

RE: J0920-4172
 Lot 54 Sierra Villas

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Customer: Project Name: J0920-4172
 Lot/Block: Model:
 Address: Subdivision:
 City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.3
 Wind Code: ASCE 7-10 Wind Speed: 130 mph
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 23 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal# | Truss Name | Date | No. | Seal# | Truss Name | Date |
|-----|-----------|------------|-----------|-----|-----------|------------|-----------|
| 1 | E14489164 | A1-GR | 9/18/2020 | 21 | E14489184 | X2 | 9/18/2020 |
| 2 | E14489165 | A2 | 9/18/2020 | 22 | E14489185 | X3 | 9/18/2020 |
| 3 | E14489166 | A3 | 9/18/2020 | 23 | E14489186 | Y1 | 9/18/2020 |
| 4 | E14489167 | A4 | 9/18/2020 | | | | |
| 5 | E14489168 | A4-GR | 9/18/2020 | | | | |
| 6 | E14489169 | B1 | 9/18/2020 | | | | |
| 7 | E14489170 | B1GE | 9/18/2020 | | | | |
| 8 | E14489171 | B2 | 9/18/2020 | | | | |
| 9 | E14489172 | B3 | 9/18/2020 | | | | |
| 10 | E14489173 | B3GE | 9/18/2020 | | | | |
| 11 | E14489174 | C1 | 9/18/2020 | | | | |
| 12 | E14489175 | C1GE | 9/18/2020 | | | | |
| 13 | E14489176 | M1 | 9/18/2020 | | | | |
| 14 | E14489177 | M1GE | 9/18/2020 | | | | |
| 15 | E14489178 | M2 | 9/18/2020 | | | | |
| 16 | E14489179 | V1 | 9/18/2020 | | | | |
| 17 | E14489180 | V2 | 9/18/2020 | | | | |
| 18 | E14489181 | V3 | 9/18/2020 | | | | |
| 19 | E14489182 | V4 | 9/18/2020 | | | | |
| 20 | E14489183 | X1 | 9/18/2020 | | | | |

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville. Truss Design Engineer's Name: Gilbert, Eric My license renewal date for the state of North Carolina is December 31, 2020. North Carolina COA: C-0844



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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

September 18, 2020

| | | | | | | |
|------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489164 |
| J0920-4172 | A1-GR | HIP GIRDER | 1 | 2 | Job Reference (optional) | |

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8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:29 2020 Page 2
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LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-6=-60, 6-8=-60, 2-7=-20

Concentrated Loads (lb)

Vert: 3=-13(F) 6=-13(F) 12=-10(F) 9=-10(F) 13=-17(F) 14=-13(F) 15=-13(F) 16=-13(F) 17=-13(F) 18=-13(F) 19=-13(F) 20=-13(F) 21=-13(F) 22=-13(F) 23=-13(F) 24=-17(F) 25=-13(F) 26=-10(F) 27=-10(F) 28=-10(F) 29=-10(F) 30=-10(F) 31=-10(F) 32=-10(F) 33=-10(F) 34=-10(F) 35=-10(F) 36=-13(F)

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

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

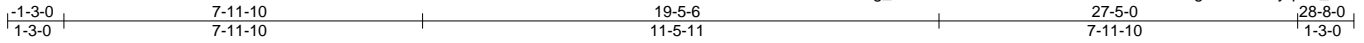


818 Soundside Road
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|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489165 |
| J0920-4172 | A2 | HIP | 1 | 1 | | |

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8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:30 2020 Page 1
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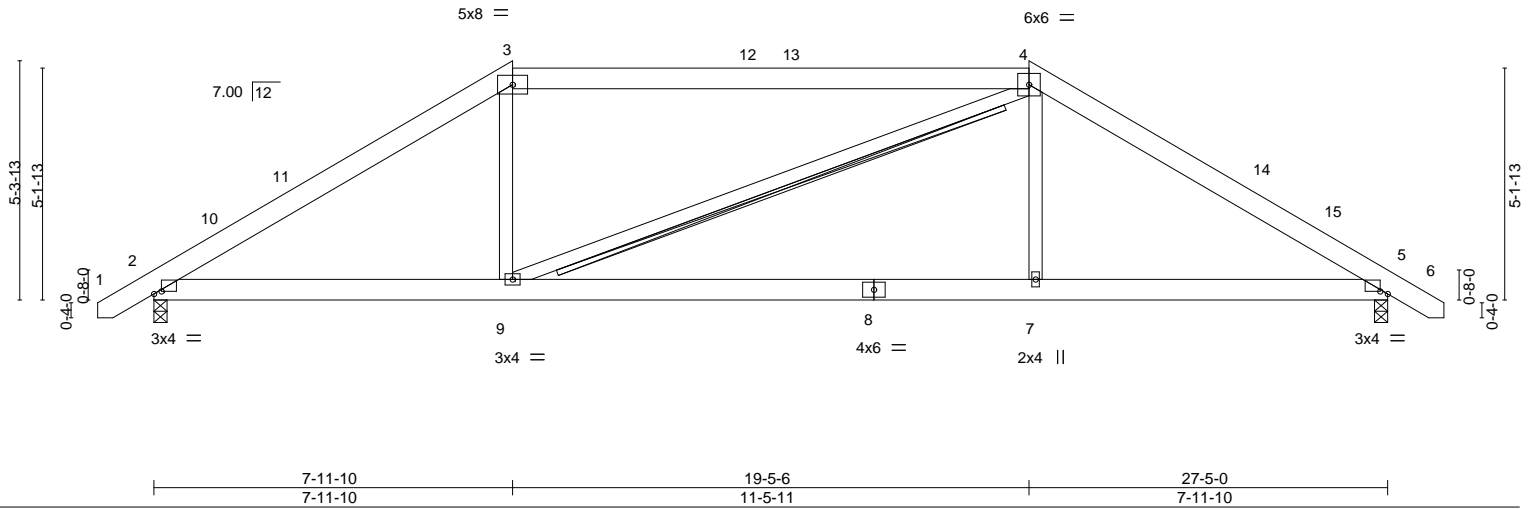


Plate Offsets (X,Y)-- [2:0-2-0,0-0-11], [5:0-2-0,0-0-11]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|------|----------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.78 | Vert(LL) | -0.10 | 7-9 | >999 | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.39 | Vert(CT) | -0.22 | 7-9 | >999 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.12 | Horz(CT) | 0.03 | 5 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | Wind(LL) | 0.03 | 2-9 | >999 | | |
| | Code IRC2015/TPI2014 | | | | | | Weight: 173 lb | FT = 20% |

LUMBER-
 TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 5-10-7 oc purlins, except 2-0-0 oc purlins (4-2-6 max.): 3-4.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS T-Brace: 2x4 SPF No.2 - 4-9
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
 Brace must cover 90% of web length.

REACTIONS. (size) 2=0-3-8, 5=0-3-8
 Max Horz 2=125(LC 11)
 Max Uplift 2=47(LC 12), 5=47(LC 13)
 Max Grav 2=1159(LC 1), 5=1159(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1720/387, 3-4=-1371/421, 4-5=-1720/388
 BOT CHORD 2-9=-197/1378, 7-9=-205/1371, 5-7=-202/1378
 WEBS 3-9=0/440, 4-7=0/440

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-0 to 3-3-13, Interior(1) 3-3-13 to 7-11-10, Exterior(2) 7-11-10 to 14-2-5, Interior(1) 14-2-5 to 19-5-6, Exterior(2) 19-5-6 to 25-8-0, Interior(1) 25-8-0 to 28-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



June 9, 2020

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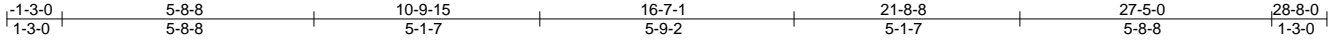
ENGINEERING BY
TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

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|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489166 |
| J0920-4172 | A3 | HIP | 1 | 1 | | |

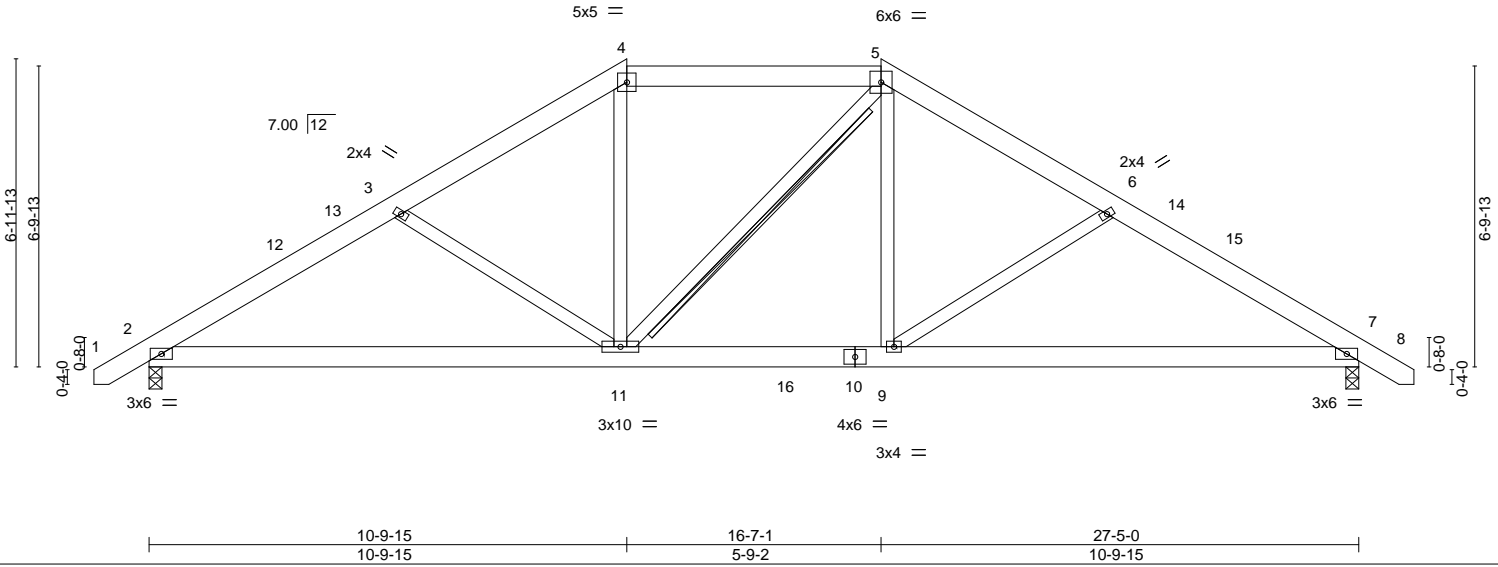
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Scale = 1:52.2



| LOADING (psf) | SPACING- | CSI. | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------------|-----|-------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.15 | TC 0.15 | Vert(LL) -0.09 | 7-9 | >999 | 360 | | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.38 | Vert(CT) -0.19 | 7-9 | >999 | 240 | | | |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.22 | Horz(CT) 0.03 | 7 | n/a | n/a | | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | Matrix-S | Wind(LL) 0.02 | 9 | >999 | 240 | | Weight: 191 lb | FT = 20% |

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-1 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS T-Brace: 2x4 SPF No.2 - 5-11
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
 Brace must cover 90% of web length.

REACTIONS.

