



These truss designs rely on lumber values established by others.

RE: 0525-035 - Hubbard

**Site Information:**

Customer Info: Jesse Hubbard Project Name: . Model: .  
Lot/Block: . Subdivision: .  
Address: ., .  
City: Ft. White State: .

**MiTek, Inc.**

16023 Swingley Ridge Rd  
Chesterfield, MO 63017  
314.434.1200

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

Name: License #:  
Address:  
City: State:

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

Design Code: FBC2023/TPI2014 Design Program: MiTek 20/20 8.8  
Wind Code: ASCE 7-22 Wind Speed: 130 mph  
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 29 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.

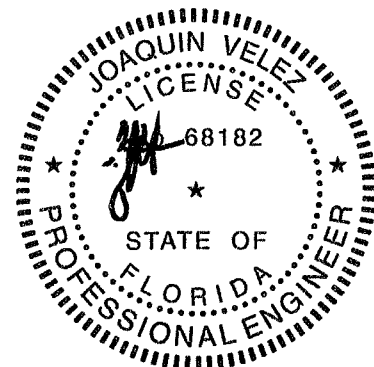
| No. | Seal#     | Truss Name | Date    | No. | Seal#     | Truss Name | Date    |
|-----|-----------|------------|---------|-----|-----------|------------|---------|
| 1   | T37416866 | A01        | 5/23/25 | 23  | T37416888 | C04        | 5/23/25 |
| 2   | T37416867 | A02        | 5/23/25 | 24  | T37416889 | CJ01       | 5/23/25 |
| 3   | T37416868 | A03        | 5/23/25 | 25  | T37416890 | J01        | 5/23/25 |
| 4   | T37416869 | A04        | 5/23/25 | 26  | T37416891 | J02        | 5/23/25 |
| 5   | T37416870 | A05        | 5/23/25 | 27  | T37416892 | J03        | 5/23/25 |
| 6   | T37416871 | A06        | 5/23/25 | 28  | T37416893 | J04        | 5/23/25 |
| 7   | T37416872 | A07        | 5/23/25 | 29  | T37416894 | J05        | 5/23/25 |
| 8   | T37416873 | A08        | 5/23/25 |     |           |            |         |
| 9   | T37416874 | A09        | 5/23/25 |     |           |            |         |
| 10  | T37416875 | A10        | 5/23/25 |     |           |            |         |
| 11  | T37416876 | A11        | 5/23/25 |     |           |            |         |
| 12  | T37416877 | A12        | 5/23/25 |     |           |            |         |
| 13  | T37416878 | B01        | 5/23/25 |     |           |            |         |
| 14  | T37416879 | B02        | 5/23/25 |     |           |            |         |
| 15  | T37416880 | B03        | 5/23/25 |     |           |            |         |
| 16  | T37416881 | B04        | 5/23/25 |     |           |            |         |
| 17  | T37416882 | B05        | 5/23/25 |     |           |            |         |
| 18  | T37416883 | B06        | 5/23/25 |     |           |            |         |
| 19  | T37416884 | B07        | 5/23/25 |     |           |            |         |
| 20  | T37416885 | C01        | 5/23/25 |     |           |            |         |
| 21  | T37416886 | C02        | 5/23/25 |     |           |            |         |
| 22  | T37416887 | C03        | 5/23/25 |     |           |            |         |

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

Truss Design Engineer's Name: Velez, Joaquin

My license renewal date for the state of Florida is February 28, 2027.

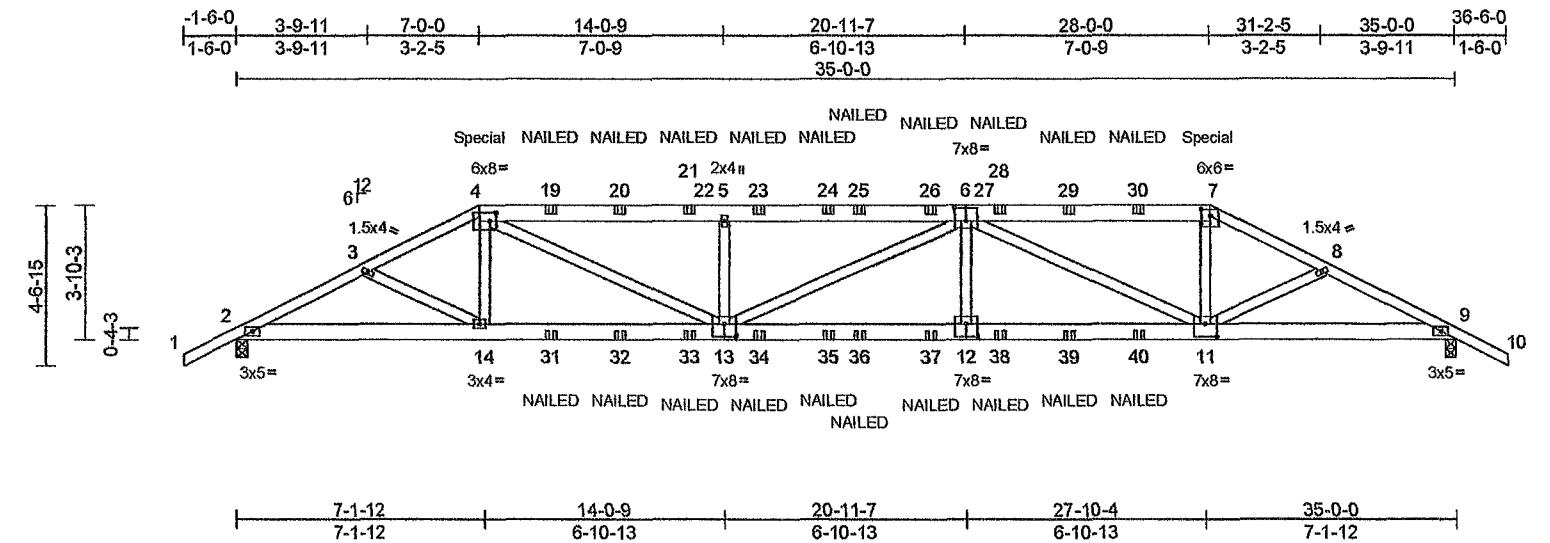
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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.



Joaquin Velez PE No.68182  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23, 2025





Scale = 1/8" = 1'-0"

Plate Offsets (X, Y). [4'-0-2-4, 0-3-0], [6'-0-4-0, 0-4-8], [7'-0-3-0, 0-2-7], [11'-0-4-0, 0-4-8], [12'-0-4-0, 0-4-8], [13'-0-4-0, 0-4-8]

| Loading                 | (psf) | Spacing         | 2'-0-0          | CSI       | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP |
|-------------------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|------|
| TCLL (roof)             | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.47 | Vert(LL) | -0.24 | 12-13  | >999 | 240    | MT20 |
| TCDL                    | 10.0  | Lumber DOL      | 1.25            | BC        | 0.82 | Vert(CT) | -0.50 | 12-13  | >844 | 180    |      |
| BCLL                    | 0.0*  | Rep Stress Incr | NO              | WB        | 0.69 | Horz(CT) | 0.12  | 9      | n/a  | n/a    |      |
| BCDL                    | 10.0  | Code            | FBC2023/TP12014 | Matrix-MS |      |          |       |        |      |        |      |
| Weight: 440 lb FT = 20% |       |                 |                 |           |      |          |       |        |      |        |      |

**LUMBER**

TOP CHORD 2x4 SP No. 2 \*Except\* 4-6, 6-7, 2x6 SP No. 2  
BOT CHORD 2x6 SP No. 2  
WEBS 2x4 SP No. 2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-11-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

**REACTIONS** (size) 2=0-3-8, 9=0-3-8

Max Horiz 2=-76 (LC 6)  
Max Uplift 2=-357 (LC 8), 9=-357 (LC 8)  
Max Grav 2=3092 (LC 13), 9=3092 (LC 14)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-6413/728, 3-4=-6283/729  
4-5=-8577/1020, 5-7=-8572/1019,  
7-8=-6281/727, 8-9=-6409/727, 9-10=0/40  
BOT CHORD 2-14=-587/5751, 11-14=-913/8587,  
9-11=-586/5690  
WEBS 4-14=0/793, 4-13=-395/3289,  
5-13=-1060/366, 6-13=-39/35, 6-12=0/590,  
6-11=-3226/393, 7-11=-86/2159,  
3-14=-122/133, 8-11=-119/137

**NOTES**

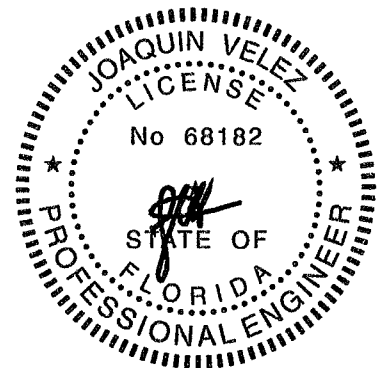
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows.  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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=6.0psf, BCDL=6.0psf, h=15ft, B=45ft; L=35ft, eave=5ft, Cat II, Exp B, Enclosed, MWFRS (directional), cantilever left and right exposed, 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.
- 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 20.0 psf on the bottom chord in all areas where a rectangle 3'-0"-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 357 lb uplift at joint 2 and 357 lb uplift at joint 9
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3 25") toe-nails per NDS guidelines
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 259 lb down and 140 lb up at 7'-0-0, and 259 lb down and 140 lb up at 28'-0-0 on top chord, and 410 lb down and 16 lb up at 7'-0-0, and 410 lb down and 16 lb up at 27'-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced) Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-4=-60, 4-7=-60, 7-10=-60, 2-9=-20  
Concentrated Loads (lb)

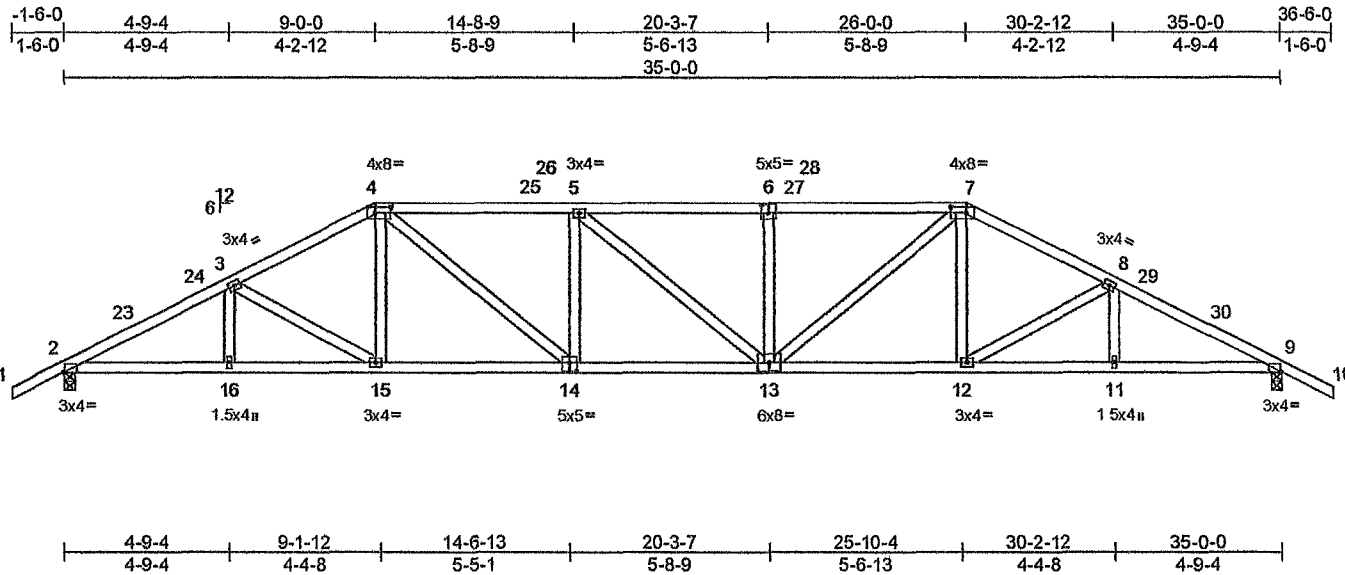
Vert: 4=-180 (B), 7=-180 (B), 14=-359 (B), 11=-359 (B), 19=-125 (B), 20=-125 (B), 21=-125 (B), 23=-125 (B), 24=-125 (B), 25=-125 (B), 26=-125 (B), 28=-125 (B), 29=-125 (B), 30=-125 (B), 31=-62 (B), 32=-62 (B), 33=-62 (B), 34=-62 (B), 35=-62 (B), 36=-62 (B), 37=-62 (B), 38=-62 (B), 39=-62 (B), 40=-62 (B)



Joaquin Velez PE No. 68182  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23, 2025





Scale = 1/65.9

Plate Offsets (X, Y) [2:0-0-4,Edge], [4:0-5-4 0-2-0], [6 0-2-8,0-3-0], [7:0-5-4,0 2-0], [9:0-0-4,Edge], [14 0-2-8,0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | I/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.35 | Vert(LL) | -0.19 | 13-14 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.59 | Vert(CT) | -0.38 | 13-14 | >999   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | YES             | WB        | 0.18 | Horz(CT) | 0.13  | 9     | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |       |        |     | Weight: 189 lb | FT = 20% |

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=0-3-8, 9=0-3-8  
Max Horiz 2=-94 (LC 10)  
Max Uplift 2=-35 (LC 12), 9=-35 (LC 12)  
Max Grav 2=1490 (LC 1), 9=1490 (LC 1)

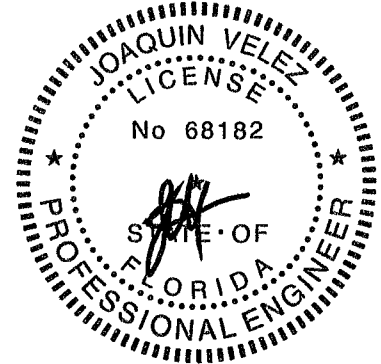
**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-3=-2714/100, 3-4=-2364/114,  
4-5=-2637/133, 5-7=-2650/134,  
7-8=-2364/114, 8-9=-2713/100, 9-10=0/40  
BOT CHORD 2-16=-23/2377, 15-16=-23/2377,  
12-15=0/2648, 11-12=-32/2377,  
9-11=-32/2377  
WEBS 3-15=-362/57, 4-15=0/337, 7-12=0/341,  
8-12=-362/57, 3-16=0/165, 5-14=-400/83,  
4-14=-23/807, 5-13=-67/171, 6-13=-354/87,  
7-13=-24/816, 8 11=0/164

**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=6.0psf; BCDL=6.0psf, h=15ft,  
B=45ft; L=35ft, eave=5ft, Cat. II, Exp B, Enclosed,  
MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0,  
Zone1 2-0-0 to 9-0-0, Zone2 9-0-0 to 13-11-6, Zone1  
13-11-6 to 26-0-0, Zone2 26-0-0 to 30-11-6, Zone1  
30-11-6 to 36-6-0 zone, cantilever left and right  
exposed, end vertical left and right exposed; C-C for  
members and forces & MWFRS for reactions shown,  
Lumber DOL=1.60 plate grip DOL=1.60

- 3) 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'-0"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 2 and 35 lb uplift at joint 9
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

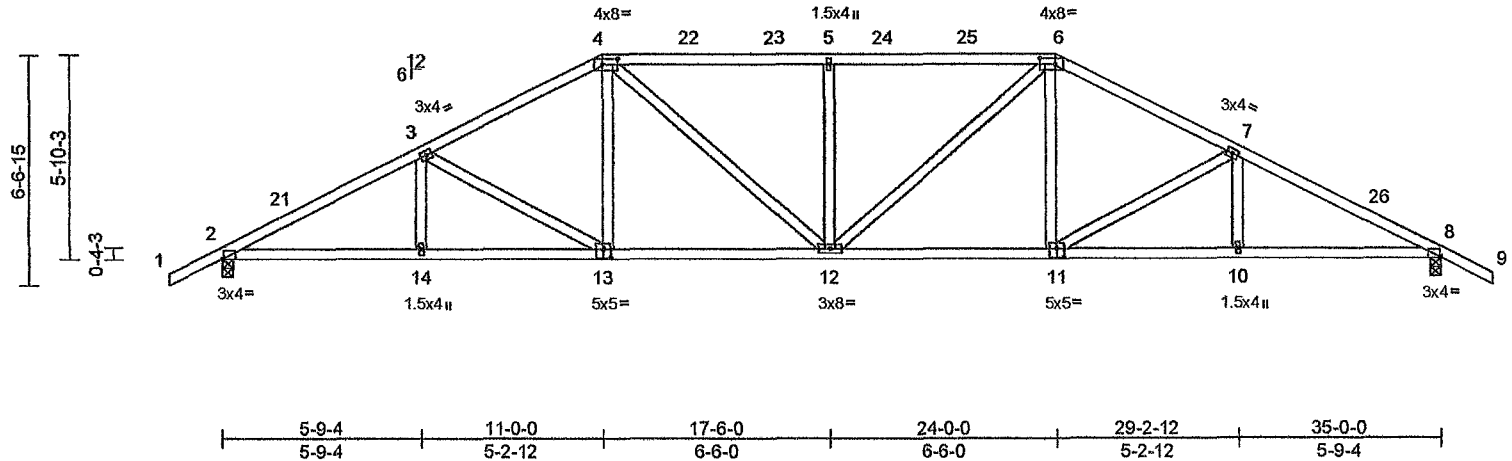
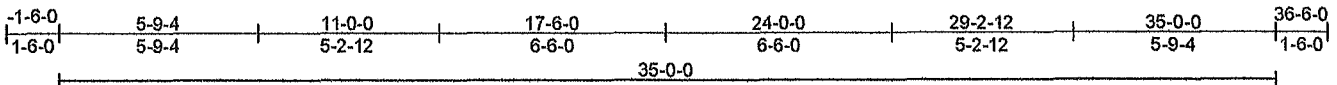
May 23, 2025

**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

**MiTek®**  
16023 Swingley Ridge Rd.





Scale = 1 65 8

Plate Offsets (X, Y) [2:0-0-4,Edge], [4:0-5-4,0-2-0], [6:0-5-4,0-2-0], [8:0-0-4,Edge], [11:0-2-8,0-3-0], [13:0-2-8,0-3-0]

[illegible]

## LUMBER

|           |             |
|-----------|-------------|
| TOP CHORD | 2x4 SP No 2 |
| BOT CHORD | 2x4 SP No.2 |
| WEBS      | 2x4 SP No 2 |

## BRACING

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

## REACTIONS

(size) 2=0-3-8, 8=0-3-8  
Max Horiz 2=-112 (LC 10)  
Max Uplift 2=-35 (LC 12), 8=-35 (LC 12)  
Max Grav 2=1490 (LC 1), 8=1490 (LC 1)

## FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-2680/109, 3-4=-2221/126,  
4-5=-2248/143, 5-6=-2248/143,  
6-7=-2221/126, 7-8=-2680/109, 8-9=0/40

