

# Mark Morris, P.E.

#126, 1317-M, Summerville, SC 29483

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The truss drawing(s) listed below have been prepared by **Atlantic Building Components** under my direct supervision based on the parameters provided by the truss designers.

AST #: 26540

JOB: 21-1987-R01

JOB NAME: LOT 1154 CARRIAGE CIRCLE

Wind Code: 37

Wind Speed: Vult= 120mph

Exposure Category: B

Mean Roof Height (feet): 23

## *27 Truss Design(s)*

### Trusses:

J01, J02, PB01, PB02, PB03, R01, R02, R02A, R03, R03A, R03B, R04, R05, R06, R07, R07A, R07B, R08, R09, R10, R11, VT01, VT02, VT03, VT04, VT05, VT06



**4/21/2021**

**Mark Morris**

***Warning !—Verify design parameters and read notes before use.***

This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for*

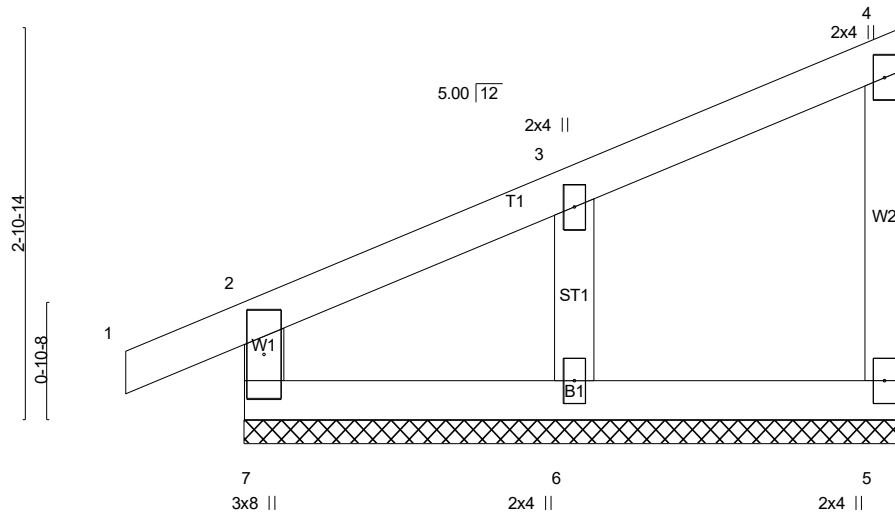
|             |       |                           |     |     |  |
|-------------|-------|---------------------------|-----|-----|--|
| Job         | Truss | Truss Type                | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01 | J01   | Monopitch Supported Gable | 1   | 1   | Job Reference (optional) # 26540                                   |

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Scale = 1:17.0



|                      |                      |             |                         |               |             |
|----------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0     | 2-0-0                | TC 0.12     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf) 20.0       | Plate Grip DOL 1.15  | BC 0.08     | Vert(LL) 0.00 1 n/r 180 |               |             |
| TCDL 10.0            | Lumber DOL 1.15      | WB 0.05     | Vert(CT) -0.00 1 n/r 80 |               |             |
| BCLL 0.0 *           | Rep Stress Incr YES  | Matrix-R    | Horz(CT) 0.00 5 n/a n/a |               |             |
| BCDL 10.0            | Code IRC2018/TPI2014 |             |                         | Weight: 23 lb | FT = 0%     |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.3  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-10-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

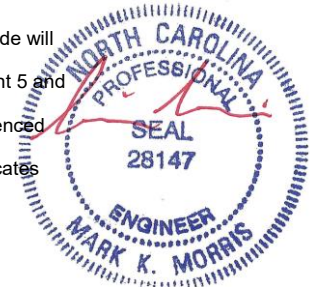
**REACTIONS.** (lb/size) 7=151/4-10-8 (min. 0-1-8), 5=76/4-10-8 (min. 0-1-8), 6=200/4-10-8 (min. 0-1-8)  
Max Horz 7=63(LC 14)  
Max Uplift 7=-2(LC 10), 5=-13(LC 14), 6=-60(LC 14)  
Max Grav 7=219(LC 21), 5=106(LC 21), 6=274(LC 21)

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

**NOTES-** (13-14)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 7, 13 lb uplift at joint 5 and 60 lb uplift at joint 6.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard

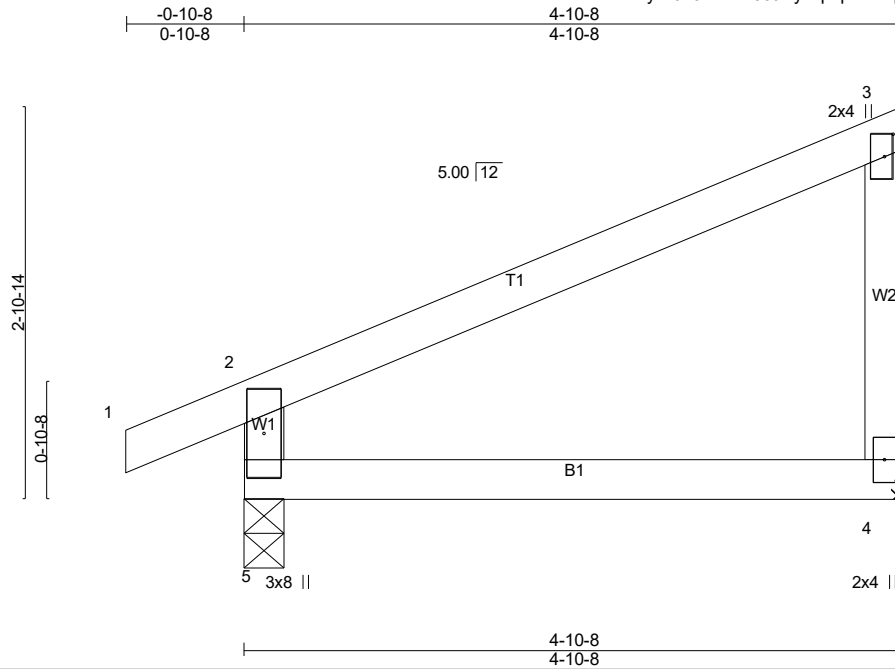


4/21/2021

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|                    |              |                         |          |          |  |         |
|--------------------|--------------|-------------------------|----------|----------|--|---------|
| Job<br>21-1987-R01 | Truss<br>J02 | Truss Type<br>Monopitch | Qty<br>4 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N | # 26540 |
|--------------------|--------------|-------------------------|----------|----------|--|---------|

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Scale = 1:17.0

Plate Offsets (X,Y)-- [3:0-2-0,0-0-12]

| LOADING (psf)    | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES        | GRIP    |
|------------------|----------------------|----------|----------------|----------|--------|-----|---------------|---------|
| TCLL (roof) 20.0 | 2-0-0                | TC 0.38  | Vert(LL) -0.02 | 4-5      | >999   | 240 | MT20          | 244/190 |
| Snow (Pf) 20.0   | Plate Grip DOL 1.15  | BC 0.19  | Vert(CT) -0.03 | 4-5      | >999   | 180 |               |         |
| TCDL 10.0        | Lumber DOL 1.15      | WB 0.00  | Horz(CT) 0.00  | 4        | n/a    | n/a |               |         |
| BCLL 0.0 *       | Rep Stress Incr YES  | Matrix-R |                |          |        |     |               |         |
| BCDL 10.0        | Code IRC2018/TPI2014 |          |                |          |        |     | Weight: 21 lb | FT = 0% |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-10-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=177/Mechanical, 5=251/0-3-8 (min. 0-1-8)  
Max Horz 5=63(LC 14)  
Max Uplift 4=-51(LC 10), 5=-48(LC 10)  
Max Grav 4=243(LC 21), 5=356(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-5=-324/53

**NOTES-** (10-11)

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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 1-0-0 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 51 lb uplift at joint 4 and 48 lb uplift at joint 5
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard

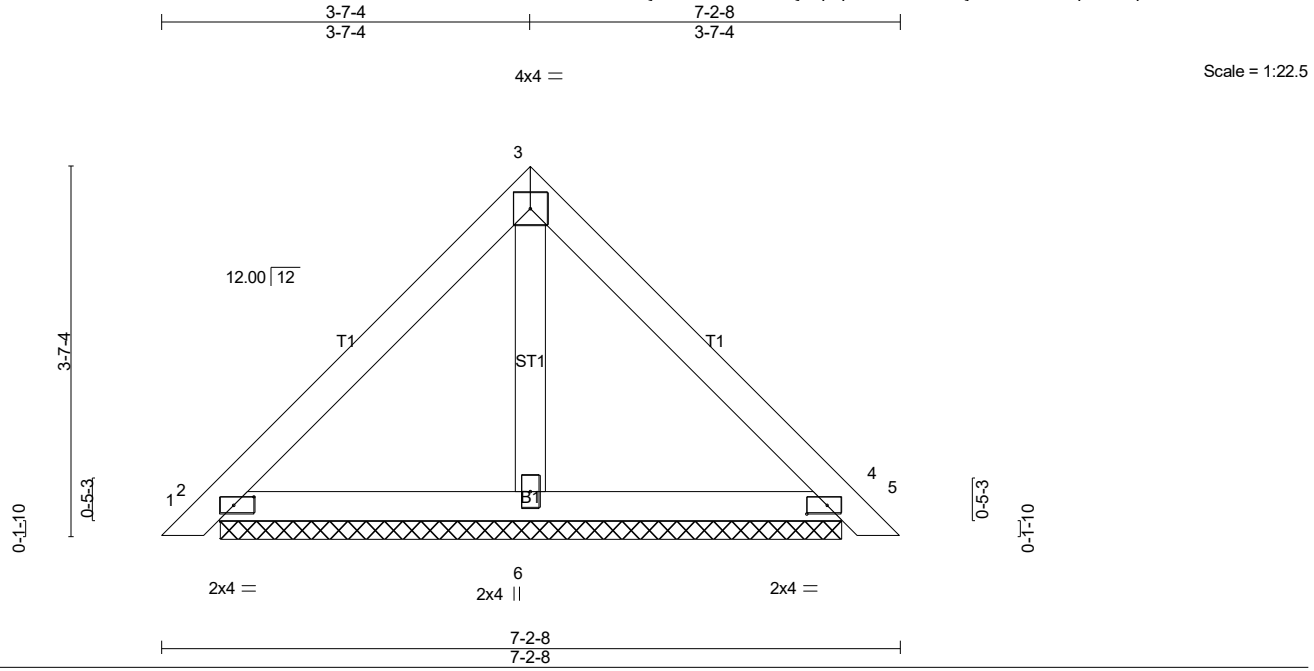


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|                    |               |                         |          |          |   |         |
|--------------------|---------------|-------------------------|----------|----------|---|---------|
| Job<br>21-1987-R01 | Truss<br>PB01 | Truss Type<br>Piggyback | Qty<br>7 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, NC | # 26540 |
|--------------------|---------------|-------------------------|----------|----------|---|---------|

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|  |                      |             |                         |               |             |
|--|----------------------|-------------|-------------------------|---------------|-------------|
| Plate Offsets (X,Y)-- [2:0-2-6,0-1-0], [4:0-2-6,0-1-0] |                      |             |                         |               |             |
| <b>LOADING</b> (psf)                                   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0                                       | 2-0-0                | TC 0.17     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf) 20.0   | Plate Grip DOL 1.15  | BC 0.16     | Vert(LL) 0.00 5 n/r 180 |               |             |
| TCDL 10.0  | Lumber DOL 1.15      | WB 0.03     | Vert(CT) 0.01 5 n/r 80  |               |             |
| BCLL 0.0 *   | Rep Stress Incr YES  | Matrix-P    | Horz(CT) 0.00 4 n/a n/a |               |             |
| BCDL 10.0  | Code IRC2018/TPI2014 |             |                         | Weight: 28 lb | FT = 0%     |

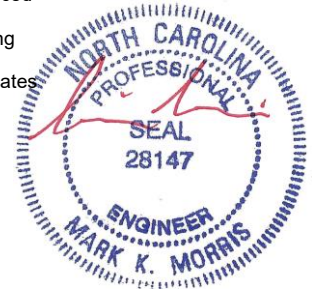
|                       |  |
|-----------------------|--|
| <b>LUMBER-</b>        | <b>BRACING-</b>  |
| TOP CHORD 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  |
| BOT CHORD 2x4 SP No.3 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.   |
| OTHERS 2x4 SP No.3    | MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide. |

**REACTIONS.** (lb/size) 2=170/6-0-14 (min. 0-1-8), 4=170/6-0-14 (min. 0-1-8), 6=190/6-0-14 (min. 0-1-8)  
 Max Horz 2=-66(LC 10)  
 Max Uplift 2=-30(LC 13), 4=-35(LC 13)

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

- NOTES-** (11-12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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 1-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 2 and 35 lb uplift at joint 4.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard

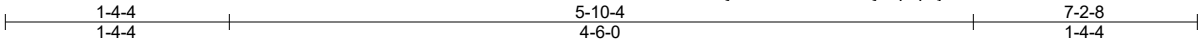


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|                          |       |            |     |     |  |
|--------------------------|-------|------------|-----|-----|--|
| Job                      | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01              | PB02  | Piggyback  | 1   | 1   |  |
| Job Reference (optional) |       |            |     |     | # 26540  |

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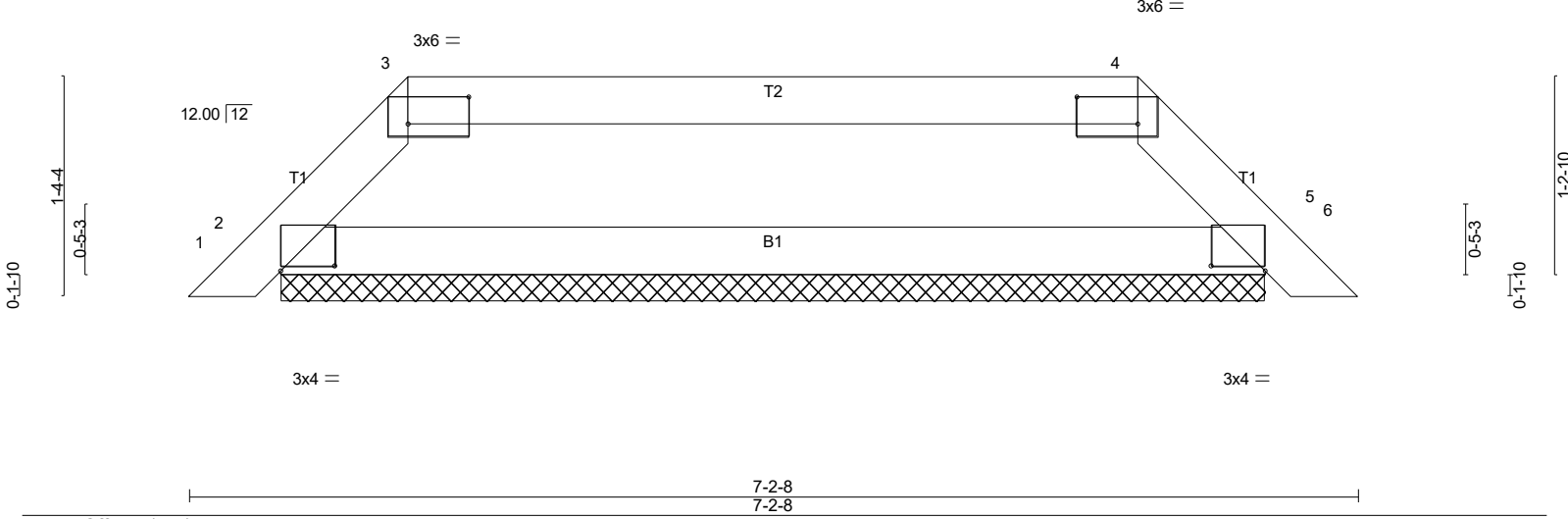