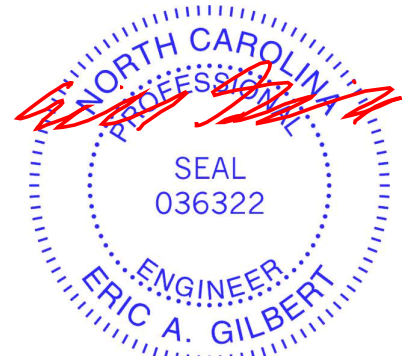
(size) 2=0-3-8, 7=0-3-8
 Max Horz 2=165(LC 11)
 Max Uplift 2=-65(LC 12), 7=-65(LC 13)
 Max Grav 2=1159(LC 1), 7=1159(LC 1)

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

TOP CHORD 2-3=-1660/451, 3-4=-1387/387, 4-5=-1123/386, 5-6=-1385/387, 6-7=-1660/451
 BOT CHORD 2-11=-287/1362, 9-11=-110/1122, 7-9=-292/1360
 WEBS 3-11=-361/217, 4-11=-18/397, 5-9=-17/433, 6-9=-362/217

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-0 to 3-3-13, Interior(1) 3-3-13 to 10-9-15, Exterior(2) 10-9-15 to 22-9-12, Interior(1) 22-9-12 to 28-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



June 9, 2020

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|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489167 |
| J0920-4172 | A4 | COMMON | 3 | 1 | | |

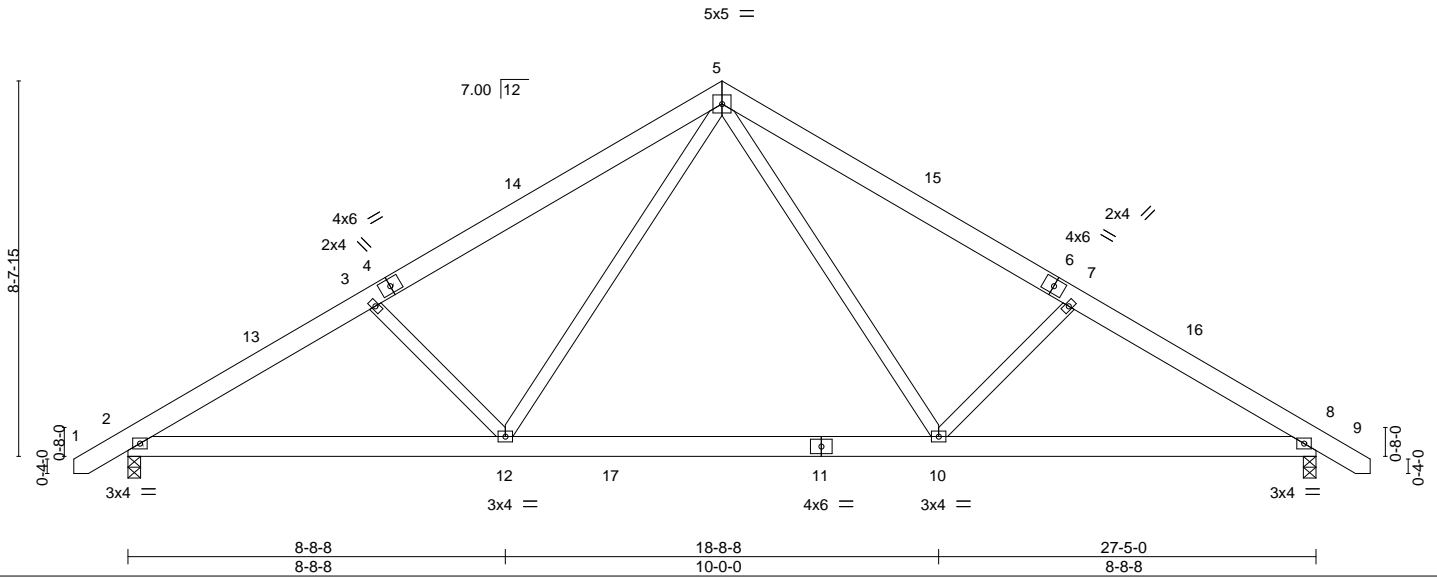
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Scale = 1:53.2



| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.15 | TC 0.26 | Vert(LL) -0.16 | 10-12 | >999 | 360 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.43 | Vert(CT) -0.23 | 10-12 | >999 | 240 | | |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.16 | Horz(CT) 0.03 | 8 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | Matrix-S | Wind(LL) 0.03 | 10-12 | >999 | 240 | Weight: 186 lb | FT = 20% |

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.2

BRACING-

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

REACTIONS.

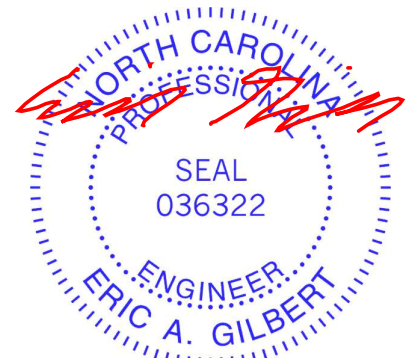
(size) 2=0-3-8, 8=0-3-8
 Max Horz 2=207(LC 11)
 Max Uplift 2=-78(LC 12), 8=-78(LC 13)
 Max Grav 2=1194(LC 19), 8=1192(LC 20)

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

TOP CHORD 2-3=-1846/369, 3-5=-1624/369, 5-7=-1620/369, 7-8=-1842/369
 BOT CHORD 2-12=-218/1656, 10-12=-13/1021, 8-10=-231/1497
 WEBS 5-10=-81/711, 7-10=-430/257, 5-12=-81/718, 3-12=-430/257

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-0 to 3-3-13, Interior(1) 3-3-13 to 13-8-8, Exterior(2) 13-8-8 to 18-1-5, Interior(1) 18-1-5 to 28-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.



June 9, 2020

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|------------|-------|---------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489168 |
| J0920-4172 | A4-GR | Common Girder | 1 | 2 | | |

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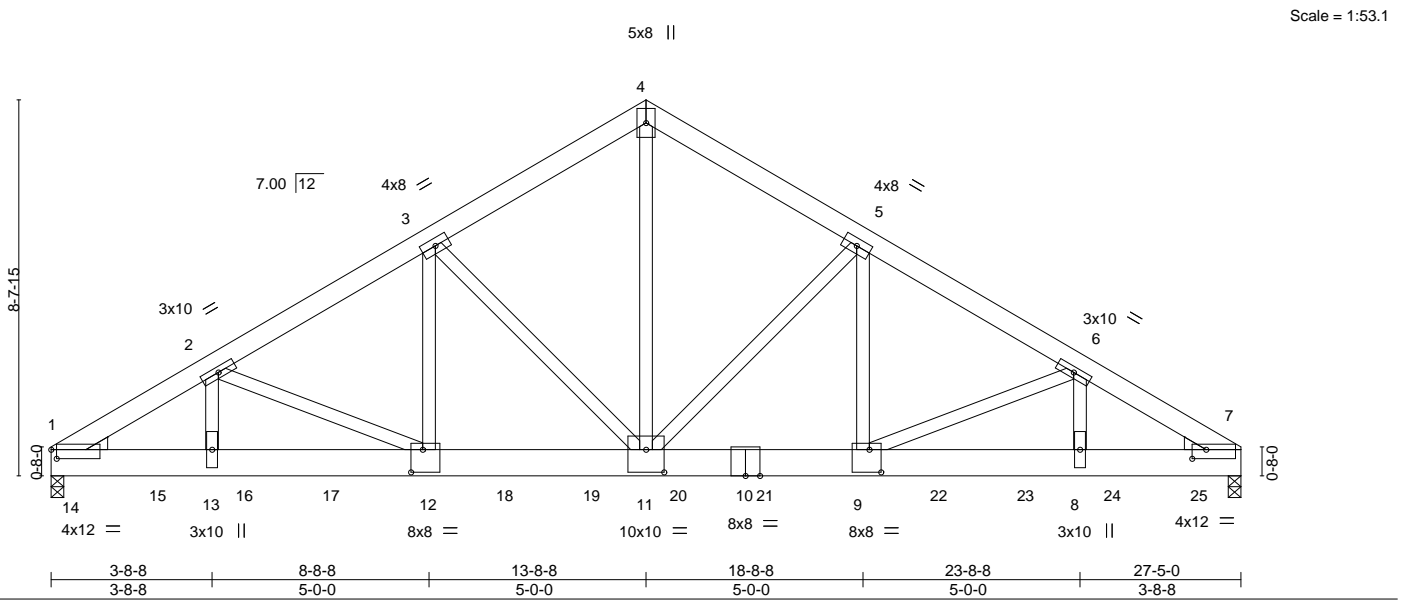


Plate Offsets (X,Y)-- [1:0-1-8,0-2-8], [7:0-3-14,0-2-8], [9:0-3-4,0-6-4], [11:0-5-0,0-6-4], [12:0-3-4,0-6-4]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.15 | TC 0.40 | Vert(LL) -0.17 | 11-12 | >999 | 360 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.47 | Vert(CT) -0.29 | 11-12 | >999 | 240 | | |
| BCLL 0.0 * | Rep Stress Incr NO | WB 0.72 | Horz(CT) 0.09 | 7 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | Matrix-S | Wind(LL) 0.08 | 11-12 | >999 | 240 | Weight: 451 lb | FT = 20% |

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

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-0-14 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8 (req. 0-3-14), 7=0-3-8 (req. 0-3-13)
 Max Horz 1=194(LC 23)
 Max Uplift 1=427(LC 8), 7=419(LC 9)
 Max Grav 1=9421(LC 2), 7=9175(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-14462/663, 2-3=-12066/582, 3-4=-9025/491, 4-5=-9025/491, 5-6=-12087/583,
 6-7=-14624/673
 BOT CHORD 1-13=-614/12162, 12-13=-614/12162, 11-12=-468/10393, 9-11=-393/10412,
 8-9=-526/12299, 7-8=-526/12299
 WEBS 4-11=-402/8713, 5-11=-3806/280, 5-9=-143/4043, 3-11=-3778/278, 3-12=-141/4014,
 6-9=-2084/169, 6-8=-60/2455, 2-13=-57/2325, 2-12=-1955/161

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDD=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - WARNING: Required bearing size at joint(s) 1, 7 greater than input bearing size.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=427, 7=419.



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| | | | | | | |
|------------|-------|---------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489168 |
| J0920-4172 | A4-GR | Common Girder | 1 | 2 | Job Reference (optional) | |

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 ID:d6E6lizSYcm5g_caniilVuiz8loe-G729xsPU5WtYn6MTH06M1JBGLaxM?4JG1rhfWWz82Tq

NOTES-

9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1199 lb down and 53 lb up at 0-5-12, 1192 lb down and 60 lb up at 2-5-12, 1192 lb down and 60 lb up at 4-5-12, 1192 lb down and 60 lb up at 6-5-12, 1192 lb down and 60 lb up at 8-5-12, 1192 lb down and 60 lb up at 10-5-12, 1192 lb down and 60 lb up at 12-5-12, 1192 lb down and 60 lb up at 14-5-12, 1192 lb down and 60 lb up at 16-5-12, 1192 lb down and 60 lb up at 18-5-12, 1192 lb down and 60 lb up at 20-5-12, 1192 lb down and 60 lb up at 22-5-12, and 1192 lb down and 60 lb up at 24-5-12, and 1194 lb down and 58 lb up at 26-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 1-7=-20

Concentrated Loads (lb)

Vert: 9=-953(B) 12=-953(B) 14=-960(B) 15=-953(B) 16=-953(B) 17=-953(B) 18=-953(B) 19=-953(B) 20=-953(B) 21=-953(B) 22=-953(B) 23=-953(B) 24=-953(B) 25=-955(B)

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

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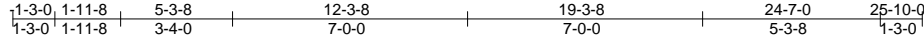
818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489169 |
| J0920-4172 | B1 | COMMON | 4 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:34 2020 Page 1

