ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 22858A
150.1910.B

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I39593179 thru I39593196

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844


December 12,2019

Galinski, John

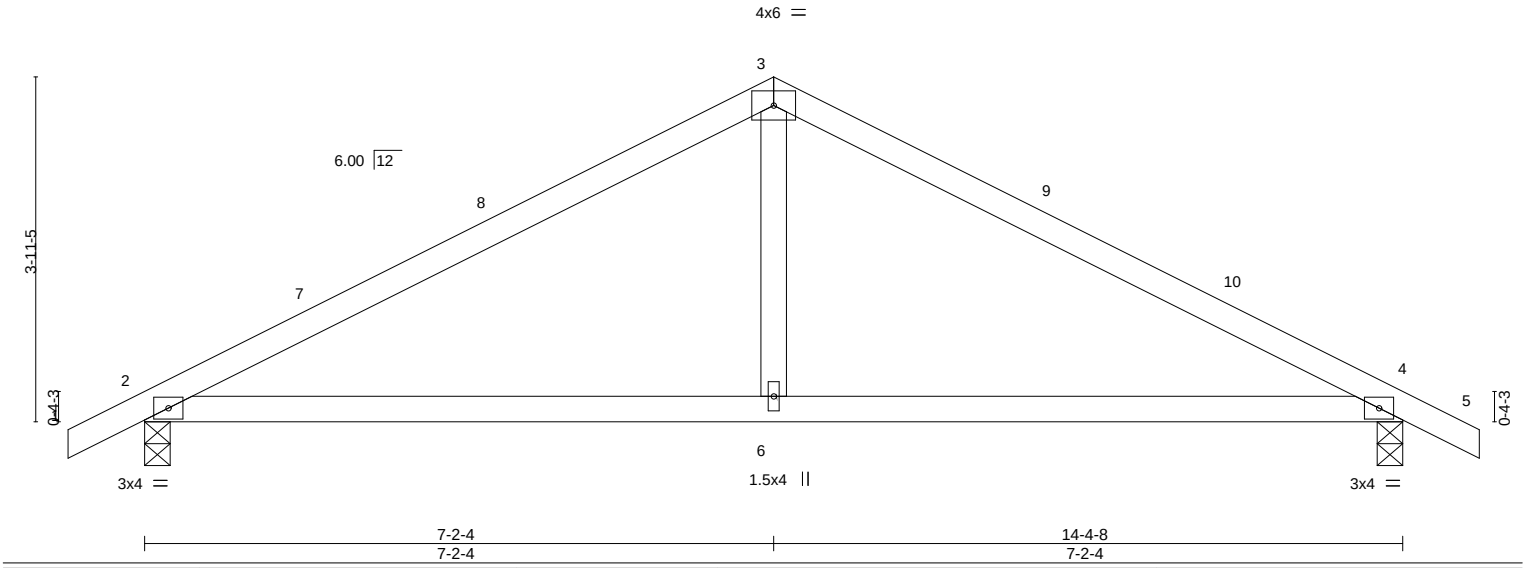
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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

| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | A1 | COMMON | 1 | 1 | I39593179 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:55:57 2019 Page 1
ID:ExmXTTPyjcUBk1Wsk0_IyJyA0WE-1yFr?DjEzDd8VFYdgl1bhgbRcH9J0ND?Mys_cly9k5W

-0-10-8 / 0-10-8 | 7-2-4 / 7-2-4 | 14-4-8 / 7-2-4 | 15-3-0 / 0-10-8

Scale = 1:26.3




| 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 | 0.79 | Vert(LL) | -0.06 | 2-6 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.56 | Vert(CT) | -0.13 | 2-6 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.13 | Horz(CT) | 0.01 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 54 lb | FT = 20% |

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

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

**REACTIONS.** (lb/size) 2=625/0-3-8, 4=625/0-3-8
Max Horz 2=67(LC 16)
Max Uplift 2=-88(LC 12), 4=-88(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-800/131, 3-4=-800/131
BOT CHORD 2-6=-18/629, 4-6=-18/629
WEBS 3-6=0/343