BOT CHORD 2-14=-23/2339, 12-14=-23/2339,

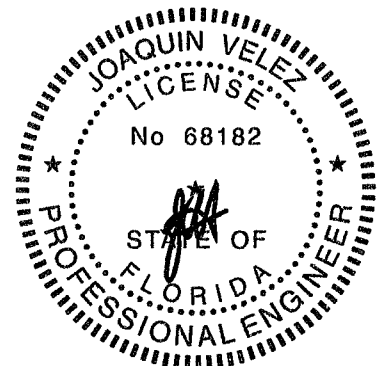
WEBS 10-12=-32/2339, 8-10=-32/2339  
3-14=0/211, 3-13=-482/69, 4-13=0/412,  
4-12=-18/544, 5-12=-434/99, 6-12=-18/544,  
6-11=0/412, 7-11=-482/69, 7-10=0/211

## NOTES

- 1) Unbalanced roof live loads have been considered for this design
- 2) Wind ASCE 7-22, Vult=130mph (3-second gust)  
 Vasd=101mph, TCDF=6.0psf, BCDL=6.0psf; h=15ft;  
 B=45ft; L=35ft, eave=5ft, Cat. II; Exp B, Enclosed,  
 MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0,  
 Zone1 2-0-0 to 11-0-0, Zone2 11-0-0 to 15-11-6, Zone1  
 15-11-6 to 24-0-0, Zone2 24-0-0 to 29-2-12, Zone1  
 29-2-12 to 36-6-0 zone, cantilever left and right  
 exposed , end vertical left and right exposed; C-C for  
 members and forces & MWFRS for reactions shown,  
 Lumber DOL=1 60 plate grip DOL=1 60
- 3) 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 psf on the bottom chord in all areas where a rectangle 3'-0" x 6'-0" tall by 2'-0" x 2'-0" wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 2 and 35 lb uplift at joint 8.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



**Joaquin Velez PE No.68182**  
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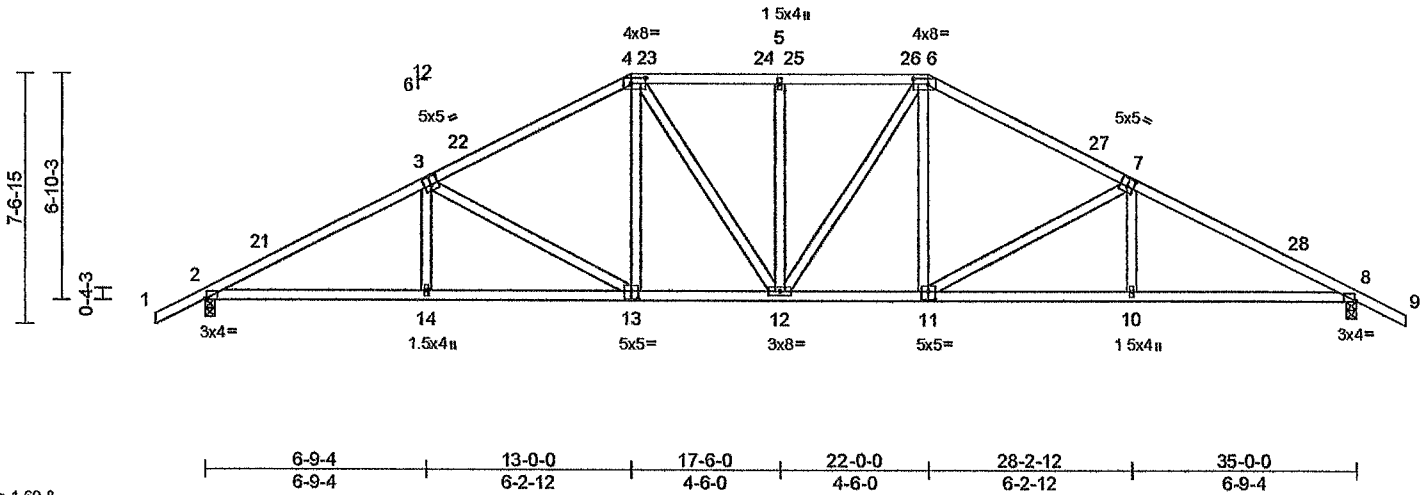
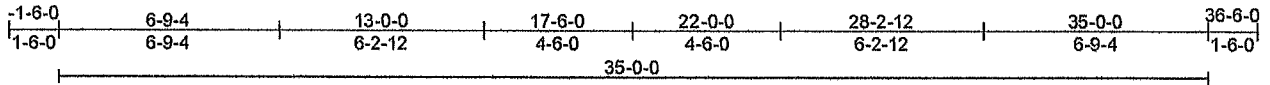
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

**WARNING - verify design parameters and READ NOTES ON THIS AND INCLUDED LITERATURE REFERENCE PAGE M17473 (rev. 12/2023) 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**

**MiTek®**  
16023 Swinoley Ridge Rd.





Scale = 1/8" = 1'-0"

Plate Offsets (X, Y) [2:0-0-8,Edge], [3:0-2-8,0-3-0], [4:0-5-4,0-2-0], [6:0-5-4,0-2-0], [7:0-2-8,0-3-0], [8:0-0-8,Edge], [11:0-2-8,0-3-0], [13:0-2-8,0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | I/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20 0  | Plate Grip DOL  | 1.25            | TC        | 0.41 | Vert(LL) | -0.14 | 12    | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10 0  | Lumber DOL      | 1.25            | BC        | 0.65 | Vert(CT) | -0.27 | 12-13 | >999   | 180 |                |          |
| BCLL        | 0 0*  | Rep Stress Incr | YES             | WB        | 0.55 | Horz(CT) | 0.12  | 8     | n/a    | n/a |                |          |
| BCDL        | 10 0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |       |        |     | Weight: 194 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 2=0-3-8, 8=0-3-8  
Max Horiz 2=-129 (LC 10)  
Max Uplift 2=-35 (LC 12), 8=-35 (LC 12)  
Max Grav 2=1490 (LC 1), 8=1490 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

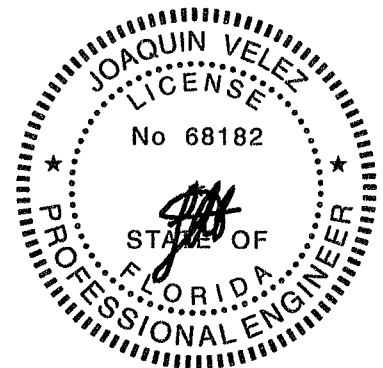
TOP CHORD 1 2=0/40, 2-4=-2639/136, 4-5= 1875/151, 5-6=-1875/151, 6-8=-2639/136, 8-9=0/40  
BOT CHORD 2-14=-13/2295, 12-14=-15/2291, 10-12=-25/2291, 8-10=-23/2295  
WEBS 3-14=0/274, 3-13=-615/74, 4-13=0/443, 6-12=-17/338, 6-11=0/443, 7-11=-615/74, 7-10=0/274, 5-12=-279/63, 4-12=-17/338

#### 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=6 0psf, BCDL=6 0psf, h=15ft, B=45ft, L=35ft; eave=5ft; Cat. II; Exp B, Enclosed, MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0, Zone1 2-0-0 to 13-0-0, Zone2 13-0-0 to 17-11-6, Zone1 17-11-6 to 22-0-0, Zone2 22-0-0 to 26-11-6, Zone1 26-11-6 to 36-6-0 zone, cantilever left and right exposed, end vertical left and right exposed, C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 2 and 35 lb uplift at joint 8
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



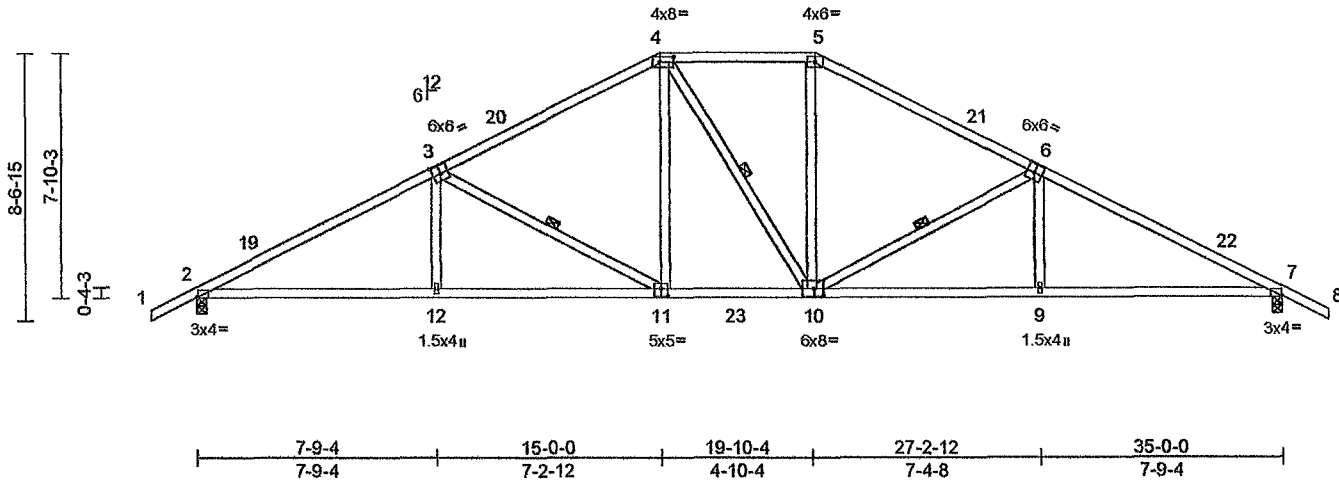
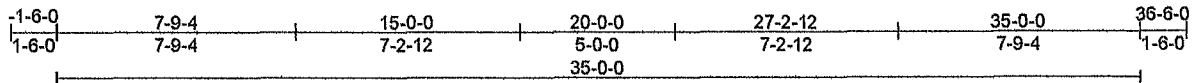
Joaquin Velez PE No.68182  
MITek Inc. DBA MITek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23,2025

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16023 Swingley Ridge Rd.





Scale = 1/4"

Plate Offsets (X, Y) [2:0-0-4 Edge], [3:0-3-0,0-3-4], [4:0-5-4,0-2-0], [6:0-3-0,0-3-4], [7:0-0-4,Edge], [10:0-3-8,0-3-0], [11:0-2-8,0-3-0]

| Loading                 | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP    |
|-------------------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------|
| TCLL (roof)             | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.56 | Vert(LL) | -0.17 | 11-12  | >999 | 240    | 244/190 |
| TCDL                    | 10.0  | Lumber DOL      | 1.25            | BC        | 0.86 | Vert(CT) | -0.34 | 11-12  | >999 | 180    |         |
| BCLL                    | 0.0*  | Rep Stress Incr | YES             | WB        | 0.27 | Horz(CT) | 0.13  | 7      | n/a  | n/a    |         |
| BCDL                    | 10.0  | Code            | FBC2023/TP12014 | Matrix-AS |      |          |       |        |      |        |         |
| Weight: 184 lb FT = 20% |       |                 |                 |           |      |          |       |        |      |        |         |

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-11, 4-10, 6-10

**REACTIONS**

(size) 2=0-3-8, 7=0-3-8  
Max Horiz 2=-147 (LC 10)  
Max Uplift 2=-35 (LC 12), 7=-35 (LC 12)  
Max Grav 2=1642 (LC 17), 7=1639 (LC 18)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

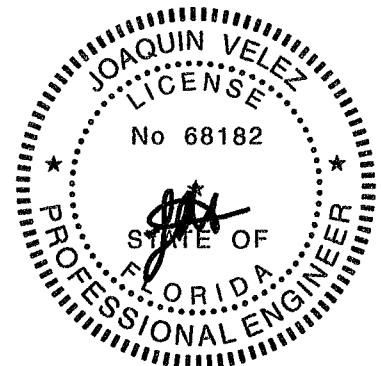
TOP CHORD 1-2=0/40, 2-4=-2836/146, 4-5=-1773/162,  
5-7=-2831/146, 7-8=0/40  
BOT CHORD 2-12=-8/2587 9-12=-20/2581 7-9=-18/2472  
WEBS 3-12=0/324, 3-11=-858/81, 4-11=0/642,  
4-10=-164/169, 5-10=0/616, 6-10=-861/81,  
6-9=0/325

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind ASCE 7-22, Vult=130mph (3-second gust)  
Vasd=101mph, TCDL=6.0psf, BCDL=6.0psf, h=15ft;  
B=45ft, L=35ft; eave=5ft; Cat. II, Exp B, Enclosed;  
MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0,  
Zone1 2-0-0 to 15-0-0, Zone3 15-0-0 to 20-0-0, Zone2  
20-0-0 to 24-11-6, Zone1 24-11-6 to 36-6-0 zone,  
cantilever left and right exposed, end vertical left and  
right exposed; C-C for members and forces & MWFRS  
for reactions shown, Lumber DOL=1.60 plate grip  
DOL=1.60
- 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  
3-06-00 tall by 2-00-00 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 35 lb uplift at joint  
2 and 35 lb uplift at joint 7
- This truss design requires that a minimum of 7/16"  
structural wood sheathing be applied directly to the top  
chord and 1/2" gypsum sheetrock be applied directly to  
the bottom chord

LOAD CASE(S) Standard



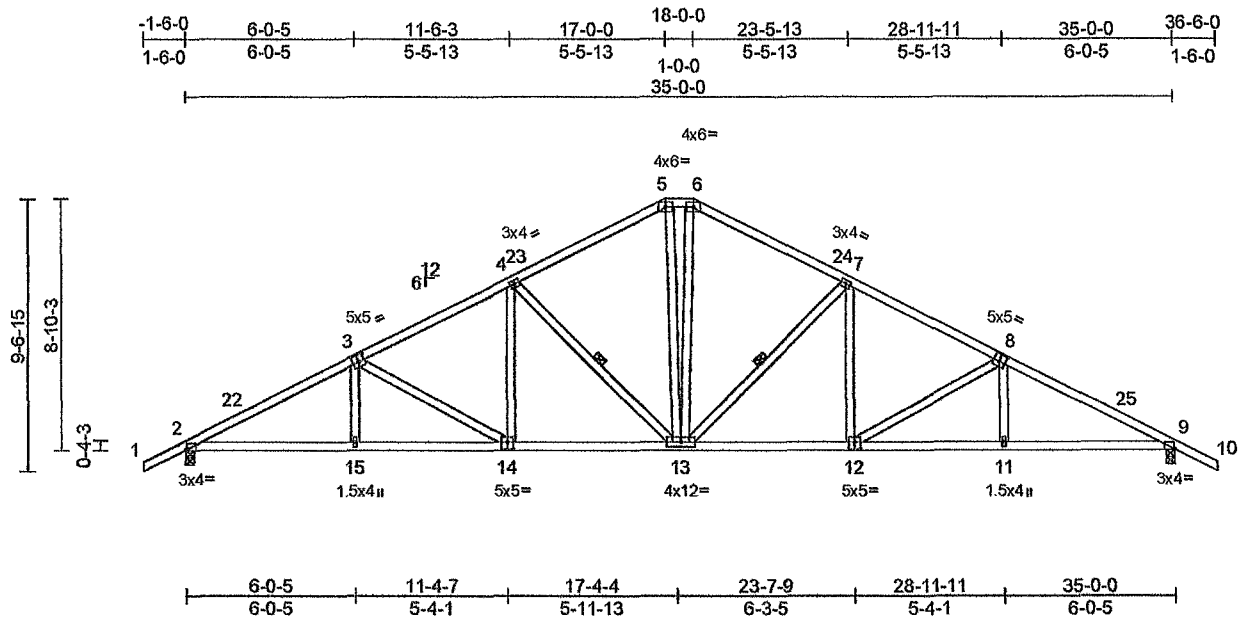
Joaquin Velez PE No.68182  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23, 2025

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is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the

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16023 Swingley Ridge Rd.





Scale = 1/81/2

Plate Offsets (X, Y) [2 0-0-4, Edge], [3 0-2-8, 0-3-0], [8 0-2-8, 0-3-0], [9 0-0-4, Edge], [12 0-2-8, 0-3-0], [14 0-2-8, 0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | I/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.37 | Vert(LL) | -0.13 | 13-14 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.61 | Vert(CT) | -0.29 | 12-13 | >999   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | YES             | WB        | 0.33 | Horz(CT) | 0.12  | 9     | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |       |        |     | Weight: 206 lb | FT = 20% |

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 4-13, 7-13

**REACTIONS** (size) 2=0-3-8, 9=0-3-8

Max Horiz 2=165 (LC 11)  
 Max Uplift 2=-35 (LC 12), 9=-35 (LC 12)  
 Max Grav 2=1490 (LC 1), 9=1490 (LC 1)

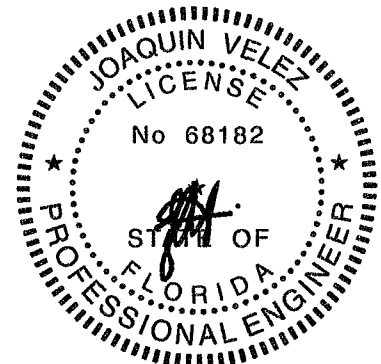
**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 5-6=-1442/148, 1 2=0/40, 2-4=-2666/110,  
 4-5=-1659/142, 6-7=-1659/142,  
 7-9=-2666/110, 9-10=0/40  
 BOT CHORD 2-15=0/2323, 13-15=0/2320, 11-13=0/2320,  
 9-11=0/2323  
 WEBS 4-13=-664/74, 7-13=-664/74, 3-15=0/227,  
 3-14=-497/44, 4-14=0/413, 7-12=0/413,  
 8-12=-497/44, 8-11=0/227, 5-13=-27/527,  
 6-13=-27/527

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind ASCE 7-22, Vult=130mph (3-second gust)  
 Vasd=101mph, TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
 B=45ft, L=35ft; eave=5ft; Cat. II, Exp B; Enclosed;  
 MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0,  
 Zone1 2-0-0 to 17-0-0, Zone3 17-0-0 to 18-0-0, Zone2  
 18-0-0 to 22-11-6, Zone1 22-11-6 to 36-6-0 zone,  
 cantilever left and right exposed, end vertical left and  
 right exposed; C-C for members and forces & MWFRS  
 for reactions shown, Lumber DOL=1.60 plate grip  
 DOL=1.60

- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 2 and 35 lb uplift at joint 9
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