Plate Offsets (X,Y)-- [2:0-4-0,0-0-6], [3:0-4-8,0-2-0], [4:0-4-8,0-2-0], [5:0-4-0,0-0-6]

| LOADING (psf)    | SPACING-             | 2-0-0 | CSI.     | DEFL.         | in | (loc) | l/defl | L/d | PLATES        | GRIP    |
|------------------|----------------------|-------|----------|---------------|----|-------|--------|-----|---------------|---------|
| TCLL (roof) 20.0 | Plate Grip DOL 1.15  |       | TC 0.25  | Vert(LL) 0.00 | 5  | n/r   | 180    |     | MT20          | 244/190 |
| Snow (Pf) 20.0   | Lumber DOL 1.15      |       | BC 0.44  | Vert(CT) 0.00 | 6  | n/r   | 80     |     |               |         |
| TCDL 10.0        | Rep Stress Incr YES  |       | WB 0.00  | Horz(CT) 0.00 | 5  | n/a   | n/a    |     |               |         |
| BCLL 0.0 *       | Code IRC2018/TPI2014 |       | Matrix-R |               |    |       |        |     |               |         |
| BCDL 10.0        |                      |       |          |               |    |       |        |     | Weight: 21 lb | FT = 0% |

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.3

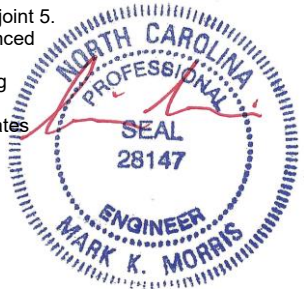
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=265/6-0-14 (min. 0-1-8), 5=265/6-0-14 (min. 0-1-8)  
 Max Horz 2=-24(LC 10)  
 Max Uplift 2=-20(LC 9), 5=-20(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-300/67, 4-5=-300/67

- NOTES-** (12-13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - 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 1-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 2 and 20 lb uplift at joint 5.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

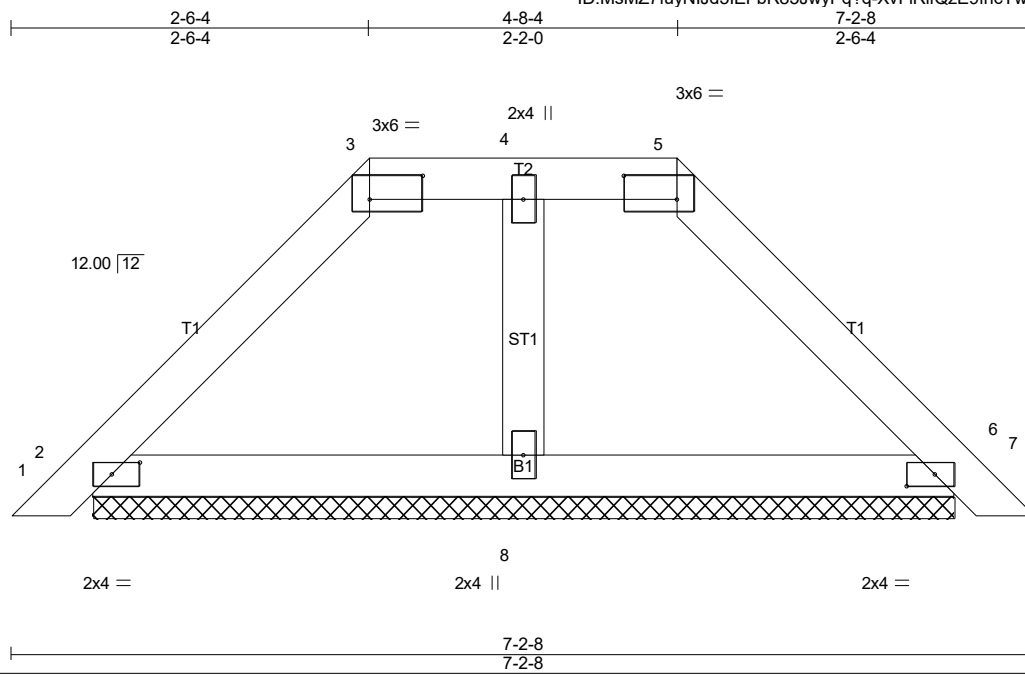


4/21/2021

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|                    |               |                         |          |          |  |  |
|--------------------|---------------|-------------------------|----------|----------|--|--|
| Job<br>21-1987-R01 | Truss<br>PB03 | Truss Type<br>Piggyback | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N | Job Reference (optional)<br><b># 26540</b> |
|--------------------|---------------|-------------------------|----------|----------|--|--|

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Scale = 1:16.2

| Plate Offsets (X,Y)-- |       | [2:0-2-6,0-1-0], [3:0-4-8,0-2-0], [5:0-4-8,0-2-0], [6:0-2-6,0-1-0] |                |
|-----------------------|-------|--|----------------|
| <b>LOADING</b> (psf)  |       | <b>SPACING-</b>  | 2-0-0          |
| TCLL (roof)           | 20.0  | Plate Grip DOL   | 1.15           |
| Snow (Pf)             | 20.0  | Lumber DOL   | 1.15           |
| TCDL                  | 10.0  | Rep Stress Incr  | YES            |
| BCLL                  | 0.0 * | Code IRC2018/TPI2014   |                |
| BCDL                  | 10.0  |  |                |
|                       |       | <b>CSI.</b>  |                |
|                       |       | TC   | 0.07           |
|                       |       | BC   | 0.16           |
|                       |       | WB   | 0.02           |
|                       |       | Matrix-SH  |                |
|                       |       | <b>DEFL.</b>   |                |
|                       |       | Vert(LL)   | 0.00 7 n/r 180 |
|                       |       | Vert(CT)   | 0.00 7 n/r 80  |
|                       |       | Horz(CT)   | 0.00 6 n/a n/a |
|                       |       | <b>PLATES</b>  | MT20           |
|                       |       | <b>GRIP</b>  | 244/190        |
|                       |       | Weight:  | 26 lb          |
|                       |       | FT =   | 0%             |

**LUMBER-**

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

**BRACING-**

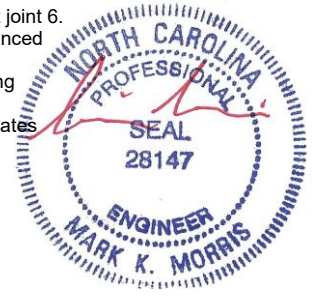
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=188/6-0-14 (min. 0-1-8), 6=188/6-0-14 (min. 0-1-8), 8=154/6-0-14 (min. 0-1-8)  
Max Horz 2=-46(LC 10)  
Max Uplift 2=-35(LC 12), 6=-37(LC 13)  
Max Grav 2=188(LC 1), 6=188(LC 1), 8=178(LC 5)

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

- NOTES-** (12-13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - TC LL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - 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 1-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 2 and 37 lb uplift at joint 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.



4/21/2021

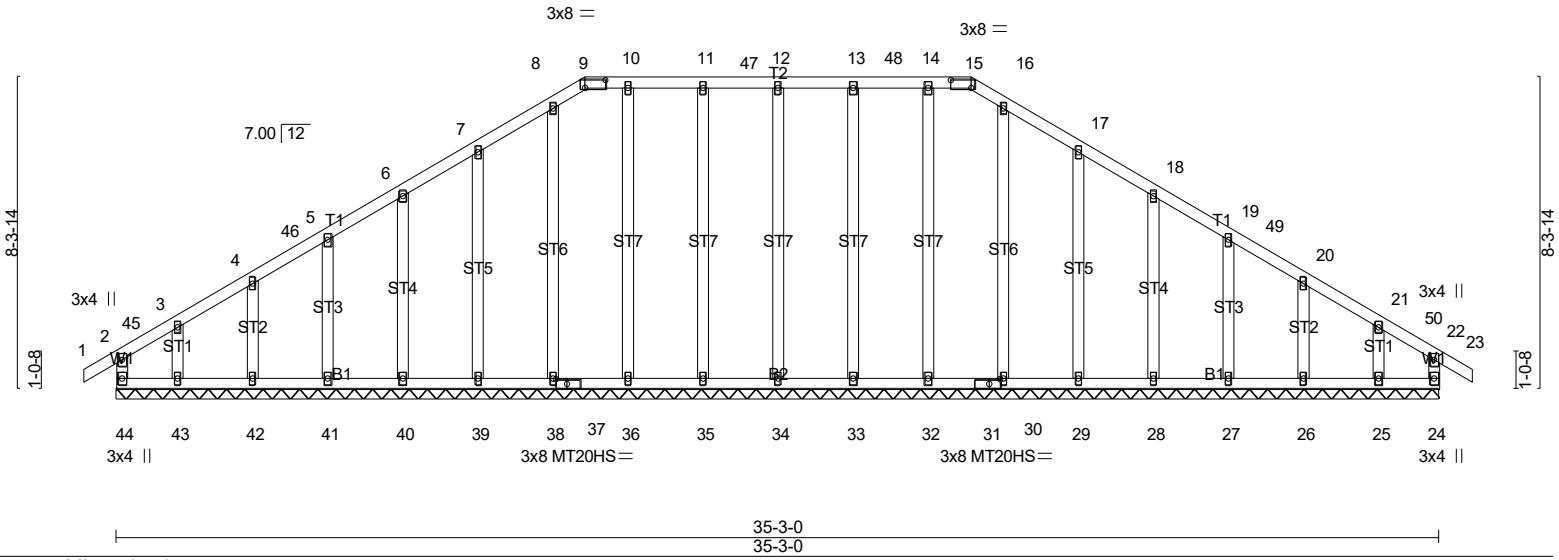
**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|                          |       |            |     |     |  |
|--------------------------|-------|------------|-----|-----|--|
| Job                      | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01              | R01   | GABLE      | 1   | 1   |  |
| Job Reference (optional) |       |            |     |     | # 26540  |

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:21 2021 Page 1  
 ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-QgUCH6ix1Sg5ADsh63BUa5mv\_dDhAcioZQB9Y?zOOOy

|         |         |        |         |        |
|---------|---------|--------|---------|--------|
| -0-10-8 | 12-5-13 | 22-9-3 | 35-3-0  | 36-1-8 |
| 0-10-8  | 12-5-13 | 10-3-7 | 12-5-13 | 0-10-8 |

Scale = 1:61.4



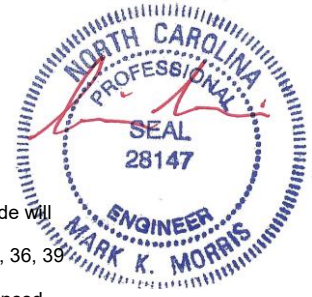
|   |                      |             |                           |                |             |
|---|----------------------|-------------|---------------------------|----------------|-------------|
| Plate Offsets (X,Y)-- [9:0-6-8,0-2-8], [15:0-6-8,0-2-8], [31:0-3-8,0-1-8], [37:0-3-8,0-1-8] |                      |             |                           |                |             |
| <b>LOADING</b> (psf)  | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>              | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL (roof) 20.0  | 2-0-0                | TC 0.13     | in (loc) l/defl L/d       | MT20           | 244/190     |
| Snow (Pf) 20.0  | Plate Grip DOL 1.15  | BC 0.07     | Vert(LL) -0.00 23 n/r 180 | MT20HS         | 187/143     |
| TCDL 10.0   | Lumber DOL 1.15      | WB 0.27     | Vert(CT) -0.00 23 n/r 80  |                |             |
| BCLL 0.0 *  | Rep Stress Incr YES  | Matrix-R    | Horz(CT) 0.00 24 n/a n/a  |                |             |
| BCDL 10.0   | Code IRC2018/TPI2014 |             |                           | Weight: 251 lb | FT = 0%     |

|                       |  |
|-----------------------|--|
| <b>LUMBER-</b>        | <b>BRACING-</b>  |
| TOP CHORD 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  |
| BOT CHORD 2x4 SP No.2 | BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  |
| WEBS 2x4 SP No.3      |  |
| OTHERS 2x4 SP No.3    |  |
|                       | MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide. |

**REACTIONS.** All bearings 35-3-0.  
 (lb) - Max Horz 44=-176(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 44, 24, 34, 35, 36, 39, 40, 41, 42, 33, 32, 29, 28, 27, 26, 25 except 43=-106(LC 14)  
 Max Grav All reactions 250 lb or less at joint(s) 44, 24, 43, 25 except 34=296(LC 44), 35=299(LC 44), 36=298(LC 52), 38=297(LC 47), 39=322(LC 47), 40=324(LC 47), 41=275(LC 47), 42=259(LC 39), 33=299(LC 44), 32=296(LC 52), 30=288(LC 49), 29=324(LC 49), 28=324(LC 49), 27=274(LC 49), 26=259(LC 39)

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

- NOTES-** (17-18)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 5) Unbalanced snow loads have been considered for this design.
  - 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 7) Provide adequate drainage to prevent water ponding.
  - 8) All plates are MT20 plates unless otherwise indicated.
  - 9) All plates are 2x4 MT20 unless otherwise indicated.
  - 10) Gable requires continuous bottom chord bearing.
  - 11) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 12) Gable studs spaced at 2-0-0 oc.
  - 13) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 14) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 44, 24, 34, 35, 36, 39, 40, 41, 42, 33, 32, 29, 28, 27, 26, 25 except (jt=lb) 43=106.
  - 16) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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**Continued on Page 2** Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI I-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|             |       |            |     |     |  |
|-------------|-------|------------|-----|-----|--|
| Job         | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01 | R01   | GABLE      | 1   | 1   | Job Reference (optional) # 26540                                   |

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:22 2021 Page 2  
 ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-ut2bUSjZomoyNfRugmij6JJ4k1Zwv3y9o4wj4SzOOGx

- 17) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 18) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



4/21/2021

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



|                    |              |                      |          |          |   |  |
|--------------------|--------------|----------------------|----------|----------|---|--|
| Job<br>21-1987-R01 | Truss<br>R02 | Truss Type<br>Common | Qty<br>2 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, NC | Job Reference (optional)<br><b># 26540</b> |
|--------------------|--------------|----------------------|----------|----------|---|--|

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:23 2021 Page 1  
 ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-M3czioKbZ4wpPX?4EUDyFwr3UQjLeShI0kgGduzOOGw

|         |        |         |        |         |        |        |        |
|---------|--------|---------|--------|---------|--------|--------|--------|
| -0-10-8 | 6-0-13 | 11-10-3 | 17-7-8 | 23-4-13 | 29-2-3 | 35-3-0 | 36-1-8 |
| 0-10-8  | 6-0-13 | 5-9-5   | 5-9-5  | 5-9-5   | 5-9-5  | 6-0-13 | 0-10-8 |

Scale = 1:68.9

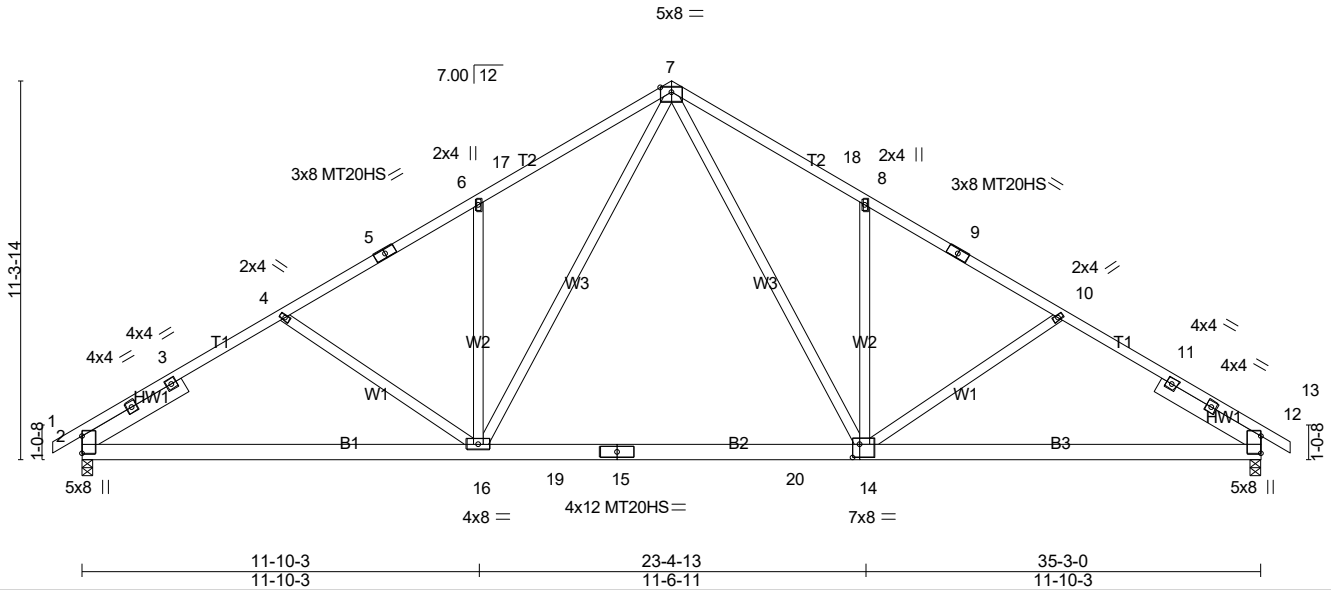


Plate Offsets (X,Y)-- [14:0-2-8,0-4-12]

| LOADING (psf)    | SPACING-             | CSI.      | DEFL.    | in (loc)    | l/defl | L/d | PLATES | GRIP                   |
|------------------|----------------------|-----------|----------|-------------|--------|-----|--------|------------------------|
| TCLL (roof) 20.0 | 2-0-0                | TC 0.90   | Vert(LL) | -0.41 14-16 | >999   | 240 | MT20   | 244/190                |
| Snow (Pf) 20.0   | Plate Grip DOL 1.15  | BC 0.89   | Vert(CT) | -0.56 14-16 | >756   | 180 | MT20HS | 187/143                |
| TCDL 10.0        | Lumber DOL 1.15      | WB 0.55   | Horz(CT) | 0.06 12     | n/a    | n/a |        |                        |
| BCLL 0.0 *       | Rep Stress Incr YES  | Matrix-SH |          |             |        |     |        |                        |
| BCDL 10.0        | Code IRC2018/TPI2014 |           |          |             |        |     |        | Weight: 241 lb FT = 0% |