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 7-2-4, Exterior(2) 7-2-4 to 10-2-4, Interior(1) 10-2-4 to 15-3-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be User Defined crushing capacity of 425 psi.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.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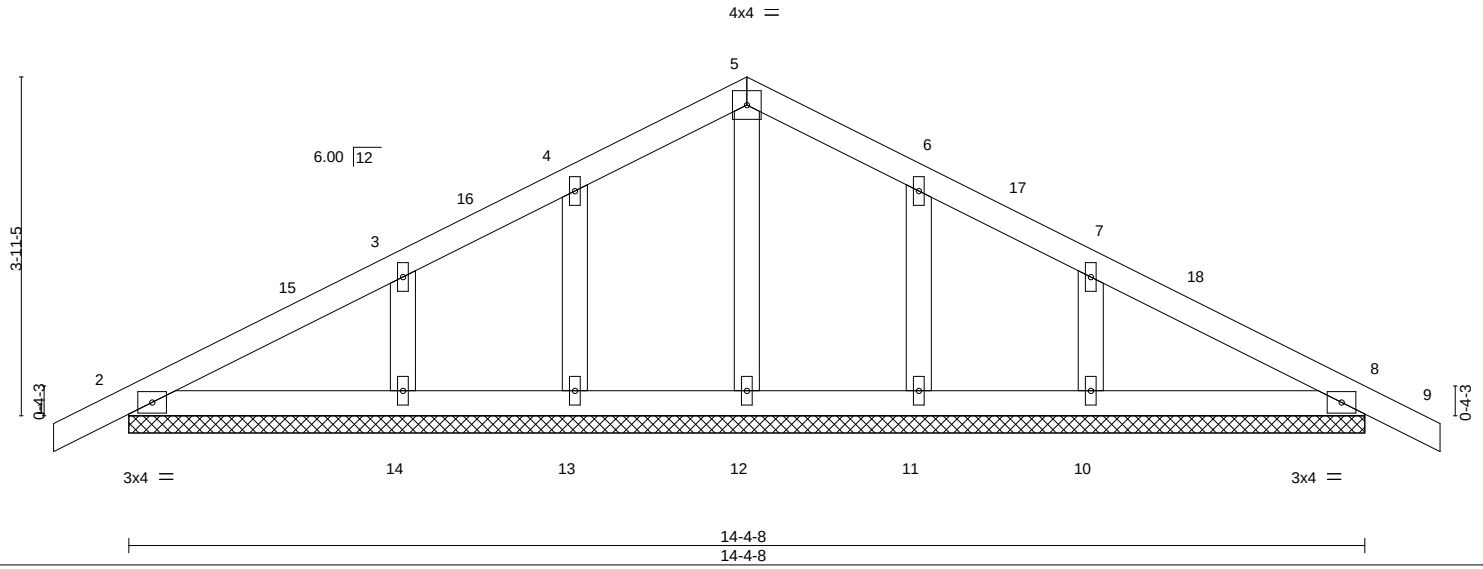
| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | AE | COMMON SUPPORTED GAB | 1 | 1 | I39593180 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:55:58 2019 Page 1
ID:ExmXTTPyjcUBk1Wsk0_IyJyA0WE-V9pDCZkskWI?6P7qDSYqDt8n0hcFlso9bccX9By9k5V

-0-10-8 7-2-4 14-4-8 15-3-0
0-10-8 7-2-4 7-2-4 0-10-8

Scale = 1:26.8




| 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 | 0.10 | Vert(LL) | 0.00 | 9 | n/r | 120 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | 0.00 | 9 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 65 lb | FT = 20% |

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

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

**REACTIONS.** All bearings 14-4-8.
(lb) - Max Horz 2=-67(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 7-2-4, Corner(3) 7-2-4 to 10-2-4, Exterior(2) 10-2-4 to 15-3-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be User Defined crushing capacity of 425 psi.
10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 8, 13, 14, 11, and 10. This connection is for uplift only and does not consider lateral forces.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| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | AG | COMMON GIRDER | 1 | 3 | I39593181 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:55:59 2019 Page 1
ID:ExmXTTPyjcUBk1Wsk0_IyJyA0WE-zLNbPvkUVqtskYi0nA33m5gty5k5U4KlpGL5hey9k5U