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5x5 =

Scale = 1:68.6

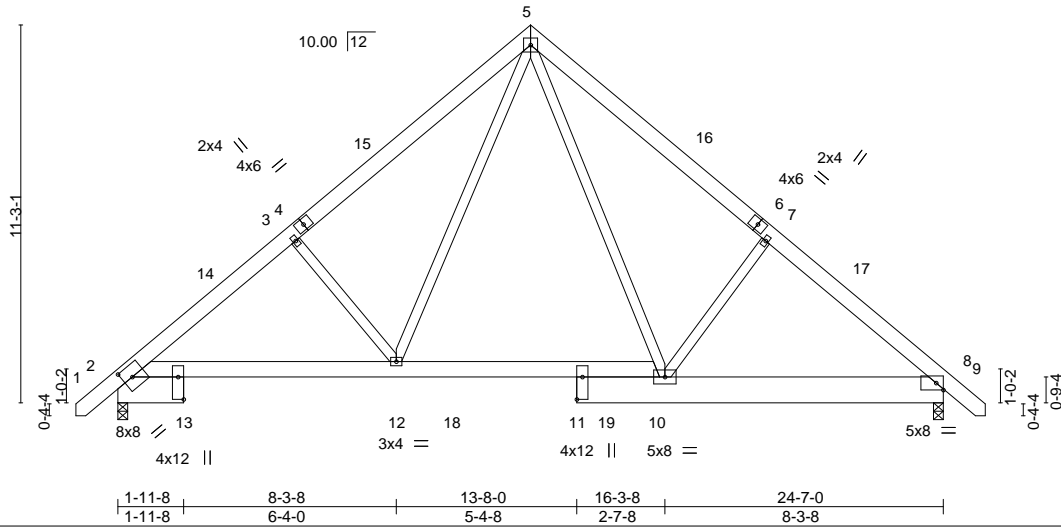


Plate Offsets (X,Y)-- [2:0-3-6,0-4-0], [11:Edge,0-2-0], [13:Edge,0-2-0]

| LOADING (psf) | SPACING- | 2-0-0 | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-------|----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL | 1.15 | TC 0.19 | Vert(LL) | -0.06 10-12 | >999 | 360 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL | 1.15 | BC 0.44 | Vert(CT) | -0.10 2-12 | >999 | 240 | | |
| BCLL 0.0 * | Rep Stress Incr | YES | WB 0.27 | Horz(CT) | 0.04 8 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | | Matrix-S | Wind(LL) | 0.04 2-12 | >999 | 240 | Weight: 216 lb | FT = 20% |

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x10 SP No.1 *Except*
 2-10: 2x6 SP No.1
 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=0-3-8, 8=0-3-8
 Max Horz 2=268(LC 11)
 Max Uplift 2=-58(LC 12), 8=-58(LC 13)
 Max Grav 2=1062(LC 19), 8=1061(LC 20)

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

TOP CHORD 2-3=-1414/297, 3-5=-1279/365, 5-7=-1188/349, 7-8=-1351/278
 BOT CHORD 2-12=-132/1207, 10-12=0/735, 8-10=-93/964
 WEBS 3-12=-412/272, 5-12=-137/704, 5-10=-115/605, 7-10=-382/275

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-4 to 3-3-9, Interior(1) 3-3-9 to 12-3-8, Exterior(2) 12-3-8 to 16-8-5, Interior(1) 16-8-5 to 25-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.



June 9, 2020

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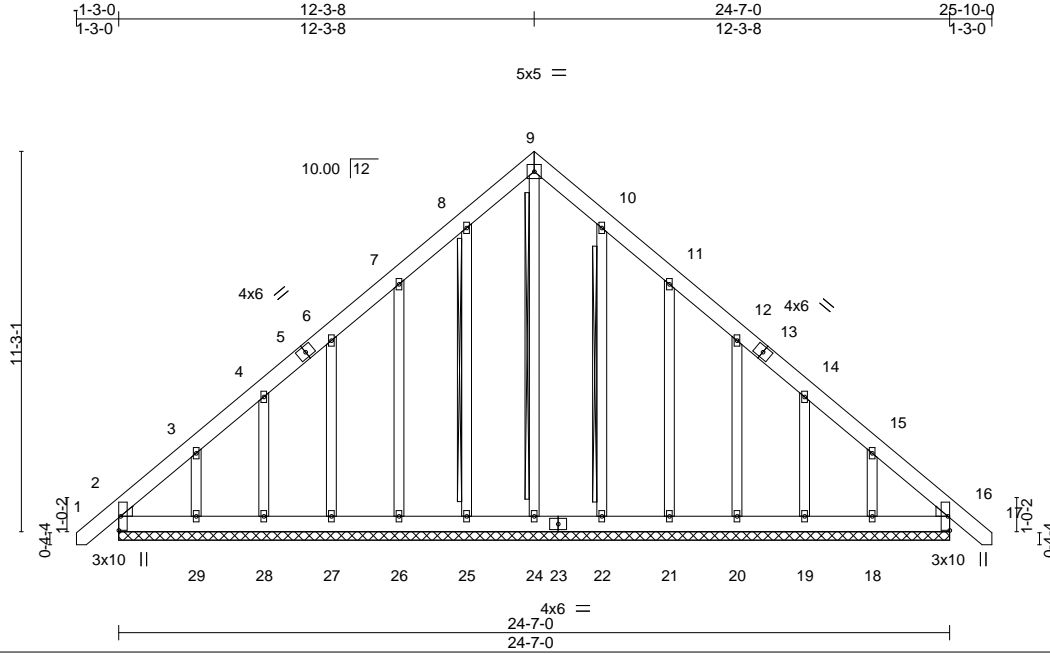


818 Soundside Road
 Edenton, NC 27932

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|------------|-------|----------------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489170 |
| J0920-4172 | B1GE | COMMON SUPPORTED GAB | 1 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:36 2020 Page 1
 ID:d6E6lizSYcm5g_caniIvUiz8loe-hikHZuRNORF7ea52y9g3fxt4o3tCaqjpwJ7rz82Tn



Scale = 1:68.2

Plate Offsets (X,Y)-- [2:0-0-4,0-0-5], [2:0-0-9,0-3-7], [16:0-0-4,0-0-5], [16:0-0-9,0-3-7]

| LOADING (psf) | SPACING- | CS.I. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.05 | Vert(LL) | -0.00 | 16 | n/r | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.03 | Vert(CT) | -0.00 | 16 | n/r | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.16 | Horz(CT) | 0.01 | 16 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | | | | | Weight: 236 lb | FT = 20% |
| | Code IRC2015/TPI2014 | | | | | | | |

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 OTHERS 2x4 SP No.2
 WEDGE

Left: 2x4 SP No.2 , Right: 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.
 WEBS T-Brace: 2x4 SPF No.2 - 9-24, 8-25, 10-22
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
 Brace must cover 90% of web length.

REACTIONS.

All bearings 24-7-0.
 (lb) - Max Horz 2=-335(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 25, 22, 16 except 2=-104(LC 8),
 26=-124(LC 12), 27=-111(LC 12), 28=-107(LC 12), 29=-190(LC 12), 21=-127(LC 13),
 20=-111(LC 13), 19=-106(LC 13), 18=-181(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 24, 25, 26, 27, 28, 29, 22, 21,
 20, 19, 18, 16 except 2=264(LC 20)

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

TOP CHORD 2-3=-397/265, 8-9=-231/253, 9-10=-231/253, 15-16=-334/227
 BOT CHORD 2-29=-193/300, 28-29=-193/300, 27-28=-193/300, 26-27=-193/300, 25-26=-193/300,
 24-25=-193/300, 22-24=-193/300, 21-22=-193/300, 20-21=-193/300, 19-20=-193/300,
 18-19=-193/300, 16-18=-193/300

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- The Fabrication Tolerance at joint 2 = 19%, joint 16 = 19%
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 22, 16 except (jt=lb) 2=104, 26=124, 27=111, 28=107, 29=190, 21=127, 20=111, 19=106, 18=181.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



June 9, 2020

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818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489171 |
| J0920-4172 | B2 | COMMON | 3 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:37 2020 Page 1
 ID:d6E6lizSYcm5g_caniVuiZ8loE-9uHfnES?9IN_GkgEWsBIC9L?XBjhx?AsyTgsgHz82Tm

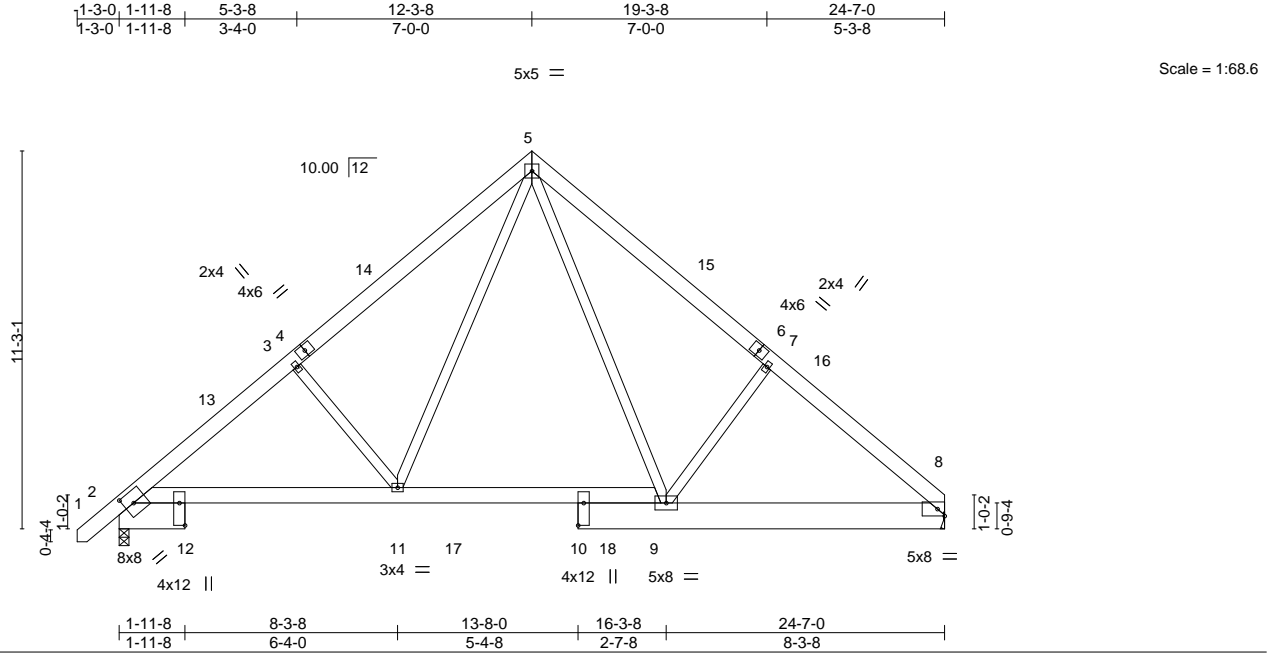


Plate Offsets (X,Y)-- [2:0-3-6,0-4-0], [10:Edge,0-2-0], [12:Edge,0-2-0]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.15 | TC 0.19 | Vert(LL) -0.06 | 9-11 | >999 | 360 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.44 | Vert(CT) -0.10 | 2-11 | >999 | 240 | | |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.28 | Horz(CT) 0.04 | 8 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | Matrix-S | Wind(LL) 0.04 | 2-11 | >999 | 240 | Weight: 213 lb | FT = 20% |

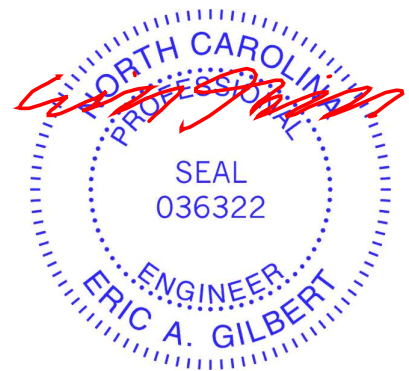
LUMBER-
 TOP CHORD 2x6 SP No.1
 BOT CHORD 2x10 SP No.1 *Except*
 2-9: 2x6 SP No.1
 WEBS 2x4 SP No.2

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=0-3-8, 8=Mechanical
 Max Horz 2=263(LC 9)
 Max Uplift 2=58(LC 12), 8=41(LC 13)
 Max Grav 2=1066(LC 19), 8=993(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1420/302, 3-5=-1285/370, 5-7=-1204/369, 7-8=-1365/298
 BOT CHORD 2-11=-142/1205, 9-11=0/733, 8-9=-120/977
 WEBS 3-11=-412/273, 5-11=-144/704, 5-9=-121/623, 7-9=-396/282

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-4 to 3-3-9, Interior(1) 3-3-9 to 12-3-8, Exterior(2) 12-3-8 to 16-8-5, Interior(1) 16-8-5 to 24-6-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.