**LOAD CASE(S)** Standard

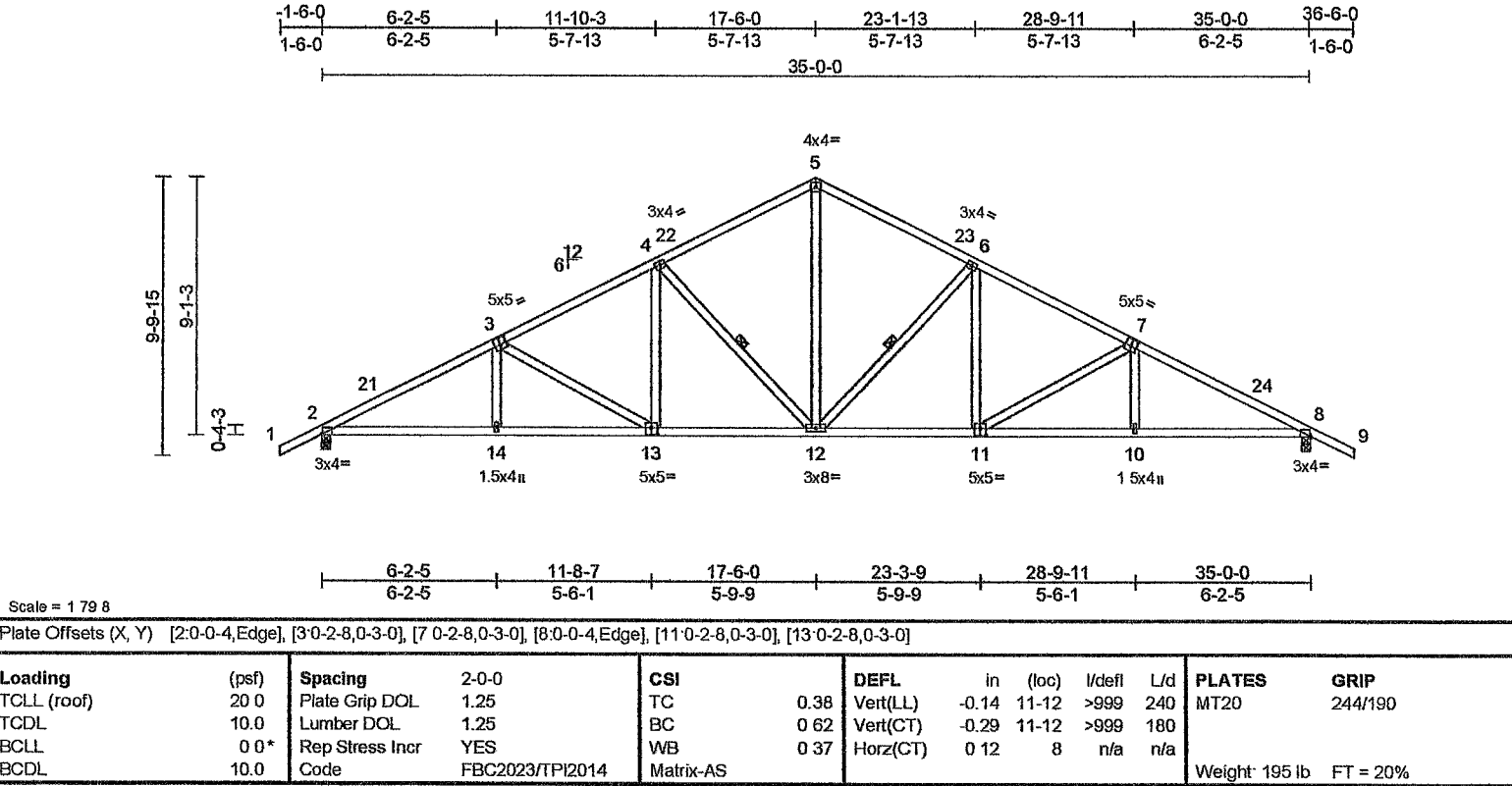
Joaquin Velez PE No.68182  
 MITek Inc. DBA MITek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

May 23, 2025

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 16023 Swingley Ridge Rd.





**LUMBER**

TOP CHORD 2x4 SP No 2

BOT CHORD 2x4 SP No.2

WEBS 2x4 SP No 2

**BRACING**

TOP CHORD Structural wood sheathing directly applied.

BOT CHORD Rigid ceiling directly applied

WEBS 1 Row at midpt 4-12, 6-12

**REACTIONS** (size) 2=0-3-8, 8=0-3-8

Max Horiz 2=-169 (LC 10)

Max Uplift 2=-35 (LC 12), 8=-35 (LC 12)

Max Grav 2=1490 (LC 1), 8=1490 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

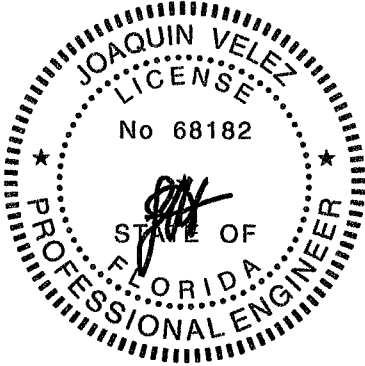
TOP CHORD 1-2=0/40, 2-4=-2659/138, 4-5=-1652/172, 5-6=-1652/172, 6-8=-2659/138, 8-9=0/40

BOT CHORD 2-14=0/2316, 12-14=-1/2313, 10-12=-16/2313, 8-10=-14/2316

WEBS 3-14=0/237, 3-13=-517/47, 4-13=0/418, 4-12=-669/90, 5-12=-37/1078, 6-12=-669/90, 6-11=0/418, 7-11=-517/47, 7-10=0/237

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=6.0psf, BCDL=6.0psf; h=15ft; B=45ft, L=35ft; eave=5ft, Cat. II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0, Zone1 2-0-0 to 17-6-0, Zone2 17-6-0 to 22-5-6, Zone1 22-5-6 to 36-6-0 zone; cantilever left and right exposed, end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1 60 plate grip DOL=1 60
  - 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.

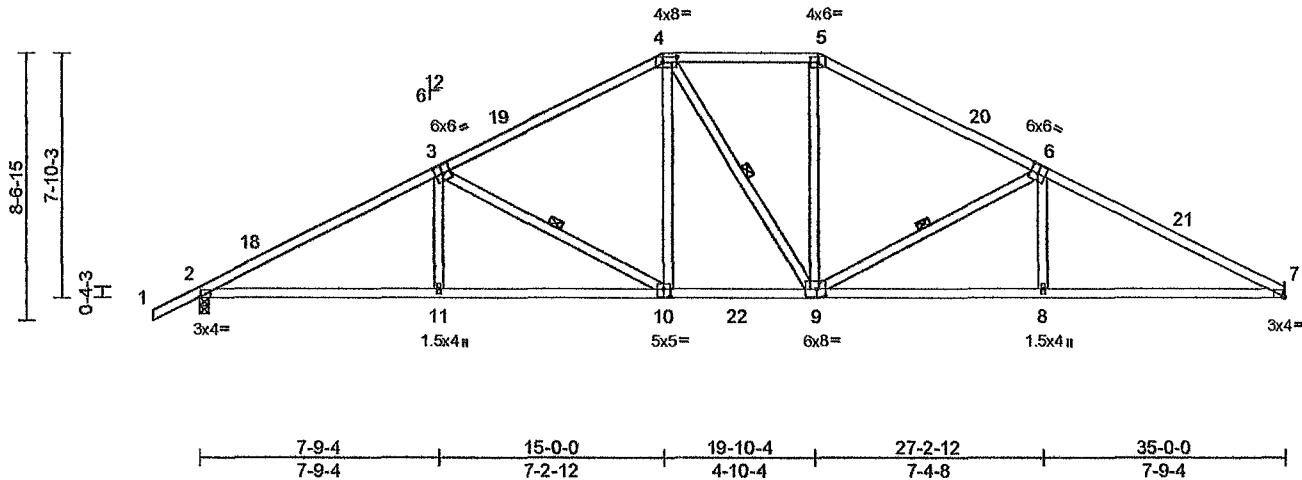
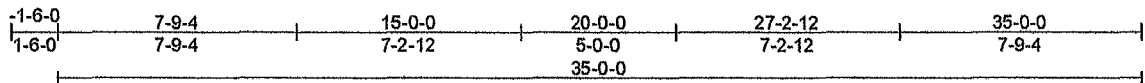
- \* This truss has been designed for a live load of 20 psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 2 and 35 lb uplift at joint 8.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord
- LOAD CASE(S)** Standard



Joaquin Velez PE No.68182  
MITek Inc. DBA MITek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23,2025





Scale = 1/4"

Plate Offsets (X, Y) [2-0-0-4, Edge], [3-0-3-0, 0-3-4], [4-0-5-4, 0-2-0], [6-0-3-0, 0-3-4], [7-0-0-4 Edge], [9-0-3-8, 0-3-0], [10-0-2-8, 0-3-0]

| Loading        | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | I/defl | L/d | PLATES   | GRIP    |
|----------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------|---------|
| TCLL (roof)    | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.60 | Vert(LL) | -0.17 | 10-11 | >999   | 240 | MT20     | 244/190 |
| TCDL           | 10.0  | Lumber DOL      | 1.25            | BC        | 0.89 | Vert(CT) | -0.34 | 10-11 | >999   | 180 |          |         |
| BCLL           | 0 0 * | Rep Stress Incr | YES             | WB        | 0.28 | Horz(CT) | 0 13  | 7     | n/a    | n/a |          |         |
| BCDL           | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |       |        |     |          |         |
| Weight: 181 lb |       |                 |                 |           |      |          |       |       |        |     | FT = 20% |         |

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 3-10, 4-9, 6-9

**REACTIONS**

(size) 2=0-3-8, 7= Mechanical  
 Max Horiz 2=144 (LC 11)  
 Max Uplift 2=36 (LC 12)  
 Max Grav 2=1643 (LC 17), 7=1557 (LC 18)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

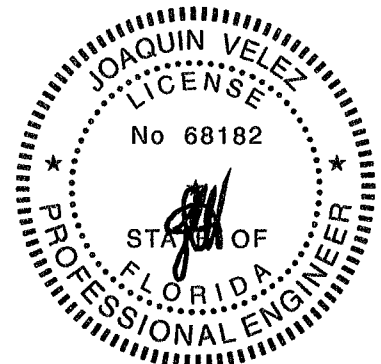
TOP CHORD 1 2=0/40, 2-4=-2839/151, 4-5=-1777/163, 5-7=-2847/151  
 BOT CHORD 2-11=-41/2583, 8-11=-43/2577 7-8=-37/2491  
 WEBS 3-11=0/324, 3-10=-858/81, 4-10=0/643, 4-9=-164/170, 5-9=0/618, 6-9=-875/84, 6-8=0/327

**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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft, L=35ft, eave=5ft; Cat. II, Exp B, Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0, Zone1 2-0-0 to 15-0-0, Zone3 15-0-0 to 20-0-0, Zone2 20-0-0 to 24-11-6, Zone1 24-11-6 to 35-0-0 zone; cantilever left and right exposed, end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1 60 plate grip DOL=1 60
- 3) 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 20.0 psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf
- 7) Refer to girder(s) for truss to truss connections
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 2.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

LOAD CASE(S) Standard



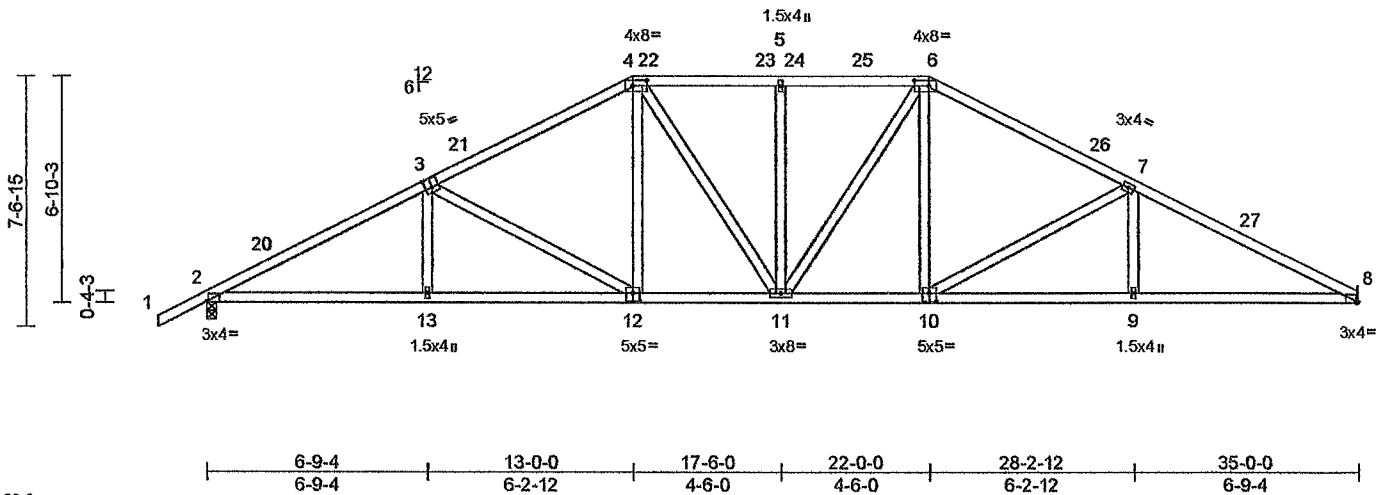
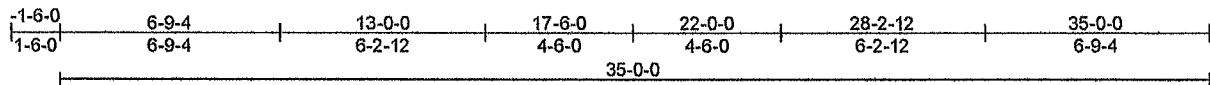
Joaquin Velez PE No.68182  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
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 16023 Swingley Ridge Rd.





Scale = 1/69.8

Plate Offsets (X, Y) [2'-0"-8" Edge], [3'-0"-2'-8", 0'-3"-4"], [4'-0"-5'-4", 0'-2"-0"], [6'-0"-5'-4", 0'-2"-0"], [8'-0"-0'-8" Edge], [10'-0"-2'-8", 0'-3"-0"], [12'-0"-2'-8", 0'-3"-0"]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | I/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.43 | Vert(LL) | -0.14 | 11    | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.69 | Vert(CT) | -0.27 | 10-11 | >999   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | YES             | WB        | 0.57 | Horz(CT) | 0.12  | 8     | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |       |        |     | Weight: 192 lb | FT = 20% |

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size) 2=0-3-8, 8= Mechanical  
 Max Horiz 2=126 (LC 11)  
 Max Uplift 2=-36 (LC 12)  
 Max Grav 2=1492 (LC 1), 8=1398 (LC 1)

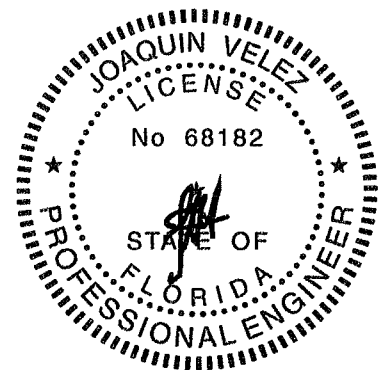
**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/40, 2-4=-2643/141, 4-5=-1881/157, 5-6=-1881/157, 6-7=-2067/142, 7-8=-2646/116  
 BOT CHORD 2-13=-46/2298, 11-13=-48/2295, 9-11=-44/2320, 8-9=-44/2320  
 WEBS 3-13=0/274, 3 12=-615/74, 4-12=0/443, 6-11=-16/337, 6-10=0/444, 7-10=-637/77, 7-9=0/275, 5-11=-279/63, 4-11=-18/340

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind ASCE 7-22, Vult=130mph (3-second gust)  
 Vasc=101mph, TCDL=6.0psf, BCDL=6.0psf, h=15ft; B=45ft; L=35ft, eave=5ft, Cat. II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 -1'-6" to 2'-0", Zone1 2'-0" to 13'-0", Zone2 13'-0" to 17'-11-6", Zone1 17'-11-6" to 22'-0", Zone2 22'-0" to 26'-11-6", Zone1 26'-11-6" to 35'-0" zone, cantilever left and right exposed, end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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'-0"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 2.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

**LOAD CASE(S)** Standard

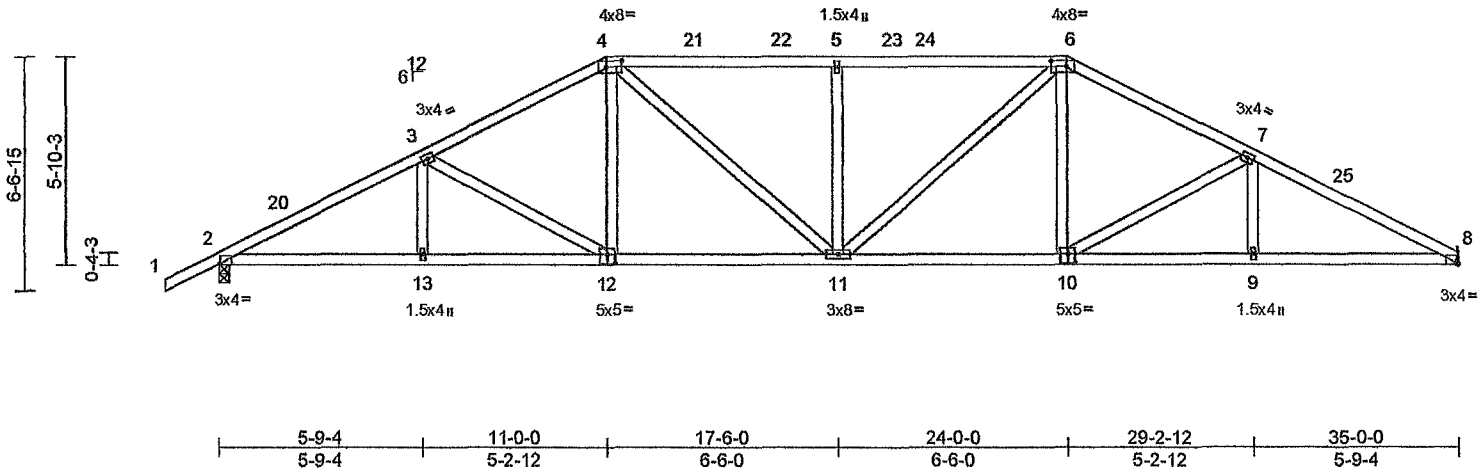
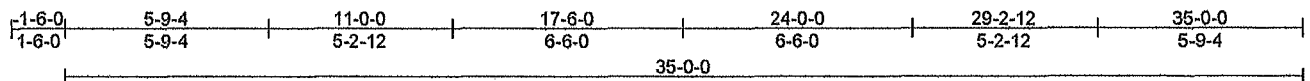
Joaquin Velez PE No.68182  
 MITek Inc. DBA MITek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

May 23, 2025

**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

**MiTek®**  
 16023 Swingley Ridge Rd.





Scale = 1/64.8

Plate Offsets (X, Y) [2-0-0-4,Edge], [4 0-5-4,0-2-0], [6 0-5-4,0-2-0], [8 0-0-4,Edge], [10 0-2-8 0-3-0], [12 0-2-8,0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | Vdefl | L/d  | PLATES | GRIP                    |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|------|--------|-------------------------|
| TCLL (roof) | 20 0  | Plate Grip DOL  | 1 25            | TC        | 0 43 | Vert(LL) | -0 15 | 11    | >999 | 240    | MT20 244/190            |
| TCDL        | 10 0  | Lumber DOL      | 1 25            | BC        | 0 63 | Vert(CT) | -0 32 | 10-11 | >999 | 180    |                         |
| BCLL        | 0 0 * | Rep Stress Incr | YES             | WB        | 0 32 | Horz(CT) | 0 12  | 8     | n/a  | n/a    |                         |
| BCDL        | 10 0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |       |      |        | Weight: 183 lb FT = 20% |

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size) 2=0-3-8, 8= Mechanical

Max Horiz 2=108 (LC 11)  
 Max Uplift 2=-36 (LC 12)  
 Max Grav 2=1492 (LC 1), 8=1398 (LC 1)

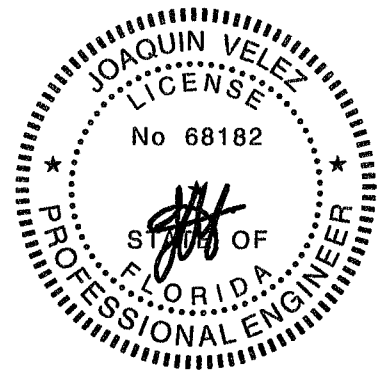
**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-2684/113, 3-4=-2226/130,  
 4-5=-2255/150, 5-6=-2255/150,  
 6-7=-2231/133, 7-8=-2690/115  
 BOT CHORD 2-13=-56/2343, 11-13=-56/2343,  
 9-11=-52/2365, 8-9=-52/2365  
 WEBS 3-13=0/211, 3-12=-482/69, 4-12=0/412,  
 4-11=-19/547, 5 11=-435/100, 6-11=-16/543,  
 6-10=0/415, 7-10=-502/73, 7-9=0/214

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind ASCE 7-22, Vult=130mph (3-second gust)  
 Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf, h=15ft;  
 B=45ft; L=35ft; eave=5ft; Cat. II, Exp B, Enclosed,  
 MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0,  
 Zone1 2-0-0 to 11-0-0, Zone2 11-0-0 to 15-11-6, Zone1  
 15-11-6 to 24-0-0, Zone2 24-0-0 to 29-2-12, Zone1  
 29-2-12 to 35-0-0 zone, cantilever left and right  
 exposed, end vertical left and right exposed; C-C for  
 members and forces & MWFRS for reactions shown;  
 Lumber DOL=1 60 plate grip DOL=1 60
- 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 psf  
 on the bottom chord in all areas where a rectangle  
 3-06-00 tall by 2-00-00 wide will fit between the bottom  
 chord and any other members.
- Refer to girder(s) for truss to truss connections
- Provide mechanical connection (by others) of truss to  
 bearing plate capable of withstanding 36 lb uplift at joint  
 2.
- This truss design requires that a minimum of 7/16"  
 structural wood sheathing be applied directly to the top  
 chord and 1/2" gypsum sheetrock be applied directly to  
 the bottom chord.

