8 to 12-1-7, Zone1 12-1-7 to 15-6-4 zone; 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) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=176, 5=130.

This item has been digitally signed and sealed by ORegan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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Date:

May 1,2024

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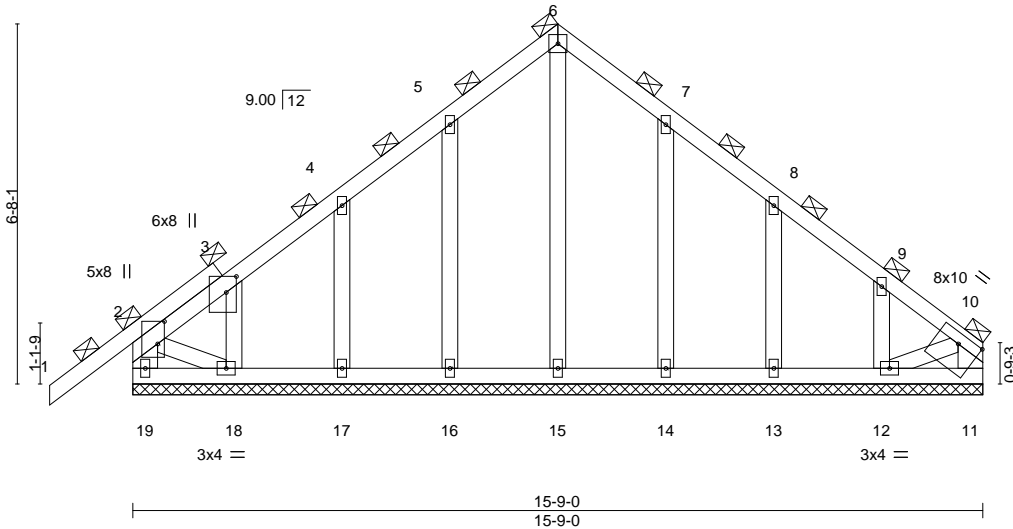
|         |       |                        |     |     |                                 |           |
|---------|-------|------------------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type             | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717720 |
| 3981398 | T11G  | Common Supported Gable | 1   | 1   | Job Reference (optional)        |           |

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ID:NnmnxELWBeMQMidnRqPZJxyLfQL-2AEL8JEQf5OH1tDi6mKEbJuA7nwcE2c9mf1U8GzLVRW



4x4 =

Scale = 1:42.7



|                       |       |  |  |          |      |                           |       |    |     |             |                |          |
|-----------------------|-------|--|--|----------|------|---------------------------|-------|----|-----|-------------|----------------|----------|
| Plate Offsets (X,Y)-- |       | [2:0-5-0,0-1-8], [3:0-3-9,0-2-4], [10:0-5-0,0-2-4] |  |          |      |                           |       |    |     |             |                |          |
| LOADING (psf)         |       | SPACING- 2-0-0                                     |  | CSI.     |      | DEFL. in (loc) l/defl L/d |       |    |     | PLATES GRIP |                |          |
| TCLL                  | 20.0  | Plate Grip DOL 1.25                                |  | TC       | 0.21 | Vert(LL)                  | -0.00 | 1  | n/r | 120         | MT20           | 244/190  |
| TCDL                  | 7.0   | Lumber DOL 1.25                                    |  | BC       | 0.03 | Vert(CT)                  | -0.01 | 1  | n/r | 120         |                |          |
| BCLL                  | 0.0 * | Rep Stress Incr YES                                |  | WB       | 0.08 | Horz(CT)                  | 0.00  | 12 | n/a | n/a         |                |          |
| BCDL                  | 10.0  | Code FBC2023/TPI2014                               |  | Matrix-S |      |                           |       |    |     |             | Weight: 102 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x6 SP No.2 \*Except\*  
2-18,10-12: 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-0-0 oc bracing: 18-19.

**REACTIONS.**

All bearings 15-9-0.  
(lb) - Max Horz 19=182(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 19, 11, 16, 17, 14, 13 except 18=129(LC 12), 12=132(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 19, 11, 15, 16, 17, 18, 14, 13, 12

**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 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCdL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 zone; 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.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed on one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 11, 16, 17, 14, 13 except (jt=lb) 18=129, 12=132.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been digitally signed and sealed by ORegan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
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Date:

May 1,2024

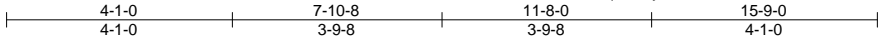
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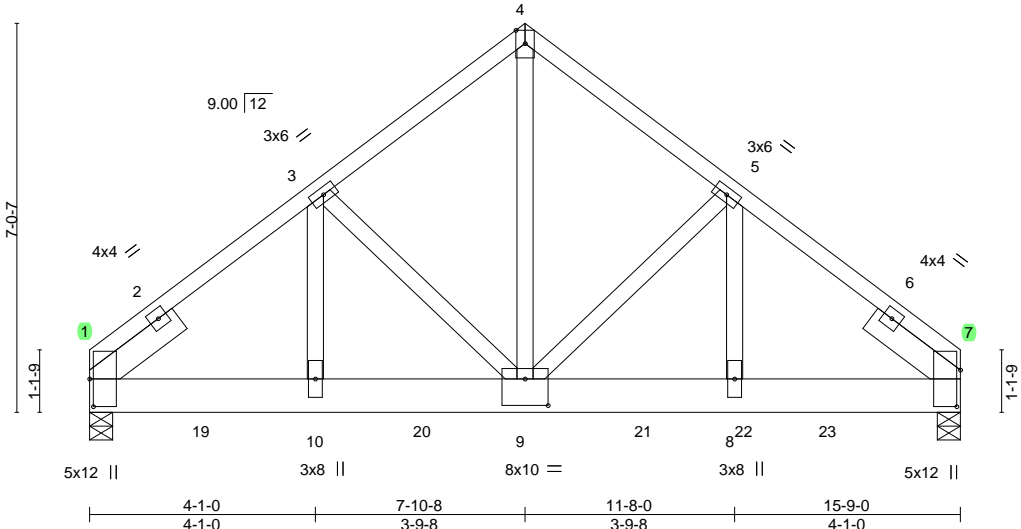
|         |       |               |     |     |                                 |           |
|---------|-------|---------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type    | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717721 |
| 3981398 | T12   | Common Girder | 1   | 2   | Job Reference (optional)        |           |