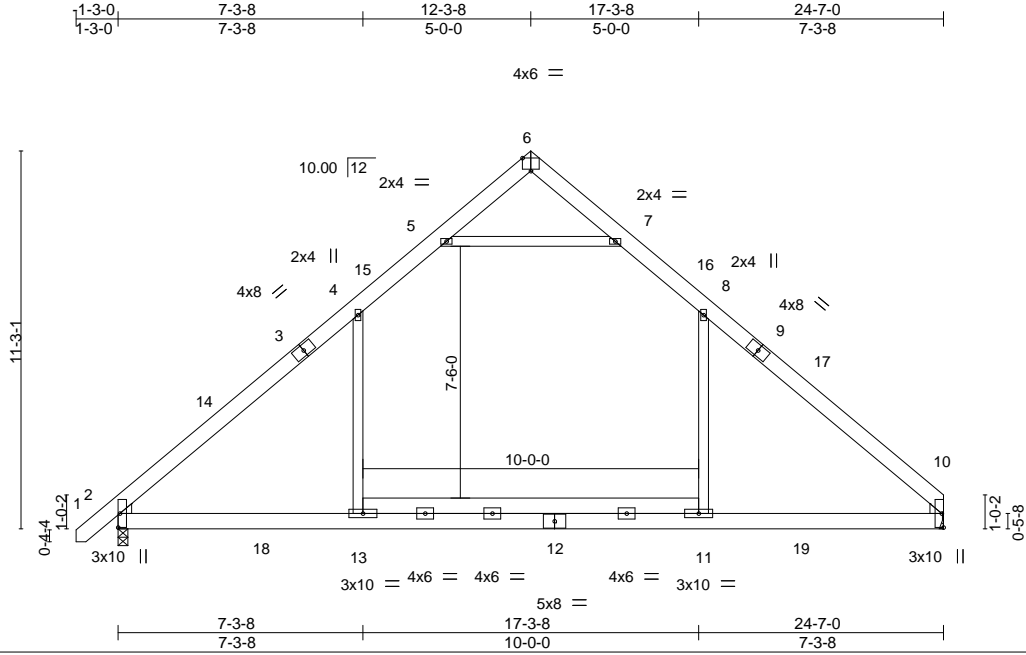
June 9, 2020

| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489172 |
| J0920-4172 | B3 | COMMON | 11 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:39 2020 Page 1

ID:d6E6lizSYcm5g_caniVuiz8loe-5GPQCwTFgMdhV1pddHdmHaRC??_nPpG9Pn9zkAz82Tk



Scale = 1:68.6

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

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.15 | TC 0.71 | Vert(LL) -0.21 | 11 | >999 | 360 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.47 | Vert(CT) -0.30 | 11-13 | >981 | 240 | | |
| BCLL 0.0 * | Rep Stress Incr YES | WB 0.69 | Horz(CT) 0.02 | 10 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | Matrix-S | Wind(LL) 0.19 | 10-11 | >999 | 240 | Weight: 188 lb | FT = 20% |

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.2
 WEDGE

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-2-11 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 10=Mechanical
 Max Horz 2=264(LC 9)
 Max Uplift 2=57(LC 12), 10=-40(LC 13)
 Max Grav 2=1324(LC 19), 10=1249(LC 20)

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

TOP CHORD 2-4=-1644/234, 4-5=-979/309, 5-6=-74/332, 6-7=-66/333, 7-8=-979/317,
 8-10=-1627/230
 BOT CHORD 2-13=-1/1094, 11-13=-4/1095, 10-11=-1/1094
 WEBS 4-13=0/691, 8-11=0/673, 5-7=-1413/478

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-4 to 3-3-9, Interior(1) 3-3-9 to 12-3-8, Exterior(2) 12-3-8 to 16-8-5, Interior(1) 16-8-5 to 24-6-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.



June 9,2020

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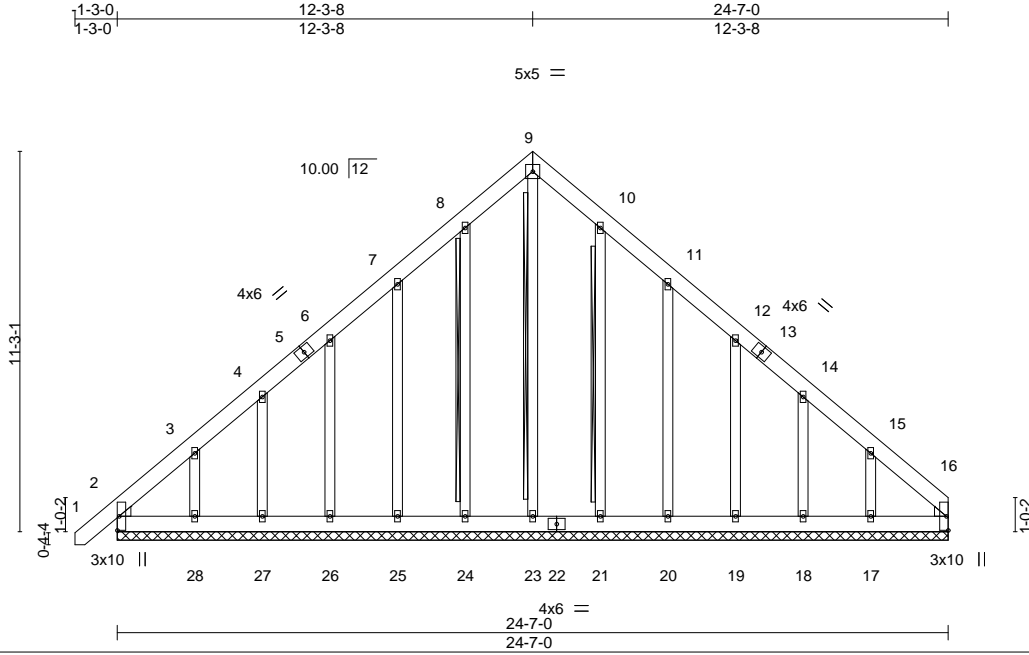


818 Soundside Road
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| | | | | | | |
|------------|-------|----------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489173 |
| J0920-4172 | B3GE | COMMON SUPPORTED GAB | 1 | 1 | Job Reference (optional) | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:41 2020 Page 1
ID:d6E6lizSYcm5g_caniilVuiz8loe-1fXAcvVWCztPkLz?liGEM?Wjqpm2tr3St5e4p2z82Ti



Scale = 1:68.2

Plate Offsets (X,Y)-- [2:0-0-4,0-0-5], [2:0-0-9,0-3-7], [16:0-0-4,0-0-5], [16:0-0-9,0-3-7]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.05 | Vert(LL) | -0.00 | 1 | n/r | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.03 | Vert(CT) | -0.00 | 1 | n/r | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.16 | Horz(CT) | 0.01 | 16 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | | | | | Weight: 233 lb | FT = 20% |
| | Code IRC2015/TPI2014 | | | | | | | |

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.2 , Right: 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.
WEBS T-Brace: 2x4 SPF No.2 - 9-23, 8-24, 10-21
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. All bearings 24-7-0.
(lb) - Max Horz 2=330(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 24, 21, 16 except 2=102(LC 8),
25=124(LC 12), 26=111(LC 12), 27=107(LC 12), 28=190(LC 12), 20=127(LC 13),
19=111(LC 13), 18=103(LC 13), 17=197(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 23, 24, 25, 26, 27, 28, 21, 20,
19, 18, 17, 16 except 2=265(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=400/263, 15-16=346/224
BOT CHORD 2-28=183/286, 27-28=183/286, 26-27=183/286, 25-26=183/286, 24-25=183/286,
23-24=183/286, 21-23=183/286, 20-21=183/286, 19-20=183/286, 18-19=183/286,
17-18=183/286, 16-17=183/286

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 21, 16 except (jt=lb) 2=102, 25=124, 26=111, 27=107, 28=190, 20=127, 19=111, 18=103, 17=197.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



June 9,2020

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

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



818 Soundside Road
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| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489174 |
| J0920-4172 | C1 | Common | 4 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:43 2020 Page 1
 ID:d6E6lizSYcm5g_caniIvUiz8loe-z2fx1HWmkb77_f7Os7liRQb0ocR6LmGIKO7Atxz82Tg



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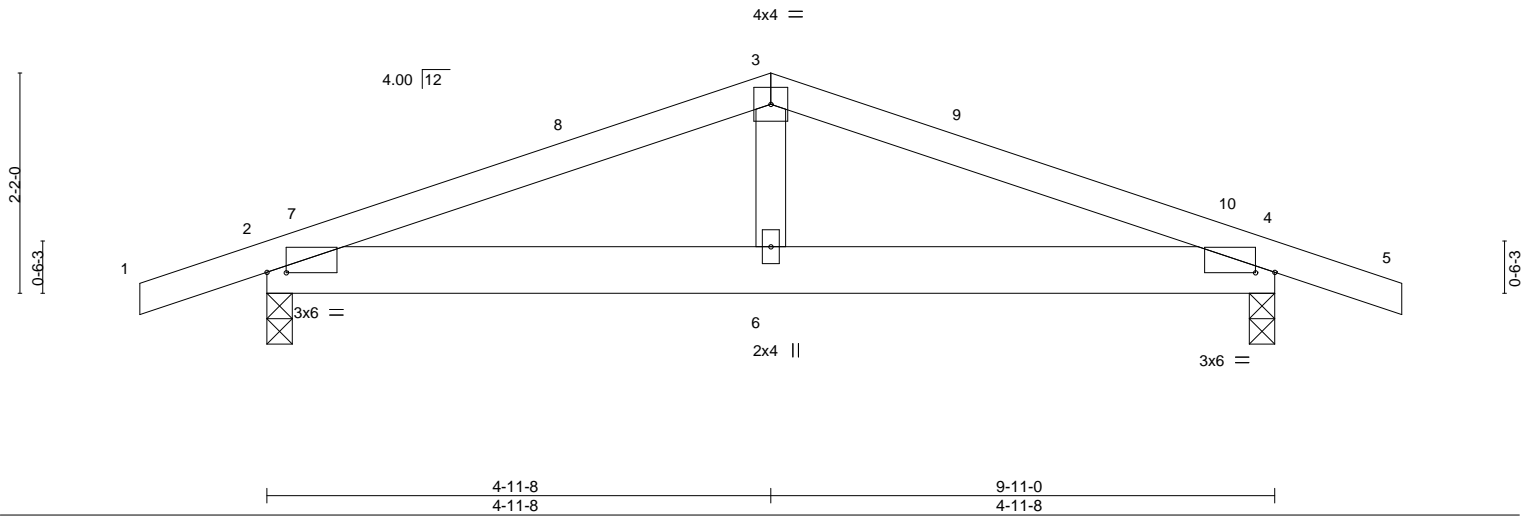


Plate Offsets (X,Y)-- [2:0-2-4,0-0-1], [4:0-2-4,0-0-1]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|------|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.21 | Vert(LL) | -0.01 | 6 | >999 | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.12 | Vert(CT) | -0.02 | 6 | >999 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.05 | Horz(CT) | 0.00 | 4 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | Wind(LL) | 0.02 | 4-6 | >999 | | |
| | Code IRC2015/TPI2014 | | | | | | Weight: 45 lb | FT = 20% |

LUMBER-
 TOP CHORD 2x4 SP No.1
 BOT CHORD 2x6 SP No.1
 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 9-10-1 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-3-0
 Max Horz 2=-25(LC 13)
 Max Uplift 2=-191(LC 8), 4=-191(LC 9)
 Max Grav 2=469(LC 1), 4=469(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-638/730, 3-4=-638/730
 BOT CHORD 2-6=-601/548, 4-6=-601/548
 WEBS 3-6=-303/229