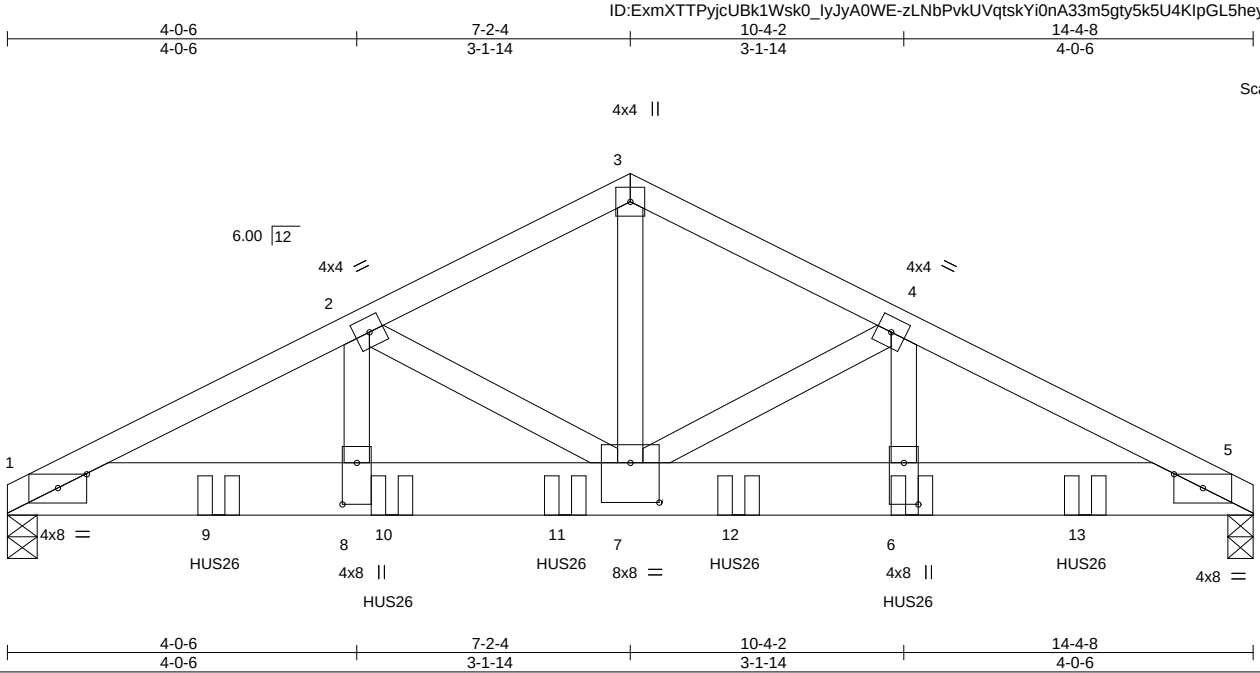


Plate Offsets (X,Y)-- [1:0-4-0,0-1-15], [5:0-4-0,0-1-15], [6:0-5-12,0-2-0], [7:0-4-0,0-5-8], [8:0-5-12,0-2-0]

| 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 | 0.41 | Vert(LL) | -0.08 | 6-7 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.99 | Vert(CT) | -0.15 | 6-7 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | NO | WB | 0.99 | Horz(CT) | 0.04 | 5 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 262 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP No.2
WEBS 2x4 SP No.3

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

**REACTIONS.** (lb/size) 1=7893/0-4-2, 5=6365/0-3-8
Max Horz 1=58(LC 31)
Max Uplift 1=-863(LC 8), 5=-701(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-11271/1233, 2-3=-8332/935, 3-4=-8332/935, 4-5=-11473/1257
BOT CHORD 1-8=-1120/10069, 7-8=-1120/10069, 6-7=-1085/10265, 5-6=-1085/10265
WEBS 3-7=-767/7151, 4-7=-3308/434, 4-6=-269/2866, 2-7=-3079/407, 2-8=-252/2690

**NOTES-**
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be User Defined crushing capacity of 425 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=863, 5=701.
9) Use USP HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-5-4 from the left end to 12-5-4 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1882 lb down and 206 lb up at 0-2-1 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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


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Continued on page 2



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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