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4x6 ||

Scale = 1:41.7



|   |       |                      |      |           |      |                           |       |     |      |             |                |          |
|---|-------|----------------------|------|-----------|------|---------------------------|-------|-----|------|-------------|----------------|----------|
| Plate Offsets (X,Y)-- [1:0-6-0,0-0-13], [5:0-0-0,0-0-0], [7:0-0-0,0-0-0], [7:0-7-15,0-0-13], [9:0-5-0,0-5-12] |       |                      |      |           |      |                           |       |     |      |             |                |          |
| LOADING (psf)   |       | SPACING- 2-0-0       |      | CSI.      |      | DEFL. in (loc) l/defl L/d |       |     |      | PLATES GRIP |                |          |
| TCLL  | 20.0  | Plate Grip DOL       | 1.25 | TC        | 0.58 | Vert(LL)                  | -0.07 | 8-9 | >999 | 240         | MT20           | 244/190  |
| TCDL  | 7.0   | Lumber DOL           | 1.25 | BC        | 0.29 | Vert(CT)                  | -0.12 | 8-9 | >999 | 180         |                |          |
| BCLL  | 0.0 * | Rep Stress Incr      | NO   | WB        | 0.60 | Horz(CT)                  | 0.02  | 7   | n/a  | n/a         |                |          |
| BCDL  | 10.0  | Code FBC2023/TPI2014 |      | Matrix-MS |      |                           |       |     |      |             | Weight: 242 lb | FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\*  
4-9: 2x4 SP No.2  
SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8

BRACING-

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

REACTIONS.

(size) 1=0-5-0, 7=0-5-0  
Max Horz 1=146(LC 5)  
Max Uplift 1=-1287(LC 8), 7=-1270(LC 9)  
Max Grav 1=5172(LC 2), 7=5081(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-5866/1484, 3-4=-4679/1242, 4-5=-4677/1242, 5-7=-5978/1516  
BOT CHORD 1-10=-1196/4594, 9-10=-1196/4594, 8-9=-1143/4678, 7-8=-1143/4678  
WEBS 3-10=-379/1551, 3-9=-1214/421, 4-9=-1369/5321, 5-9=-1332/455, 5-8=-425/1711

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
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 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1287, 7=1270.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1350 lb down and 341 lb up at 2-0-4, 1316 lb down and 341 lb up at 4-0-4, 1316 lb down and 341 lb up at 6-0-4, 1316 lb down and 341 lb up at 8-0-4, 1316 lb down and 341 lb up at 10-0-4, and 1316 lb down and 341 lb up at 11-4-4, and 1316 lb down and 341 lb up at 13-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 1,2024

Continued on page 2

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

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|         |       |               |     |     |                                 |           |
|---------|-------|---------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type    | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717721 |
| 3981398 | T12   | Common Girder | 1   | 2   | Job Reference (optional)        |           |

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-54, 4-7=-54, 11-15=-20  
Concentrated Loads (lb)  
Vert: 10=-1197(B) 9=-1197(B) 19=-1229(B) 20=-1197(B) 21=-1197(B) 22=-1197(B) 23=-1197(B)