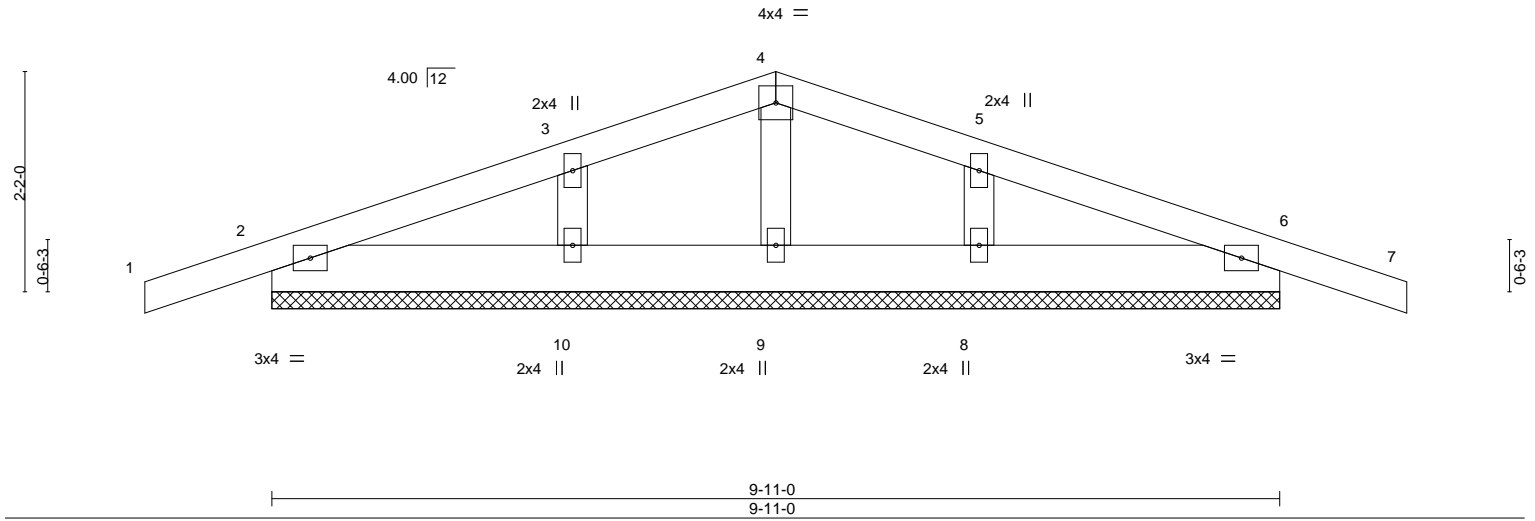
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-3-0 to 3-1-13, Interior(1) 3-1-13 to 4-11-8, Exterior(2) 4-11-8 to 9-4-5, Interior(1) 9-4-5 to 11-2-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=191, 4=191.



| | | | | | | |
|------------|-------|----------------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489175 |
| J0920-4172 | C1GE | COMMON SUPPORTED GAB | 1 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:44 2020 Page 1
 ID:d6E6lizSYcm5g_caniVuiZ8loe-SEDJFdXOVuF_bpiaQqpx_d8De0ow4DvuZ2skPNz82Tf
 9-11-0 11-2-0 1-3-0
 -1-3-0 4-11-8 4-11-8 1-3-0

Scale = 1:22.7



| LOADING (psf) | SPACING- | CSI. | DEFL. | PLATES | GRIP |
|---------------|----------------------|----------|--------------------------|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.07 | in (loc) l/defl L/d | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.02 | Vert(LL) -0.00 7 n/r 120 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.03 | Vert(CT) -0.00 7 n/r 120 | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | Horz(CT) 0.00 6 n/a n/a | | |
| | Code IRC2015/TPI2014 | | | Weight: 47 lb | FT = 20% |

| LUMBER- | BRACING- |
|-----------------------|---|
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x6 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. |
| OTHERS 2x4 SP No.2 | |

REACTIONS. All bearings 9-11-0.
 (lb) - Max Horz 2=42(LC 13)
 Max Uplift All uplift 100 lb or less at joint(s) 9, 10, 8 except 2=103(LC 8), 6=107(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 10, 8 except (jt=lb) 2=103, 6=107.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6.



| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489176 |
| J0920-4172 | M1 | Monopitch | 7 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:45 2020 Page 1
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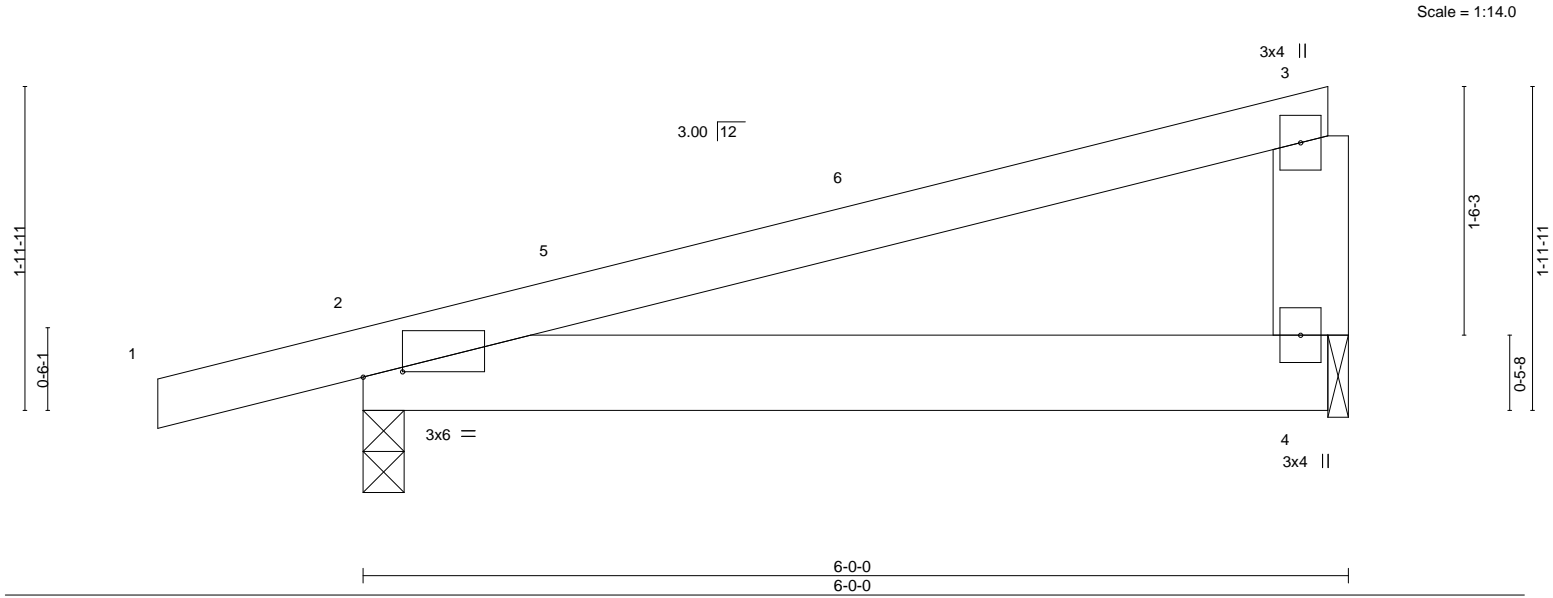


Plate Offsets (X,Y)-- [2:0-2-14,0-0-6]

| LOADING (psf) | SPACING- | 2-0-0 | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-------|----------|----------|-----------|--------|-----|---------------|----------|
| TCLL 20.0 | Plate Grip DOL | 1.15 | TC 0.41 | Vert(LL) | -0.01 2-4 | >999 | 360 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL | 1.15 | BC 0.12 | Vert(CT) | -0.03 2-4 | >999 | 240 | | |
| BCLL 0.0 * | Rep Stress Incr | YES | WB 0.00 | Horz(CT) | 0.00 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | | Matrix-P | Wind(LL) | 0.03 2-4 | >999 | 240 | Weight: 28 lb | FT = 20% |

| LUMBER- | BRACING- |
|-----------------------|---|
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD 2x6 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS 2x6 SP No.1 | |

REACTIONS. (size) 2=0-3-0, 4=0-1-8
 Max Horz 2=60(LC 8)
 Max Uplift 2=-136(LC 8), 4=-88(LC 8)
 Max Grav 2=318(LC 1), 4=216(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-3-0 to 3-1-13, Interior(1) 3-1-13 to 5-9-4 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=136.



June 9,2020

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| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489177 |
| J0920-4172 | M1GE | GABLE | 1 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:46 2020 Page 1
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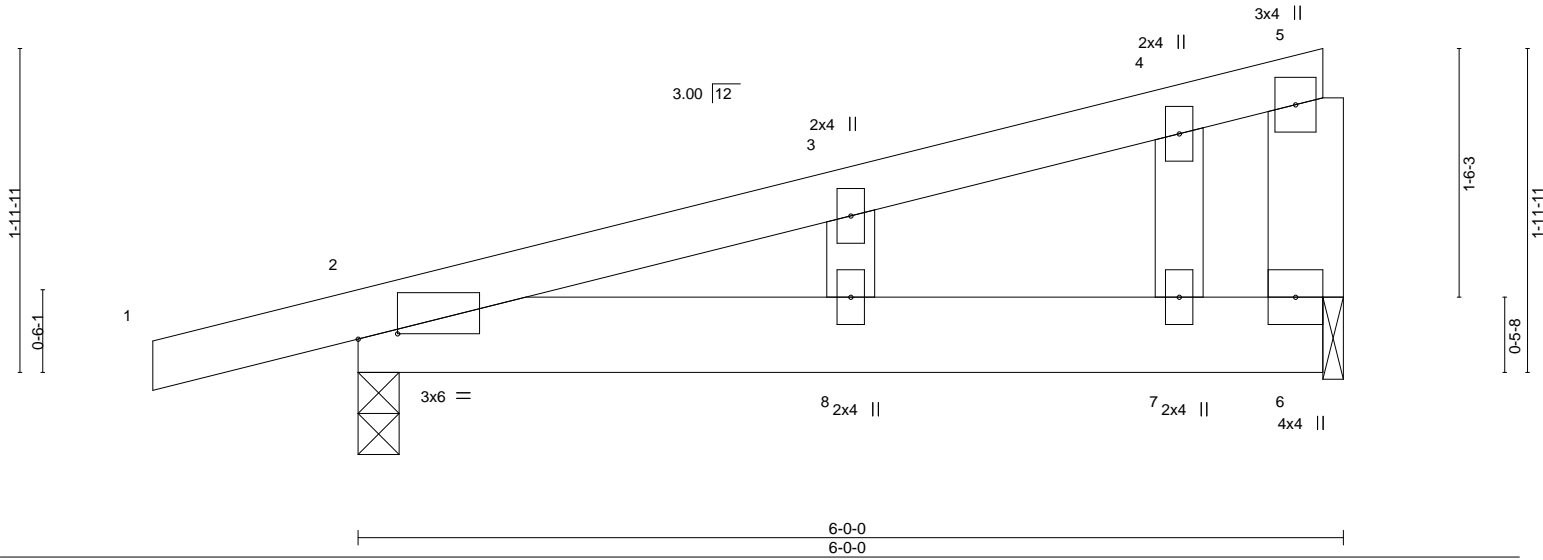


Plate Offsets (X,Y)-- [2:0-2-14,0-0-6]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|------|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.13 | Vert(LL) | 0.03 | 8 | >999 | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.14 | Vert(CT) | -0.02 | 8 | >999 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.02 | Horz(CT) | -0.00 | 6 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | | | | | | |
| | Code IRC2015/TPI2014 | | | | | | Weight: 30 lb | FT = 20% |

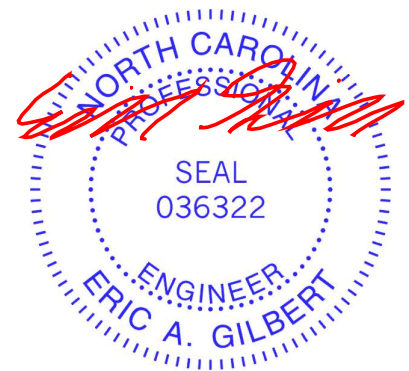
LUMBER-
 TOP CHORD 2x4 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x6 SP No.1
 OTHERS 2x4 SP No.2

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) 2=0-3-0, 6=0-1-8
 Max Horz 2=85(LC 8)
 Max Uplift 2=195(LC 8), 6=129(LC 8)
 Max Grav 2=318(LC 1), 6=216(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 3) Gable studs spaced at 2-0-0 oc.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=195, 6=129.