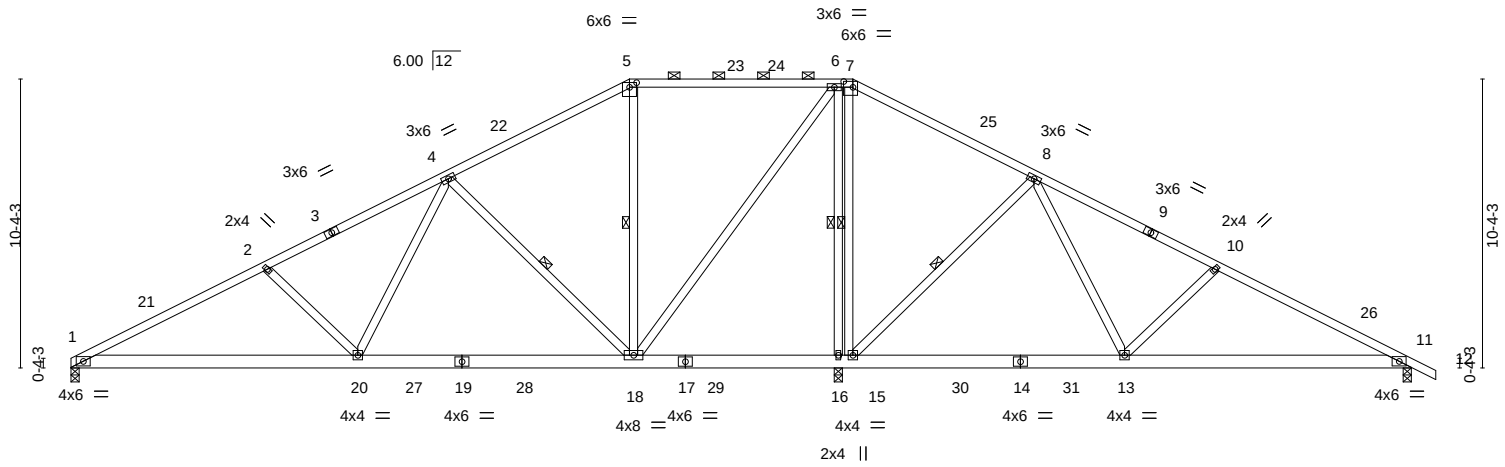
Vert: 1=-1882(B) 6=-1875(B) 9=-1875(B) 10=-1875(B) 11=-1875(B) 12=-1875(B) 13=-1875(B)

| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | B1 | PIGGYBACK BASE | 6 | 1 | I39593182 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:00 2019 Page 1
ID:ExmXTTPyjcUBk1Wsk0_IyJyA0WE-RXx_dFl6G8?jMiHCLtaIIDywVBnDa9R2w5eD4y9k5T

| 7-0-5 | 13-6-3 | 20-0-0 | 28-0-0 | 34-5-13 | 40-11-11 | 48-0-0 | 48-10-8 |
|---|---|---|---|---|---|---|---|
| 7-0-5 | 6-5-13 | 6-5-13 | 8-0-0 | 6-5-13 | 6-5-13 | 7-0-5 | 0-10-8 |

Scale = 1:82.5




| 10-3-4 | 20-0-0 | 27-7-8 | 28-0-0 | 37-8-12 | 48-0-0 |
|---|---|---|---|---|---|
| 10-3-4 | 9-8-12 | 7-7-8 | 0-4-8 | 9-8-12 | 10-3-4 |

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

| 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 | 0.78 | Vert(LL) | -0.11 | 18-20 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.52 | Vert(CT) | -0.19 | 1-20 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.82 | Horz(CT) | 0.02 | 16 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 314 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-8-8 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-18, 5-18, 7-15, 8-15, 6-16

**REACTIONS.** (lb/size) 1=823/0-3-8, 11=515/0-3-8, 16=2540/0-3-8 (req. 0-4-0)
Max Horz 1=-182(LC 17)
Max Uplift 1=-126(LC 12), 11=-132(LC 13), 16=-164(LC 12)
Max Grav 1=883(LC 23), 11=605(LC 24), 16=2546(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1487/242, 2-4=-1181/205, 4-5=-304/149, 6-7=0/686, 7-8=-17/838, 8-10=-425/169, 10-11=-729/204
BOT CHORD 1-20=-297/1257, 18-20=-110/719, 16-18=-681/285, 15-16=-681/285, 13-15=-279/159, 11-13=-85/576
WEBS 2-20=-401/238, 4-20=-45/629, 4-18=-759/266, 5-18=-352/111, 6-18=-194/1251, 7-15=-308/58, 8-15=-767/267, 8-13=-47/642, 10-13=-394/230, 6-16=-1580/330

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 20-0-0, Exterior(2) 20-0-0 to 24-2-15, Interior(1) 24-2-15 to 28-0-0, Exterior(2) 28-0-0 to 32-2-15, Interior(1) 32-2-15 to 48-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) WARNING: Required bearing size at joint(s) 16 greater than input bearing size.
7) All bearings are assumed to be User Defined crushing capacity of 425 psi.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 11, and 16. This connection is for uplift only and does not consider lateral forces.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.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| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | B2 | ROOF TRUSS | 4 | 1 | I39593183 |
| | | | | | Job Reference (optional) |