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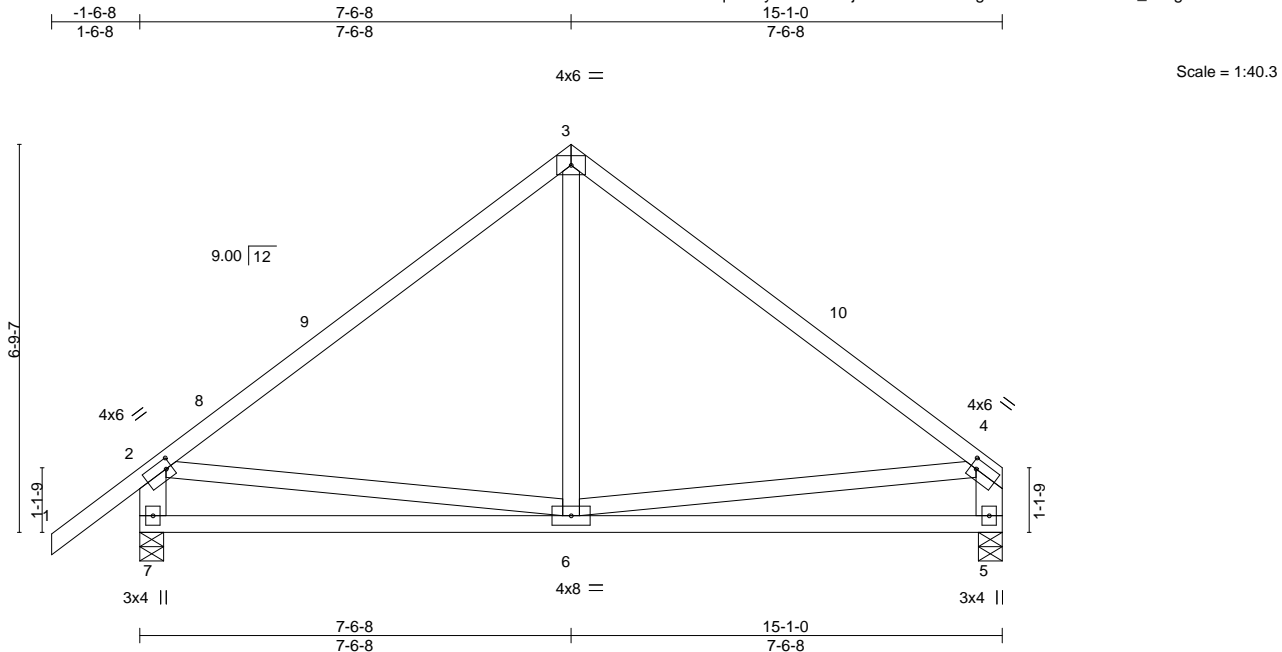
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|         |       |            |     |     |                                 |           |
|---------|-------|------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717722 |
| 3981398 | T13   | Common     | 1   | 1   | Job Reference (optional)        |           |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:26 2024 Page 1  
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|                       |                                  |       |           |          |           |        |     |                        |
|-----------------------|----------------------------------|-------|-----------|----------|-----------|--------|-----|------------------------|
| Plate Offsets (X,Y)-- | [2:0-1-4,0-2-0], [4:0-1-4,0-2-0] |       |           |          |           |        |     |                        |
| LOADING (psf)         | SPACING-                         | 2-0-0 | CSI.      | DEFL.    | in (loc)  | l/defl | L/d | PLATES GRIP            |
| TCLL 20.0             | Plate Grip DOL                   | 1.25  | TC 0.65   | Vert(LL) | -0.06 6-7 | >999   | 240 | MT20 244/190           |
| TCDL 7.0              | Lumber DOL                       | 1.25  | BC 0.47   | Vert(CT) | -0.11 6-7 | >999   | 180 |                        |
| BCLL 0.0 *            | Rep Stress Incr                  | YES   | WB 0.14   | Horz(CT) | 0.01 5    | n/a    | n/a |                        |
| BCDL 10.0             | Code FBC2023/TPI2014             |       | Matrix-MS |          |           |        |     | Weight: 88 lb FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
2-7,4-5: 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-9-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 7=0-5-0, 5=0-5-0  
Max Horz 7=192(LC 9)  
Max Uplift 7=170(LC 12), 5=124(LC 13)  
Max Grav 7=643(LC 1), 5=535(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-553/175, 3-4=-543/179, 2-7=-578/282, 4-5=-471/200  
BOT CHORD 6-7=-306/415  
WEBS 3-6=0/296, 2-6=-134/277

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-8 to 1-5-8, Zone1 1-5-8 to 7-6-8, Zone2 7-6-8 to 11-9-7, Zone1 11-9-7 to 14-10-4 zone; 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
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=170, 5=124.

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Date:

May 1,2024

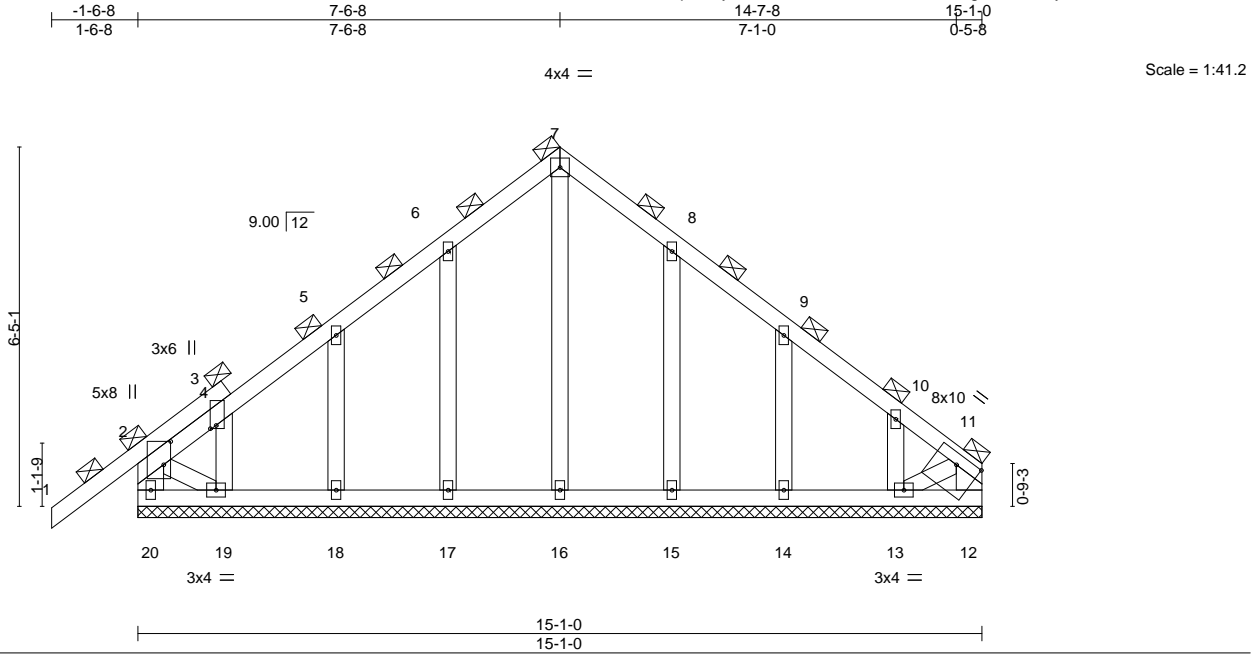
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|         |       |                        |     |     |                                 |           |
|---------|-------|------------------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type             | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717723 |
| 3981398 | T13G  | Common Supported Gable | 1   | 1   | Job Reference (optional)        |           |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:27 2024 Page 1  
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|   |       |                 |                 |          |      |                           |             |             |                        |
|---|-------|-----------------|-----------------|----------|------|---------------------------|-------------|-------------|------------------------|
| Plate Offsets (X,Y)-- [2:0-5-0,0-1-8], [3:0-0-11,0-1-4], [11:0-5-0,0-2-4] |       |                 |                 |          |      |                           |             |             |                        |
| LOADING (psf)   |       | SPACING- 2-0-0  |                 | CSI.     |      | DEFL. in (loc) l/defl L/d |             | PLATES GRIP |                        |
| TCLL  | 20.0  | Plate Grip DOL  | 1.25            | TC       | 0.22 | Vert(LL)                  | -0.00 1 n/r | 120         | MT20 244/190           |
| TCDL  | 7.0   | Lumber DOL      | 1.25            | BC       | 0.03 | Vert(CT)                  | -0.01 1 n/r | 120         |                        |
| BCLL  | 0.0 * | Rep Stress Incr | YES             | WB       | 0.07 | Horz(CT)                  | 0.00 13 n/a | n/a         |                        |
| BCDL  | 10.0  | Code            | FBC2023/TPI2014 | Matrix-S |      |                           |             |             | Weight: 96 lb FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x6 SP No.2 \*Except\*  
2-19,11-13: 2x4 SP No.3  
OTHERS 2x4 SP No.3

BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-0-0 oc bracing: 19-20.

REACTIONS.

All bearings 15-1-0.  
(lb) - Max Horz 20=176(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 15, 14 except 19=122(LC 12), 13=132(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 zone; 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.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 12, 17, 18, 15, 14 except (jt=lb) 19=122, 13=132.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Date:

May 1,2024

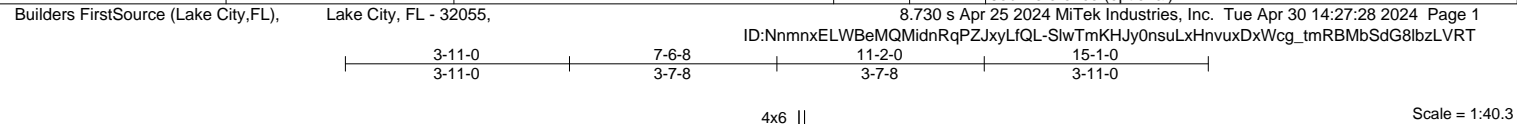
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|         |       |               |     |     |                                 |           |
|---------|-------|---------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type    | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717724 |
| 3981398 | T14   | Common Girder | 1   | 2   | Job Reference (optional)        |           |



|  |       |                      |  |           |      |                           |       |     |      |                         |      |         |
|--|-------|----------------------|--|-----------|------|---------------------------|-------|-----|------|-------------------------|------|---------|
| Plate Offsets (X,Y)-- [1:0-6-0,0-0-13], [5:0-0-0,0-0-0], [7:0-0-0,0-0-0], [7:0-7-15,0-0-13], [9:0-5-0,0-5-8] |       |                      |  |           |      |                           |       |     |      |                         |      |         |
| LOADING (psf)  |       | SPACING- 2-0-0       |  | CSI.      |      | DEFL. in (loc) l/defl L/d |       |     |      | PLATES GRIP             |      |         |
| TCLL   | 20.0  | Plate Grip DOL 1.25  |  | TC        | 0.51 | Vert(LL)                  | -0.06 | 8-9 | >999 | 240                     | MT20 | 244/190 |
| TCDL   | 7.0   | Lumber DOL 1.25      |  | BC        | 0.26 | Vert(CT)                  | -0.11 | 8-9 | >999 | 180                     |      |         |
| BCLL   | 0.0 * | Rep Stress Incr NO   |  | WB        | 0.98 | Horz(CT)                  | 0.02  | 7   | n/a  | n/a                     |      |         |
| BCDL   | 10.0  | Code FBC2023/TPI2014 |  | Matrix-MS |      |                           |       |     |      | Weight: 232 lb FT = 20% |      |         |

|  |   |
|--|---|
| LUMBER-  | BRACING-  |
| TOP CHORD 2x4 SP No.2                                    | TOP CHORD Structural wood sheathing directly applied or 4-7-3 oc purlins. |
| BOT CHORD 2x8 SP 2400F 2.0E                              | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| WEBS 2x4 SP No.3   |   |
| SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8 |   |

|            |                                       |
|------------|---------------------------------------|
| REACTIONS. | (size) 1=0-5-0, 7=0-5-0               |
|            | Max Horz 1=140(LC 5)                  |
|            | Max Uplift 1=1226(LC 8), 7=1370(LC 9) |
|            | Max Grav 1=5116(LC 2), 7=5724(LC 2)   |

|           |  |
|-----------|--|
| FORCES.   | (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. |
| TOP CHORD | 1-3=-5718/1395, 3-4=-4508/1156, 4-5=-4509/1156, 5-7=-5785/1413               |
| BOT CHORD | 1-10=-1122/4472, 9-10=-1122/4472, 8-9=-1065/4531, 7-8=-1065/4531             |
| WEBS      | 3-10=-376/1600, 3-9=-1236/410, 4-9=-1271/5126, 5-9=-1318/433, 5-8=-402/1692  |

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1226, 7=1370.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1441 lb down and 348 lb up at 2-0-4, 1398 lb down and 348 lb up at 4-0-4, 1398 lb down and 348 lb up at 6-0-4, 1398 lb down and 348 lb up at 8-0-4, 1398 lb down and 348 lb up at 10-0-4, and 1398 lb down and 348 lb up at 12-0-4, and 1441 lb down and 348 lb up at 14-0-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

|              |          |
|--------------|----------|
| LOAD CASE(S) | Standard |
|--------------|----------|