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 - 3-6-11, Right 2x6 SP No.2 - 3-6-11

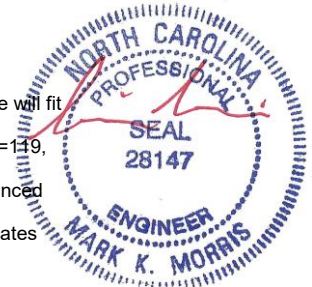
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1463/0-3-8 (min. 0-1-12), 12=1463/0-3-8 (min. 0-1-12)  
 Max Horz 2=-213(LC 10)  
 Max Uplift 2=-119(LC 14), 12=-119(LC 15)  
 Max Grav 2=1500(LC 24), 12=1500(LC 25)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2207/164, 3-4=-2120/194, 4-5=-1956/144, 5-6=-1893/159, 6-17=-2030/262,  
 7-17=-1947/289, 7-18=-1947/289, 8-18=-2030/262, 8-9=-1893/160, 9-10=-1956/144,  
 10-11=-2120/194, 11-12=-2207/165  
 BOT CHORD 2-16=-220/1902, 16-19=-6/1273, 15-19=-6/1273, 15-20=-6/1273, 14-20=-6/1273,  
 12-14=-78/1744  
 WEBS 7-14=-191/1047, 8-14=-490/199, 7-16=-191/1047, 6-16=-490/199

- NOTES-** (11-12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=119, 12=119.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

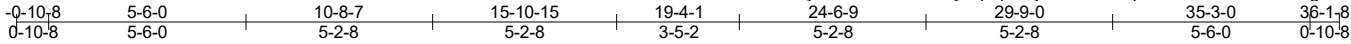


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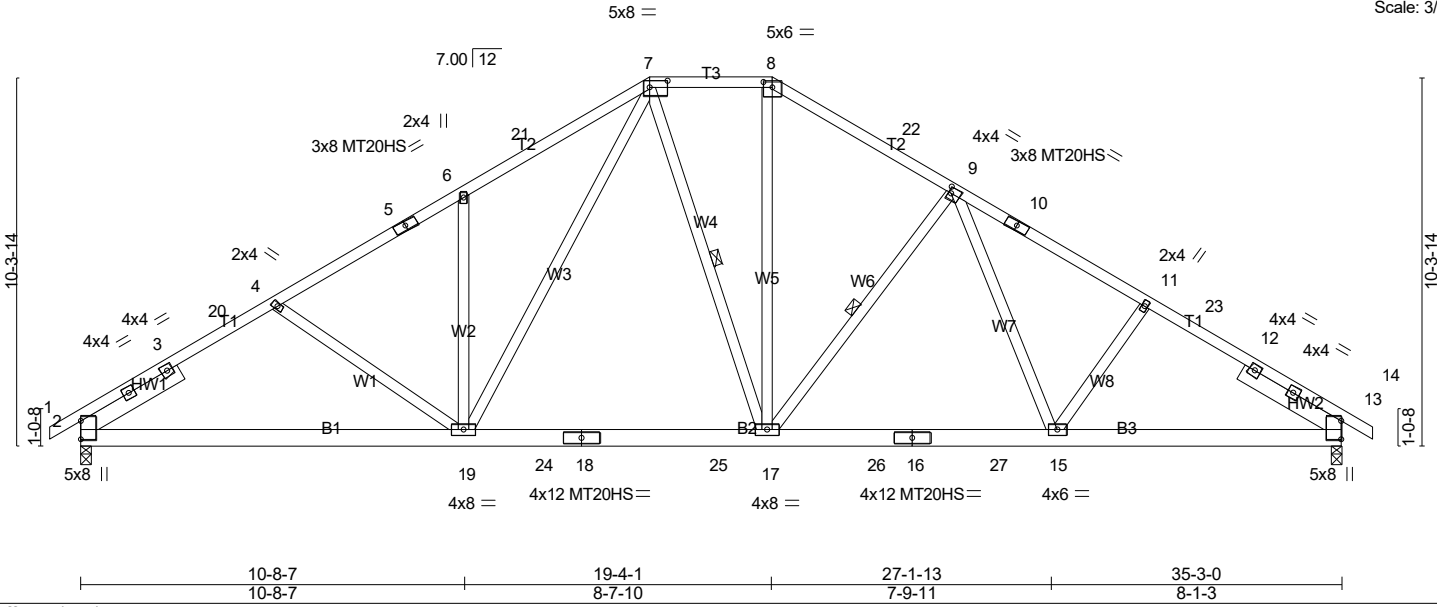
**LOAD CASE(S)** Standard  
**Warning!** Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|                    |               |                   |          |          |   |         |
|--------------------|---------------|-------------------|----------|----------|---|---------|
| Job<br>21-1987-R01 | Truss<br>R02A | Truss Type<br>Hip | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C. | # 26540 |
|--------------------|---------------|-------------------|----------|----------|---|---------|

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:25 2021 Page 1  
 ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-ISkj6UIR5hAXfq9TLuFQkxxSRERK6LgbU29NhnzOOGu



Scale: 3/16"=1'



|  |                      |             |                               |                |             |
|--|----------------------|-------------|-------------------------------|----------------|-------------|
| Plate Offsets (X,Y)-- [7:0-6-0,0-2-4], [8:0-3-0,0-1-12], [9:0-1-0,0-2-0] |                      |             |                               |                |             |
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>                  | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL (roof) 20.0   | 2-0-0                | TC 0.74     | in (loc) l/defl L/d           | MT20           | 244/190     |
| Snow (Pf) 20.0   | Plate Grip DOL 1.15  | BC 0.72     | Vert(LL) -0.21 17-19 >999 240 | MT20HS         | 187/143     |
| TCDL 10.0  | Lumber DOL 1.15      | WB 0.59     | Vert(CT) -0.29 17-19 >999 180 |                |             |
| BCLL 0.0 *   | Rep Stress Incr YES  | Matrix-SH   | Horz(CT) 0.08 13 n/a n/a      |                |             |
| BCDL 10.0  | Code IRC2018/TPI2014 |             |                               | Weight: 254 lb | FT = 0%     |

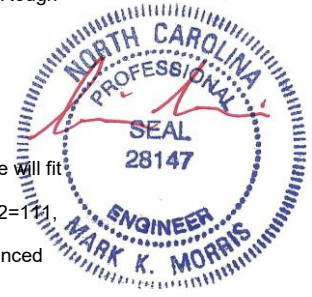
**LUMBER-**  
 TOP CHORD 2x4 SP No.2 \*Except\*  
 T1: 2x4 SP SS  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 - 3-2-11, Right 2x6 SP No.2 - 3-2-13

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-9-5 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 7-17, 9-17  
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1463/0-3-8 (min. 0-2-5), 13=1463/0-3-8 (min. 0-2-5)  
 Max Horz 2=193(LC 11)  
 Max Uplift 2=-111(LC 14), 13=-111(LC 15)  
 Max Grav 2=1939(LC 39), 13=1939(LC 39)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2923/152, 3-20=-2829/168, 4-20=-2782/178, 4-5=-2604/135, 5-6=-2379/149,  
 6-21=-2681/243, 7-21=-2521/266, 7-8=-1716/169, 8-22=-1975/161, 9-22=-2133/138,  
 9-10=-2460/182, 10-11=-2687/168, 11-23=-2794/164, 12-23=-2841/152, 12-13=-2936/137  
 BOT CHORD 2-19=-200/2358, 19-24=-7/1712, 18-24=-7/1712, 18-25=-7/1712, 17-25=-7/1712,  
 17-26=-1/2148, 16-26=-1/2148, 16-27=-1/2148, 15-27=-1/2148, 13-15=-62/2354  
 WEBS 6-19=-655/180, 7-19=-178/1071, 7-17=-125/292, 8-17=-48/803, 9-17=-736/175,  
 9-15=-33/334

- NOTES-** (12-13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=-111, 13=111.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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Continued on page 2 Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|             |       |            |     |     |  |
|-------------|-------|------------|-----|-----|--|
| Job         | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01 | R02A  | Hip        | 1   | 1   | Job Reference (optional) # 26540                                   |

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:26 2021 Page 2  
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- 12) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



4/21/2021

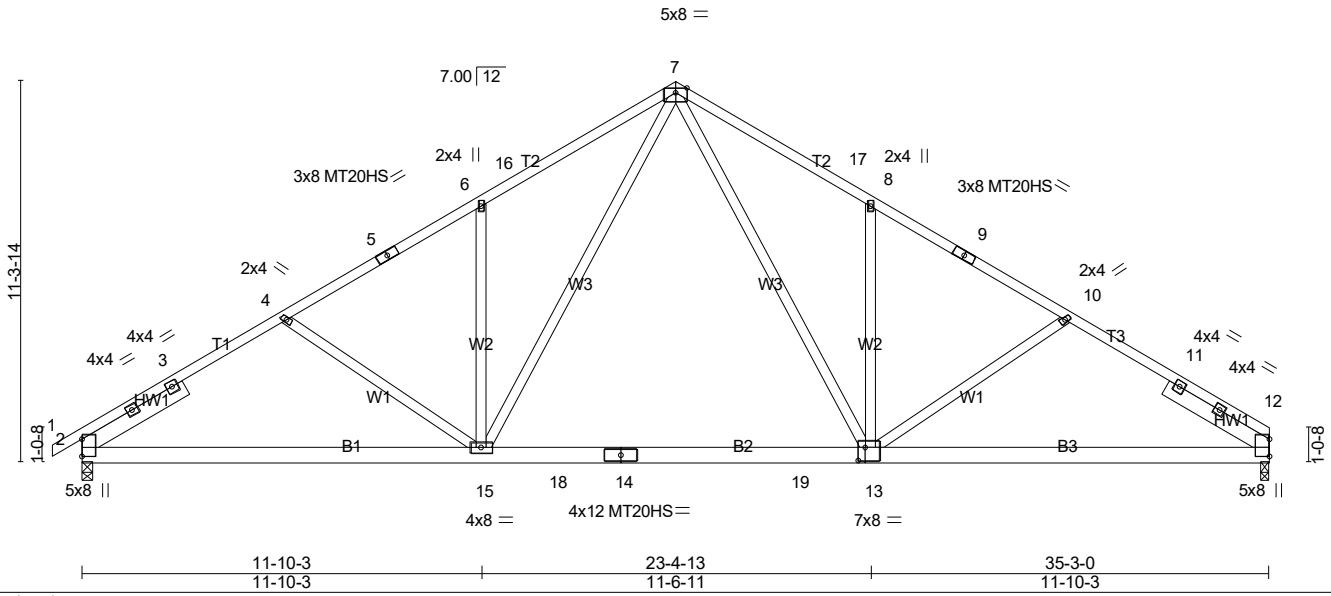
**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D\*Onofrio Drive, Madison, WI 53719.

|                    |              |                      |          |          |   |         |
|--------------------|--------------|----------------------|----------|----------|---|---------|
| Job<br>21-1987-R01 | Truss<br>R03 | Truss Type<br>COMMON | Qty<br>2 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, NC | # 26540 |
|--------------------|--------------|----------------------|----------|----------|---|---------|

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:27 2021 Page 1  
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Scale = 1:68.4



|   |                       |             |                                  |                |             |
|---|-----------------------|-------------|----------------------------------|----------------|-------------|
| Plate Offsets (X,Y)-- [13:0-2-8,0-4-12] |                       |             |                                  |                |             |
| <b>LOADING</b> (psf)                    | <b>SPACING-</b> 2-0-0 | <b>CSI.</b> | <b>DEFL.</b> in (loc) l/defl L/d | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL (roof) 20.0                        | Plate Grip DOL 1.15   | TC 0.90     | Vert(LL) -0.41 13-15 >999 240    | MT20           | 244/190     |
| Snow (Pf) 20.0                          | Lumber DOL 1.15       | BC 0.89     | Vert(CT) -0.56 13-15 >756 180    | MT20HS         | 187/143     |
| TCDL 10.0                               | Rep Stress Incr YES   | WB 0.56     | Horz(CT) 0.06 12 n/a n/a         |                |             |
| BCLL 0.0 *                              | Code IRC2018/TPI2014  | Matrix-SH   |                                  |                |             |
| BCDL 10.0                               |                       |             |                                  | Weight: 239 lb | FT = 0%     |

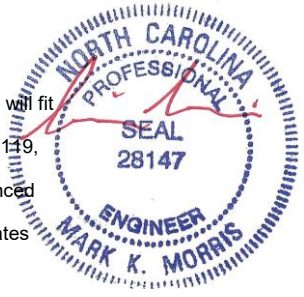
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 - 3-6-11, Right 2x6 SP No.2 - 3-6-11

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1463/0-3-8 (min. 0-1-12), 12=1409/0-3-8 (min. 0-1-11)  
 Max Horz 2=-214(LC 10)  
 Max Uplift 2=-119(LC 14), 12=-105(LC 15)  
 Max Grav 2=1500(LC 24), 12=1451(LC 25)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2208/164, 3-4=-2120/194, 4-5=-1957/144, 5-6=-1893/159, 6-16=-2031/263,  
 7-16=-1948/289, 7-17=-1949/289, 8-17=-2032/263, 8-9=-1895/160, 9-10=-1974/144,  
 10-11=-2124/195, 11-12=-2210/166  
 BOT CHORD 2-15=-218/1904, 15-18=-4/1275, 14-18=-4/1275, 14-19=-4/1275, 13-19=-4/1275,  
 12-13=-75/1748  
 WEBS 7-13=-191/1049, 8-13=-489/198, 7-15=-191/1047, 6-15=-490/199

- NOTES-** (11-12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=119, 12=105.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

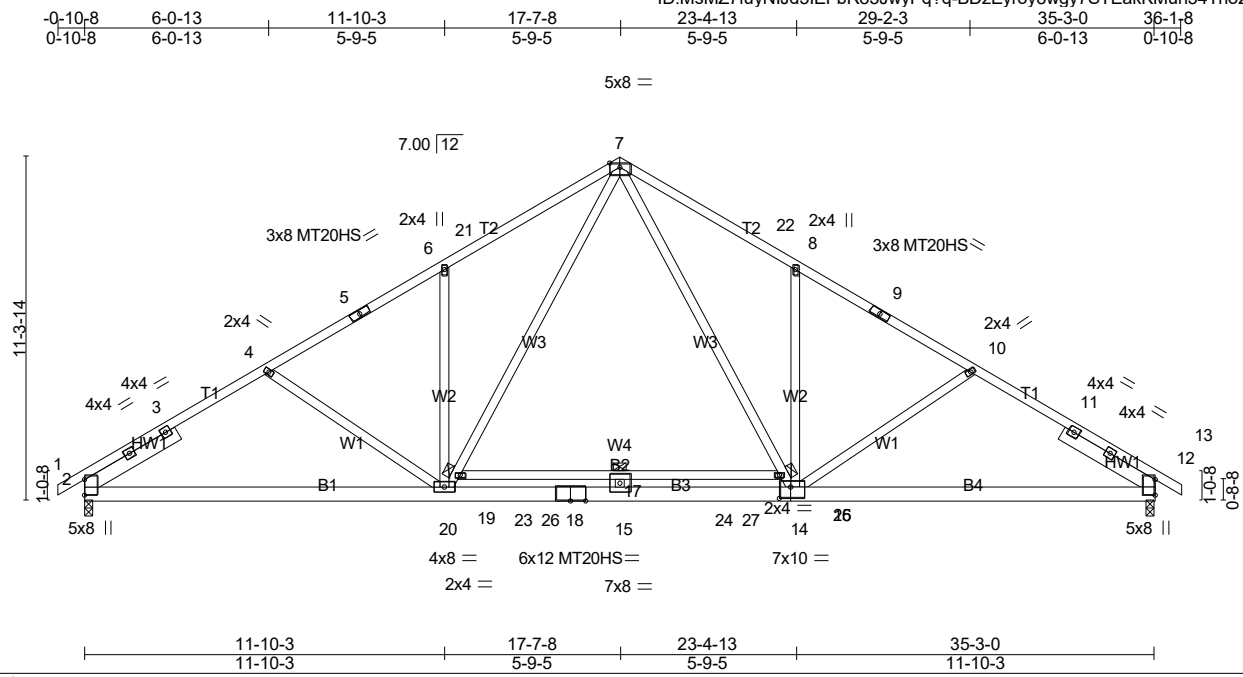


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**LOAD CASE(S)** Standard  
**Warning!** Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|                    |               |                      |          |          |   |         |
|--------------------|---------------|----------------------|----------|----------|---|---------|
| Job<br>21-1987-R01 | Truss<br>R03A | Truss Type<br>Common | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C. | # 26540 |
|--------------------|---------------|----------------------|----------|----------|---|---------|