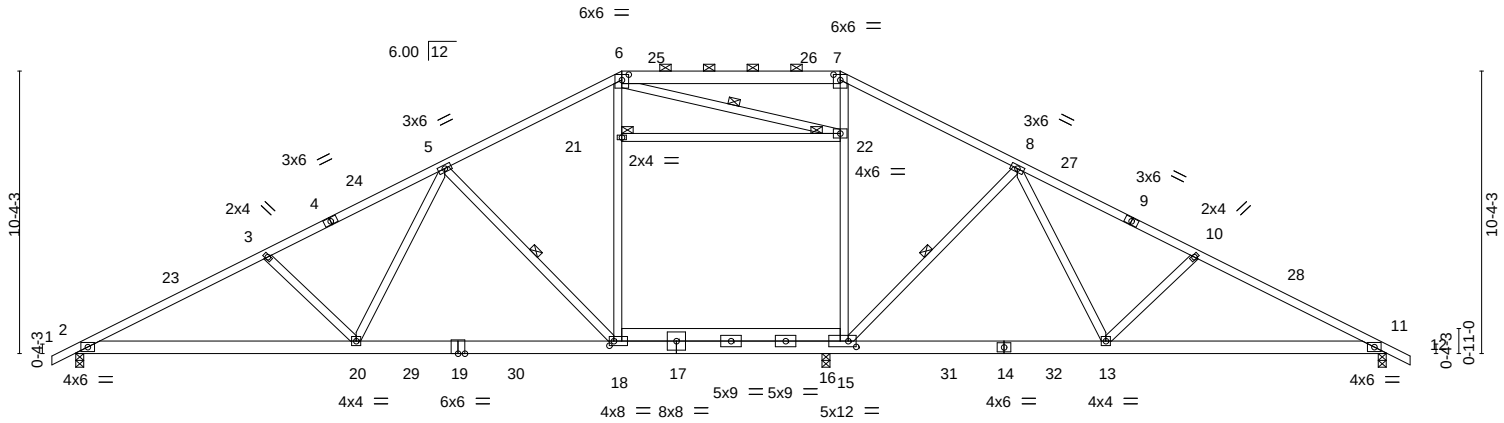
84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:01 2019 Page 1

ID:ExmXTTPyjcUBk1Wsk0_IyJyA0WE-vkVMqbml1R7azssOvb5XrWm8euPRy1UbHaqBlWy9k5S

-0-10-8 7-0-5 13-6-3 20-0-0 28-0-0 34-5-13 40-11-11 48-0-0 48-10-8

0-10-8 7-0-5 6-5-13 6-5-13 8-0-0 6-5-13 6-5-13 7-0-5 0-10-8

Scale = 1:84.4




10-3-4 20-0-0 27-7-8 28-0-0 37-8-12 48-0-0

10-3-4 9-8-12 7-7-8 0-4-8 9-8-12 10-3-4

Plate Offsets (X,Y)-- [6:0-3-0,0-2-7], [7:0-3-0,0-2-7], [15:0-3-8,0-2-8], [17:0-0-0,0-2-12], [18:0-2-0,0-2-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.72 | Vert(LL) | -0.51 | 18-20 | >647 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 1.00 | Vert(CT) | -0.93 | 18-20 | >351 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.82 | Horz(CT) | 0.11 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | Attic | 0.05 | 15-16 | 360 | 360 | Weight: 333 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SP No.2 *Except* 6-7: 2x6 SP No.2

BOT CHORD 2x6 SP No.2 *Except* 14-17: 2x6 SP DSS

WEBS 2x4 SP No.3 *Except* 6-18,7-15: 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (4-7-3 max.): 6-7.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 18-20.

WEBS 1 Row at midpt 5-18, 8-15, 6-22

JOINTS 1 Brace at Jt(s): 21, 22

**REACTIONS.** (lb/size) 2=1717/0-3-8, 11=1616/0-3-8, 16=689/0-3-8

Max Horz 2=174(LC 12)

Max Uplift 2=-258(LC 12), 11=-103(LC 12), 16=-208(LC 13)

Max Grav 2=1821(LC 26), 11=1673(LC 2), 16=967(LC 27)

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

TOP CHORD 2-3=-3524/484, 3-5=-3279/455, 5-6=-2379/427, 6-7=-1864/410, 7-8=-2253/438, 8-10=-2875/434, 10-11=-3127/453

BOT CHORD 2-20=-509/3081, 18-20=-325/2576, 16-18=-135/2049, 15-16=-89/1939, 13-15=-168/2315, 11-13=-286/2731

WEBS 3-20=-372/227, 5-20=-57/677, 5-18=-808/273, 18-21=-72/728, 6-21=-46/765, 15-22=-105/578, 7-22=-91/691, 8-15=-675/275, 8-13=-61/520, 10-13=-392/230

**NOTES-**

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 20-0-0, Exterior(2) 20-0-0 to 26-9-7, Interior(1) 26-9-7 to 28-0-0, Exterior(2) 28-0-0 to 34-9-7, Interior(1) 34-9-7 to 48-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Ceiling dead load (5.0 psf) on member(s). 21-22
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 16-18, 15-16
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 11, and 16. This connection is for uplift only and does not consider lateral forces.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.