Continued on page 2

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May 1,2024

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|         |       |               |     |     |                                 |
|---------|-------|---------------|-----|-----|---------------------------------|
| Job     | Truss | Truss Type    | Qty | Ply | IC CONST. = CASTAGNA - WEST RES |
| 3981398 | T14   | Common Girder | 1   | 2   | T33717724                       |

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-4=-54, 4-7=-54, 11-15=-20

Concentrated Loads (lb)

Vert: 10=-1292(F) 19=-1292(F) 20=-1292(F) 21=-1292(F) 22=-1292(F) 23=-1292(F) 24=-1292(F)

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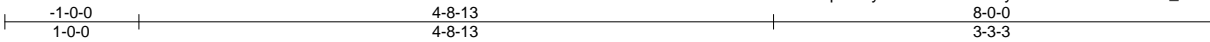
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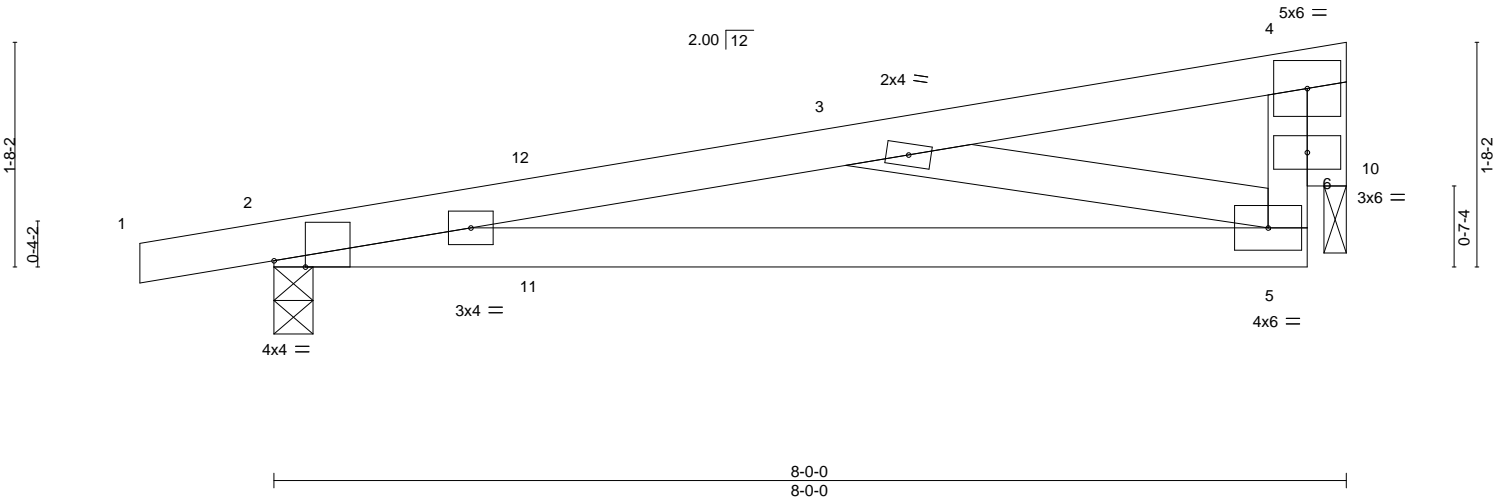
|         |       |            |     |     |                                 |           |
|---------|-------|------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717725 |
| 3981398 | T15   | MONO TRUSS | 17  | 1   | Job Reference (optional)        |           |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:28 2024 Page 1  
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Scale = 1:17.2



| Plate Offsets (X,Y)-- |                 | [2:0-2-13,Edge] |                                  |
|-----------------------|-----------------|-----------------|----------------------------------|
| <b>LOADING</b> (psf)  | <b>SPACING-</b> | 2-0-0           | <b>CSI.</b>                      |
| TCLL 20.0             | Plate Grip DOL  | 1.25            | TC 0.38                          |
| TCDL 7.0              | Lumber DOL      | 1.25            | BC 0.39                          |
| BCLL 0.0 *            | Rep Stress Incr | YES             | WB 0.16                          |
| BCDL 10.0             | Code            | FBC2023/TPI2014 | Matrix-MS                        |
|                       |                 |                 | <b>DEFL.</b> in (loc) l/defl L/d |
|                       |                 |                 | Vert(LL) 0.07 5-9 >999 240       |
|                       |                 |                 | Vert(CT) -0.11 5-9 >834 180      |
|                       |                 |                 | Horz(CT) 0.00 10 n/a n/a         |
|                       |                 |                 | <b>PLATES</b> <b>GRIP</b>        |
|                       |                 |                 | MT20 244/190                     |
|                       |                 |                 | Weight: 33 lb FT = 20%           |

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 7-2-0 oc bracing.

**REACTIONS.**

(size) 2=0-3-8, 10=0-2-0  
Max Horz 2=57(LC 8)  
Max Uplift 2=-210(LC 8), 10=-155(LC 8)  
Max Grav 2=350(LC 1), 10=264(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-740/593  
BOT CHORD 2-5=-633/730  
WEBS 3-5=-618/538, 4-10=-291/245

**NOTES-**

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-0-0 to 2-0-0, Zone1 2-0-0 to 7-6-12 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=210, 10=155.