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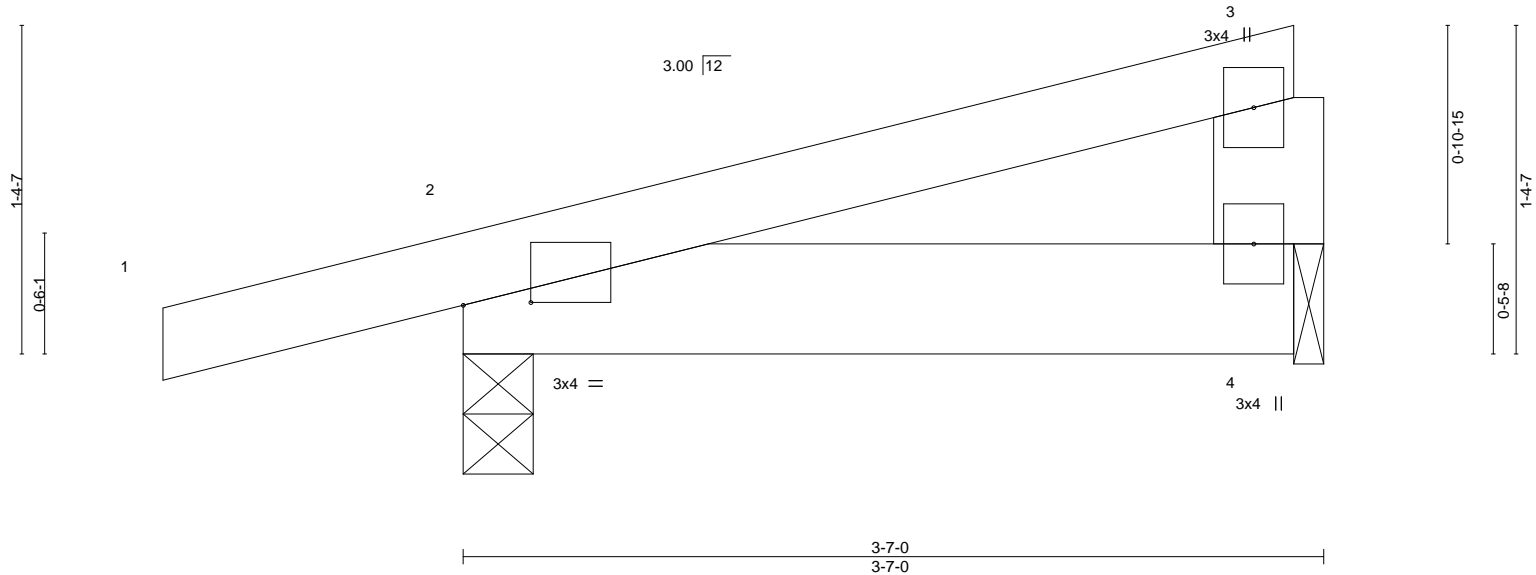
| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489178 |
| J0920-4172 | M2 | Monopitch | 14 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:48 2020 Page 1
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Scale = 1:9.6



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

| LOADING (psf) | SPACING- | 2-0-0 | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-------|----------|----------|----------|--------|------|---------------|----------|
| TCLL 20.0 | Plate Grip DOL | 1.15 | TC 0.09 | Vert(LL) | -0.00 | 2-4 | >999 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL | 1.15 | BC 0.04 | Vert(CT) | -0.00 | 2-4 | >999 | | |
| BCLL 0.0 * | Rep Stress Incr | YES | WB 0.00 | Horz(CT) | 0.00 | | n/a | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | | Matrix-P | Wind(LL) | 0.00 | 2-4 | >999 | Weight: 17 lb | FT = 20% |

LUMBER-
 TOP CHORD 2x4 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x6 SP No.1

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

REACTIONS. (size) 4=0-1-8, 2=0-3-8
 Max Horz 2=57(LC 8)
 Max Uplift 4=63(LC 8), 2=152(LC 8)
 Max Grav 4=110(LC 1), 2=230(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=152.



June 9,2020

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

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| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489179 |
| J0920-4172 | V1 | VALLEY | 1 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:51 2020 Page 1
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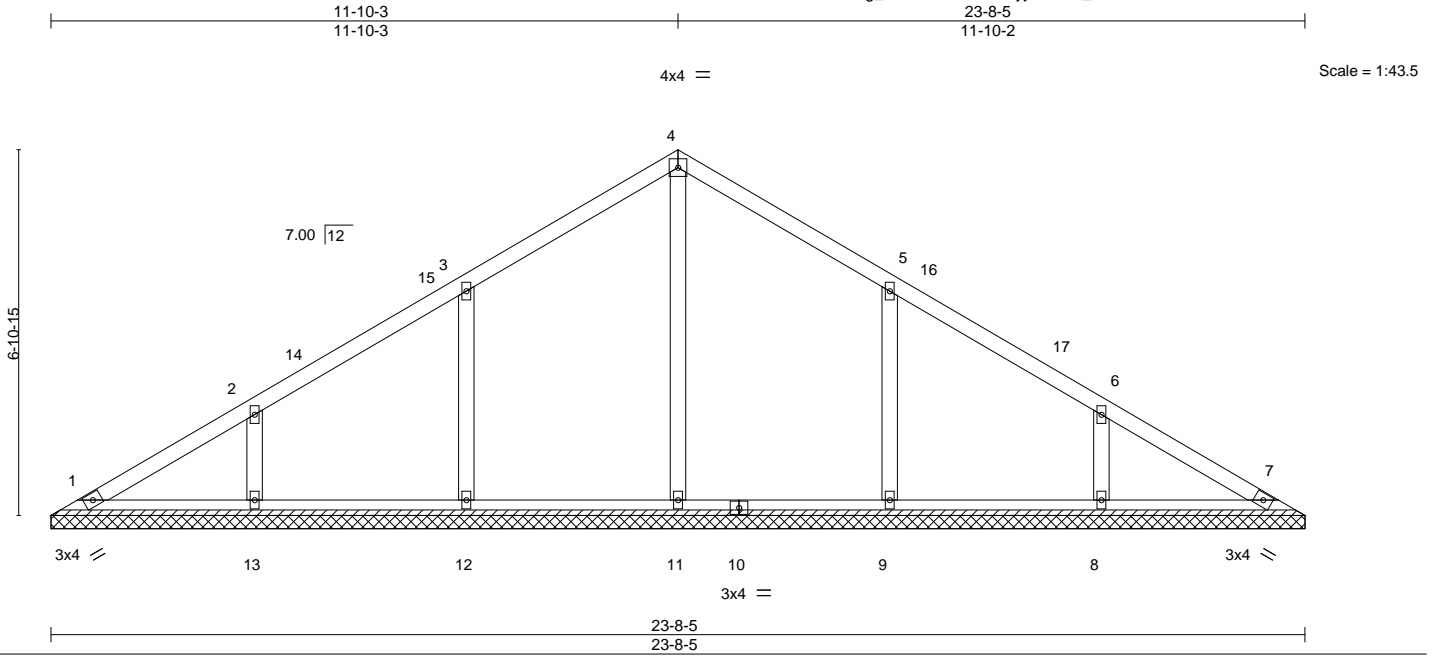


Plate Offsets (X,Y)-- [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

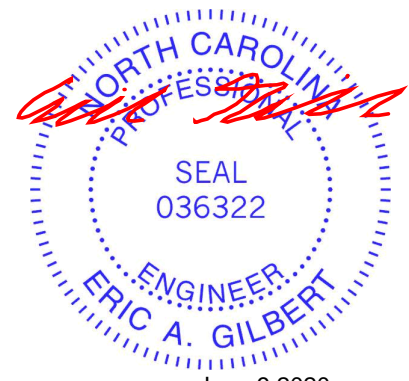
| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|-----|----------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.15 | Vert(LL) | n/a | - | n/a | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.19 | Vert(CT) | n/a | - | n/a | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.14 | Horz(CT) | 0.00 | 7 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | | | | | Weight: 101 lb | FT = 20% |
| | Code IRC2015/TPI2014 | | | | | | | |

| LUMBER- | BRACING- |
|-----------------------|---|
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x4 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. |
| OTHERS 2x4 SP No.2 | |

REACTIONS. All bearings 23-8-5.
 (lb) - Max Horz 1=158(LC 11)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 12, 13, 9, 8
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=459(LC 19), 12=444(LC 19), 13=328(LC 19), 9=444(LC 20), 8=328(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 3-12=-294/186, 2-13=-272/174, 5-9=-294/186, 6-8=-272/174

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-6-8 to 4-11-4, Interior(1) 4-11-4 to 11-10-3, Exterior(2) 11-10-3 to 16-2-15, Interior(1) 16-2-15 to 23-1-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 12, 13, 9, 8.



| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489180 |
| J0920-4172 | V2 | VALLEY | 1 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:53 2020 Page 1
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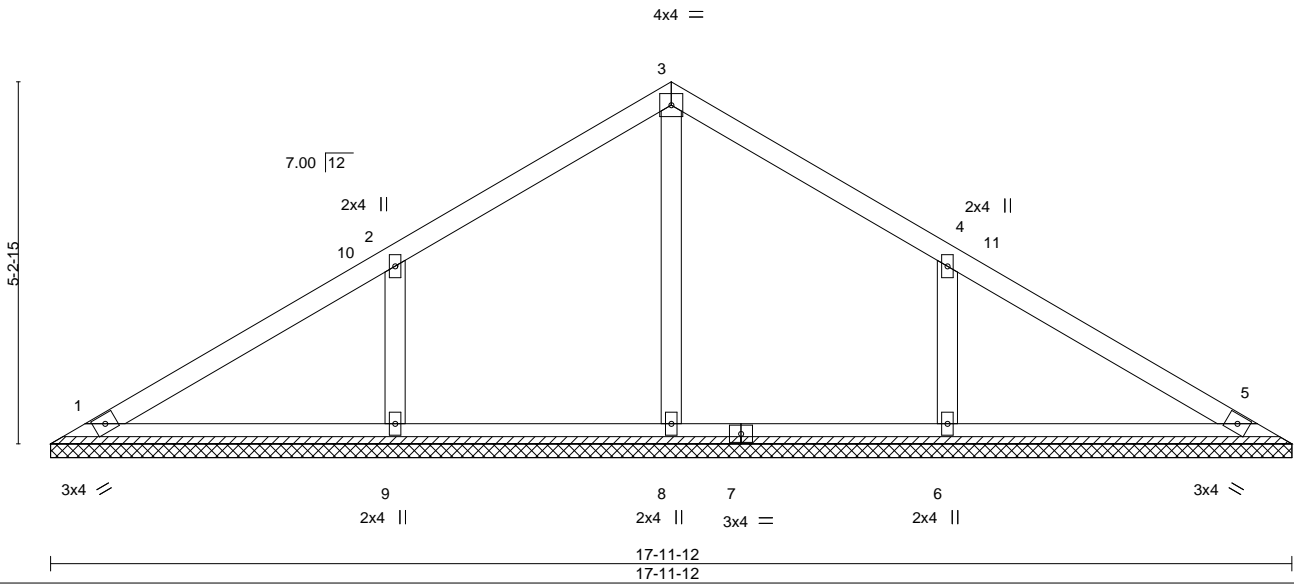


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

| LOADING (psf) | SPACING- | 2-0-0 | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|-----------------|-----------------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 20.0 | Plate Grip DOL | 1.15 | TC 0.20 | Vert(LL) | n/a | - | n/a | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL | 1.15 | BC 0.12 | Vert(CT) | n/a | - | n/a | | |
| BCLL 0.0 * | Rep Stress Incr | YES | WB 0.07 | Horz(CT) | 0.00 | 5 | n/a | | |
| BCDL 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | Weight: 70 lb | FT = 20% |

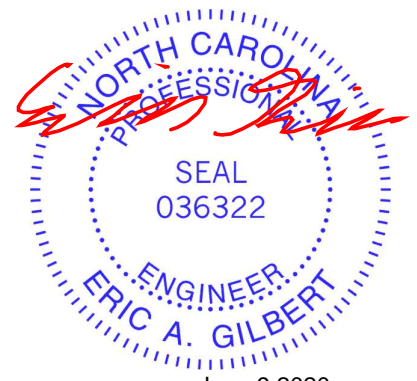
LUMBER-
 TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 OTHERS 2x4 SP No.2

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. All bearings 17-11-12.
 (lb) - Max Horz 1=118(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-104(LC 12), 6=-104(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 8 except 9=431(LC 19), 6=431(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 2-9=-343/208, 4-6=-343/208

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-6-8 to 4-11-14, Interior(1) 4-11-14 to 8-11-14, Exterior(2) 8-11-14 to 13-4-11, Interior(1) 13-4-11 to 17-5-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=104, 6=104.