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:29 2021 Page 1  
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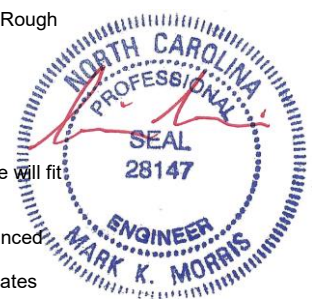
|  |                      |                 |                            |                        |
|--|----------------------|-----------------|----------------------------|------------------------|
| Plate Offsets (X,Y)-- [14:0-4-8,0-4-8] | 11-10-3<br>11-10-3   | 17-7-8<br>5-9-5 | 23-4-13<br>5-9-5           | 35-3-0<br>11-10-3      |
| <b>LOADING</b> (psf)                   | <b>SPACING-</b>      | <b>CSI.</b>     | <b>DEFL.</b>               | <b>PLATES</b>          |
| TCLL (roof) 20.0                       | 2-0-0                | TC 0.99         | in (loc) l/defl L/d        | MT20 244/190           |
| Snow (Pf) 20.0                         | Plate Grip DOL 1.15  | BC 0.95         | Vert(LL) -0.58 17 >730 240 | MT20HS 187/143         |
| TCDL 10.0                              | Lumber DOL 1.15      | WB 0.57         | Vert(CT) -0.83 17 >512 180 |                        |
| BCLL 0.0 *                             | Rep Stress Incr YES  | Matrix-SH       | Horz(CT) 0.06 12 n/a n/a   |                        |
| BCDL 10.0                              | Code IRC2018/TPI2014 |                 |                            | Weight: 257 lb FT = 0% |

|  |  |
|--|--|
| <b>LUMBER-</b>   | <b>BRACING-</b>  |
| TOP CHORD 2x4 SP No.2 *Except*<br>T1: 2x4 SP No.1                                  | TOP CHORD Structural wood sheathing directly applied.  |
| BOT CHORD 2x4 SP No.2 *Except*<br>B1: 2x6 SP No.1, B3: 2x6 SP DSS, B4: 2x6 SP No.2 | BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:<br>6-0-0 oc bracing: 16-19   |
| WEBS 2x4 SP No.3   | MiTek recommends that Stabilizers and required cross bracing<br>be installed during truss erection, in accordance with Stabilizer<br>Installation guide. |
| SLIDER Left 2x6 SP No.2 - 3-6-11, Right 2x6 SP No.2 - 3-6-11                       |  |

**REACTIONS.** (lb/size) 2=1571/0-3-8 (min. 0-2-1), 12=1571/0-3-8 (min. 0-2-1)  
 Max Horz 2=-213(LC 10)  
 Max Uplift 2=-65(LC 14), 12=-65(LC 15)  
 Max Grav 2=1744(LC 24), 12=1744(LC 25)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2657/65, 3-4=-2568/95, 4-5=-2429/39, 5-6=-2365/55, 6-21=-2507/156,  
 7-21=-2424/183, 7-22=-2418/183, 8-22=-2501/157, 8-9=-2360/55, 9-10=-2424/40,  
 10-11=-2562/95, 11-12=-2651/65  
 BOT CHORD 2-20=-139/2266, 20-23=0/1552, 18-23=0/1552, 15-18=0/1552, 15-24=0/1552, 24-25=0/1552,  
 14-25=0/1552, 12-14=0/2103  
 WEBS 7-16=-130/1311, 14-16=-158/1220, 8-14=-493/196, 19-20=-159/1231, 7-19=-130/1321,  
 6-20=-493/196, 15-17=-365/0

- NOTES-** (11-12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) All plates are MT20 plates unless otherwise indicated.
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.



4/21/2021

Continued on Page 2 Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|             |       |            |     |     |  |
|-------------|-------|------------|-----|-----|--|
| Job         | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01 | R03A  | Common     | 1   | 1   | Job Reference (optional) # 26540                                   |

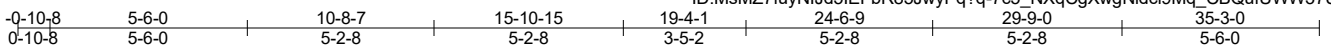
8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:30 2021 Page 2  
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**LOAD CASE(S)** Standard

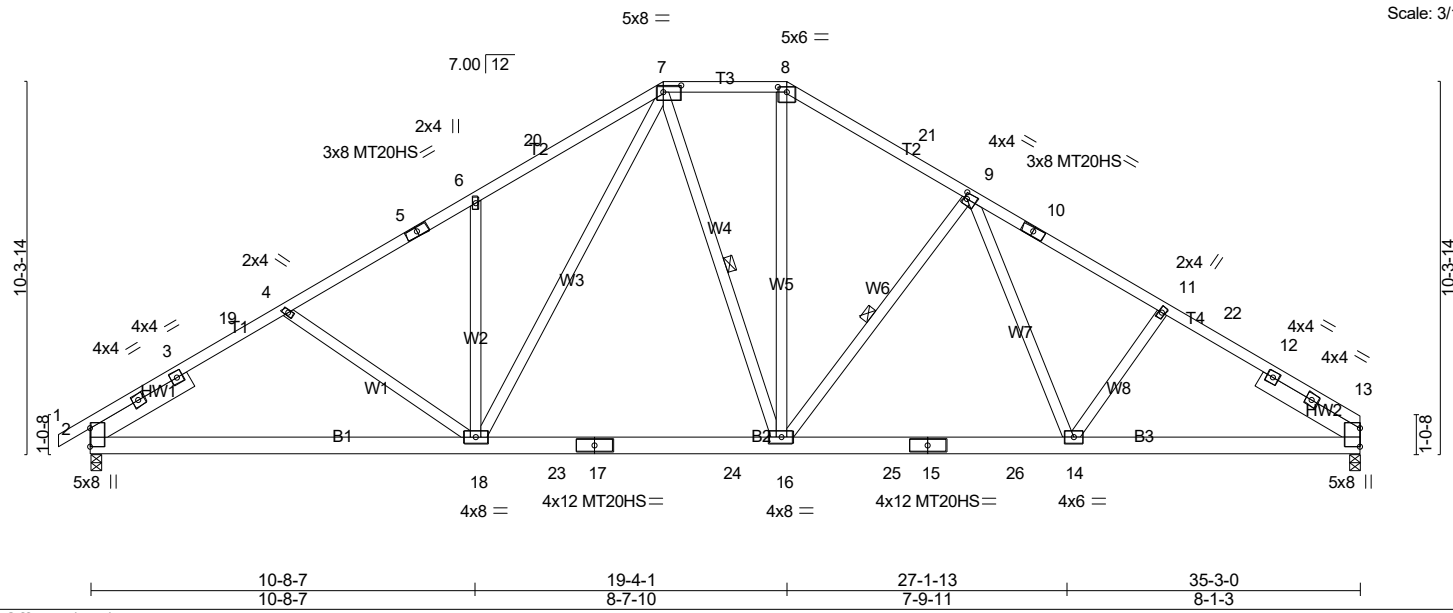


4/21/2021

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Scale: 3/16"=1'



| LOADING (psf) |       | SPACING-             |       | CSI.      |      | DEFL.    |                      | PLATES |         | GRIP |                        |
|---------------|-------|----------------------|-------|-----------|------|----------|----------------------|--------|---------|------|------------------------|
| TCLL (roof)   | 20.0  | Plate Grip DOL       | 2.0-0 | TC        | 1.00 | Vert(LL) | -0.21 16-18 >999 240 | MT20   | 244/190 |      |                        |
| Snow (Pf)     | 20.0  | Lumber DOL           | 1.15  | BC        | 0.74 | Vert(CT) | -0.30 16-18 >999 180 | MT20HS | 187/143 |      |                        |
| TCDL          | 10.0  | Rep Stress Incr      | YES   | WB        | 0.59 | Horz(CT) | 0.08 13 n/a n/a      |        |         |      |                        |
| BCLL          | 0.0 * | Code IRC2018/TPI2014 |       | Matrix-SH |      |          |                      |        |         |      | Weight: 253 lb FT = 0% |
| BCDL          | 10.0  |                      |       |           |      |          |                      |        |         |      |                        |

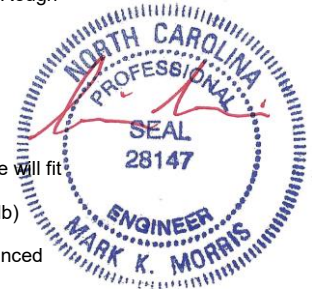
**LUMBER-**  
 TOP CHORD 2x4 SP No.2 \*Except\*  
 T1,T4: 2x4 SP No.1  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 - 3-2-11, Right 2x6 SP No.2 - 3-2-13

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 7-16, 9-16  
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1463/0-3-8 (min. 0-2-5), 13=1409/0-3-8 (min. 0-2-4)  
 Max Horz 2=-195(LC 10)  
 Max Uplift 2=-111(LC 14), 13=-97(LC 15)  
 Max Grav 2=1940(LC 39), 13=1886(LC 39)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2924/152, 3-19=-2831/168, 4-19=-2784/178, 4-5=-2605/135, 5-6=-2380/149,  
 6-20=-2683/243, 7-20=-2522/267, 7-8=-1717/169, 8-21=-1977/161, 9-21=-2135/138,  
 9-10=-2463/183, 10-11=-2690/169, 11-22=-2798/166, 12-22=-2845/153, 12-13=-2938/148  
 BOT CHORD 2-18=-198/2361, 18-23=-5/1714, 17-23=-5/1714, 17-24=-5/1714, 16-24=-5/1714,  
 16-25=0/2151, 15-25=0/2151, 15-26=0/2151, 14-26=0/2151, 13-14=-59/2360  
 WEBS 6-18=-657/180, 7-18=-179/1071, 7-16=-123/293, 8-16=-49/805, 9-16=-738/176,  
 9-14=-34/335

- NOTES-** (12-13)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) Provide adequate drainage to prevent water ponding.
  - 7) All plates are MT20 plates unless otherwise indicated.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 2=111.
  - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



4/21/2021

**Continued on Page 2** Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|             |       |            |     |     |  |
|-------------|-------|------------|-----|-----|--|
| Job         | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01 | R03B  | HIP        | 1   | 1   | Job Reference (optional) # 26540                                   |

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:32 2021 Page 2  
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- 12) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

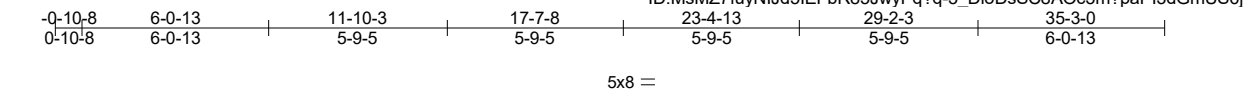
**LOAD CASE(S)** Standard



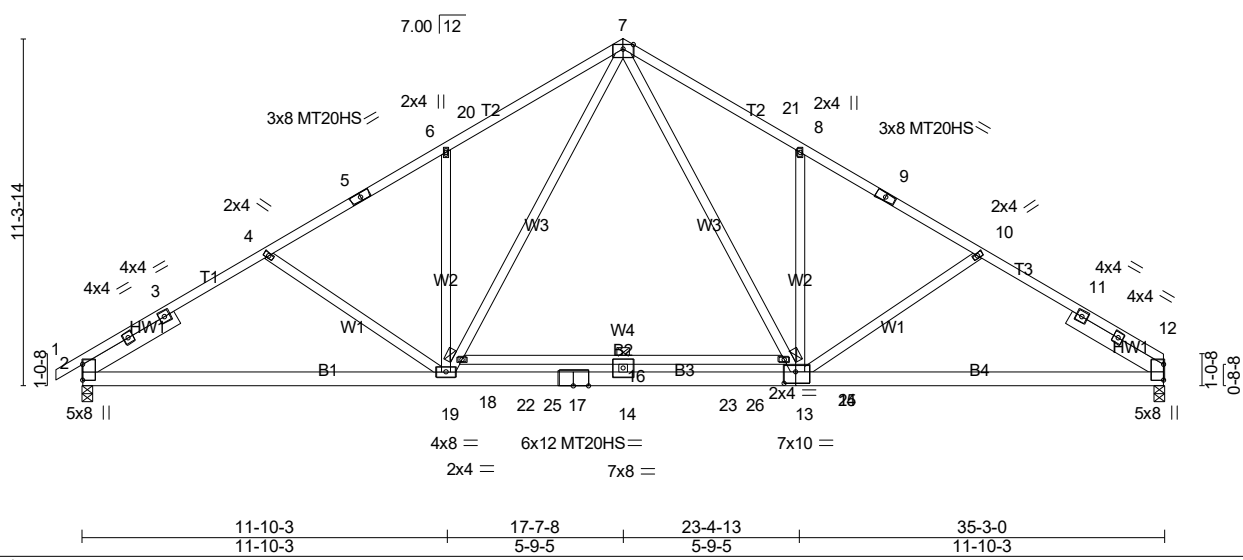
4/21/2021

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Scale = 1:75.1



| LOADING (psf) |       | SPACING-             |       | CSI.      |      | DEFL.    |       |          |    | PLATES |      | GRIP |     |                |         |         |  |
|---------------|-------|----------------------|-------|-----------|------|----------|-------|----------|----|--------|------|------|-----|----------------|---------|---------|--|
| TCLL (roof)   | 20.0  | Plate Grip DOL       | 2.0-0 | TC        | 0.99 | Vert(LL) | -0.58 | in (loc) | 16 | l/defl | >730 | L/d  | 240 | MT20           | 244/190 |         |  |
| Snow (Pf)     | 20.0  | Lumber DOL           | 1.15  | BC        | 0.95 | Vert(CT) | -0.83 |          | 16 |        | >512 |      | 180 | MT20HS         | 187/143 |         |  |
| TCDL          | 10.0  | Rep Stress Incr      | YES   | WB        | 0.57 | Horz(CT) | 0.06  |          | 12 | n/a    | n/a  |      |     |                |         |         |  |
| BCLL          | 0.0 * | Code IRC2018/TPI2014 |       | Matrix-SH |      |          |       |          |    |        |      |      |     |                |         |         |  |
| BCDL          | 10.0  |                      |       |           |      |          |       |          |    |        |      |      |     |                |         |         |  |
|               |       |                      |       |           |      |          |       |          |    |        |      |      |     | Weight: 255 lb |         | FT = 0% |  |

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 \*Except\*  
 T1, T3: 2x4 SP No.1  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 B1: 2x6 SP No.1, B3: 2x6 SP DSS, B4: 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 - 3-6-11, Right 2x6 SP No.2 - 3-6-11

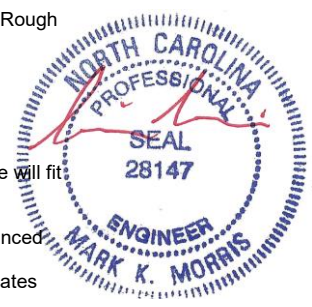
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 6-0-0 oc bracing: 15-18

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1572/0-3-8 (min. 0-2-1), 12=1518/0-3-8 (min. 0-2-0)  
 Max Horz 2=-214(LC 10)  
 Max Uplift 2=-65(LC 14), 12=-51(LC 15)  
 Max Grav 2=1744(LC 24), 12=1695(LC 25)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2657/65, 3-4=-2568/95, 4-5=-2430/39, 5-6=-2366/55, 6-20=-2508/156,  
 7-20=-2424/183, 7-21=-2421/183, 8-21=-2504/157, 8-9=-2362/56, 9-10=-2426/40,  
 10-11=-2566/96, 11-12=-2655/66  
 BOT CHORD 2-19=-138/2267, 19-22=0/1554, 17-22=0/1554, 14-17=0/1554, 14-23=0/1554, 23-24=0/1554,  
 13-24=0/1554, 12-13=0/2107  
 WEBS 7-15=-130/1313, 13-15=-159/1222, 8-13=-492/196, 18-19=-159/1231, 7-18=-130/1321,  
 6-19=-493/196, 14-16=-365/0

- NOTES-** (11-12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 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, 12.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.