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Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 1,2024

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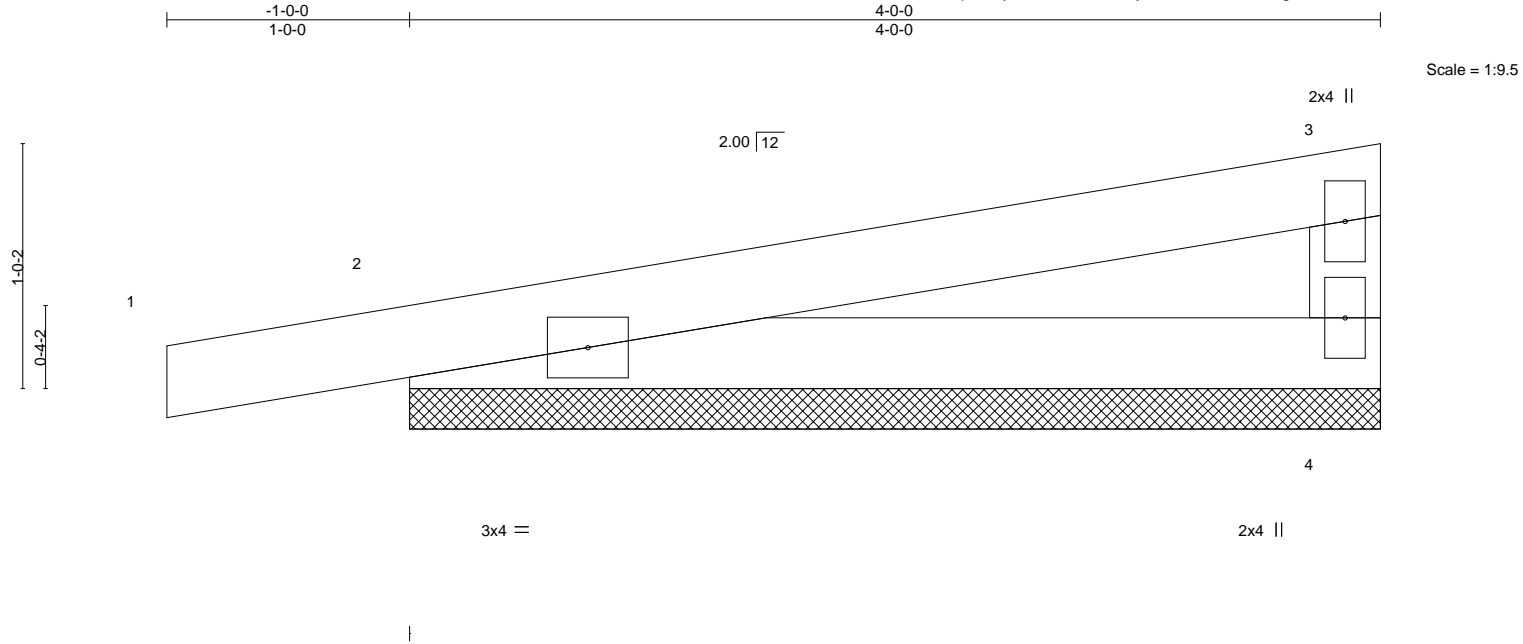
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|         |       |                           |     |     |                                 |           |
|---------|-------|---------------------------|-----|-----|---------------------------------|-----------|
| Job     | Truss | Truss Type                | Qty | Ply | IC CONST. = CASTAGNA - WEST RES | T33717726 |
| 3981398 | T15G  | Monopitch Supported Gable | 2   | 1   | Job Reference (optional)        |           |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:28 2024 Page 1  
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| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.25  | TC 0.29  | Vert(LL) | -0.00    | 1      | n/r | 120           | MT20     |
| TCDL 7.0      | Lumber DOL           | 1.25  | BC 0.18  | Vert(CT) | 0.00     | 1      | n/r | 120           | 244/190  |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.00  | Horz(CT) | 0.00     |        | n/a | n/a           |          |
| BCDL 10.0     | Code FBC2023/TP12014 |       | Matrix-P |          |          |        |     |               |          |
|               |                      |       |          |          |          |        |     | Weight: 14 lb | FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) 4=4-0-0, 2=4-0-0  
Max Horz 2=33(LC 8)  
Max Uplift 4=46(LC 12), 2=93(LC 8)  
Max Grav 4=136(LC 1), 2=204(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.

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MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 1,2024

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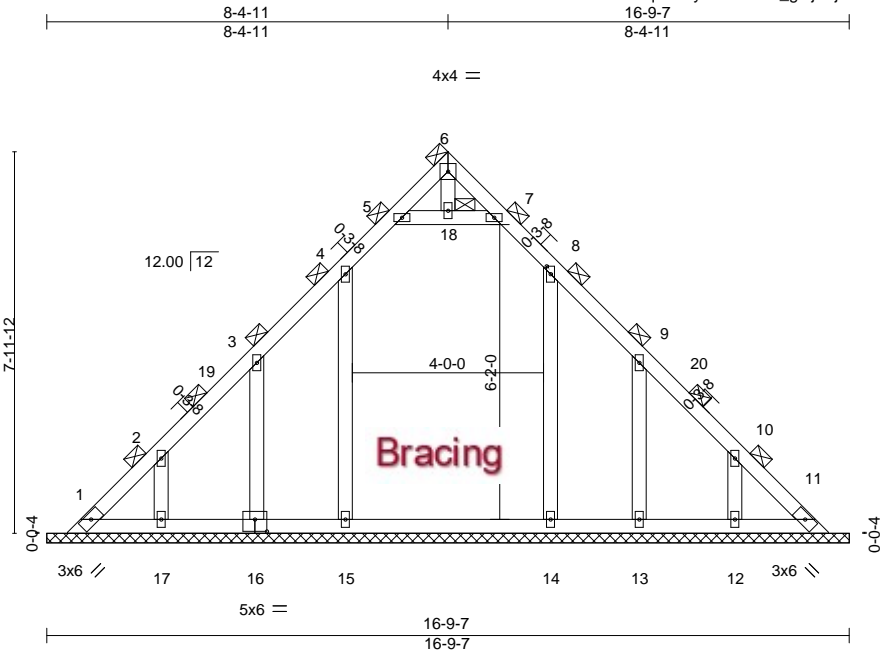


|                          |       |            |     |     |                                 |
|--------------------------|-------|------------|-----|-----|---------------------------------|
| Job                      | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES |
| 3981398                  | V01   | GABLE      | 1   | 1   | T33717727                       |
| Job Reference (optional) |       |            |     |     |                                 |