June 9,2020

| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489181 |
| J0920-4172 | V3 | VALLEY | 1 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:55 2020 Page 1

ID:d6E6lizSYcm5g_caniIvuz8loe-dLNTYOglvHeQQV2hZeWWwy551SXQ9CRW5G1plEz82TU

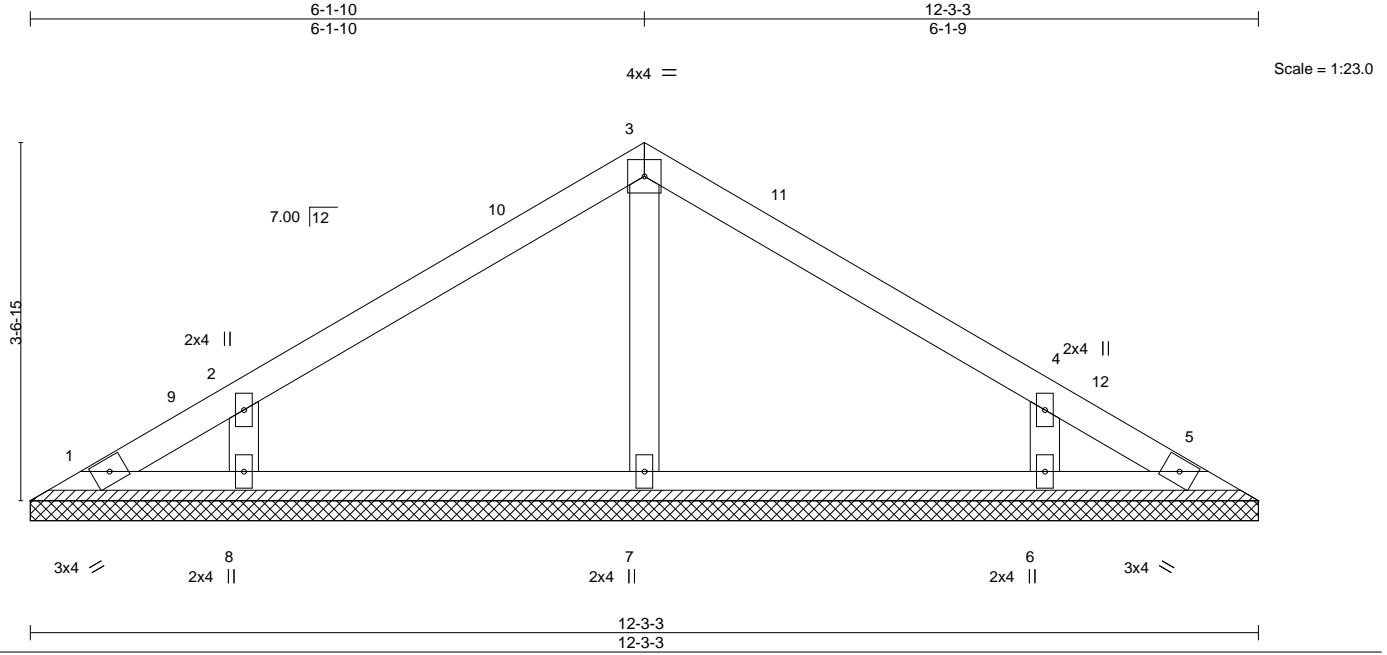


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

| LOADING (psf) | SPACING- | 2-0-0 | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|---------------|----------|
| TCLL 20.0 | Plate Grip DOL | 1.15 | TC 0.13 | Vert(LL) | n/a | - | n/a | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL | 1.15 | BC 0.09 | Vert(CT) | n/a | - | n/a | | |
| BCLL 0.0 * | Rep Stress Incr | YES | WB 0.04 | Horz(CT) | 0.00 | 5 | n/a | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | Weight: 44 lb | FT = 20% |

| LUMBER- | BRACING- |
|-----------------------|---|
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x4 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. |
| OTHERS 2x4 SP No.2 | |

REACTIONS. All bearings 12-3-3.
 (lb) - Max Horz 1=-78(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=275(LC 1), 8=309(LC 19), 6=309(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 2-8=-264/185, 4-6=-264/185

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-6-8 to 4-11-4, Interior(1) 4-11-4 to 6-1-10, Exterior(2) 6-1-10 to 10-6-6, Interior(1) 10-6-6 to 11-8-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 6.



June 9,2020

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

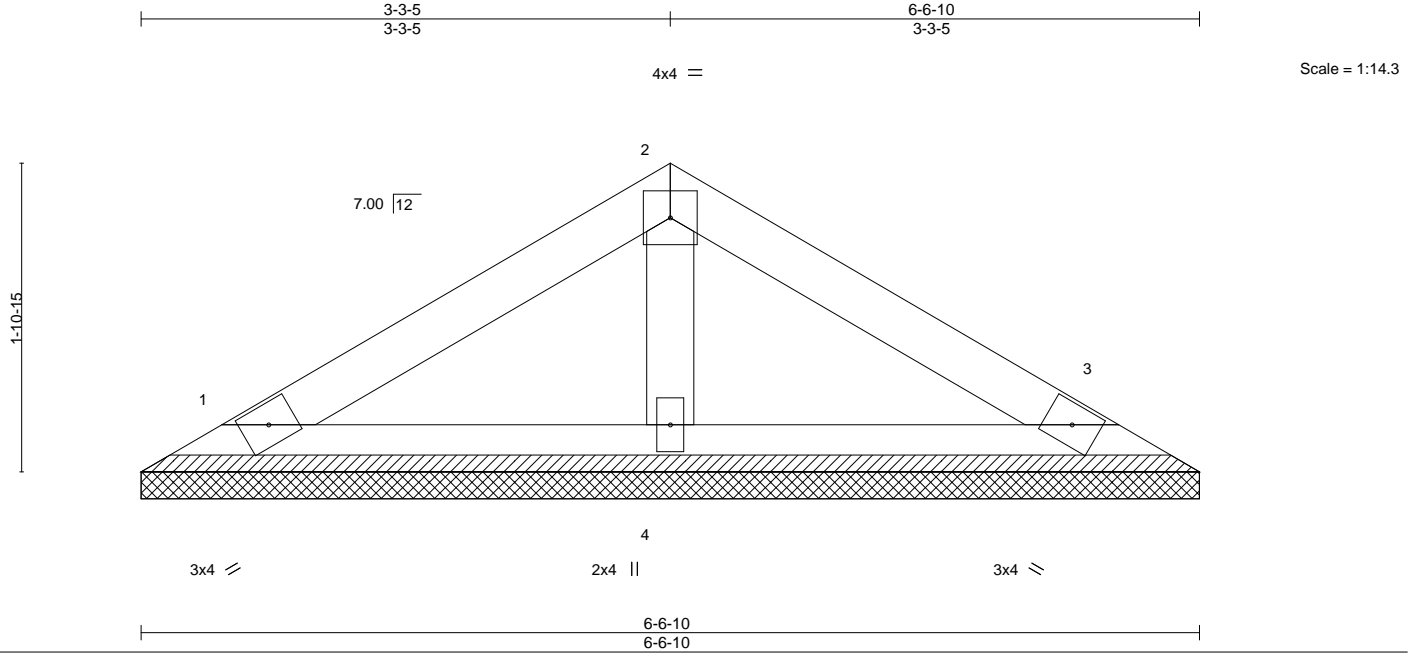
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489182 |
| J0920-4172 | V4 | VALLEY | 1 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:56 2020 Page 1
 ID:d6E6lizSYcm5g_caniIvUiz8l0e-5YxrmkhwgamH1fdu7M1IT9eGDSuBf1fJwmMrhz82TT



| LOADING (psf) | SPACING- | CSI. | DEFL. | PLATES | GRIP |
|---------------|----------------------|----------|-------------------------|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.10 | in (loc) l/defl L/d | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.06 | Vert(LL) n/a - n/a 999 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.02 | Vert(CT) n/a - n/a 999 | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-P | Horz(CT) 0.00 3 n/a n/a | | |
| | Code IRC2015/TPI2014 | | | Weight: 21 lb | FT = 20% |

| LUMBER- | BRACING- |
|-----------------------|---|
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x4 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. |
| OTHERS 2x4 SP No.2 | |

REACTIONS. (size) 1=6-6-10, 3=6-6-10, 4=6-6-10
 Max Horz 1=-38(LC 8)
 Max Uplift 1=-18(LC 12), 3=-22(LC 13)
 Max Grav 1=115(LC 1), 3=115(LC 1), 4=208(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Gable requires continuous bottom chord bearing.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



June 9, 2020

| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489183 |
| J0920-4172 | X1 | JACK-OPEN | 10 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:57 2020 Page 1

ID:d6E6lizSYcm5g_caniVuiZ8loe-ZkVDz4hYRuu8foC4h3Y_0NARLFEpd6XpYaWwN7z82TS



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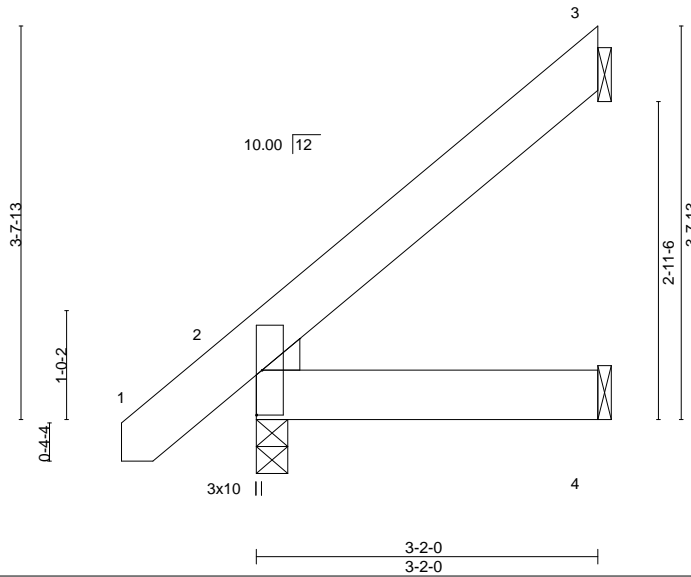


Plate Offsets (X,Y)-- [2:0-0-4,0-0-5], [2:0-0-9,0-3-7]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|-----------|--------|-----|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.07 | Vert(LL) | -0.00 2-4 | >999 | 360 | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.03 | Vert(CT) | -0.00 2-4 | >999 | 240 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.00 | Horz(CT) | -0.00 3 | n/a | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-P | Wind(LL) | 0.00 2 | **** | 240 | | |
| | Code IRC2015/TPI2014 | | | | | | Weight: 22 lb | FT = 20% |

LUMBER-
 TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEDGE
 Left: 2x4 SP No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 3-2-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
 Max Horz 2=111(LC 12)
 Max Uplift 3=78(LC 12)
 Max Grav 3=93(LC 19), 2=209(LC 1), 4=59(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.