**LOAD CASE(S)** Standard

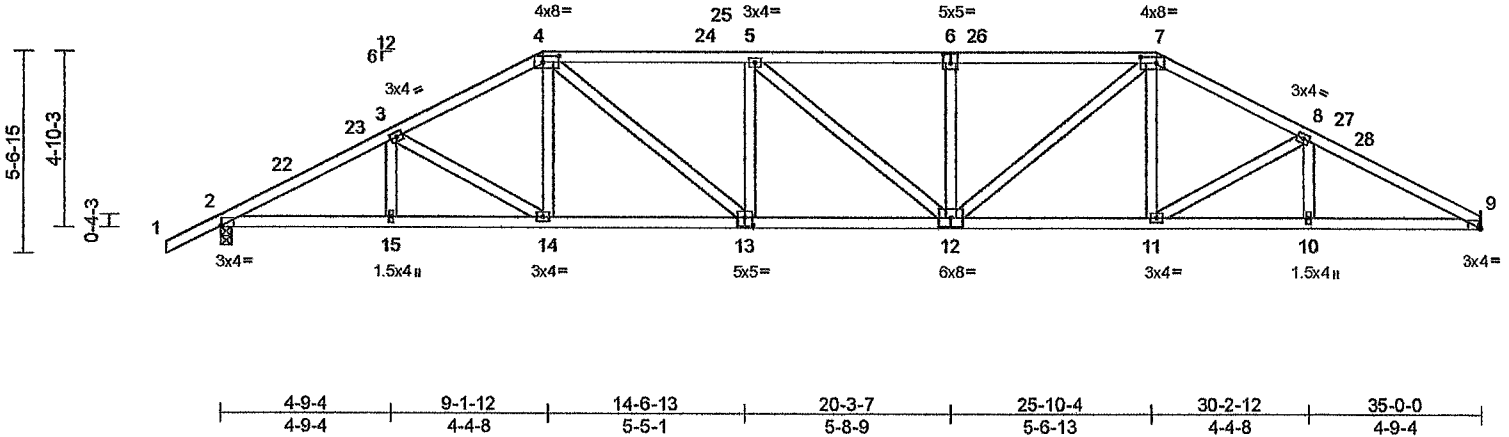
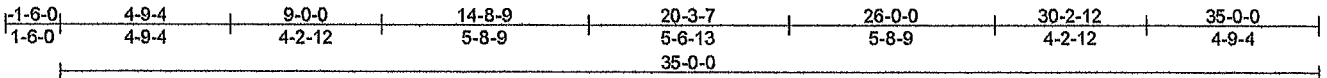
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 a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall  
 building design. Bracing indicated is to prevent buckling of individual truss web and/or 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

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 16023 Swingley Ridge Rd.





Scale = 1.63 6

Plate Offsets (X, Y) [2.0-0-4,Edge], [4.0-5-4,0-2-0], [6.0-2-8,0-3-0], [7.0-5-4,0-2-0], [9.0-0-4,Edge], [13.0-2-8,0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof) | 20 0  | Plate Grip DOL  | 1 25            | TC        | 0 36 | Vert(LL) | -0 19 | 12-13  | >999 | 240    | MT20           | 244/190  |
| TCDL        | 10 0  | Lumber DOL      | 1 25            | BC        | 0 59 | Vert(CT) | -0 39 | 12-13  | >999 | 180    |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | YES             | WB        | 0 18 | Horz(CT) | 0 13  | 9      | n/a  | n/a    |                |          |
| BCDL        | 10 0  | Code            | FBC2023/TP12014 | Matrix-AS |      |          |       |        |      |        | Weight: 186 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

#### REACTIONS (size) 2=0-3-8, 9= Mechanical

Max Horiz 2=90 (LC 11)  
Max Uplift 2=-36 (LC 12)  
Max Grav 2=1492 (LC 1), 9=1398 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-2718/104, 3-4=-2368/119,  
4-5=-2643/135, 5-7=-2659/143,  
7-8=-2377/125, 8-9=-2744/111

BOT CHORD 2-15=-55/2381, 14-15=-55/2381,  
11-14=-17/2855, 10-11=-54/2408,  
9-10=-54/2408

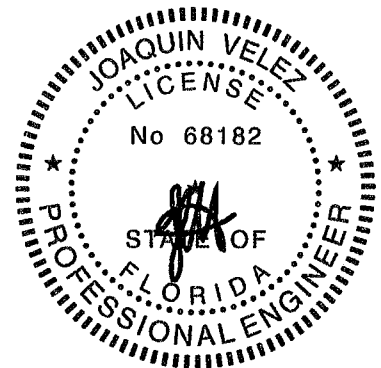
WEBS 3-14=-362/56, 4-14=0/337, 7-11=0/343,  
8-11=-384/62, 5-13=-402/83, 4-13=-23/810,  
5-12=-66/74, 6-12=-354/88, 7-12=-22/815,  
3-15=0/165, 8-10=0/167

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind ASCE 7-22, Vult=130mph (3-second gust)  
Vasd=101mph, TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=35ft, eave=5ft, Cat. II, Exp B, Enclosed,  
MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0,  
Zone1 2-0-0 to 9-0-0, Zone2 9-0-0 to 13-11-6, Zone1  
13-11-6 to 26-0-0, Zone2 26-0-0 to 30-11-6, Zone1  
30-11-6 to 35-0-0 zone, cantilever left and right  
exposed, end vertical left and right exposed; C-C for  
members and forces & MWFRS for reactions shown;  
Lumber DOL=1.60 plate grip DOL=1.60

- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 2
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



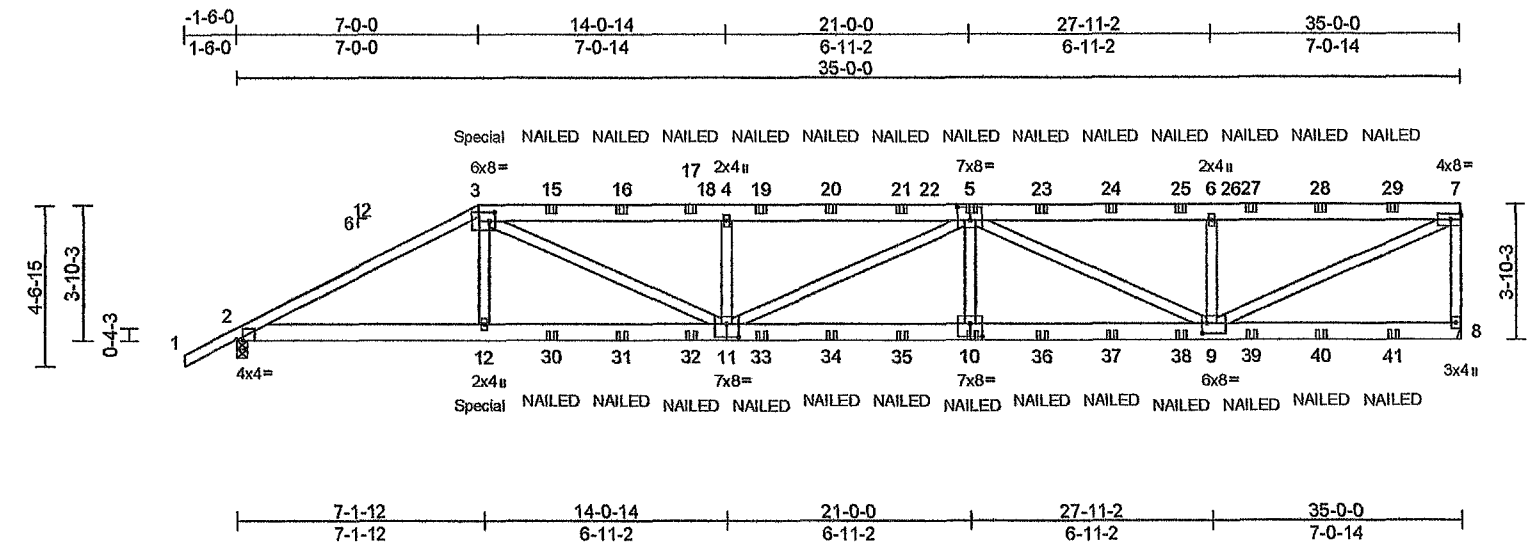
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16023 Swingley Ridge Rd.





Scale = 1/65 5

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.62 | Vert(LL) | -0.24 | 10-11 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.78 | Vert(CT) | -0.48 | 10-11 | >876   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | NO              | WB        | 0.66 | Horz(CT) | 0.10  | 8     | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | FBC2023/TPI2014 | Matrix-MS |      |          |       |       |        |     |                |          |
|             |       |                 |                 |           |      |          |       |       |        |     | Weight: 453 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x6 SP No.2 \*Except\* 1-3 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-5-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 2=0-3-8, 8= Mechanical  
Max Horiz 2=113 (LC 7)  
Max Uplift 2=-215 (LC 8), 8=-92 (LC 8)  
Max Grav 2=2918 (LC 1), 8=3048 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-3=-5946/407, 3-4=-7940/431, 4-5=-7935/430, 6-7=-5302/206, 7-8=-2890/156  
BOT CHORD 2-12=-328/5288, 9-12=-324/7852, 8-9=-23/90  
WEBS 3-12=0/792, 3-11=-55/3058, 4-11=-1013/265, 5-11=-128/220, 5-10=0/561, 5-9=-2839/140, 6-9=-933/231, 7-9=-190/5813

**NOTES**

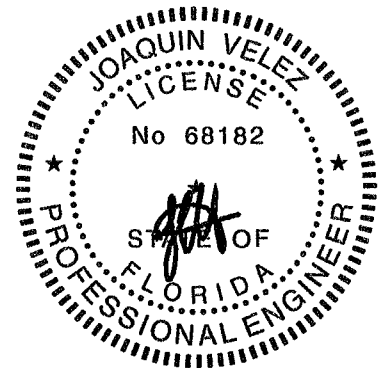
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows.  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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=6.0psf, BCDL=6.0psf, h=15ft, B=45ft, L=35ft, eave=5ft, Cat. II Exp B, Enclosed, MWFRS (directional), cantilever left and right exposed, 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.
- 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 20.0 psf on the bottom chord in all areas where a rectangle 3'-06"-00 tall by 2'-00"-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 92 lb uplift at joint 8 and 215 lb uplift at joint 2.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 259 lb down and 140 lb up at 7'-0-0 on top chord, and 410 lb down and 16 lb up at 7'-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced) Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-3=-60, 3-7=-60, 2-8=20  
Concentrated Loads (lb)

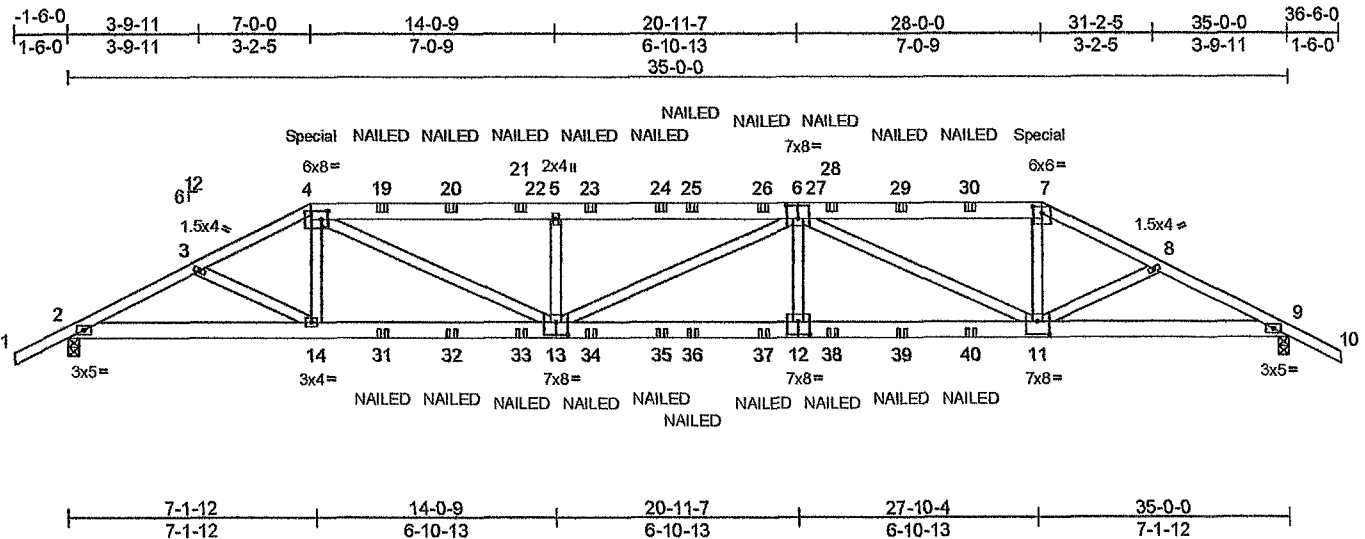
Vert: 3=-180 (F), 12=-359 (F), 5=-131 (F), 10=-67 (F), 15=-125 (F), 16=-125 (F), 17=-131 (F), 19=-131 (F), 20=-131 (F), 21=-131 (F), 23=-131 (F), 24=-131 (F), 25=-131 (F), 27=-131 (F), 28=-131 (F), 29=-131 (F), 30=-62 (F), 31=-62 (F), 32=-67 (F), 33=-67 (F), 34=-67 (F), 35=-67 (F), 36=-67 (F), 37=-67 (F), 38=-67 (F), 39=-67 (F), 40=-67 (F), 41=-67 (F)



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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23, 2025





Scale = 1 65.8

Plate Offsets (X, Y) [4:0-2-4,0-3-0], [6:0-4-0,0-4-8], [7:0-3-0,0-2-7], [11:0-4-0,0-4-8], [12:0-4-0,0-4-8], [13:0-4-0,0-4-8]

| <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 (roof)    | 20 0  | Plate Grip DOL  | 1.25            | TC         | 0.47 | Vert(L/L)   | -0.24 | 12-13 | >999   | 240 | MT20           | 244/190     |
| TCDL           | 10 0  | Lumber DOL      | 1.25            | BC         | 0.82 | Vert(CT)    | -0.50 | 12-13 | >844   | 180 |                |             |
| BCLL           | 0 0*  | Rep Stress Incr | NO              | WB         | 0.70 | Horz(CT)    | 0.12  | 9     | n/a    | n/a |                |             |
| BCDL           | 10 0  | Code            | FBC2023/TP12014 | Matrix-MS  |      |             |       |       |        |     | Weight: 440 lb | FT = 20%    |

## LUMBER

TOP CHORD 2x4 SP No 2 \*Except\* 4-6,6-7 2x6 SP No 2  
BOT CHORD 2x6 SP No 2  
WEBS 2x4 SP No.2

## BRACING

|           |  |
|-----------|--|
| TOP CHORD | Structural wood sheathing directly applied or 4-10-9 oc purlins. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing.             |

## REACTIONS

(size) 2=0-3-8, 9=0-3-8  
 Max Horiz 2=-76 (LC 6)  
 Max Uplift 2=-451 (LC 8), 9=-451 (LC 8)  
 Max Grav 2=3163 (LC 13), 9=3163 (LC 14)

## FORCES

Tension

TOP CHORD 1-2=0/40, 2-3=-6547/906, 3-4=-6396/880,  
4-5=-8734/1230, 5-7=-8729/1228,  
7-8=-6394/878, 8-9=-6542/905, 9-10=0/40

BOT CHORD 2 14=-737/5864, 11-14=-1091/8721,  
9-11=-736/5802

WEBS 4-14=0/793, 4-13=-467/3344,  
5-13=-1085/399, 6-13=-39/35, 6-12=0/590,  
6-11=-3280/465, 7-11=-142/2201,  
3-14=-146/178, 8-11=-142/181