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Continued on Page 2 Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|             |       |            |     |     |  |
|-------------|-------|------------|-----|-----|--|
| Job         | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01 | R04   | COMMON     | 5   | 1   | Job Reference (optional) # 26540                                   |

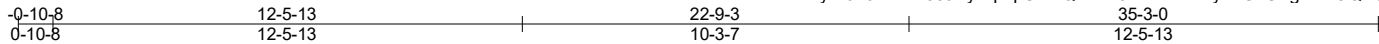
8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:33 2021 Page 2  
 ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-3\_DloDsSC8AOc3m?paPI3dGmUS6j\_znKI5ozJzOOGm

**LOAD CASE(S)** Standard



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Scale = 1:61.3

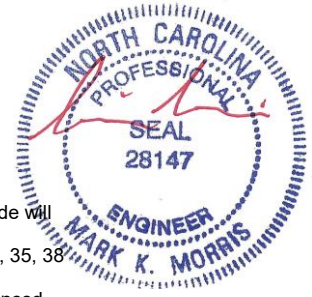
|   |                      |             |                          |               |                        |
|---|----------------------|-------------|--------------------------|---------------|------------------------|
| Plate Offsets (X,Y)-- [9:0-6-8,0-2-8], [15:0-6-8,0-2-8], [30:0-3-8,0-1-8], [36:0-3-8,0-1-8] |                      |             |                          |               |                        |
| <b>LOADING</b> (psf)  | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>             | <b>PLATES</b> | <b>GRIP</b>            |
| TCLL (roof) 20.0  | 2-0-0                | TC 0.13     | in (loc) l/defl L/d      | MT20          | 244/190                |
| Snow (Pf) 20.0  | Plate Grip DOL 1.15  | BC 0.06     | Vert(LL) 0.00 1 n/r 180  | MT20HS        | 187/143                |
| TCDL 10.0   | Lumber DOL 1.15      | WB 0.27     | Vert(CT) -0.00 1 n/r 80  |               |                        |
| BCLL 0.0 *  | Rep Stress Incr YES  | Matrix-R    | Horz(CT) 0.00 23 n/a n/a |               |                        |
| BCDL 10.0   | Code IRC2018/TPI2014 |             |                          |               | Weight: 250 lb FT = 0% |

|                       |  |
|-----------------------|--|
| <b>LUMBER-</b>        | <b>BRACING-</b>  |
| TOP CHORD 2x4 SP No.2 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  |
| BOT CHORD 2x4 SP No.2 | BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  |
| WEBS 2x4 SP No.3      |  |
| OTHERS 2x4 SP No.3    | MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide. |

**REACTIONS.** All bearings 35-3-0.  
 (lb) - Max Horz 43=172(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 43, 23, 33, 34, 35, 38, 39, 40, 41, 32, 31, 28, 27, 26, 25, 24 except 42=-107(LC 14)  
 Max Grav All reactions 250 lb or less at joint(s) 43, 23, 42, 24 except 33=296(LC 44), 34=299(LC 44), 35=297(LC 52), 37=296(LC 47), 38=323(LC 47), 39=324(LC 47), 40=275(LC 47), 41=259(LC 39), 32=299(LC 44), 31=295(LC 52), 29=286(LC 49), 28=325(LC 49), 27=324(LC 49), 26=275(LC 49), 25=254(LC 39)

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

- NOTES-** (17-18)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 5) Unbalanced snow loads have been considered for this design.
  - 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 7) Provide adequate drainage to prevent water ponding.
  - 8) All plates are MT20 plates unless otherwise indicated.
  - 9) All plates are 2x4 MT20 unless otherwise indicated.
  - 10) Gable requires continuous bottom chord bearing.
  - 11) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 12) Gable studs spaced at 2-0-0 oc.
  - 13) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 14) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 43, 23, 33, 34, 35, 38, 39, 40, 41, 32, 31, 28, 27, 26, 25, 24 except (jt=lb) 42=107.
  - 16) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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**Continued on Page 2** Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|             |       |            |     |     |  |
|-------------|-------|------------|-----|-----|--|
| Job         | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01 | R05   | GABLE      | 1   | 1   | Job Reference (optional) # 26540                                   |

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:37 2021 Page 2  
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- 17) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 18) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard

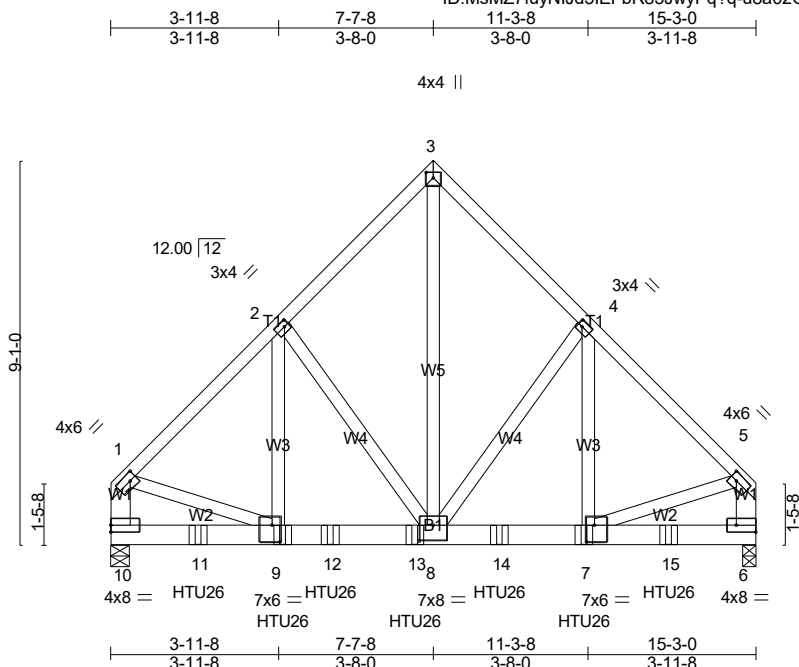


4/21/2021

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|                    |              |                             |          |          |  |
|--------------------|--------------|-----------------------------|----------|----------|--|
| Job<br>21-1987-R01 | Truss<br>R06 | Truss Type<br>Common Girder | Qty<br>1 | Ply<br>2 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C.<br># 26540 |
|--------------------|--------------|-----------------------------|----------|----------|--|

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8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:39 2021 Page 1



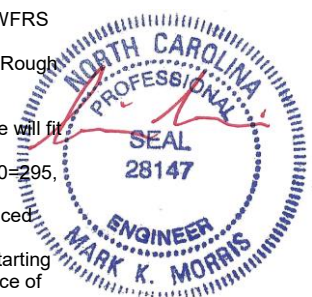
|  |                      |             |                |     |       |        |     |                |             |
|--|----------------------|-------------|----------------|-----|-------|--------|-----|----------------|-------------|
| Plate Offsets (X,Y)-- [1:0-2-0,0-2-0], [2:0-1-4,0-1-8], [3:0-1-8,0-2-0], [4:0-1-4,0-1-8], [5:0-2-0,0-2-0], [6:Edge,0-2-0], [7:0-2-4,0-4-12], [8:0-4-0,0-4-8], [9:0-2-4,0-4-12] |                      |             |                |     |       |        |     |                |             |
| <b>LOADING</b> (psf)   | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>   | in  | (loc) | l/defl | L/d | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL (roof) 20.0   | 2-0-0                | TC 0.34     | Vert(LL) -0.06 | 8-9 | >999  | 240    |     | MT20           | 244/190     |
| Snow (Pf) 20.0   | Plate Grip DOL 1.15  | BC 0.84     | Vert(CT) -0.11 | 8-9 | >999  | 180    |     |                |             |
| TCDL 10.0  | Lumber DOL 1.15      | WB 0.79     | Horz(CT) 0.02  | 6   | n/a   | n/a    |     |                |             |
| BCLL 0.0 *   | Rep Stress Incr NO   | Matrix-SH   |                |     |       |        |     |                |             |
| BCDL 10.0  | Code IRC2018/TPI2014 |             |                |     |       |        |     | Weight: 255 lb | FT = 0%     |

|                                  |  |
|----------------------------------|--|
| <b>LUMBER-</b>                   | <b>BRACING-</b>  |
| TOP CHORD 2x4 SP No.2            | TOP CHORD Structural wood sheathing directly applied or 5-0-12 oc purlins, except end verticals. |
| BOT CHORD 2x6 SP No.2            | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.                                   |
| WEBS 2x4 SP No.3 *Except*        |  |
| W5: 2x4 SP No.2, W1: 2x6 SP No.2 |  |

**REACTIONS.** (lb/size) 10=5942/0-5-8 (min. 0-3-10), 6=5877/0-3-8 (min. 0-3-7)  
 Max Horz 10=-180(LC 8)  
 Max Uplift 10=-295(LC 11), 6=-357(LC 10)  
 Max Grav 10=6189(LC 4), 6=5877(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-5817/320, 2-3=-4158/333, 3-4=-4158/333, 4-5=-5314/366, 1-10=-5383/280, 5-6=-4889/321  
 BOT CHORD 10-11=-187/535, 9-11=-187/535, 9-12=-243/4057, 12-13=-243/4057, 8-13=-243/4057, 8-14=-200/3702, 7-14=-200/3702, 7-15=-51/518, 6-15=-51/518  
 WEBS 3-8=-389/5602, 4-8=-1435/243, 4-7=-160/1818, 2-8=-1943/188, 2-9=-87/2583, 1-9=-159/3812, 5-7=-185/3379

- NOTES-** (12-13)
- 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 0-5-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 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 1-0-0 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) 10=295, 6=357.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 13-2-4 to connect truss(es) R04 (1 ply 2x6 SP), R03 (1 ply 2x6 SP), R03B (1 ply 2x6 SP) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.



4/21/2021

Continued on page 2  
 Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|             |       |               |     |     |  |
|-------------|-------|---------------|-----|-----|--|
| Job         | Truss | Truss Type    | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01 | R06   | Common Girder | 1   | 2   | Job Reference (optional) # 26540                                   |

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:40 2021 Page 2  
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- 12) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-3=-60, 3-5=-60, 6-10=-20
- Concentrated Loads (lb)
  - Vert: 7=-1389(B) 9=-1498(B) 11=-1498(B) 12=-1498(B) 13=-1498(B) 14=-1389(B) 15=-1866(B)



4/21/2021

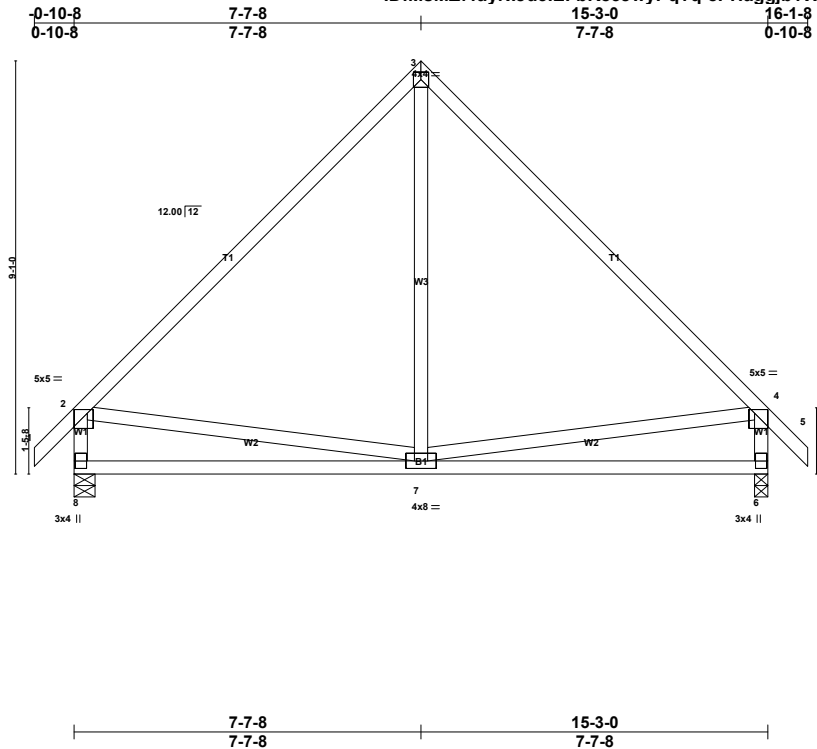
**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|                    |              |                      |          |          |  |
|--------------------|--------------|----------------------|----------|----------|--|
| Job<br>21-1987-R01 | Truss<br>R07 | Truss Type<br>Common | Qty<br>5 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE<br># 26540 |
|--------------------|--------------|----------------------|----------|----------|--|

Atlantic Building Components, Moncks Corner, South Carolina

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Scale = 1:50.6

|  |                      |           |                             |                       |
|--|----------------------|-----------|-----------------------------|-----------------------|
| Plate Offsets (X,Y)-- [2:0-3-8,0-1-0], [4:0-3-8,0-1-0] |                      |           |                             |                       |
| 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 0.72   | Vert(LL) -0.06 7-8 >999 240 | MT20 244/190          |
| TCDL 10.0  | Lumber DOL 1.15      | BC 0.50   | Vert(CT) -0.13 7-8 >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 IRC2018/TPI2014 | Matrix-SH |                             | Weight: 96 lb FT = 0% |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
W1: 2x4 SP No.2

**BRACING-**  
TOP CHORD  
Structural wood sheathing directly applied or 5-9-2 oc purlins, except end verticals.  
BOT CHORD  
Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

- 6) \* 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 1-0-0 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 40 lb uplift at joint 8 and 40 lb uplift at joint 6.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)**  
Standard

**REACTIONS. (lb/size)**

|            |             |
|------------|-------------|
| 8 =        | 660/0-5-8   |
| 6 =        | 660/0-3-8   |
| Max Horz   |             |
| 8 =        | -202(LC 10) |
| Max Uplift |             |
| 8 =        | -40(LC 13)  |
| 6 =        | -40(LC 12)  |

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

**TOP CHORD**  
2-3=-572/105, 3-4=-572/105, 2-8=-593/71,  
4-6=-593/71

**BOT CHORD**  
7-8=-261/419, 6-7=-179/270

**WEBS**  
3-7=0/311, 2-7=-142/303, 4-7=-146/304

**NOTES- (9-10)**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); P=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Roof Cat B; Partially Exp. End Zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load non-concurrent with any other live loads.
- 6) For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



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Atlantic Building Components, Moncks Corner, South Carolina