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.730 s Apr 25 2024 MiTek Industries, Inc. Tue Apr 30 14:27:29 2024 Page 1

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|                       |  |                                    |  |          |  |                           |  |                        |  |
|-----------------------|--|------------------------------------|--|----------|--|---------------------------|--|------------------------|--|
| Plate Offsets (X,Y)-- |  | [8:0-1-15,0-1-0], [16:0-3-0,0-3-0] |  |          |  |                           |  |                        |  |
| LOADING (psf)         |  | SPACING- 2-0-0                     |  | CSI.     |  | DEFL. in (loc) l/defl L/d |  | PLATES GRIP            |  |
| TCLL 20.0             |  | Plate Grip DOL 1.25                |  | TC 0.06  |  | Vert(LL) n/a - n/a 999    |  | MT20 244/190           |  |
| TCDL 7.0              |  | Lumber DOL 1.25                    |  | BC 0.16  |  | Vert(CT) n/a - n/a 999    |  |                        |  |
| BCLL 0.0 *            |  | Rep Stress Incr YES                |  | WB 0.08  |  | Horz(CT) 0.00 11 n/a n/a  |  |                        |  |
| BCDL 10.0             |  | Code FBC2023/TPI2014               |  | Matrix-S |  |                           |  | Weight: 91 lb FT = 20% |  |

|  |  |
|--|--|
| LUMBER-  | BRACING-   |
| TOP CHORD 2x4 SP No.2  | TOP CHORD 2-0-0 oc purlins (6-0-0 max.).   |
| BOT CHORD 2x4 SP No.2  | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.   |
| WEBS 2x4 SP No.3   | JOINTS 1 Brace at Jt(s): 6, 18   |
| OTHERS 2x4 SP No.3   |  |
| REACTIONS.   | 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 bearings 16-9-7.   |  |
| (lb) - Max Horz 1=-189(LC 8)   |  |
| Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 15, 14 except 16=-136(LC 12), 17=-125(LC 12), 13=-138(LC 13), 12=-124(LC 13) |  |
| Max Grav All reactions 250 lb or less at joint(s) 1, 11, 16, 17, 13, 12 except 15=310(LC 19), 14=295(LC 20)                          |  |

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 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BC DL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-9-3 to 3-9-3, Zone1 3-9-3 to 8-4-11, Zone2 8-4-11 to 12-4-11, Zone1 12-4-11 to 16-0-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 15, 14 except (jt=lb) 16=136, 17=125, 13=138, 12=124.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Date:

May 1,2024

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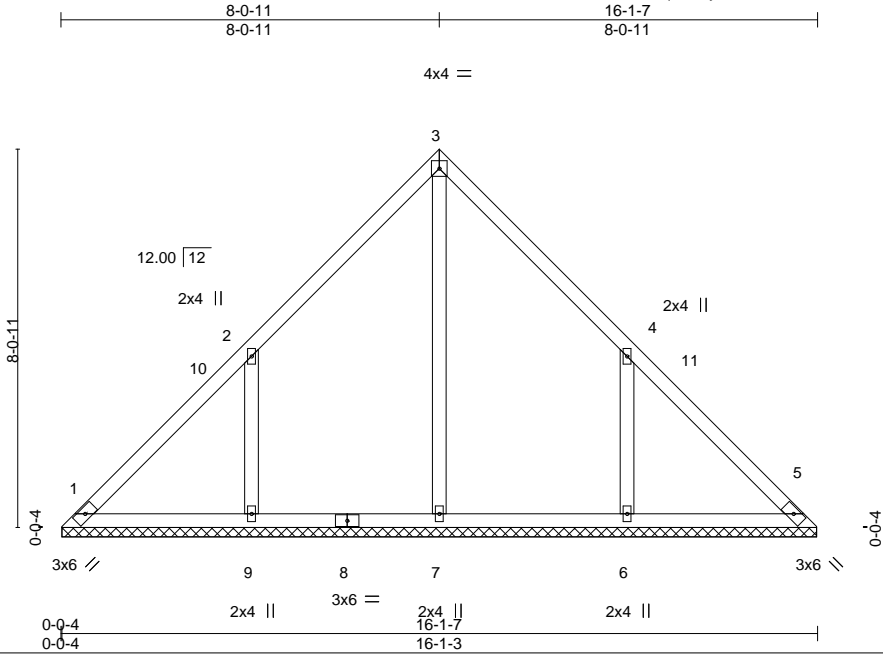
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|                          |       |            |     |     |                                 |
|--------------------------|-------|------------|-----|-----|---------------------------------|
| Job                      | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES |
| 3981398                  | V02   | Valley     | 1   | 1   | T33717728                       |
| Job Reference (optional) |       |            |     |     |                                 |

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| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES | GRIP                   |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|--------|------------------------|
| TCLL 20.0     | Plate Grip DOL       | 1.25  | TC 0.18  | Vert(LL) | n/a      | -      | n/a | 999    | MT20                   |
| BCDL 7.0      | Lumber DOL           | 1.25  | BC 0.17  | Vert(CT) | n/a      | -      | n/a | 999    | 244/190                |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.16  | Horz(CT) | 0.00     | 5      | n/a | n/a    |                        |
| BCDL 10.0     | Code FBC2023/TP12014 |       | Matrix-S |          |          |        |     |        |                        |
|               |                      |       |          |          |          |        |     |        | Weight: 78 lb FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

All bearings 16-0-15.  
(lb) - Max Horz 1=190(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=291(LC 12), 6=291(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=341(LC 22), 9=481(LC 19), 6=481(LC 20)

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

WEBS 2-9=-295/307, 4-6=-295/307

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-4-4 to 3-4-4, Zone1 3-4-4 to 8-0-11, Zone2 8-0-11 to 12-0-11, Zone1 12-0-11 to 15-9-3 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=291, 6=291.