## NOTES

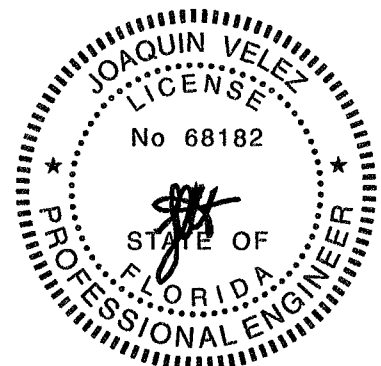
- 1) 2-ply truss to be connected together with 10d (0 131"x3") nails as follows.  
Top chords connected as follows 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows 2x4 - 1 row at 0-9-0 oc.
- 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=6 0psf; BCDL=6 0psf, h=15ft, B=45ft; L=35ft, eave=5ft, Cat. II, Exp B, Partially Enclosed; MWFRS (directional), cantilever left and right exposed , end vertical left and right exposed; Lumber DOL=1 60 plate grip DOL=1 60
- 5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 6) Provide adequate drainage to prevent water ponding.
- 7) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 451 lb uplift at joint 2 and 451 lb uplift at joint 9
- 10) "NAILED" indicates 3-10d (0 148"x3") or 3-12d (0 148"x3 25") toe-nails per NDS guidelines.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 282 lb down and 117 lb up at 7-0-0, and 282 lb down and 117 lb up at 28-0-0 on top chord, and 410 lb down and 16 lb up at 7-0-0, and 410 lb down and 16 lb up at 27-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced) Lumber Increase=1 25,  
Plate Increase=1 25  
Uniform Loads (lb/ft)  
Vert: 1-4=-60, 4-7=-60, 7-10=-60, 2-9=-20  
Concentrated Loads (lb)

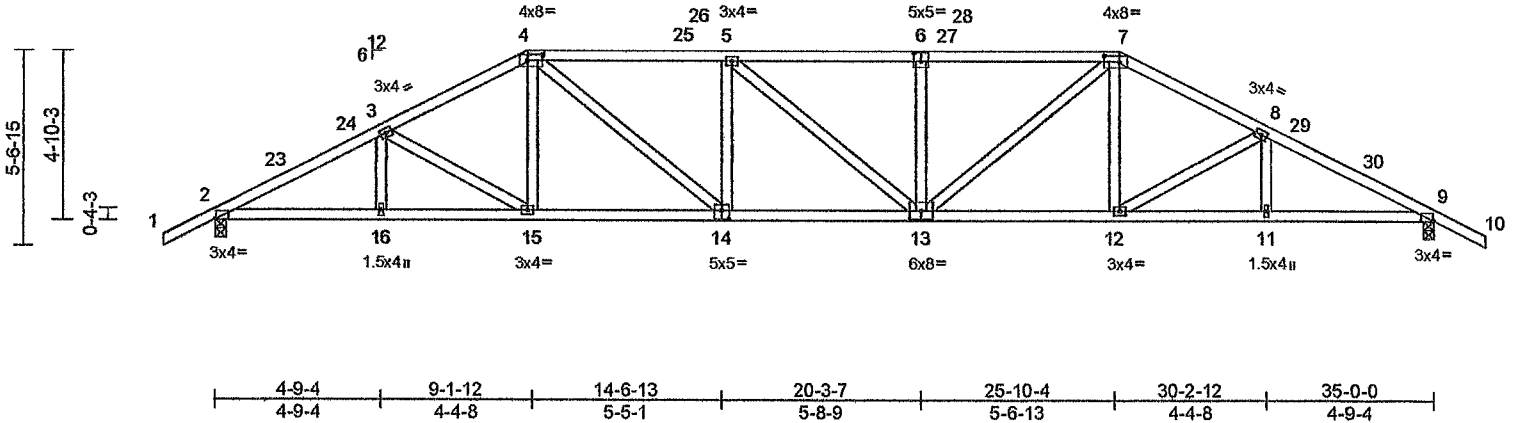
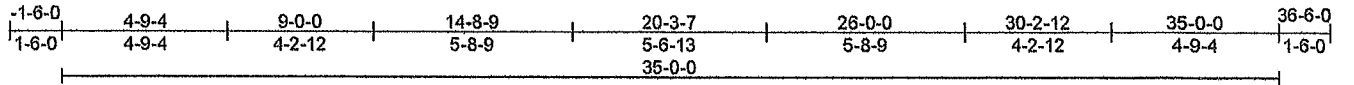
Vert 4=-180 (F), 7=-180 (F), 14=-359 (F), 11=-359 (F), 19=-125 (F), 20=-125 (F), 21=-125 (F), 23=-125 (F), 24=-125 (F), 25=-125 (F), 26=-125 (F), 28=-125 (F), 29=-125 (F), 30=-125 (F), 31=-62 (F), 32=-62 (F), 33=-62 (F), 34=-62 (F), 35=-62 (F), 36=-62 (F), 37=-62 (F), 38=-62 (F), 39=-62 (F), 40=-62 (F)



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**16023 Swingley Rldge Rd. Chesterfield, MO 63017**  
**Date:**

May 23, 2025





Scale = 1/65 9

Plate Offsets (X, Y) [2-0-0-4,Edge], [4-0-5-4 0-2-0], [6 0-2-8,0-3-0], [7 0-5-4,0-2-0], [9:0-0-4,Edge], [14-0-2-8,0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20 0  | Plate Grip DOL  | 1 25            | TC        | 0 35 | Vert(LL) | -0 19 | 13-14 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10 0  | Lumber DOL      | 1 25            | BC        | 0 59 | Vert(CT) | -0 38 | 13-14 | >999   | 180 |                |          |
| BCLL        | 0 0 * | Rep Stress Incr | YES             | WB        | 0 18 | Horz(CT) | 0 13  | 9     | n/a    | n/a |                |          |
| BCDL        | 10 0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |       |        |     |                |          |
|             |       |                 |                 |           |      |          |       |       |        |     | Weight: 189 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 2=0-3-8, 9=0-3-8  
Max Horiz 2=94 (LC 11)  
Max Uplift 2=-199 (LC 12), 9=-199 (LC 12)  
Max Grav 2=1490 (LC 1), 9=1490 (LC 1)

#### FORCES

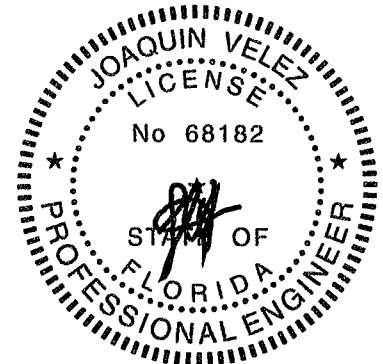
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-3=-2714/419, 3-4=-2364/399, 4-5=-2637/464, 5-7=-2650/467, 7-8=-2364/398, 8-9=-2713/419, 9-10=0/40  
BOT CHORD 2-16=-296/2414, 15-16=-296/2414, 12-15=-286/2648, 11-12=-306/2377, 9-11=-306/2377  
WEBS 3-15=-407/115, 4-15=0/337, 7-12=0/341, 8-12=-406/116, 3-16=0/165, 5-14=-400/137, 4-14=-108/807, 5-13=-67/71, 6-13=-354/141, 7-13=-110/816, 8-11=0/164

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind ASCE 7-22, Vult=130mph (3-second gust)  
Vasd=101mph, TCDL=6.0psf, BCDL=6 0psf, h=15ft; B=45ft; L=35ft, eave=5ft; Cat. II; Exp B, Partially Enclosed, MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0, Zone1 2-0-0 to 9-0-0, Zone2 9-0-0 to 13-11-6, Zone1 13-11-6 to 26-0-0, Zone2 26-0-0 to 30-11-6, Zone1 30-11-6 to 36-6-0 zone, cantilever left and right exposed, end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1.60

- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 199 lb uplift at joint 2 and 199 lb uplift at joint 9
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



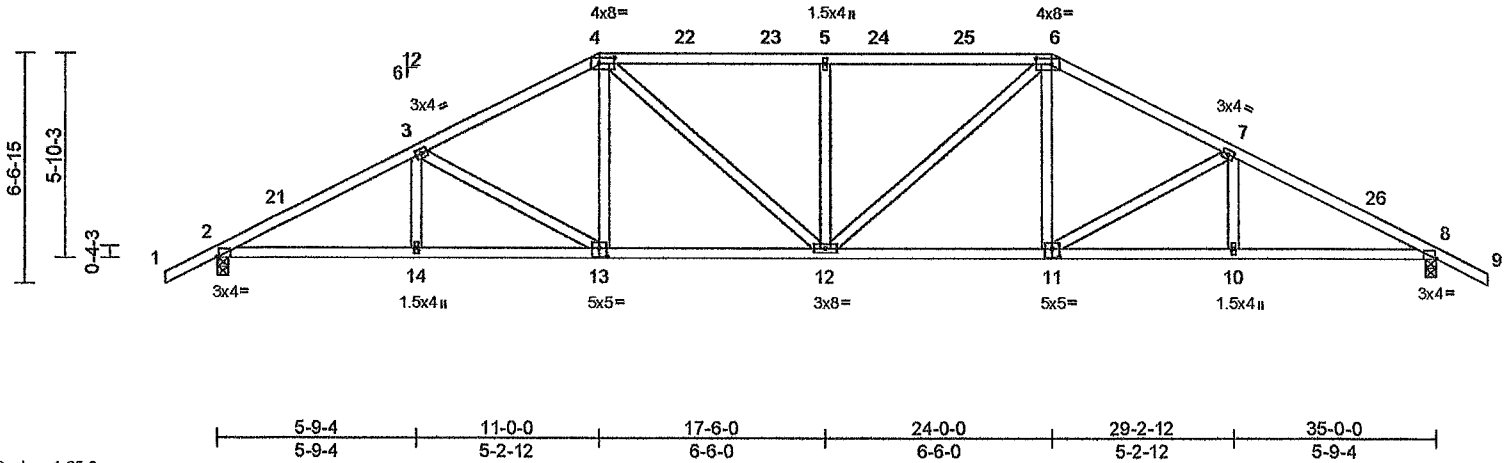
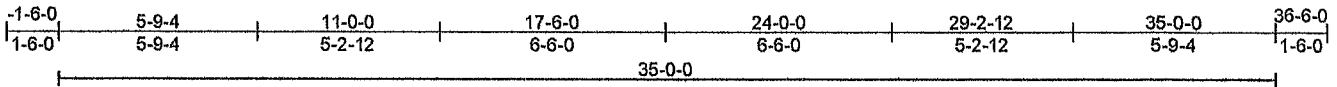
Joaquin Velez PE No.68182  
MITek Inc. DBA MITek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23,2025

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16023 Swingley Ridge Rd.





Scale = 1/8" = 1'-0"

Plate Offsets (X, Y) [2 0-0-4, Edge], [4 0-5-4, 0-2-0], [6 0-5-4, 0-2-0], [8 0-0-4, Edge], [11 0-2-8, 0-3-0], [13 0-2-8, 0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | I/defl | L/d  | PLATES | GRIP                    |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|-------------------------|
| TCLL (roof) | 20 0  | Plate Grip DOL  | 1 25            | TC        | 0 43 | Vert(LL) | -0 15 | 12     | >999 | 240    | MT20 244/190            |
| TCDL        | 10 0  | Lumber DOL      | 1 25            | BC        | 0 59 | Vert(CT) | -0 32 | 11-12  | >999 | 180    |                         |
| BCLL        | 0 0 * | Rep Stress Incr | YES             | WB        | 0 34 | Horz(CT) | 0 12  | 8      | n/a  | n/a    |                         |
| BCDL        | 10 0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |        |      |        | Weight: 186 lb FT = 20% |

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 2=0-3-8, 8=0-3-8  
Max Horiz 2=112 (LC 11)  
Max Uplift 2=-199 (LC 12), 8=-199 (LC 12)  
Max Grav 2=1490 (LC 1), 8=1490 (LC 1)

#### FORCES

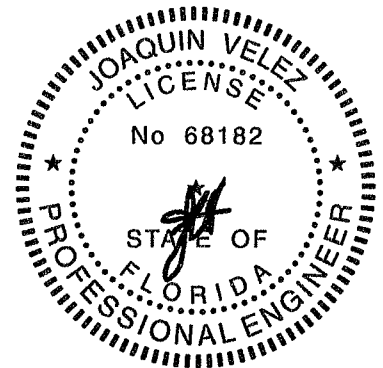
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-3=-2680/422, 3-4=-2221/395,  
4-5=-2248/434, 5-6=-2248/434,  
6-7=-2221/394, 7-8=-2680/422, 8-9=0/40  
BOT CHORD 2-14=-290/2390, 12-14=-290/2390,  
10-12=-299/2339, 8-10=-299/2339  
WEBS 3-14=0/211, 3-13=-538/145, 4-13=-1/412,  
4-12=-69/544, 5-12=-434/165, 6-12=-69/544,  
6-11=-1/412, 7-11=-538/145, 7-10=0/211

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind ASCE 7-22, Vult=130mph (3-second gust)  
Vasd=101mph, TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft, L=35ft, eave=5ft; Cat. II, Exp B, Partially Enclosed, MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0, Zone1 2-0-0 to 11-0-0, Zone2 11-0-0 to 15-11-6, Zone1 15-11-6 to 24-0-0, Zone2 24-0-0 to 29-2-12, Zone1 29-2-12 to 36-6-0 zone, cantilever left and right exposed, end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 199 lb uplift at joint 2 and 199 lb uplift at joint 8
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



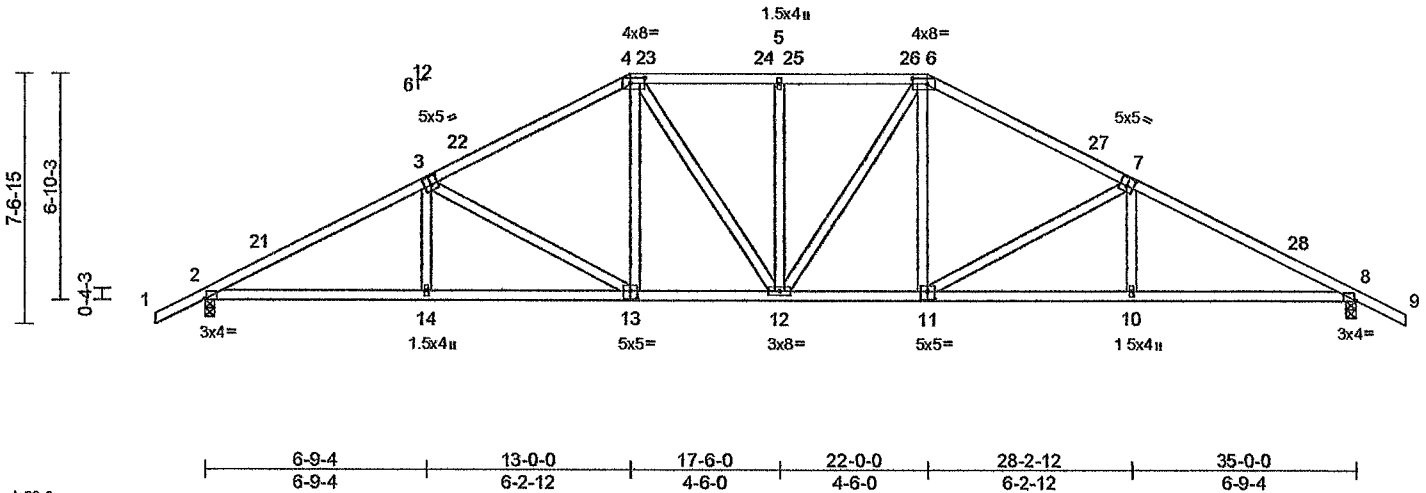
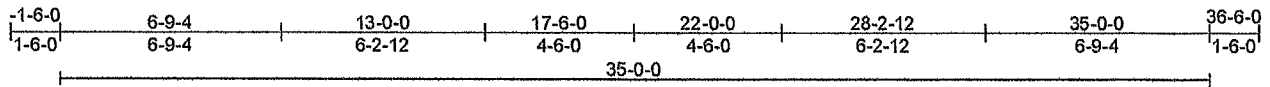
Joaquin Velez PE No.68182  
MITek Inc. DBA MITek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23, 2025

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Scale = 1/64.8

Plate Offsets (X, Y) [2.0-0-8,Edge], [3.0-2-8,0-3-0], [4.0-5-4,0-2-0], [6.0-5-4,0-2-0], [7.0-2-8,0-3-0], [8.0-0-8,Edge], [11.0-2-8,0-3-0], [13.0-2-8,0-3-0]

| Loading                 | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | I/defl | L/d  | PLATES | GRIP    |
|-------------------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------|
| TCLL (roof)             | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.41 | Vert(LL) | -0.14 | 12     | >999 | 240    | 244/190 |
| TCDL                    | 10.0  | Lumber DOL      | 1.25            | BC        | 0.65 | Vert(CT) | -0.27 | 12-13  | >999 | 180    |         |
| BCLL                    | 0.0*  | Rep Stress Incr | YES             | WB        | 0.61 | Horz(CT) | 0.12  | 8      | n/a  | n/a    |         |
| BCDL                    | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |        |      |        |         |
| Weight: 194 lb FT = 20% |       |                 |                 |           |      |          |       |        |      |        |         |

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 2=0-3-8, 8=0-3-8  
Max Horiz 2=129 (LC 11)  
Max Uplift 2=199 (LC 12), 8=199 (LC 12)  
Max Grav 2=1490 (LC 1), 8=1490 (LC 1)

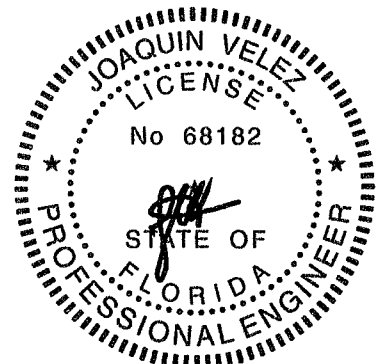
#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-4=-2639/415, 4-5=-1875/402, 5-6=-1875/402, 6-8=-2639/415 8-9=0/40  
BOT CHORD 2-14=-272/2355, 12-14=-274/2352, 10-12=-284/2291, 8-10=-282/2295  
WEBS 3-14=0/274, 3-13=-679/169, 4-13=-15/443, 6-12=-41/338, 6-11=-15/443, 7-11=-680/168, 7-10=0/274, 5-12=-279/102, 4-12=-41/338

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22, Vult=130mph (3-second gust)  
Vasd=101mph, TCDL=6 0psf, BCDL=6 0psf, h=15ft, B=45ft; L=35ft, eave=5ft; Cat. II, Exp B, Partially Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0, Zone1 2-0-0 to 13-0-0, Zone2 13-0-0 to 17-11-6, Zone1 17-11-6 to 22-0-0, Zone2 22-0-0 to 26-11-6, Zone1 26-11-6 to 36-6-0 zone, cantilever left and right exposed, end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 199 lb uplift at joint 2 and 199 lb uplift at joint 8
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- LOAD CASE(S)** Standard