June 9,2020

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

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



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| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489184 |
| J0920-4172 | X2 | JACK-OPEN | 2 | 1 | | |

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:58 2020 Page 1
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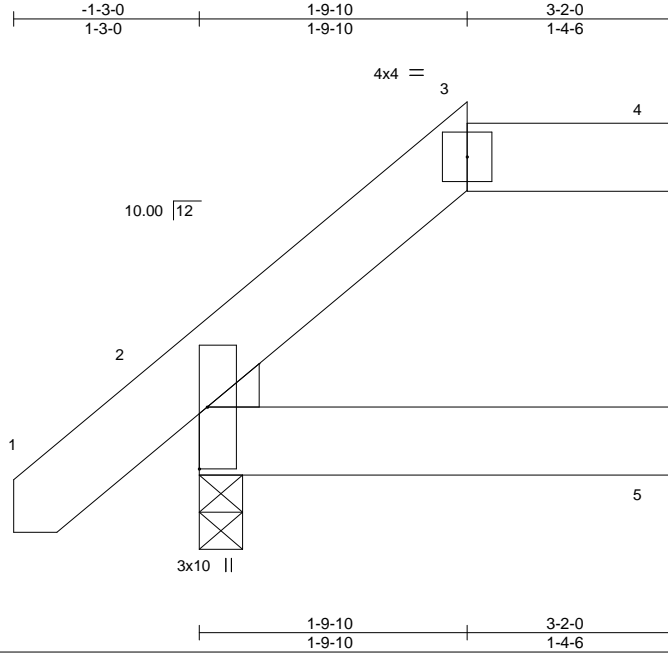


Plate Offsets (X,Y)-- [2:0-0-4,0-0-5], [2:0-0-9,0-3-7]

| LOADING (psf) | SPACING- | 2-0-0 | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|-----------------|-----------------|----------|----------|----------|--------|------|---------------|----------|
| TCLL 20.0 | Plate Grip DOL | 1.15 | TC 0.04 | Vert(LL) | -0.00 | 2 | >999 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL | 1.15 | BC 0.03 | Vert(CT) | -0.00 | 2-5 | >999 | | |
| BCLL 0.0 * | Rep Stress Incr | YES | WB 0.00 | Horz(CT) | 0.00 | 4 | n/a | | |
| BCDL 10.0 | Code | IRC2015/TPI2014 | Matrix-P | Wind(LL) | -0.00 | 2-5 | >999 | Weight: 21 lb | FT = 20% |

LUMBER-
 TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEDGE
 Left: 2x4 SP No.2

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
 Max Horz 2=74(LC 12)
 Max Uplift 4=30(LC 9), 2=-11(LC 12)
 Max Grav 4=73(LC 1), 2=209(LC 1), 5=54(LC 3)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



| | | | | | | |
|------------|-------|------------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489185 |
| J0920-4172 | X3 | JACK-OPEN GIRDER | 2 | 1 | | |

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8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:02:59 2020 Page 1
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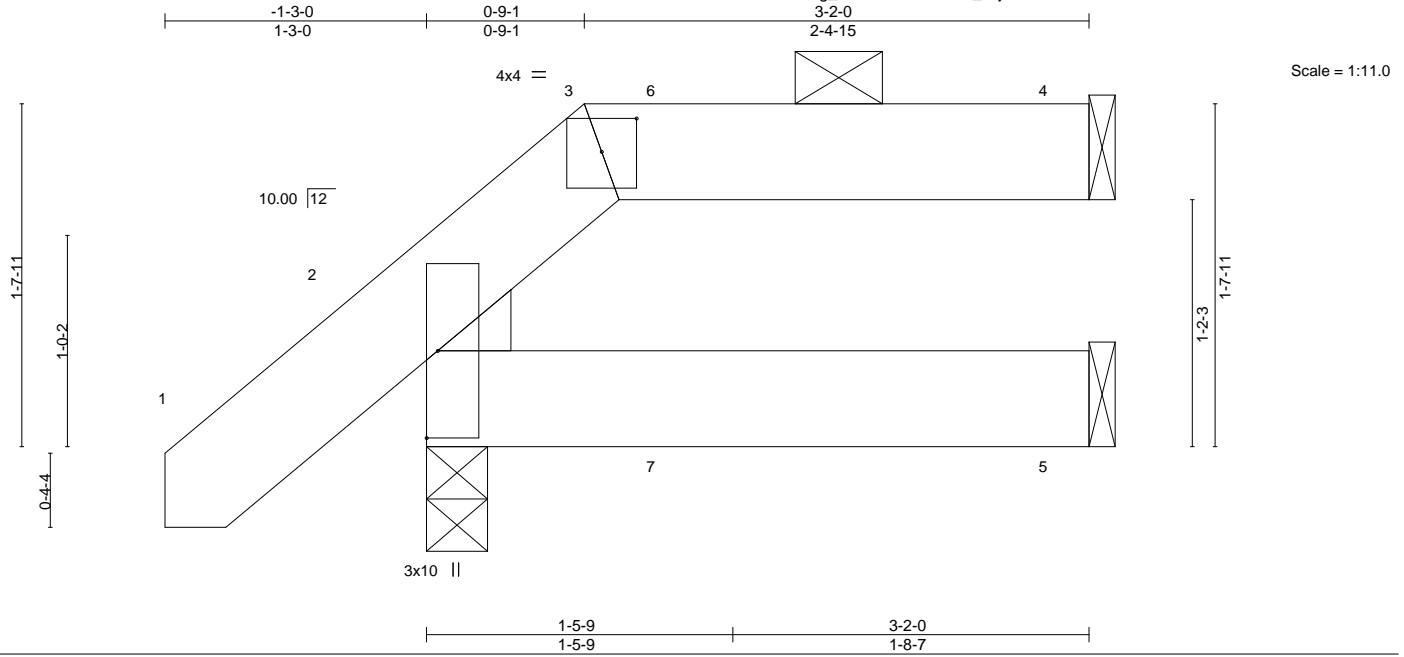


Plate Offsets (X,Y)-- [2:0-0-9,0-3-7], [2:0-0-4,0-0-5], [3:0-2-0,0-1-15]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 20.0 | Plate Grip DOL 1.15 | TC 0.04 | Vert(LL) -0.00 | 2 | >999 | 360 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL 1.15 | BC 0.03 | Vert(CT) -0.00 | 2-5 | >999 | 240 | | |
| BCLL 0.0 * | Rep Stress Incr NO | WB 0.00 | Horz(CT) 0.00 | 4 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | Matrix-P | Wind(LL) 0.00 | 2 | >999 | 240 | Weight: 20 lb | FT = 20% |

LUMBER-
 TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEDGE
 Left: 2x4 SP No.2

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
 Max Horz 2=50(LC 8)
 Max Uplift 4=27(LC 5), 2=-19(LC 8)
 Max Grav 4=77(LC 20), 2=209(LC 1), 5=54(LC 3)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - The Fabrication Tolerance at joint 2 = 19%
 - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 54 lb down and 21 lb up at 1-2-12 on top chord, and 4 lb down at 1-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-3=-60, 3-4=-60, 2-5=-20



June 9, 2020

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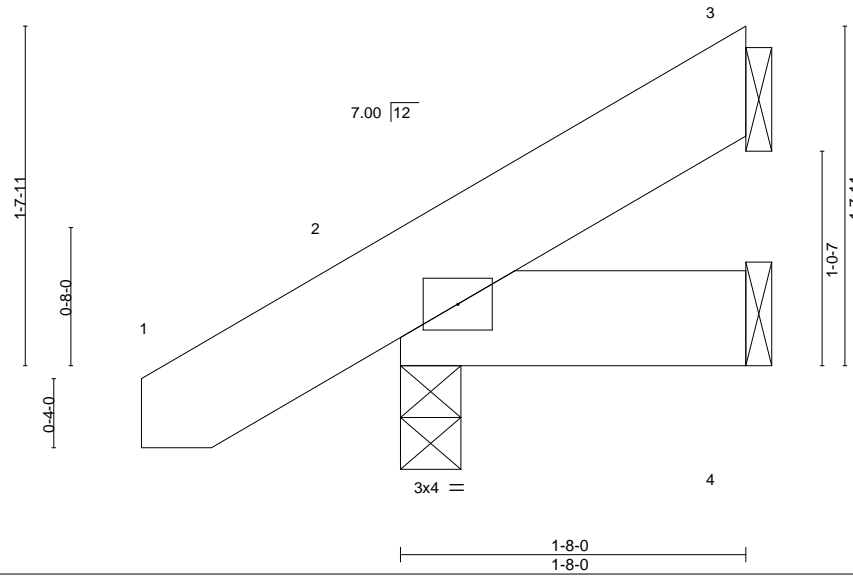
| | | | | | | |
|------------|-------|------------|-----|-----|----------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Lot 54 Sierra Villas | E14489186 |
| J0920-4172 | Y1 | JACK-OPEN | 2 | 1 | | |

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 9 10:03:00 2020 Page 1
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Scale = 1:11.1



| LOADING (psf) | SPACING- | CSI. | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.03 | Vert(LL) | -0.00 | 2 | >999 | 360 | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.01 | Vert(CT) | -0.00 | 2 | >999 | 240 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-P | Wind(LL) | 0.00 | 2 | **** | 240 | | |
| | Code IRC2015/TPI2014 | | | | | | | Weight: 12 lb | FT = 20% |

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1

BRACING-

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

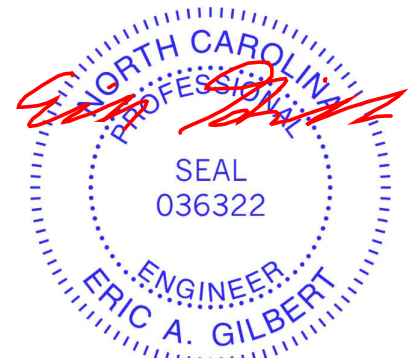
REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
 Max Horz 2=49(LC 12)
 Max Uplift 3=23(LC 12), 2=16(LC 12)
 Max Grav 3=32(LC 19), 2=154(LC 1), 4=33(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.



June 9,2020

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

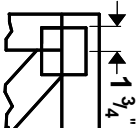
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



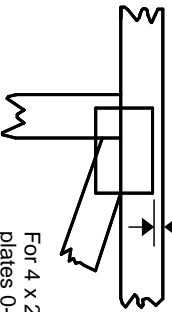
818 Soundside Road
 Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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



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

* Plate location details available in **MITek 20/20 software or upon request.**

PLATE SIZE

4 X 4

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

LATERAL BRACING LOCATION



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

BEARING



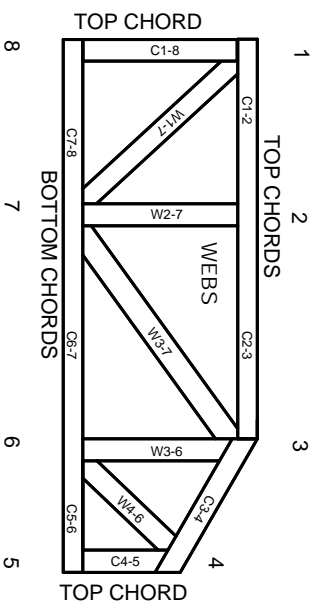
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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