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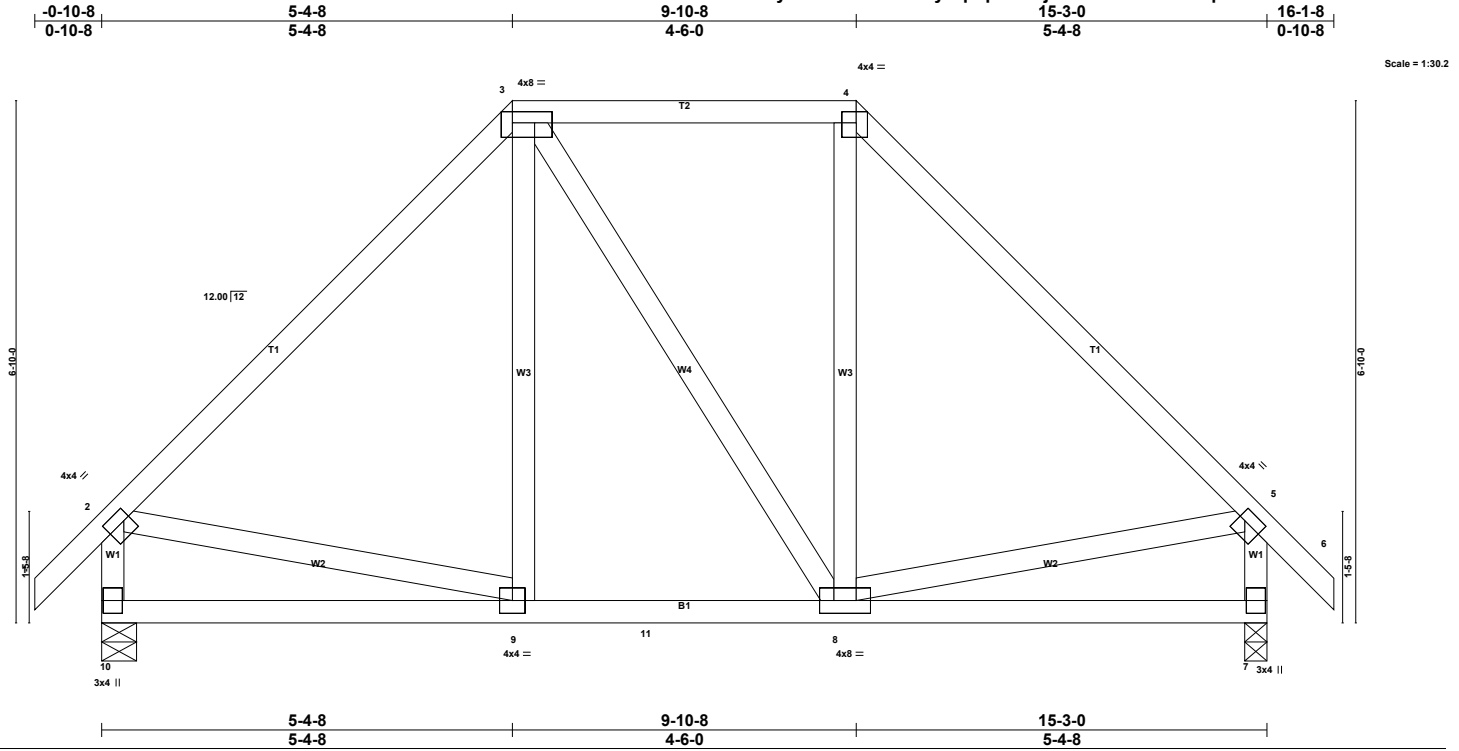


Plate Offsets (X,Y)-- [2:0-1-0,0-1-12], [3:0-6-4,0-1-12], [4:0-2-4,0-1-12], [5:0-1-0,0-1-12]

|               |                      |       |           |          |          |        |      |                |         |
|---------------|----------------------|-------|-----------|----------|----------|--------|------|----------------|---------|
| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc) | l/defl | L/d  | PLATES         | GRIP    |
| TCLL 20.0     | Plate Grip DOL       | 1.15  | TC 0.40   | Vert(LL) | -0.02    | 9-10   | >999 | MT20           | 244/190 |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.22   | Vert(CT) | -0.05    | 9-10   | >999 |                |         |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.10   | Horz(CT) | 0.00     | 7      | n/a  |                |         |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-SH |          |          |        |      | Weight: 105 lb | FT = 0% |

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
**BRACING-**  
 TOP CHORD  
 Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD  
 Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

- 7) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 10 and 37 lb uplift at joint 7.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**REACTIONS. (lb/size)**  
 10 = 660/0-5-8  
 7 = 660/0-3-8  
 Max Horz  
 10 = -158(LC 10)  
 Max Uplift  
 10 = -37(LC 12)  
 7 = -37(LC 13)

**LOAD CASE(S)**  
 Standard

**FORCES. (lb)**  
 Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD**  
 2-3=-581/59, 3-4=-326/92, 4-5=-581/58,  
 2-10=-607/61, 5-7=-607/60  
**BOT CHORD**  
 9-11=-54/365, 8-11=-54/365  
**WEBS**  
 2-9=-51/300, 5-8=-53/288

**NOTES- (10-11)**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-16; Vult=120mph (3-second gust)  
 Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B;  
 Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0;  
 Rough Cat B, Partially Exp.; Ce=1.0; Cs=1.00; Cf=1.10  
 4) This truss has been designed for a greater or smaller roof live load of 12.0 psf or 20.0 psf on overhangs not concurrent with other live loads. For required guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D\*Onofrio Drive, Madison, WI 53719.



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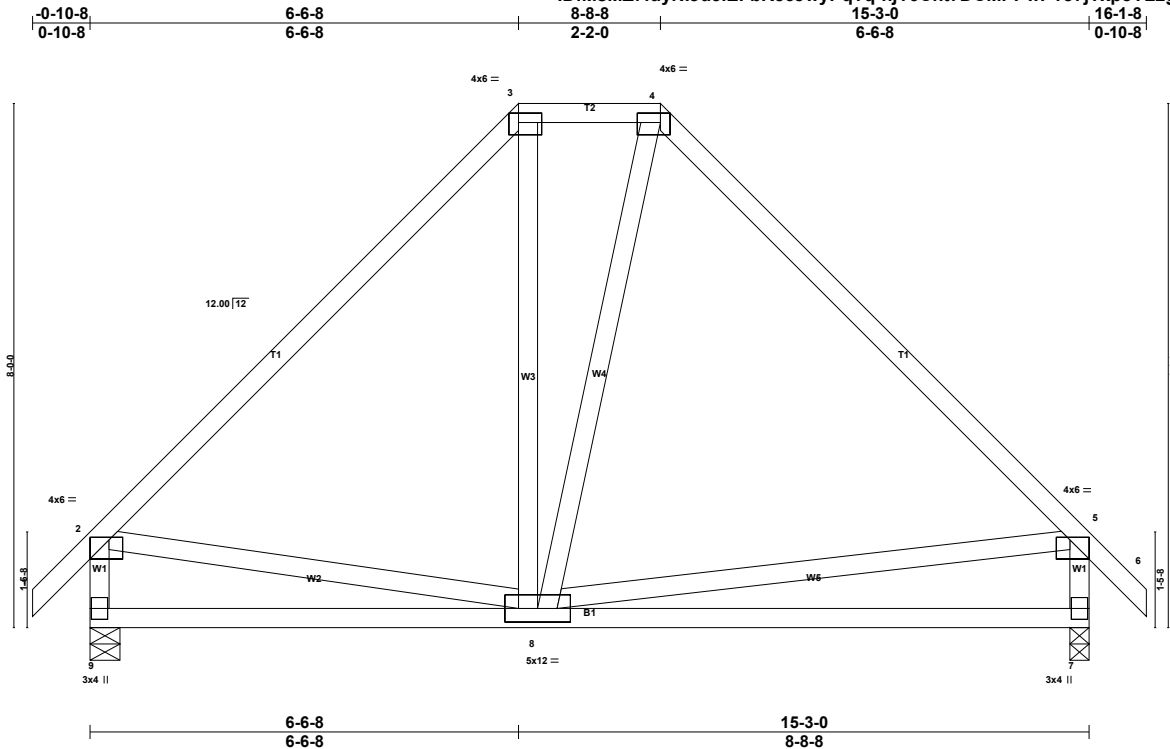


|             |       |            |     |     |   |
|-------------|-------|------------|-----|-----|---|
| Job         | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE |
| 21-1987-R01 | R07B  | Hip        | 1   | 1   | # 26540   |

Atlantic Building Components, Moncks Corner, South Carolina

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Scale = 1:35.2

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [3:0-4-4,0-1-12], [4:0-4-4,0-1-12], [5:0-3-8,Edge]

|               |                      |       |           |          |           |        |     |                |         |
|---------------|----------------------|-------|-----------|----------|-----------|--------|-----|----------------|---------|
| 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 0.69   | Vert(LL) | -0.11 7-8 | >999   | 240 | MT20           | 244/190 |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.55   | Vert(CT) | -0.21 7-8 | >840   | 180 |                |         |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.13   | Horz(CT) | 0.00 7    | n/a    | n/a |                |         |
| BCDL 10.0     | Code IRC2018/TPI2014 |       | Matrix-SH |          |           |        |     | Weight: 105 lb | FT = 0% |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
**BRACING-**  
TOP CHORD  
Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD  
Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 9 and 39 lb uplift at joint 7.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**REACTIONS. (lb/size)**

|            |             |
|------------|-------------|
| 9 =        | 660/0-5-8   |
| 7 =        | 660/0-3-8   |
| Max Horz   |             |
| 9 =        | -181(LC 10) |
| Max Uplift |             |
| 9 =        | -39(LC 12)  |
| 7 =        | -39(LC 13)  |

**LOAD CASE(S)**  
Standard

**FORCES. (lb)**  
Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD**  
2-3=-584/77, 3-4=-309/104, 4-5=-568/84,  
2-9=-605/64, 5-7=-584/75  
**BOT CHORD**  
8-9=-205/315

- NOTES- (10-11)**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust)  
Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B;  
Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs not concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) This truss has been designed for a live load of 30.0 psf on the bottom chord in all areas where a rectangular 36.0 in by 15.0 wide will fit between the bottom chord and any other

This design is based only upon parameters shown, and is for an individual building component to be installed and loaded non-concurrent with other live loads. The incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support and ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the erector. For more guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Trusses from Truss Plate Institute, 583



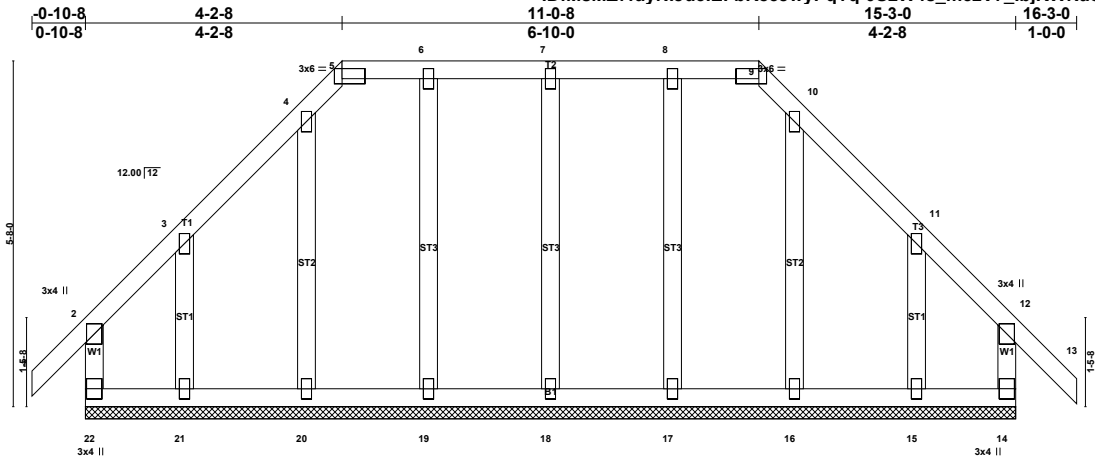
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|                    |              |                                   |          |          |  |
|--------------------|--------------|-----------------------------------|----------|----------|--|
| Job<br>21-1987-R01 | Truss<br>R08 | Truss Type<br>Hip Supported Gable | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE<br># 26540 |
|--------------------|--------------|-----------------------------------|----------|----------|--|

Atlantic Building Components, Moncks Corner, South Carolina

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Scale = 1:37.8

15-3-0  
15-3-0

Plate Offsets (X,Y)-- [5:0-4-8,0-2-0], [9:0-4-8,0-2-0]

|               |                      |          |                           |                |         |
|---------------|----------------------|----------|---------------------------|----------------|---------|
| 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 0.16  | Vert(LL) -0.00 13 n/r 180 | MT20           | 244/190 |
| TCDL 10.0     | Lumber DOL 1.15      | BC 0.07  | Vert(CT) -0.01 13 n/r 80  |                |         |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.07  | Horz(CT) -0.00 14 n/a n/a |                |         |
| BCDL 10.0     | Code IRC2018/TPI2014 | Matrix-R |                           | Weight: 102 lb | FT = 0% |

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

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 15-3-0.  
(lb) - Max Horz  
22=-138(LC 10)  
Max Uplift  
All uplift 100 lb or less at joint(s) 22, 14, 18, 19, 17 except 21=-136(LC 12), 15=-133(LC 13)  
Max Grav  
All reactions 250 lb or less at joint(s) 22, 14, 18, 19, 20, 21, 17, 16, 15

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

NOTES- (15-16)  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.  
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B, Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

5) This truss has been designed for a greater roof live load of 12.0 psf on 2.00 times the roof load of 20.0 psf on overhangs not concurrent with other live loads.  
6) Provide adequate drainage to prevent water ponding.  
7) All plates are 2x4 with 20 surface finish regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal  
8) Cable requires continuous bottom chord bearing.  
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).  
10) Gable studs spaced at 2-0-0 oc.  
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
12) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.  
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 22, 14, 18, 19, 17 except (jt=lb) 21=136, 15=133.  
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.  
15) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.  
16) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

LOAD CASE(S)  
Standard

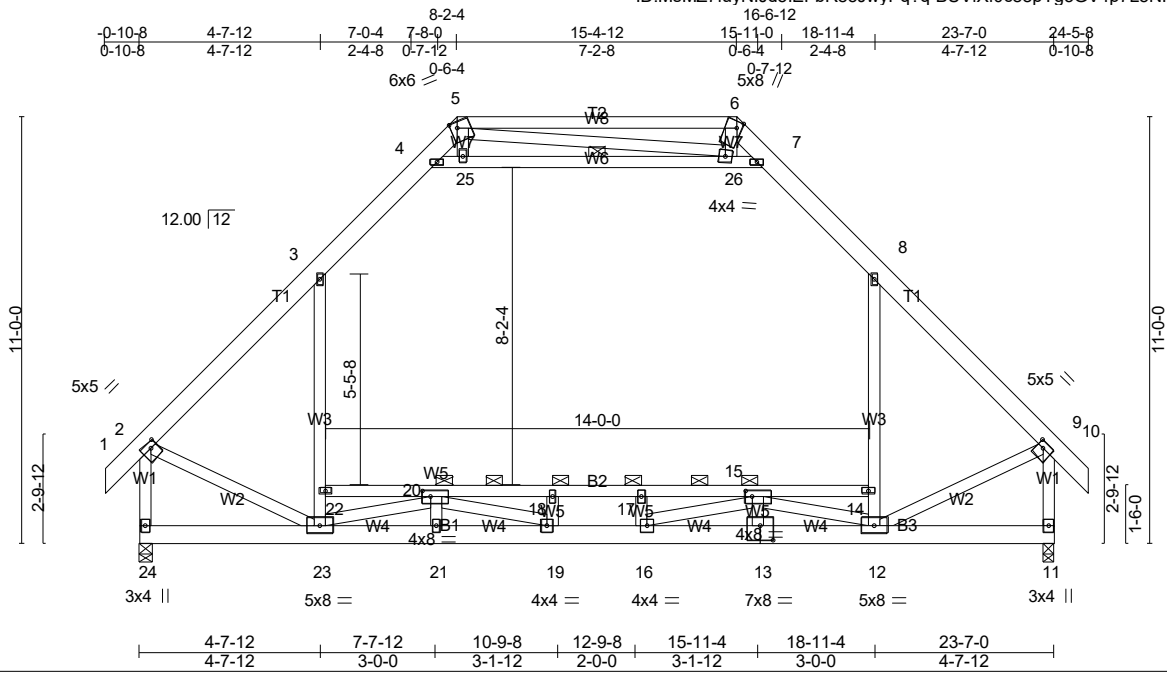


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|             |       |            |     |     |  |
|-------------|-------|------------|-----|-----|--|
| Job         | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01 | R09   | Attic      | 9   | 1   |  |