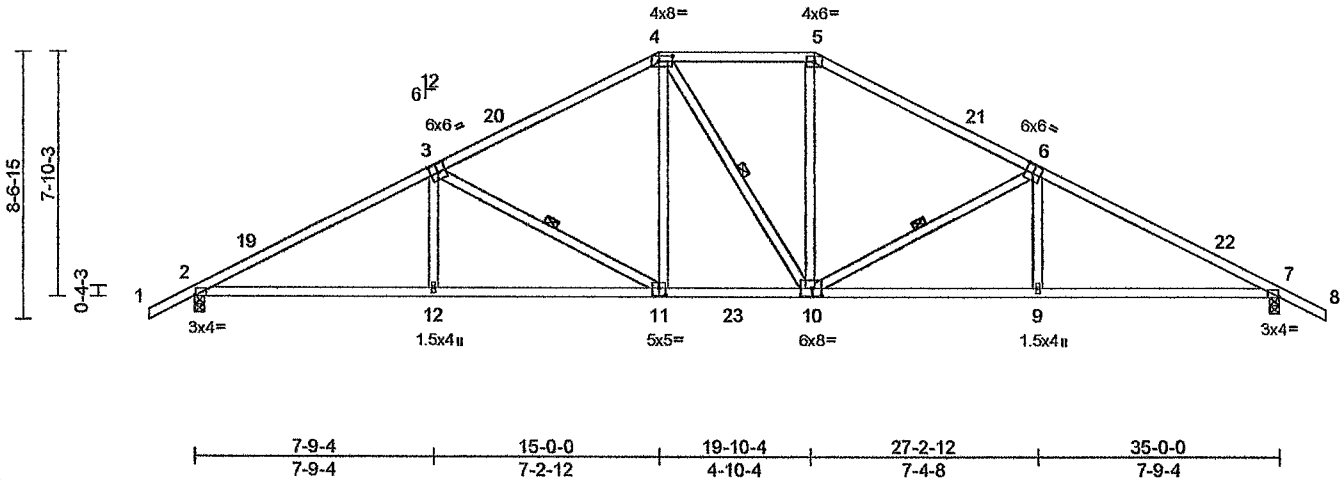
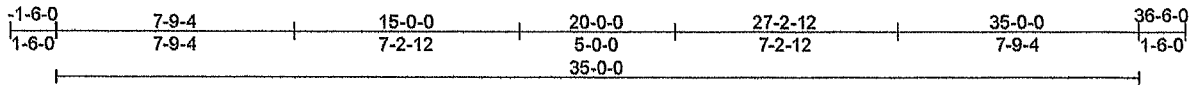
Joaquin Velez PE No.68182  
MITek Inc. DBA MITek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23,2025

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Scale = 1/4"

Plate Offsets (X, Y) [2:0-0-4,Edge], [3:0-3-0,0-3-4], [4:0-5-4,0-2-0], [6:0-3-0,0-3-4], [7:0-0-4,Edge], [10:0-3-8,0-3-0], [11:0-2-8,0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | I/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.57 | Vert(LL) | -0.17 | 11-12 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.86 | Vert(CT) | -0.34 | 11-12 | >999   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | YES             | WB        | 0.30 | Horz(CT) | 0.13  | 7     | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |       |        |     | Weight: 184 lb | FT = 20% |

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-11, 4-10, 6-10

#### REACTIONS

(size) 2=0-3-8, 7=0-3-8  
Max Horiz 2=-147 (LC 10)  
Max Uplift 2=-199 (LC 12), 7=-199 (LC 12)  
Max Grav 2=1765 (LC 17), 7=1762 (LC 18)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-4=-3061/411, 4-5=-1941/386,  
5-7=-3056/411, 7-8=0/40

BOT CHORD 2-12=-259/2776, 9-12=-271/2770  
7-9=-269/2660

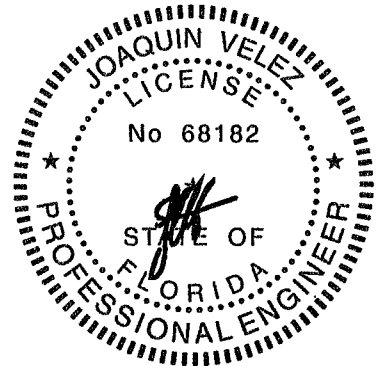
WEBS 3-12=0/324, 3-11=-941/192, 4-11=-22/682,  
4-10=-164/169, 5-10=-28/655,  
6-10=-944/192, 6-9=0/325

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind ASCE 7-22, Vult=130mph (3-second gust)  
Vasd=101mph, TCDL=6.0psf, BCDL=6.0psf, h=15ft;  
B=45ft, L=35ft, eave=5ft, Cat. II, Exp B, Partially Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-0-0, Zone1 2-0-0 to 15-0-0, Zone3 15-0-0 to 20-0-0, Zone2 20-0-0 to 24-11-6, Zone1 24-11-6 to 36-6-0 zone, cantilever left and right exposed, end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1 60 plate grip DOL=1 60
- 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 20.0 psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0 psf
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 199 lb uplift at joint 2 and 199 lb uplift at joint 7
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

LOAD CASE(S) Standard



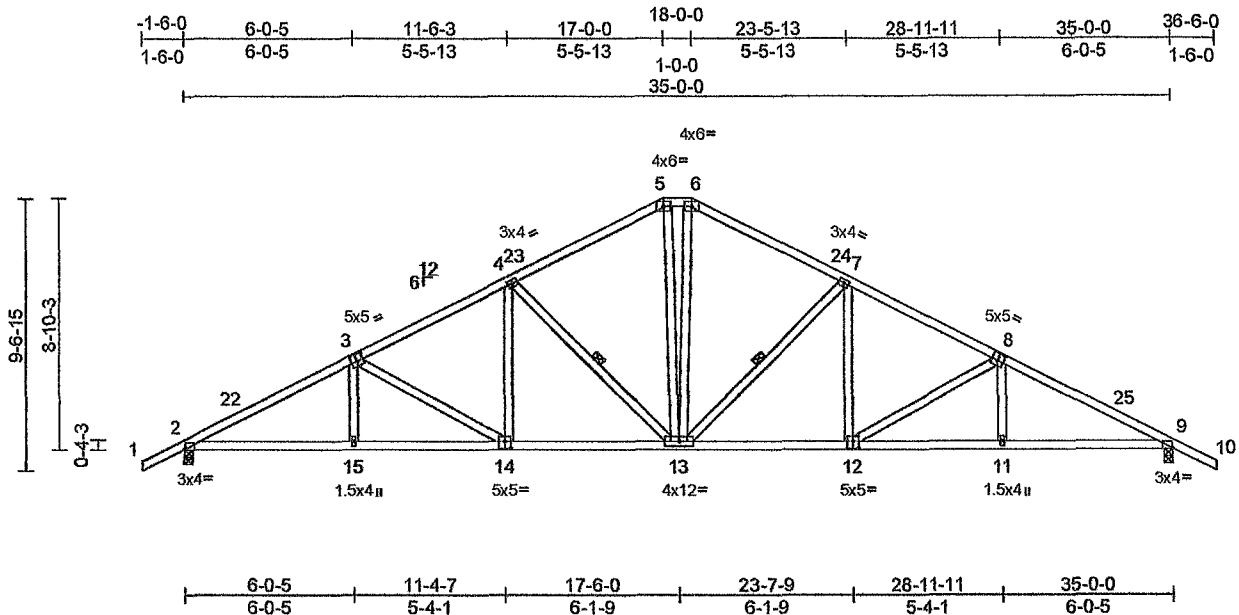
Joaquin Velez PE No.68182  
MITek Inc. DBA MITek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
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**MiTek®**  
16023 Swingley Ridge Rd.





Scale = 1/8" = 1'-0"

Plate Offsets (X, Y) [2 0-0-4,Edge], [3 0-2-8,0-3-0], [8 0-2-8,0-3-0], [9 0-0-4,Edge], [12 0-2-8,0-3-0], [14 0-2-8,0-3-0]

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | l/defl | L/d  | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|----------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.37 | Vert(LL) | -0.13 | 13-14  | >999 | 240            | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.61 | Vert(CT) | -0.29 | 13-14  | >999 | 180            |          |
| BCLL        | 0 0 * | Rep Stress Incr | YES             | WB        | 0.37 | Horz(CT) | 0.12  | 9      | n/a  | n/a            |          |
| BCDL        | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |          |       |        |      |                |          |
|             |       |                 |                 |           |      |          |       |        |      | Weight: 206 lb | FT = 20% |

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied  
WEBS 1 Row at midpt 4-13, 7-13

#### REACTIONS

(size) 2=0-3-8, 9=0-3-8  
Max Horiz 2=-165 (LC 10)  
Max Uplift 2=-199 (LC 12), 9=-199 (LC 12)  
Max Grav 2=1490 (LC 1), 9=1490 (LC 1)

#### FORCES

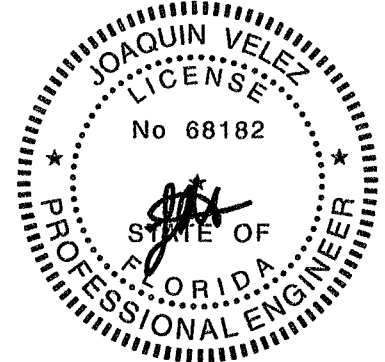
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 5-6=-1442/357, 1-2=0/40, 2-4=-2666/386,  
4-5=-1659/359, 6-7=-1659/359  
7-9=-2666/386, 9-10=0/40  
BOT CHORD 2-15=-252/2409, 13-15=-253/2406,  
11-13=-263/2320, 9-11=-262/2323  
WEBS 4-13=-728/173, 7-13=-728/173, 3-15=0/227,  
3-14=-546/121, 4-14=0/413, 7-12=0/413,  
8-12=-547/121, 8-11=0/227, 5-13=-96/567,  
6-13=-96/567

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind ASCE 7-22, Vult=130mph (3-second gust)  
Vasd=101mph, TCDL=6.0psf, BCDL=6.0psf, h=15ft;  
B=45ft, L=35ft; eave=5ft; Cat. II; Exp B, Partially  
Enclosed, MWFRS (directional) and C-C Zone3 -1-6-0 to  
2-0-0, Zone1 2-0-0 to 17-0-0, Zone3 17-0-0 to 18-0-0,  
Zone2 18-0-0 to 22-11-6, Zone1 22-11-6 to 36-6-0 zone,  
cantilever left and right exposed, end vertical left and  
right exposed;C-C for members and forces & MWFRS  
for reactions shown, Lumber DOL=1 60 plate grip  
DOL=1 60

- 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'-06"-00 tall by 2'-00"-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 199 lb uplift at joint 2 and 199 lb uplift at joint 9
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

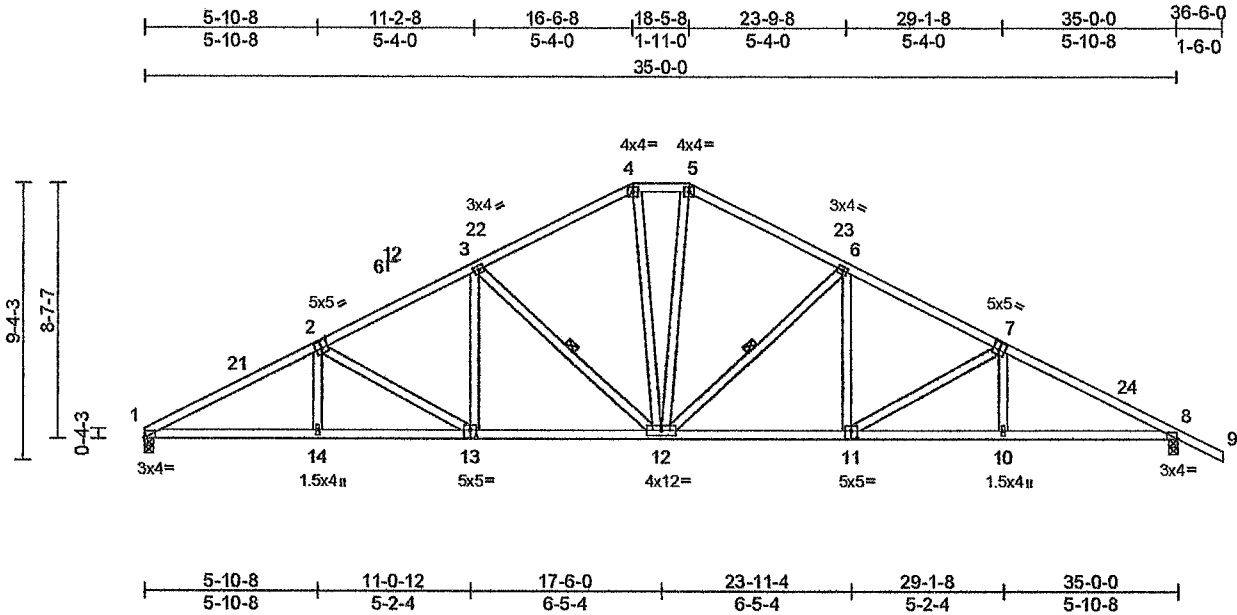
LOAD CASE(S) Standard



Joaquin Velez PE No.68182  
MiTek Inc DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23, 2025





Scale = 1 77 7

Plate Offsets (X, Y) [1'0-0-4,Edge], [2'0-2-8,0-3-0], [7'0-2-8,0-3-0], [8'0-0-4,Edge], [11'0-2-8,0-3-0], [13'0-2-8,0-3-0]

| Loading     | (psf) | Spacing         |                 | CSI       |      | DEFL     | in    | (loc) | I/defl | L/d | PLATES         | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.40 | Vert(LL) | -0.14 | 12-13 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.64 | Vert(CT) | -0.30 | 12-13 | >999   | 180 |                |          |
| BCLL        | 0.0*  | Rep Stress Incr | YES             | WB        | 0.34 | Horz(CT) | 0.12  | 8     | n/a    | n/a |                |          |
| BCDL        | 10.0  | Code            | FBC2023/TP12014 | Matrix-AS |      |          |       |       |        |     | Weight: 202 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x4 SP No 2  
BOT CHORD 2x4 SP No 2  
WEBS 2x4 SP No 2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied  
WEBS 1 Row at midpt 3-12, 6-12

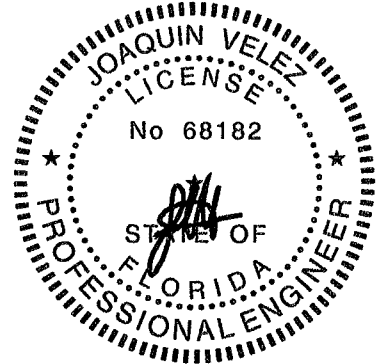
**REACTIONS** (size) 1=0-3-8, 8=0-3-8  
Max Horiz 1=-157 (LC 10)  
Max Uplift 1=-161 (LC 12), 8=-200 (LC 12)  
Max Grav 1=1399 (LC 17), 8=1492 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 4-5=-1483/365, 1-3=-2681/412, 3-4=-1671/364, 5-6=-1672/360, 6-8=-2676/397, 8-9=0/40  
BOT CHORD 1-14=-277/2437, 12-14=-279/2434, 10-12=-274/2330, 8-10=-273/2333  
WEBS 3-12=-728/171, 6-12=-724/170, 2-14=0/219, 2-13=-543/135, 3-13=0/412, 6-11=0/410, 7-11=-526/117, 7-10=0/216, 4-12=-83/542, 5-12=-83/543

**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=6.0psf, BCDL=6.0psf, h=15ft; B=45ft, L=35ft; eave=5ft, Cat. II, Exp B; Partially Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 3-6-0, Zone1 3-6-0 to 16-6-8, Zone3 16-6-8 to 18-5-8, Zone2 18-5-8 to 23-4-14, Zone1 23-4-14 to 36-6-0 zone, cantilever left and right exposed, end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1.60

- 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 20.0 psf on the bottom chord in all areas where a rectangle 3'-06"-00" tall by 2'-00"-00" wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 161 lb uplift at joint 1 and 200 lb uplift at joint 8.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

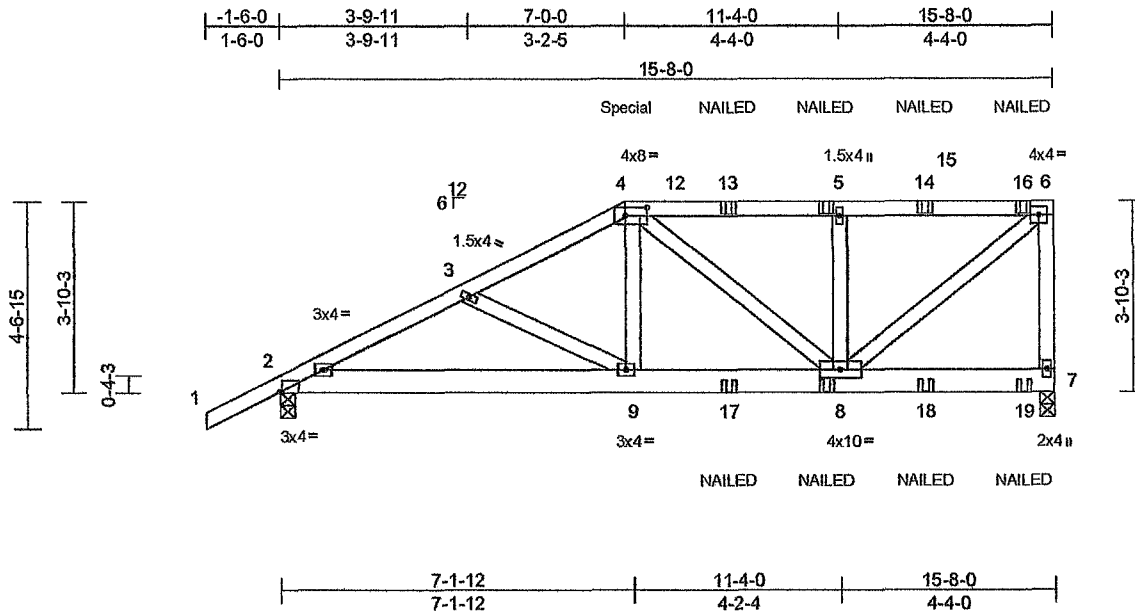
**LOAD CASE(S)** Standard



Joaquin Velez PE No.68182  
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16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23,2025





Scale = 1 46.5

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

[illegible]

## LUMBER

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

## BRACING

|           |  |
|-----------|--|
| TOP CHORD | Structural wood sheathing directly applied or 3-11-7 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing.                                   |

## REACTIONS

(size) 2=0-3-8, 7=0-3-8  
 Max Horiz 2=115 (LC 5)  
 Max Uplift 2=-139 (LC 8), 7=-190 (LC 5)  
 Max Grav 2=1196 (LC 13), 7=1556 (LC 13)