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Date:

May 1,2024

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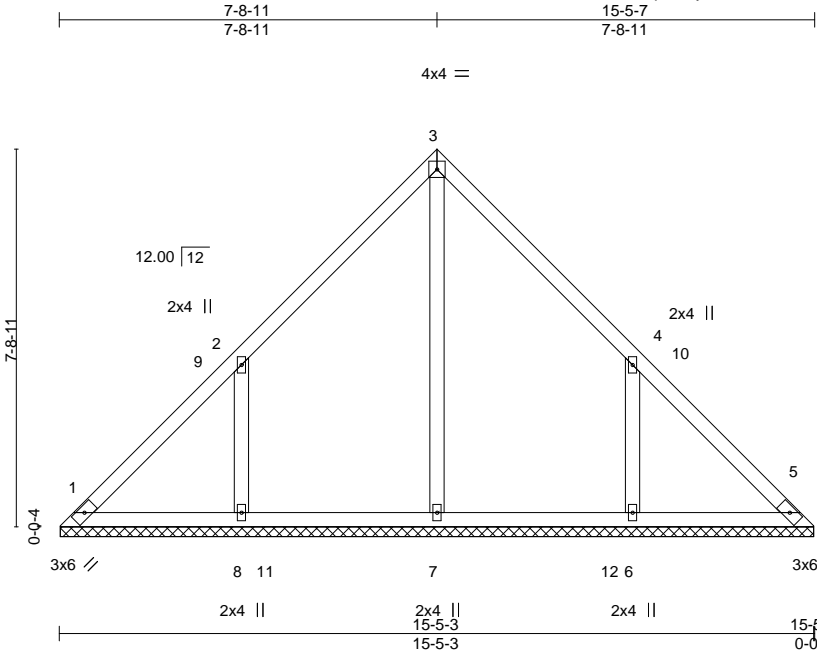
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|                          |       |            |     |     |                                 |
|--------------------------|-------|------------|-----|-----|---------------------------------|
| Job                      | Truss | Truss Type | Qty | Ply | IC CONST. = CASTAGNA - WEST RES |
| 3981398                  | V03   | Valley     | 1   | 1   | T33717729                       |
| Job Reference (optional) |       |            |     |     |                                 |

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Scale = 1:47.1

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES | GRIP                   |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|--------|------------------------|
| TCLL 20.0     | Plate Grip DOL       | 1.25  | TC 0.17  | Vert(LL) | n/a      | -      | n/a | 999    | MT20                   |
| TCDL 7.0      | Lumber DOL           | 1.25  | BC 0.17  | Vert(CT) | n/a      | -      | n/a | 999    | 244/190                |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.14  | Horz(CT) | 0.00     | 5      | n/a | n/a    |                        |
| BCDL 10.0     | Code FBC2023/TP12014 |       | Matrix-S |          |          |        |     |        |                        |
|               |                      |       |          |          |          |        |     |        | Weight: 74 lb FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**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 15-4-15.  
(lb) - Max Horz 1=182(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=279(LC 12), 6=278(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=341(LC 22), 8=453(LC 19), 6=453(LC 20)

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

WEBS 2-8=283/295, 4-6=283/295

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-4-4 to 3-4-4, Zone1 3-4-4 to 7-8-11, Zone2 7-8-11 to 11-8-11, Zone1 11-8-11 to 15-1-3 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 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=279, 6=278.

This item has been digitally signed and sealed by O'Regan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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May 1,2024

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

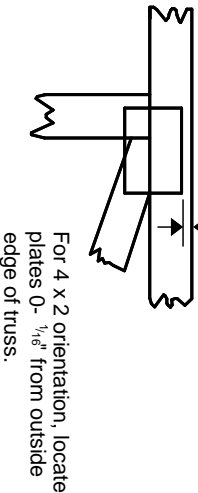
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

**MiTek®**

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## Symbols

### PLATE LOCATION AND ORIENTATION



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

### PLATE SIZE

4 X 4

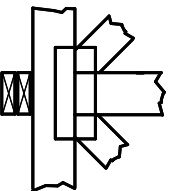
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

### LATERAL BRACING LOCATION



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

### BEARING

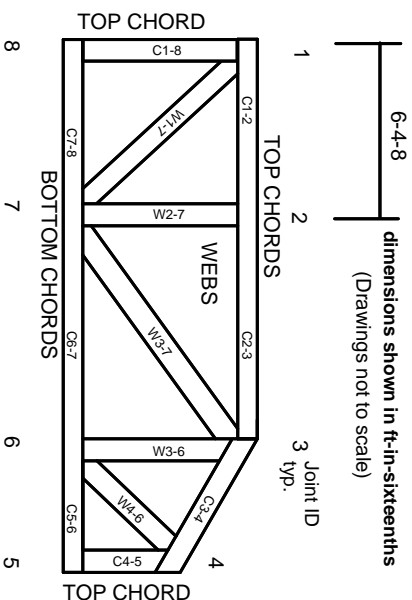


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

#### Industry Standards:

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

## Numbering System



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

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

## Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

## Design General Notes

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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

## General Safety Notes

**Failure to Follow Could Cause Property Damage or Personal Injury**

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.