# 26540

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:46 2021 Page 1  
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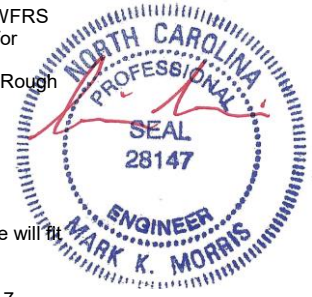
|   |                      |             |                               |                |             |
|---|----------------------|-------------|-------------------------------|----------------|-------------|
| Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [5:0-2-0,0-1-12], [6:0-2-0,0-1-8], [9:0-2-0,0-1-12], [13:0-4-0,0-4-8], [15:0-2-0,0-1-12], [20:0-2-8,0-1-12] |                      |             |                               |                |             |
| <b>LOADING</b> (psf)  | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>                  | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL (roof) 20.0  | 2-0-0                | TC 0.92     | in (loc) l/defl L/d           | MT20           | 244/190     |
| Snow (Pf) 20.0  | Plate Grip DOL 1.15  | BC 0.78     | Vert(LL) -0.23 17-18 >999 240 |                |             |
| TCDL 10.0   | Lumber DOL 1.15      | WB 0.72     | Vert(CT) -0.36 17-18 >777 180 |                |             |
| BCLL 0.0 *  | Rep Stress Incr YES  | Matrix-SH   | Horz(CT) 0.04 11 n/a n/a      |                |             |
| BCDL 10.0   | Code IRC2018/TPI2014 |             | Attic -0.13 14-22 1280 360    |                |             |
|   |                      |             |                               | Weight: 234 lb | FT = 0%     |

|   |   |
|---|---|
| <b>LUMBER-</b>                                    | <b>BRACING-</b>   |
| TOP CHORD 2x6 SP No.2 *Except*<br>T2: 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.   |
| BOT CHORD 2x6 SP No.2 *Except*<br>B2: 2x4 SP No.3 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:<br>2-9-0 oc bracing: 18-20, 15-17<br>3-0-0 oc bracing: 17-18<br>6-0-0 oc bracing: 20-22, 14-15 |
| WEBS 2x4 SP No.3 *Except*<br>W3,W6: 2x4 SP No.2   | WEBS 1 Row at midpt 4-7<br>JOINTS 1 Brace at Jt(s): 17, 18, 20, 15  |
|   | MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.                    |

**REACTIONS.** (lb/size) 24=1207/0-3-8 (min. 0-1-12), 11=1207/0-3-8 (min. 0-1-12)  
 Max Horz 24=-250(LC 10)  
 Max Grav 24=1510(LC 3), 11=1510(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1287/0, 3-4=-858/68, 4-5=-387/197, 5-6=-216/602, 6-7=-369/281, 7-8=-859/69,  
 8-9=-1286/0, 2-24=-1476/0, 9-11=-1474/0  
 BOT CHORD 23-24=-232/271, 21-23=0/2378, 19-21=0/2378, 16-19=0/3127, 13-16=0/2349, 12-13=0/2349,  
 18-20=-2444/0, 17-18=-2444/0, 15-17=-2444/0  
 WEBS 22-23=-30/458, 3-22=-1/584, 12-14=-32/456, 8-14=-4/582, 4-25=-1228/170,  
 25-26=-1210/175, 7-26=-1308/183, 2-23=-10/875, 9-12=-11/880, 20-23=-1785/0,  
 19-20=-79/864, 15-16=-85/872, 12-15=-1784/0

- NOTES-** (13-14)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) All plates are 2x4 MT20 unless otherwise indicated.
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 9) Ceiling dead load (5.0 psf) on member(s). 3-4, 7-8, 4-25, 25-26, 7-26
  - 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 20-22, 18-20, 17-18, 15-17, 14-15



4/21/2021

Continued on Page 2 Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|             |       |            |     |     |  |
|-------------|-------|------------|-----|-----|--|
| Job         | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01 | R09   | Attic      | 9   | 1   | Job Reference (optional) # 26540                                   |

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:47 2021 Page 2  
 ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-fh32k?0EvSxPHDrheWfadarA86wgGGzrYTUXTVzOOGY

**NOTES-** (13-14)

- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Attic room checked for L/360 deflection.
- 13) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard

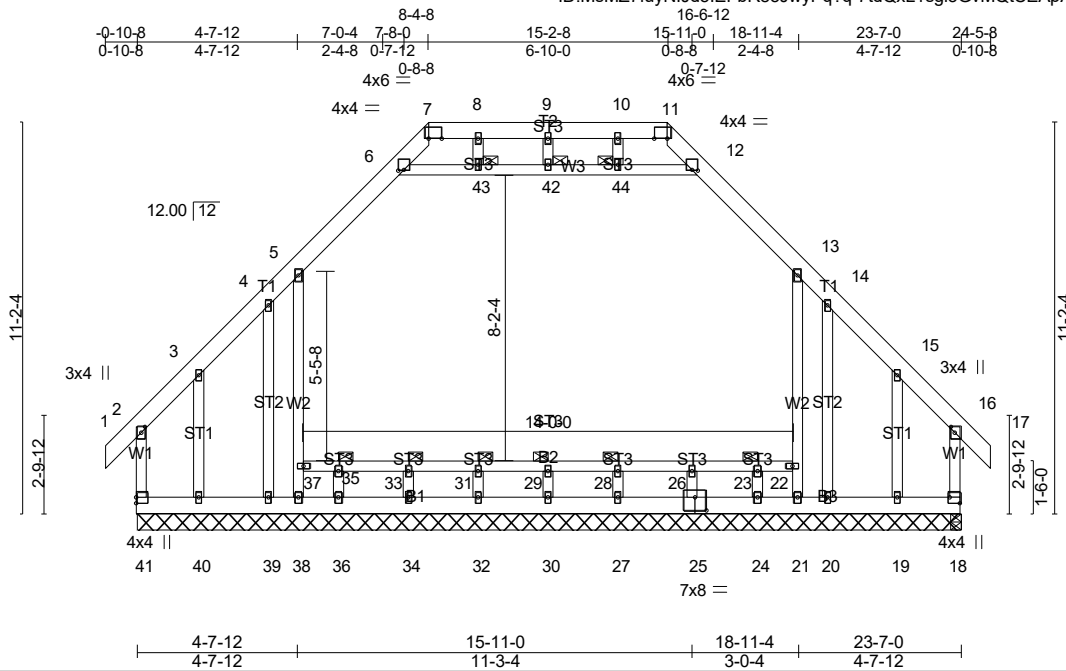


4/21/2021

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|                    |              |                     |          |          |   |         |
|--------------------|--------------|---------------------|----------|----------|---|---------|
| Job<br>21-1987-R01 | Truss<br>R10 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, NC | # 26540 |
|--------------------|--------------|---------------------|----------|----------|---|---------|

ID:MsMZ7fuyNIJd5IEFbR85JwyPq?7-7tdQxL1sgl3GvMQtCEApOOP6VQI?pS\_m7E5?xzOOGX  
8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:48 2021 Page 1



Scale = 1:66.0

Plate Offsets (X,Y)-- [2:0-2-0,0-1-4], [6:0-2-0,0-0-4], [7:0-4-8,0-0-0], [11:0-4-8,0-0-0], [12:0-2-0,0-0-4], [16:0-2-0,0-1-4], [18:Edge,0-3-8], [25:0-4-0,0-4-8]

| LOADING (psf)    | SPACING-             | CSI.      | DEFL.          | in (loc) | l/defl | L/d | PLATES         | GRIP    |
|------------------|----------------------|-----------|----------------|----------|--------|-----|----------------|---------|
| TCLL (roof) 20.0 | 2-0-0                | TC 0.65   | Vert(LL) -0.00 | 13       | >999   | 240 | MT20           | 244/190 |
| Snow (Pf) 20.0   | Plate Grip DOL 1.15  | BC 0.17   | Vert(CT) -0.01 | 13       | >999   | 180 |                |         |
| TCDL 10.0        | Lumber DOL 1.15      | WB 0.33   | Horz(CT) -0.00 | 18       | n/a    | n/a |                |         |
| BCLL 0.0 *       | Rep Stress Incr YES  | Matrix-SH |                |          |        |     |                |         |
| BCDL 10.0        | Code IRC2018/TPI2014 |           |                |          |        |     | Weight: 232 lb | FT = 0% |

**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 B2: 2x4 SP No.3  
 WEBS 2x4 SP No.2 \*Except\*  
 W1: 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 42, 29, 43, 31, 35, 44, 28, 23, 33

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 23-7-0.  
 (lb) - Max Horz 41=-251(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 38, 21 except 41=-227(LC 8), 18=-222(LC 9), 39=-119(LC 13), 40=-262(LC 12), 20=-119(LC 12), 19=-260(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 30, 32, 36, 39, 40, 24, 20, 19, 25, 34 except 41=526(LC 26), 38=733(LC 31), 21=736(LC 32), 18=516(LC 21), 18=469(LC 1), 27=253(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-335/176, 5-6=-439/122, 6-7=-725/85, 7-8=-750/58, 8-9=-750/58, 9-10=-750/58, 10-11=-750/58, 11-12=-725/87, 12-13=-439/122, 15-16=-328/172, 2-41=-367/145, 16-18=-360/141  
 WEBS 37-38=-743/75, 5-37=-740/79, 21-22=-744/67, 13-22=-740/75, 6-43=0/630, 42-43=0/630, 42-44=0/630, 12-44=0/630

- NOTES-** (16-17)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Ceiling dead load (5.0 psf) on member(s). 5-6, 12-13, 6-43, 42-43, 42-44, 12-44
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 35-37, 33-35, 31-33, 29-31, 28-29, 26-28, 23-26, 22-23



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**Continued on Page 2** Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|             |       |            |     |     |  |
|-------------|-------|------------|-----|-----|--|
| Job         | Truss | Truss Type | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1987-R01 | R10   | GABLE      | 1   | 1   | Job Reference (optional) # 26540                                   |

8,430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:49 2021 Page 2  
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**NOTES-** (16-17)

- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 38, 21 except (jt=lb) 41=227, 18=222, 39=119, 40=262, 20=119, 19=260.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Attic room checked for L/360 deflection.
- 16) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 17) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



4/21/2021

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|                    |              |   |          |          |  |
|--------------------|--------------|---|----------|----------|--|
| Job<br>21-1987-R01 | Truss<br>R11 | Truss Type<br>Monopitch Supported Gable | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N<br>Job Reference (optional) # 26540 |
|--------------------|--------------|---|----------|----------|--|

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:50 2021 Page 1

ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-3FkAM137CNK\_8gaGJfCHFDtIJ7Tn4HERJc4qzOOGV  
-0-10-8 8-4-0  
0-10-8 8-4-0

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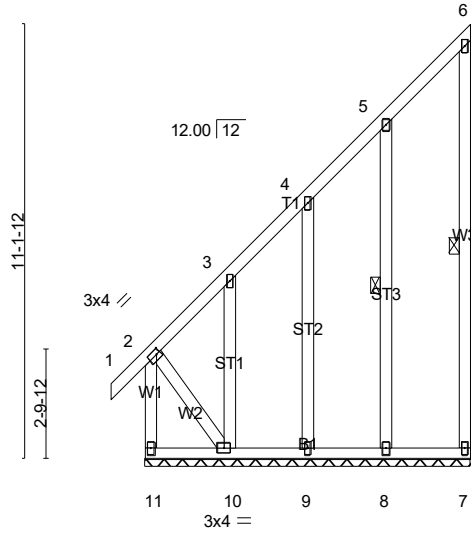


Plate Offsets (X,Y)-- [2:0-1-4,0-1-8]

| LOADING (psf)    | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES        | GRIP    |
|------------------|----------------------|----------|----------------|----------|--------|-----|---------------|---------|
| TCLL (roof) 20.0 | 2-0-0                | TC 0.19  | Vert(LL) 0.00  | 1        | n/r    | 180 | MT20          | 244/190 |
| Snow (Pf) 20.0   | Plate Grip DOL 1.15  | BC 0.11  | Vert(CT) 0.00  | 1        | n/r    | 80  |               |         |
| TCDL 10.0        | Lumber DOL 1.15      | WB 0.13  | Horz(CT) -0.00 | 7        | n/a    | n/a |               |         |
| BCLL 0.0 *       | Rep Stress Incr YES  | Matrix-P |                |          |        |     |               |         |
| BCDL 10.0        | Code IRC2018/TPI2014 |          |                |          |        |     | Weight: 84 lb | FT = 0% |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.3  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

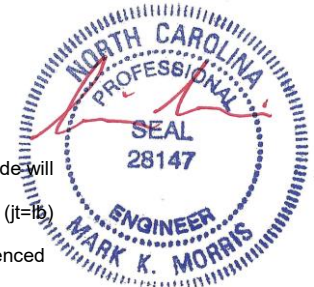
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 6-7, 5-8

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 8-4-0.  
(lb) - Max Horz 11=245(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 7, 9, 8 except 11=159(LC 10), 10=406(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 7 except 11=514(LC 12), 9=262(LC 24), 10=335(LC 20), 8=295(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-11=-506/391, 2-3=-307/254  
BOT CHORD 10-11=-258/200  
WEBS 2-10=-327/422

- NOTES-** (13-14)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical 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) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 5) All plates are 2x4 MT20 unless otherwise indicated.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 8) Gable studs spaced at 2-0-0 oc.
  - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 10) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 9, 8 except (jt=11) 11=159, 10=406.
  - 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



4/21/2021

Continued on page 2  
Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

| Job         | Truss | Truss Type                | Qty | Ply | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
|-------------|-------|---------------------------|-----|-----|--|
| 21-1987-R01 | R11   | Monopitch Supported Gable | 1   | 1   | Job Reference (optional) # 26540                                   |

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:50 2021 Page 2

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- 13) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.  
 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



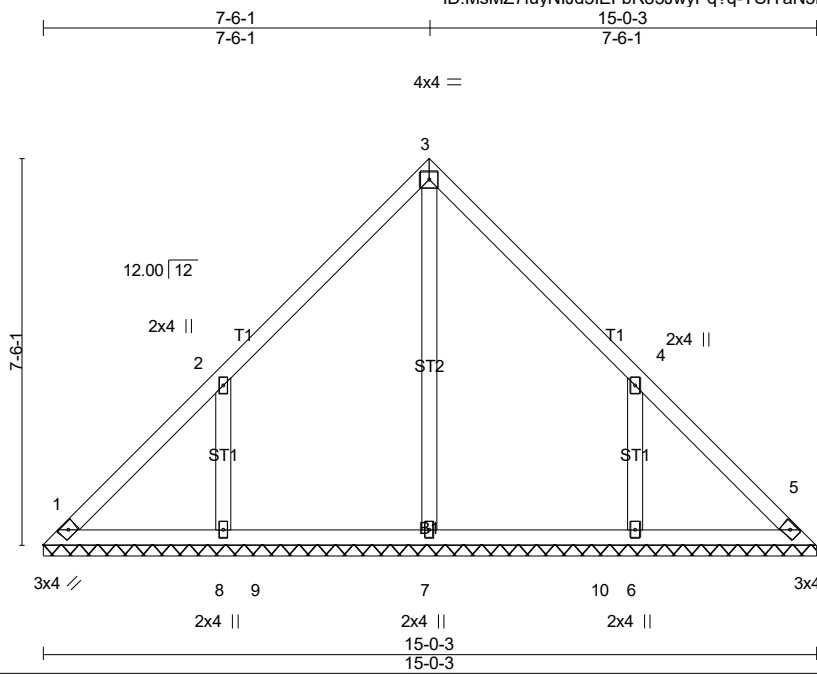
4/21/2021

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



|                          |               |                      |          |          |  |
|--------------------------|---------------|----------------------|----------|----------|--|
| Job<br>21-1987-R01       | Truss<br>VT01 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| Job Reference (optional) |               |                      |          |          | # 26540  |

8,430 s Feb 12 2021 MiTek Industries, Inc. Wed Apr 21 21:09:51 2021 Page 1  
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Scale = 1:44.8

|                      |                      |             |                         |               |             |
|----------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0     | 2-0-0                | TC 0.19     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf) 20.0       | Plate Grip DOL 1.15  | BC 0.42     | Vert(LL) n/a - n/a 999  |               |             |
| TCDL 10.0            | Lumber DOL 1.15      | WB 0.14     | Vert(CT) n/a - n/a 999  |               |             |
| BCLL 0.0 *           | Rep Stress Incr YES  | Matrix-SH   | Horz(CT) 0.00 5 n/a n/a |               |             |
| BCDL 10.0            | Code IRC2018/TPI2014 |             |                         | Weight: 72 lb | FT = 0%     |

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.3  
 OTHERS 2x4 SP No.3

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

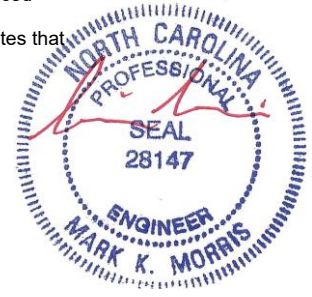
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 15-0-3.  
 (lb) - Max Horz 1=-140(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-179(LC 12), 6=-179(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=420(LC 22), 8=422(LC 23), 6=422(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-274/209, 4-6=-274/209