## FORCES

Tension

TOP CHORD 1-2=0/40, 2-3=-2156/251, 3-4=-1970/242,  
4-5=-1394/195, 5-6=-1394/195,  
6-7=-1416/239

BOT CHORD 2-9=-253/1944, 8-9=-234/1778, 7-8=-30/55

WEBS 4-9=0/689, 4-8=-480/51, 5-8=-622/230,  
6-8=-214/1770, 5-9=-228/70

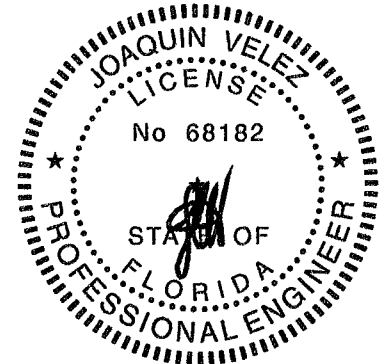
## NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind ASCE 7-22, Vult=130mph (3-second gust)  
Vasd=101mph, TCDF=6 0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=24ft; eave=4ft; Cat. II, Exp B, Enclosed;  
MWFRS (directional), cantilever left and right exposed ,  
end vertical left and right exposed, 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 190 lb uplift at joint 7 and 139 lb uplift at joint 2.
- 8) "NAILED" indicates 3-10d (0 148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 259 lb down and 140 lb up at 7-0-0 on top chord, and 410 lb down and 16 lb up at 7-0-0 on bottom chord The design/selection of such connection device(s) is the responsibility of others
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B)

## LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced) Lumber Increase=1.25,  
Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-4=-.60, 4-6=-.60, 2-7=-20  
Concentrated Loads (lb)  
Vert: 4=-180 (B), 9=-359 (B), 5=-125 (B), 8=-62 (B),  
13=-125 (B), 14=-125 (B), 16=-142 (B), 17=-62 (B),  
18=-62 (B), 19=-68 (B)



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**16023 Swingley Ridge Rd Chesterfield, MO 63017**  
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May 23, 2025

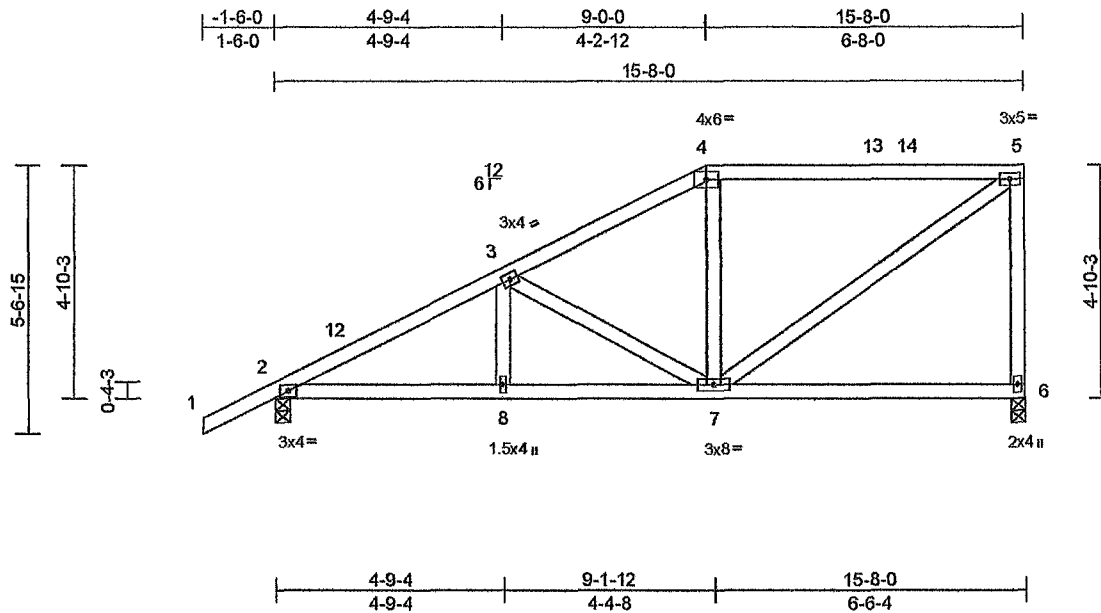


Design valid for use only with MiteK® connectors. This design is based only upon parameters shown and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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

**MiTek®**

16023 Swingley Ridge Rd.





Scale = 1/4" = 1'-0"

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | I/defl | L/d | PLATES       | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|--------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1/25            | TC        | 0.45 | Vert(LL) | -0.05 | 6-7   | >999   | 240 | MT20         | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1/25            | BC        | 0.37 | Vert(CT) | -0.10 | 6-7   | >999   | 180 |              |          |
| BCLL        | 0.0*  | Rep Stress Incr | YES             | WB        | 0.16 | Horz(CT) | 0.01  | 6     | n/a    | n/a |              |          |
| BCDL        | 10.0  | Code            | FBC2023/TP12014 | Matrix-AS |      |          |       |       |        |     | Weight 85 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 2=0-3-8, 6=0-3-8  
Max Horiz 2=146 (LC 11)  
Max Uplift 2=-35 (LC 12), 6=-13 (LC 9)  
Max Grav 2=715 (LC 1), 6=616 (LC 23)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

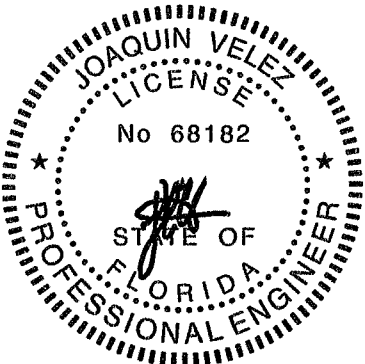
TOP CHORD 1-2=0/40, 2-3=-1026/56, 3-4=-659/83, 4-5=-541/91, 5-6=-553/107  
BOT CHORD 2-8=-184/872, 7-8=-184/872, 6-7=-49/76  
WEBS 3-7=-376/65, 4-7=-65/102, 5-7=-93/621, 3-8=0/164

#### NOTES

- Unbalanced roof live loads have been considered for this design
- Wind ASCE 7-22, Vult=130mph (3-second gust)  
Vasd=101mph, TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft, L=24ft; eave=4ft; Cat. II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 9-0-0, Zone2 9-0-0 to 13-2-15, Zone1 13-2-15 to 15-6-4 zone, cantilever left and right exposed, end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1/60 plate grip DOL=1/60
- 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'-0"-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 13 lb uplift at joint 6 and 35 lb uplift at joint 2
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord

LOAD CASE(S) Standard



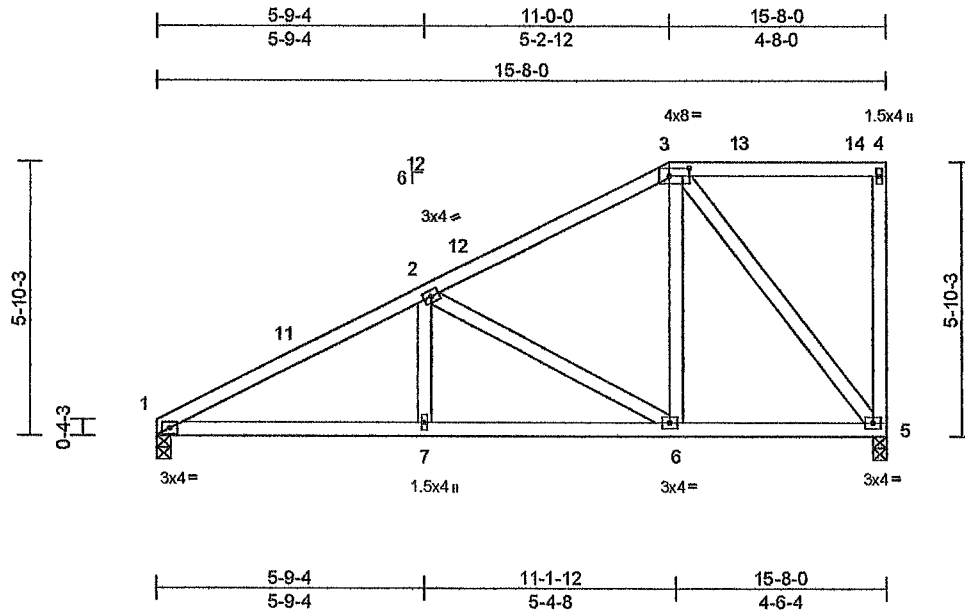
Joaquin Velez PE No.68182  
MITek Inc. DBA MITek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23,2025

**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

**MiTek®**  
16023 Swingley Ridge Rd.





Scale = 1/4" = 1'-0"

Plate Offsets (X, Y) [3'-0-5-4, 0-2-0]

| Loading     | (psf) | Spacing         |                 | CSI       |      | DEFL     | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20 0  | Plate Grip DOL  | 1 25            | TC        | 0 30 | Vert(LL) | -0 03 | 7-10  | >999   | 240 | MT20          | 244/190  |
| TCDL        | 10 0  | Lumber DOL      | 1 25            | BC        | 0 37 | Vert(CT) | -0 08 | 7-10  | >999   | 180 |               |          |
| BCLL        | 0 0*  | Rep Stress Incr | YES             | WB        | 0 50 | Horz(CT) | 0 02  | 5     | n/a    | n/a |               |          |
| BCDL        | 10.0  | Code            | FBC2023/TP12014 | Matrix-AS |      |          |       |       |        |     | Weight: 87 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

BOT CHORD Rigid ceiling directly applied.

#### REACTIONS

(size) 1=0-3-8, 5=0-3-8  
Max Horiz 1=167 (LC 11)  
Max Uplift 5=-12 (LC 9)  
Max Grav 1=621 (LC 1), 5=621 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-995/81, 2-3=-494/96, 3-4=-89/91, 4-5=-132/52

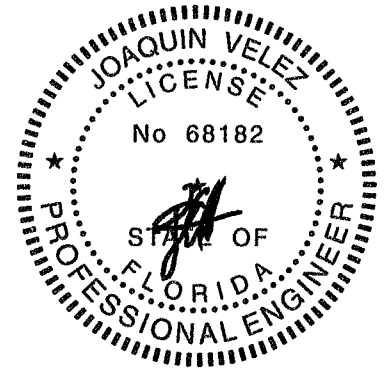
BOT CHORD 1-7=-193/853, 6-7=-193/853, 5-6=-123/382

WEBS 2 7=0/239, 2-6=-547/79, 3-6=0/398, 3-5=-587/102

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCCL=6.0psf, BCDL=6.0psf, h=15ft; B=45ft; L=24ft; eave=4ft, Cat. II, Exp B, Enclosed, MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-0, Zone1 3-0-0 to 11-0-0, Zone3 11-0-0 to 15-6-4 zone, cantilever left and right exposed, end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
- 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'-06'-00 tall by 2'-00'-00 wide will fit between the bottom chord and any other members
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 5.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- LOAD CASE(S) Standard



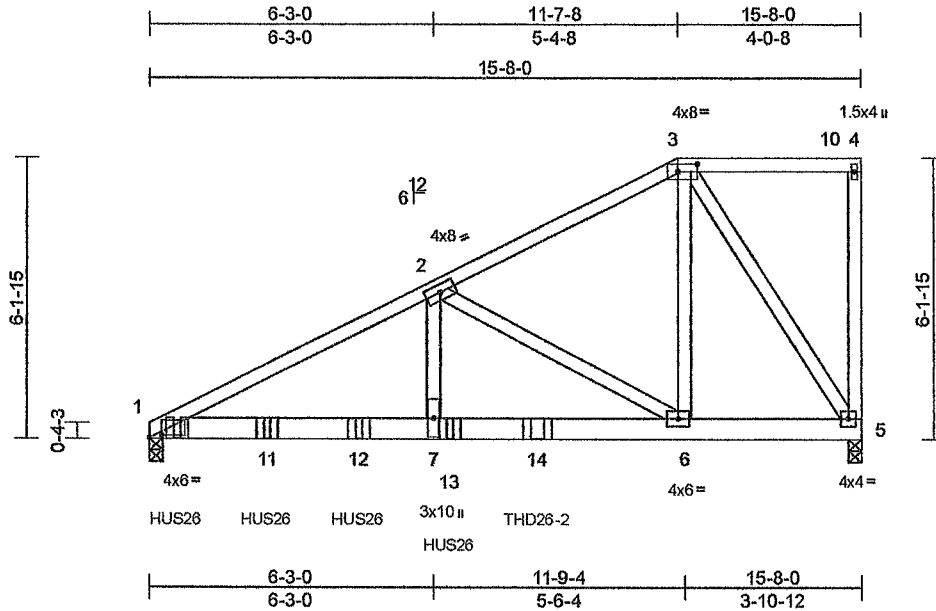
Joaquin Velez PE No.68182  
MITek Inc. DBA MITek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23,2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 1/2/2023 BEFORE USE.**  
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**MiTek®**  
16023 Swingley Ridge Rd.





Scale = 1"=50.5

Plate Offsets (X, Y) [1-0-3-4,0-0-9], [3-0-5-4,0-2-0]

| Loading                 | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP    |
|-------------------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------|
| TCLL (roof)             | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.64 | Vert(LL) | -0.09 | 7-9    | >999 | 240    | 244/190 |
| TCDL                    | 10.0  | Lumber DOL      | 1.25            | BC        | 0.57 | Vert(CT) | -0.18 | 7-9    | >999 | 180    |         |
| BCLL                    | 0.0*  | Rep Stress Incr | NO              | WB        | 0.44 | Horz(CT) | 0.03  | 5      | n/a  | n/a    |         |
| BCDL                    | 10.0  | Code            | FBC2023/TPI2014 | Matrix-MS |      |          |       |        |      |        |         |
| Weight: 302 lb FT = 20% |       |                 |                 |           |      |          |       |        |      |        |         |

#### LUMBER

TOP CHORD 2x4 SP No 2  
BOT CHORD 2x6 SP 2400F 2.0E  
WEBS 2x4 SP No.2

#### BRACING

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

**REACTIONS** (size) 1=0-3-8, 5=0-3-8  
Max Horiz 1=175 (LC 5)  
Max Grav 1=6194 (LC 1), 5=3591 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-9416/0, 2-3=-2741/0, 3-4=-64/53, 4-5=-119/23  
BOT CHORD 1-7=0/8289, 6-7=0/8289, 5-6=0/2488  
WEBS 2-7=0/5794, 2-6=-6776/0, 3-6=0/4622, 3-5=-4438/0

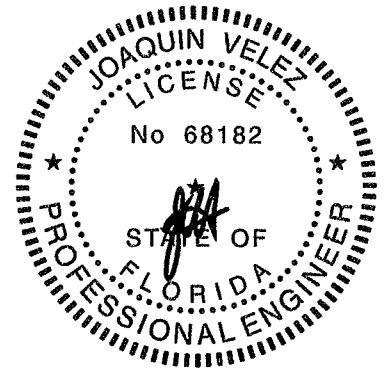
#### NOTES

- 3-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 - 3 rows staggered at 0-4-0 oc.  
Web 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, TCCL=6.0psf; BCDL=6.0psf, h=15ft, B=45ft; L=24ft, eave=4ft; Cat. II, Exp B, Enclosed, MWFRS (directional), cantilever left and right exposed, 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-7-4 from the left end to 6-7-4 to connect truss(es) to front face of bottom chord.
- Use MiTek THD26-2 (With 18-16d nails into Girder & 12-10d nails into Truss) or equivalent at 8-6-8 from the left end to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber

#### LOAD CASE(S) Standard

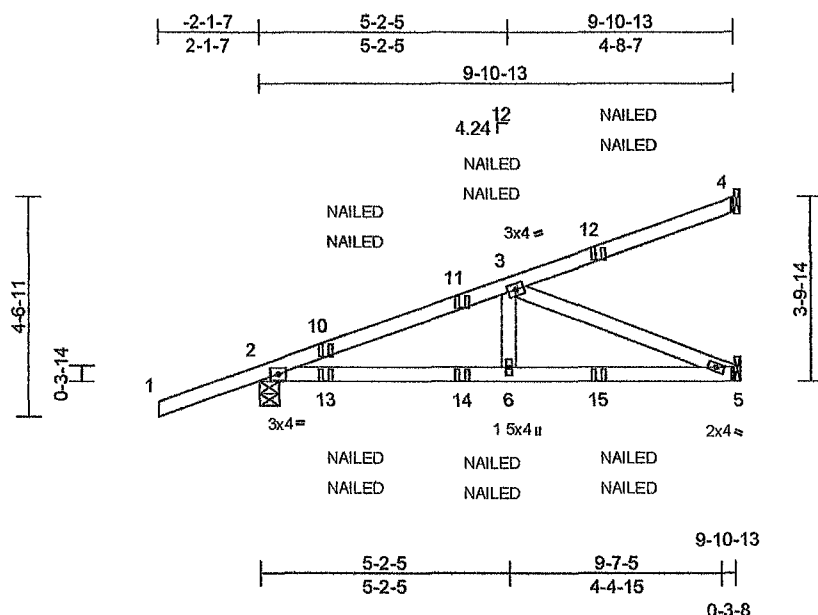
- Dead + Roof Live (balanced) Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-3=-60, 3-4=-60, 1-5=-20  
Concentrated Loads (lb)  
Vert: 9=-1382 (F), 11=-1378 (F), 12=-1378 (F), 13=-1378 (F), 14=-3028 (F)



Joaquin Velez PE No.68182  
MiTek Inc DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd Chesterfield, MO 63017  
Date:

May 23,2025





Scale = 1 47 9

[illegible]

## LUMBER

|           |             |
|-----------|-------------|
| TOP CHORD | 2x4 SP No 2 |
| BOT CHORD | 2x4 SP No 2 |
| WEBS      | 2x4 SP No.2 |

## BRACING

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

## REACTIONS

(size) 2=0-4.15, 4= Mechanical, 5= Mechanical  
 Max Horiz 2=143 (LC 8)  
 Max Uplift 2=-153 (LC 8), 4=-59 (LC 8), 5=-27 (LC 8)  
 Max Grav 2=527 (LC 13), 4=147 (LC 13), 5=369 (LC 13)

## FORCES

|           |                                   |
|-----------|-----------------------------------|
| TOP CHORD | 1-2=0/42, 2-3=-867/73, 3-4=-96/41 |
| BOT CHORD | 2-6=-146/798, 5-6=-146/798        |
| WEBS      | 3-6=0/255, 3-5=-855/157           |

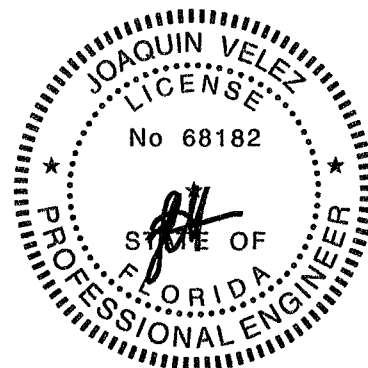
## NOTES

- 1) Wind ASCE 7-22, Vult=130mph (3-second gust)  
 Vasd=101mph, TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
 B=46ft, L=24ft; eave=4ft; Cat. II, Exp B, Partially  
 Enclosed; MWFRS (directional), cantilever left and right  
 exposed , end vertical left and right exposed, 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  
 3-06-00 tall by 2-00-00 wide will fit between the bottom  
 chord and any other members.
- 5) Refer to order(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 4, 153 lb uplift at joint 2 and 27 lb uplift at joint 5
- 7) "NAILED" indicates 3-10d (0 148"x3") or 2-12d (0 148"x3 25") toe-nails per NDS guidelines
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B)

## LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced) Lumber Increase=1 25,  
Plate Increase=1 25  
Uniform Loads (lb/ft)  
Vert: 1-4=-60, 5-7=-20  
Concentrated Loads (lb)  
Vert: 10=57 (F=29, B=29), 12=-82 (F=-41 B=-41),  
13=61 (F=31, B=31), 14=-7 (F=-3, B=-3), 15=-59  
(F=-30, B=-30)



**Jonquin Velez PE No.68182**  
**MITek Inc. DBA MITek USA FL Cert 6634**  
**16023 Swingley Ridge Rd. Chesterfield, MO 63017**  
**Date:**

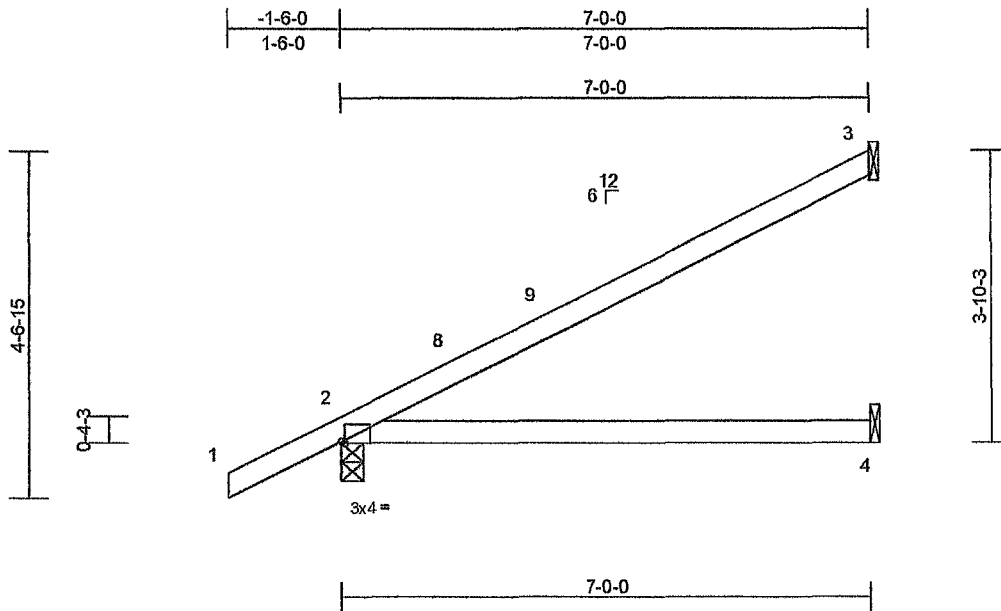
May 23, 2025



Design valid for use only with Miller 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

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Scale = 1 30 4

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

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in   | (loc) | I/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.60 | 0.10 | 4.7   | >821   | 240 | MT20          | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.50 | 0.21 | 4.7   | >398   | 180 |               |          |
| BCLL        | 0.0*  | Rep Stress Incr | YES             | WB        | 0.00 | 0.00 | 3     | n/a    | n/a |               |          |
| BCDL        | 10.0  | Code            | FBC2023/TPI2014 | Matrix-AS |      |      |       |        |     |               |          |
|             |       |                 |                 |           |      |      |       |        |     | Weight, 25 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x4 SP No 2  
BOT CHORD 2x4 SP No 2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied  
BOT CHORD Rigid ceiling directly applied

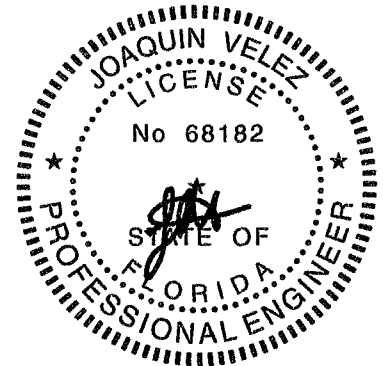
**REACTIONS** (size) 2=0-3-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=143 (LC 12)  
Max Uplift 2=-45 (LC 12), 3=-79 (LC 12)  
Max Grav 2=377 (LC 1), 3=205 (LC 17), 4=124 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-3=-153/77  
BOT CHORD 2-4=-52/103

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

**LOAD CASE(S)** Standard

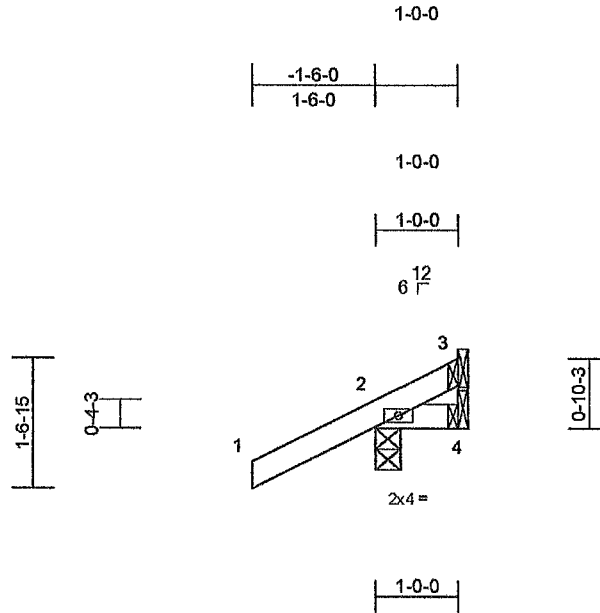
- NOTES**
- 1) Wind ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph, TCDL=6.0psf, BCDL=6.0psf, h=15ft, B=45ft; L=24ft, eave=4ft; Cat. II, Exp B, Partially Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 6-11-4 zone, cantilever left and right exposed, end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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'-06"-00 tall by 2'-00"-00 wide will fit between the bottom chord and any other members.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 3 and 45 lb uplift at joint 2.



Joaquin Velez PE No.68182  
MiTek Inc. DBA MiTek USA FL Cert 6634  
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Date:

May 23,2025





Scale = 1/27 9

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       | DEFL | in       | (loc) | I/defl | L/d  | PLATES | GRIP         |          |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|--------------|----------|
| TCLL (roof) | 20 0  | Plate Grip DOL  | 1 25            | TC        | 0 15 | Vert(LL) | 0 00  | 7      | >999 | 240    | MT20         | 244/190  |
| TCDL        | 10 0  | Lumber DOL      | 1 25            | BC        | 0 03 | Vert(CT) | 0 00  | 7      | >999 | 180    |              |          |
| BCLL        | 0 0 * | Rep Stress Incr | YES             | WB        | 0 00 | Horz(CT) | 0.00  | 4      | n/a  | n/a    |              |          |
| BCDL        | 10 0  | Code            | FBC2023/TP12014 | Matrix-MP |      |          |       |        |      |        | Weight: 6 lb | FT = 20% |

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 2=0-3-8, 3= Mechanical, 4=  
Mechanical  
Max Horiz 2=44 (LC 12)  
Max Uplift 2=-74 (LC 12), 3=-7 (LC 1), 4=-22  
(LC 1)  
Max Grav 2=198 (LC 1), 3=8 (LC 11), 4=20  
(LC 12)

**FORCES** (lb) - Maximum Compression/Maximum  
Tension

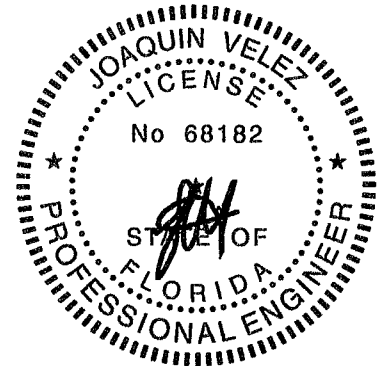
TOP CHORD 1-2=0/40, 2-3=-72/48  
BOT CHORD 2-4=-54/75

#### NOTES

- 1) Wind. ASCE 7-22, Vult=130mph (3-second gust)  
Vasd=101mph, TCDL=6.0psf, BCDL=6 0psf, h=15ft,  
B=45ft; L=24ft; eave=4ft, Cat. II, Exp B, Partially  
Enclosed; MWFRS (directional) and C-C Zone3 zone,  
cantilever left and right exposed, end vertical left and  
right exposed;C-C for members and forces & MWFRS  
for reactions shown, Lumber DOL=1 60 plate grip  
DOL=1 60
- 2) 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  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 74 lb uplift at joint  
2, 22 lb uplift at joint 4 and 7 lb uplift at joint 3.

**LOAD CASE(S)** Standard



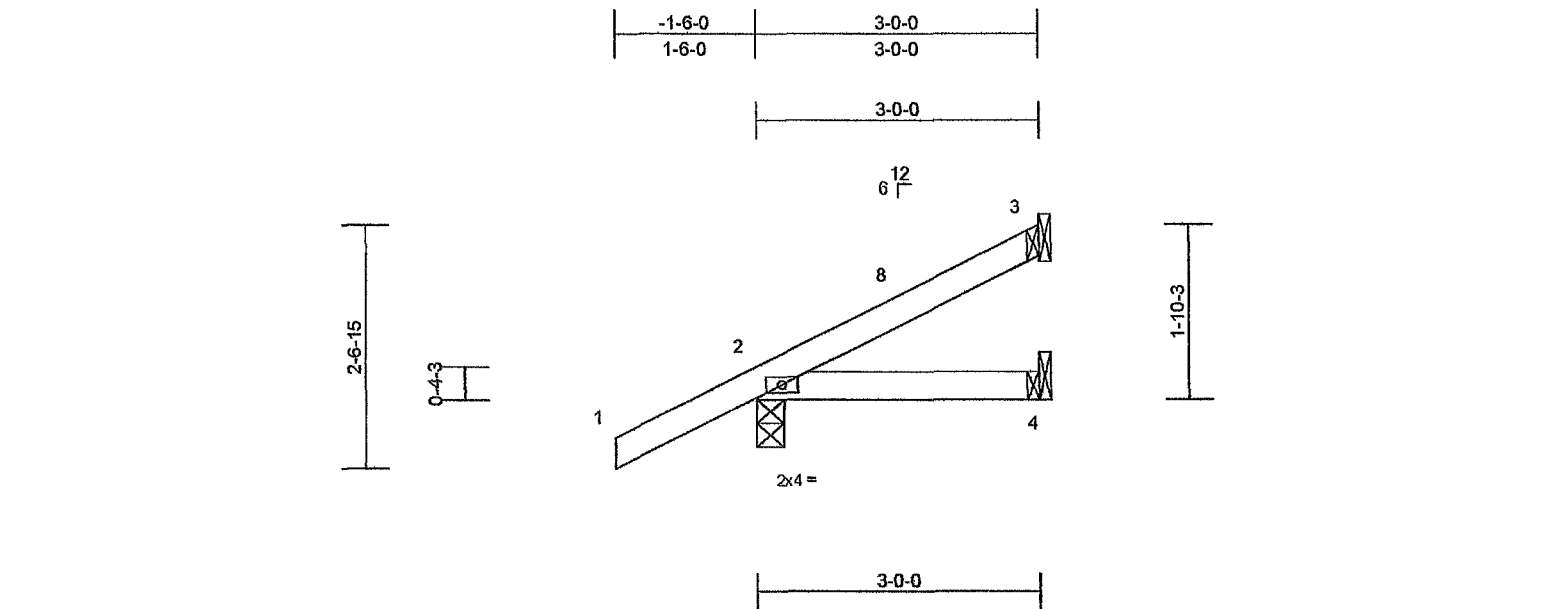
Joaquin Velez PE No.68182  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23,2025

**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

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| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.15 | Vert(LL) | 0.00  | 4-7   | >999   | 240 | MT20          | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.07 | Vert(CT) | -0.01 | 4-7   | >999   | 180 |               |          |
| BCLL        | 0.0*  | Rep Stress Incr | YES             | WB        | 0.00 | Horz(CT) | 0.00  | 3     | n/a    | n/a |               |          |
| BCDL        | 10.0  | Code            | FBC2023/TP12014 | Matrix-MP |      |          |       |       |        |     | Weight. 12 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x4 SP No 2  
BOT CHORD 2x4 SP No 2

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

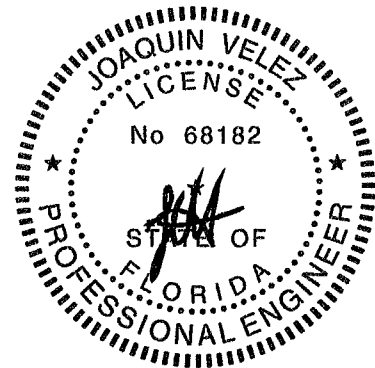
**REACTIONS** (size) 2=0-3-8, 3= Mechanical 4= Mechanical  
Max Horiz 2=76 (LC 12)  
Max Uplift 2=-50 (LC 12), 3=-26 (LC 12)  
Max Grav 2=230 (LC 1), 3=74 (LC 17), 4=50 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-3=-108/36  
BOT CHORD 2-4=-40/69

- NOTES**
- 1) Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=6.0psf, BCDL=6.0psf, h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II, Exp B, Partially Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 2-11-4 zone, cantilever left and right exposed, end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 3 and 50 lb uplift at joint 2

**LOAD CASE(S)** Standard



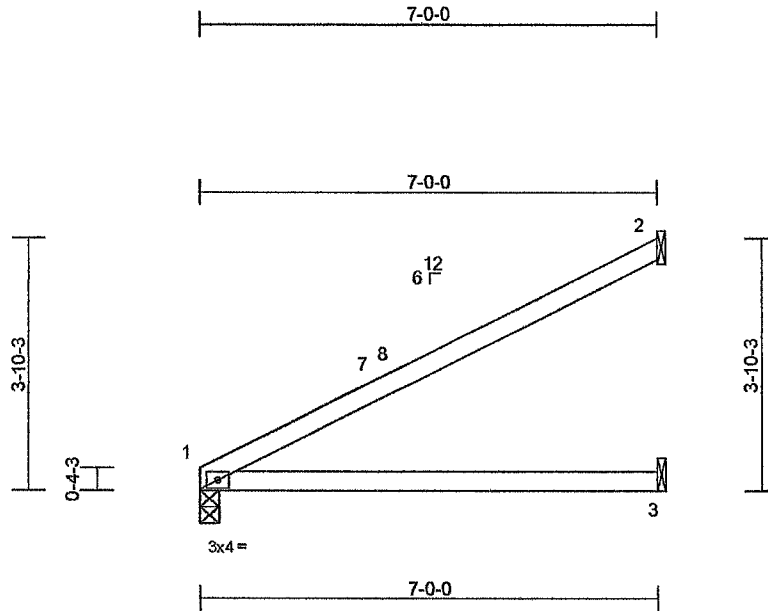
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Date:

May 23,2025









Scale = 1/35.2

| Loading     | (psf) | Spacing         | 2-0-0           | CSI       |      | DEFL     | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0  | Plate Grip DOL  | 1.25            | TC        | 0.63 | Vert(LL) | -0.09 | 3-6   | >896   | 240 | MT20          | 244/190  |
| TCDL        | 10.0  | Lumber DOL      | 1.25            | BC        | 0.51 | Vert(CT) | -0.22 | 3-6   | >375   | 180 |               |          |
| BCLL        | 0.0*  | Rep Stress Incr | YES             | WB        | 0.00 | Horz(CT) | 0.00  | 1     | n/a    | n/a |               |          |
| BCDL        | 10.0  | Code            | FBC2023/TP12014 | Matrix-AS |      |          |       |       |        |     | Weight: 22 lb | FT = 20% |

#### LUMBER

TOP CHORD 2x4 SP No 2  
BOT CHORD 2x4 SP No 2

#### BRACING

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

#### REACTIONS

(size) 1=0-3-8, 2= Mechanical, 3= Mechanical  
Max Horiz 1=83 (LC 12)  
Max Uplift 2=-47 (LC 12)  
Max Grav 1=278 (LC 1), 2=191 (LC 1), 3=126 (LC 3)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

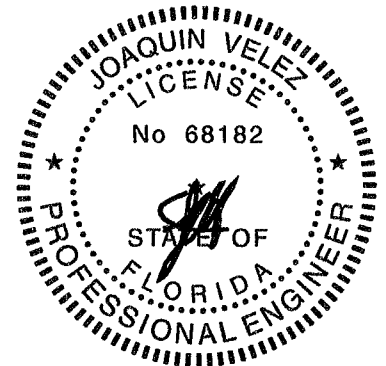
TOP CHORD 1-2=-115/68  
BOT CHORD 1-3=-75/108

#### NOTES

- 1) Wind ASCE 7-22, Vult=130mph (3-second gust)  
Vasd=101mph, TCDL=6.0psf, BCDL=6.0psf, h=15ft;  
B=45ft; L=24ft, eave=4ft; Cat. II, Exp B, Enclosed,  
MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-0,  
Zone1 3-0-0 to 6-11-4 zone; cantilever left and right  
exposed, end vertical left and right exposed; C-C for  
members and forces & MWFRS for reactions shown;  
Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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'-06"-00 tall by 2'-00"-00 wide will fit between the bottom  
chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 47 lb uplift at joint  
2.

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

LOAD CASE(S) Standard



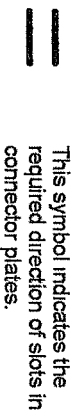
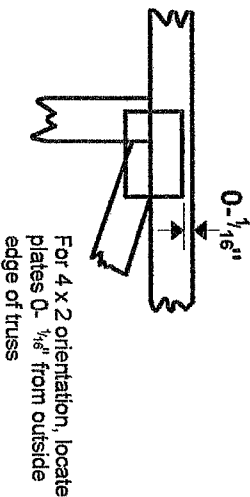
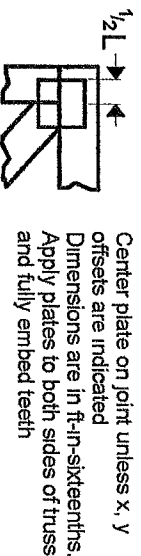
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MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

May 23,2025



## Symbols

### PLATE LOCATION AND ORIENTATION



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

### PLATE SIZE

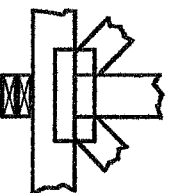
4 X 4

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

### LATERAL BRACING LOCATION



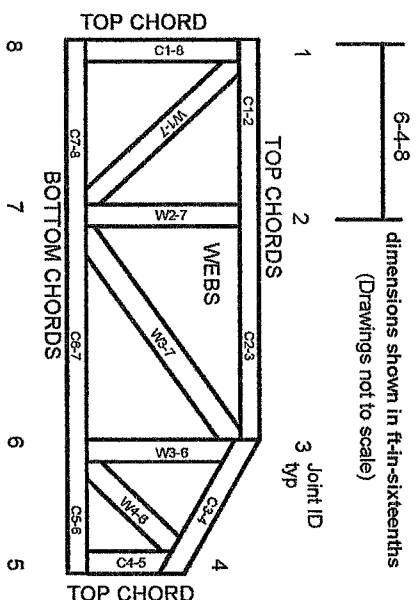
### BEARING



### 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 section 6.3. These truss designs rely on lumber values established by others.

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# MITek®

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

## General Safety Notes

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

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