- NOTES-** (9-10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 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 1'-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (t=lb) 8=179, 6=179.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard

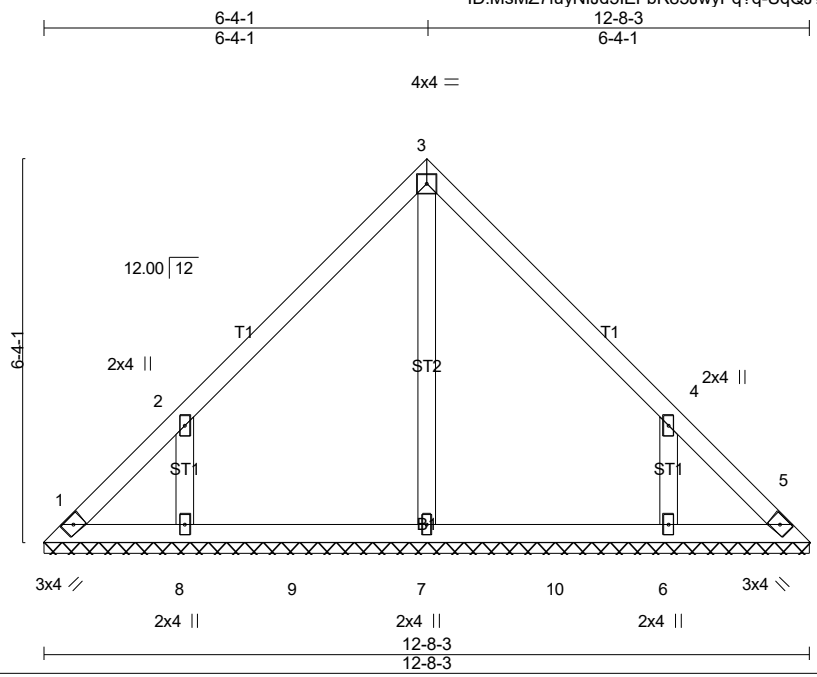


4/21/2021

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|                    |               |                      |          |          |   |
|--------------------|---------------|----------------------|----------|----------|---|
| Job<br>21-1987-R01 | Truss<br>VT02 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C.<br>Job Reference (optional)<br><b># 26540</b> |
|--------------------|---------------|----------------------|----------|----------|---|

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Scale = 1:38.1

|                      |                      |             |                         |               |             |
|----------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0     | 2-0-0                | TC 0.18     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf) 20.0       | Plate Grip DOL 1.15  | BC 0.32     | Vert(LL) n/a - n/a 999  |               |             |
| TCDL 10.0            | Lumber DOL 1.15      | WB 0.10     | Vert(CT) n/a - n/a 999  |               |             |
| BCLL 0.0 *           | Rep Stress Incr YES  | Matrix-SH   | Horz(CT) 0.00 5 n/a n/a |               |             |
| BCDL 10.0            | Code IRC2018/TPI2014 |             |                         | Weight: 58 lb | FT = 0%     |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.3  
OTHERS 2x4 SP No.3

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

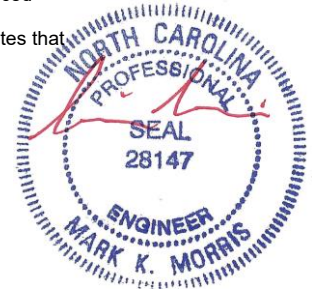
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 12-8-3.  
(lb) - Max Horz 1=-117(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-160(LC 12), 6=-160(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=378(LC 19), 8=344(LC 19), 6=344(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-254/196, 4-6=-254/196

- NOTES-** (9-10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (t=lb) 8=160, 6=160.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard

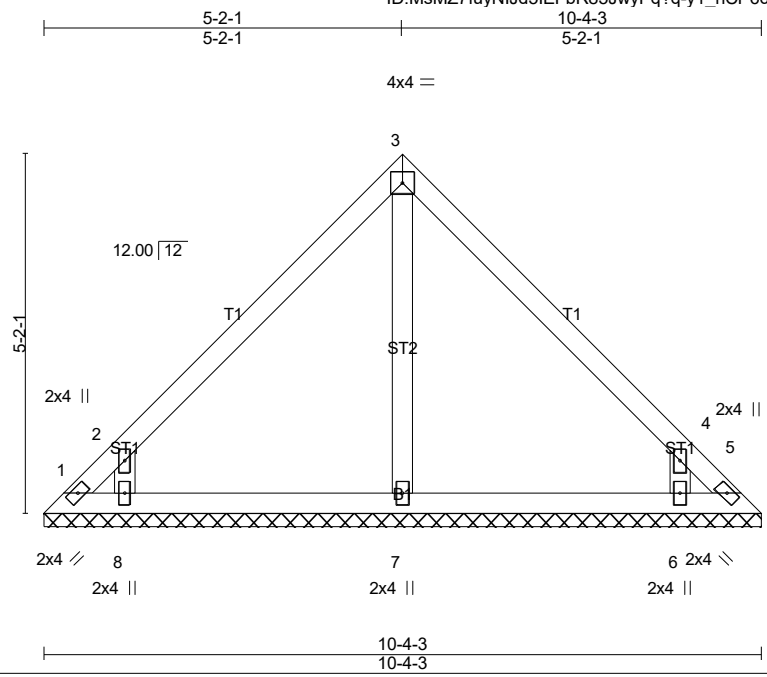


4/21/2021

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|                    |               |                      |          |          |   |
|--------------------|---------------|----------------------|----------|----------|---|
| Job<br>21-1987-R01 | Truss<br>VT03 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C.<br>Job Reference (optional)<br><b># 26540</b> |
|--------------------|---------------|----------------------|----------|----------|---|

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|                      |                      |             |                         |               |             |
|----------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0     | 2-0-0                | TC 0.20     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf) 20.0       | Plate Grip DOL 1.15  | BC 0.20     | Vert(LL) n/a - n/a 999  |               |             |
| TCDL 10.0            | Lumber DOL 1.15      | WB 0.07     | Vert(CT) n/a - n/a 999  |               |             |
| BCLL 0.0 *           | Rep Stress Incr YES  | Matrix-SH   | Horz(CT) 0.00 5 n/a n/a |               |             |
| BCDL 10.0            | Code IRC2018/TPI2014 |             |                         | Weight: 44 lb | FT = 0%     |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.3  
OTHERS 2x4 SP No.3

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

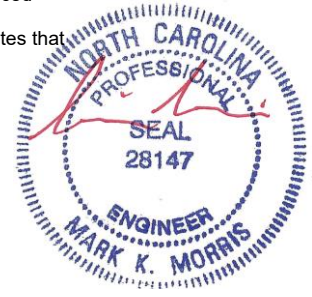
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 10-4-3.  
(lb) - Max Horz 1=94(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=-120(LC 10), 5=-103(LC 11), 8=-185(LC 12), 6=-185(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=360(LC 19), 6=360(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-310/243, 4-6=-310/243

- NOTES-** (9-10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 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 1-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 120 lb uplift at joint 1, 103 lb uplift at joint 5, 185 lb uplift at joint 8 and 185 lb uplift at joint 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



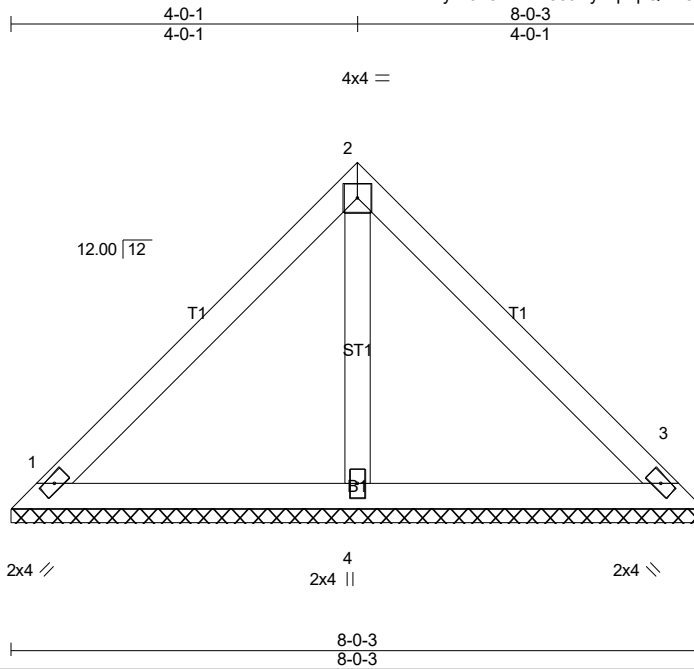
4/21/2021

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|                          |               |                      |          |          |  |
|--------------------------|---------------|----------------------|----------|----------|--|
| Job<br>21-1987-R01       | Truss<br>VT04 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| Job Reference (optional) |               |                      |          |          | # 26540  |

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Scale = 1:26.7

|                      |                      |             |                         |               |             |
|----------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0     | 2'-0"                | TC 0.26     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf) 20.0       | Plate Grip DOL 1.15  | BC 0.23     | Vert(LL) n/a - n/a 999  |               |             |
| TCDL 10.0            | Lumber DOL 1.15      | WB 0.04     | Vert(CT) n/a - n/a 999  |               |             |
| BCLL 0.0 *           | Rep Stress Incr YES  | Matrix-P    | Horz(CT) 0.00 3 n/a n/a |               |             |
| BCDL 10.0            | Code IRC2018/TPI2014 |             |                         | Weight: 32 lb | FT = 0%     |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 6'-0" oc purlins.  
Rigid ceiling directly applied or 10'-0" oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=176/8-0-3 (min. 0-1-8), 3=176/8-0-3 (min. 0-1-8), 4=233/8-0-3 (min. 0-1-8)  
Max Horz 1=-71(LC 8)  
Max Uplift1=33(LC 13), 3=33(LC 13)

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

**NOTES-** (9-10)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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" tall by 1'-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 33 lb uplift at joint 1 and 33 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



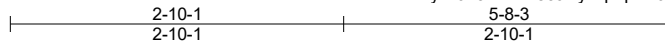
4/21/2021

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

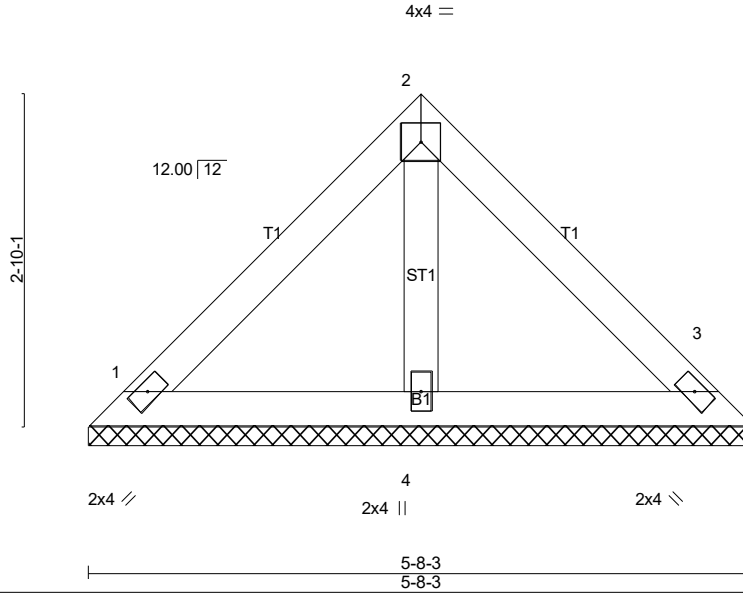
|                          |               |                      |          |          |  |
|--------------------------|---------------|----------------------|----------|----------|--|
| Job<br>21-1987-R01       | Truss<br>VT05 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| Job Reference (optional) |               |                      |          |          | # 26540  |

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Scale = 1:19.7



|                      |                      |             |                         |               |             |
|----------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0     | 2-0-0                | TC 0.11     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf) 20.0       | Plate Grip DOL 1.15  | BC 0.11     | Vert(LL) n/a - n/a 999  |               |             |
| TCDL 10.0            | Lumber DOL 1.15      | WB 0.02     | Vert(CT) n/a - n/a 999  |               |             |
| BCLL 0.0 *           | Rep Stress Incr YES  | Matrix-P    | Horz(CT) 0.00 3 n/a n/a |               |             |
| BCDL 10.0            | Code IRC2018/TPI2014 |             |                         | Weight: 22 lb | FT = 0%     |

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 5-8-3 oc purlins.  
Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=120/5-8-3 (min. 0-1-8), 3=120/5-8-3 (min. 0-1-8), 4=158/5-8-3 (min. 0-1-8)  
Max Horz 1=-49(LC 8)  
Max Uplift1=-22(LC 13), 3=-22(LC 13)

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

**NOTES-** (9-10)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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 1-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 22 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard

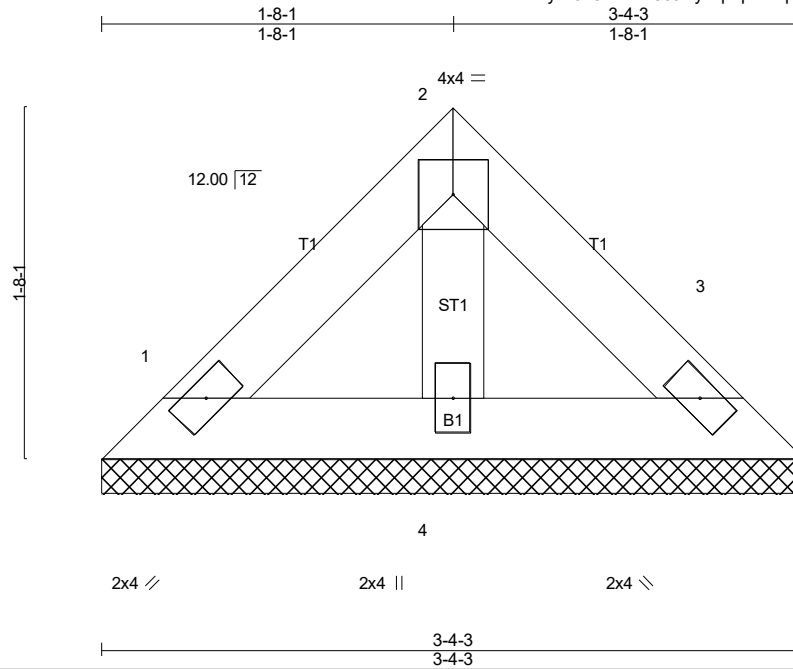


4/21/2021

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|                          |               |                      |          |          |  |
|--------------------------|---------------|----------------------|----------|----------|--|
| Job<br>21-1987-R01       | Truss<br>VT06 | Truss Type<br>Valley | Qty<br>1 | Ply<br>1 | LOT 1154 CARRIAGE CIRCLE   150 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| Job Reference (optional) |               |                      |          |          | # 26540  |

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Scale = 1:11.0

|                      |                      |             |                         |               |             |
|----------------------|----------------------|-------------|-------------------------|---------------|-------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | <b>CSI.</b> | <b>DEFL.</b>            | <b>PLATES</b> | <b>GRIP</b> |
| TCLL (roof) 20.0     | 2-0-0                | TC 0.03     | in (loc) l/defl L/d     | MT20          | 244/190     |
| Snow (Pf) 20.0       | Plate Grip DOL 1.15  | BC 0.03     | Vert(LL) n/a - n/a 999  |               |             |
| TCDL 10.0            | Lumber DOL 1.15      | WB 0.01     | Vert(CT) n/a - n/a 999  |               |             |
| BCLL 0.0 *           | Rep Stress Incr YES  | Matrix-P    | Horz(CT) 0.00 3 n/a n/a |               |             |
| BCDL 10.0            | Code IRC2018/TPI2014 |             |                         | Weight: 12 lb | FT = 0%     |

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 3-4-3 oc purlins.  
 Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=64/3-4-3 (min. 0-1-8), 3=64/3-4-3 (min. 0-1-8), 4=84/3-4-3 (min. 0-1-8)  
 Max Horz 1=-26(LC 8)  
 Max Uplift1=-12(LC 13), 3=-12(LC 13)

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

**NOTES-** (9-10)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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 1-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 12 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



4/21/2021

**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.