December 12,2019

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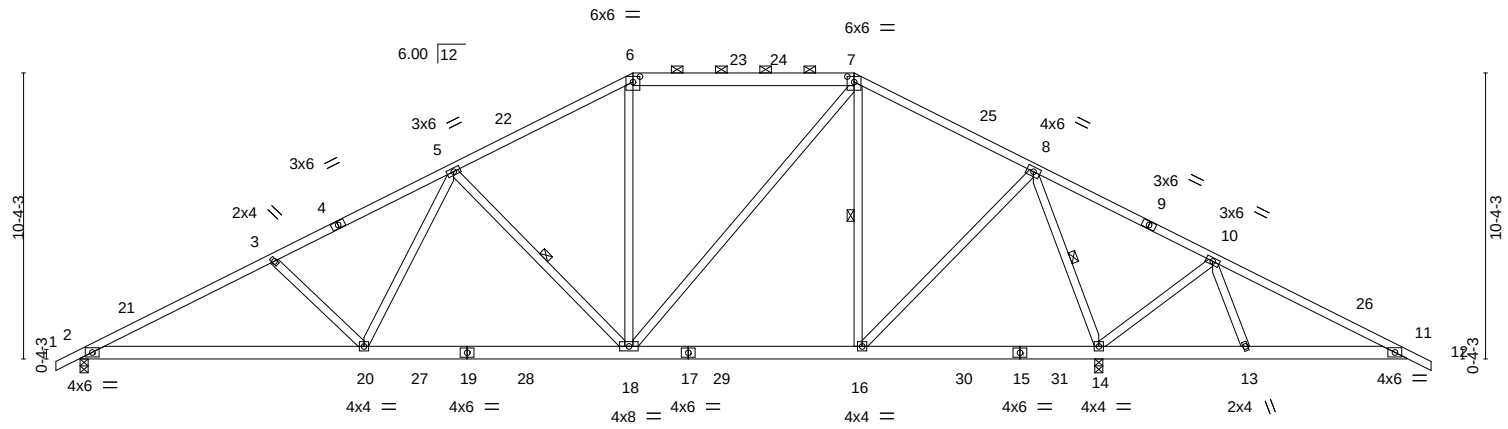
| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | B3 | PIGGYBACK BASE | 3 | 1 | I39593184 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:02 2019 Page 1
ID:ExmXTTPyjcUBk1Wsk0_lyJyA0WE-Nw3k2xnNolFQb0QbSIcmOjIJyIrPhWtkVDaIlzy9k5R

-0-10-8 7-0-5 13-6-3 20-0-0 28-0-0 34-5-13 40-11-11 48-0-0 48-10-8
0-10-8 7-0-5 6-5-13 6-5-13 8-0-0 6-5-13 6-5-13 7-0-5 0-10-8

Scale = 1:83.4




10-3-4 20-0-0 28-0-0 36-10-4 37-0-0 42-1-14 48-0-0
10-3-4 9-8-12 8-0-0 8-10-4 0-1-12 5-1-14 5-10-2

Plate Offsets (X,Y)-- [6:0-3-0,0-2-7], [7:0-3-0,0-2-7]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.75 | Vert(LL) | -0.14 | 18-20 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.63 | Vert(CT) | -0.25 | 18-20 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.68 | Horz(CT) | 0.05 | 14 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 314 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP No.2 *Except* 6-7: 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 7-18: 2x4 SP No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-11-10 oc purlins, except 2-0-0 oc purlins (5-7-14 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-18, 7-16, 8-14

**REACTIONS.** (lb/size) 2=1378/0-3-8, 14=2564/0-3-8 (req. 0-4-0)
Max Horz 2=174(LC 12)
Max Uplift 2=-206(LC 12), 14=-282(LC 13)
Max Grav 2=1415(LC 23), 14=2564(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2511/366, 3-5=-2221/331, 5-6=-1413/297, 6-7=-1195/297, 7-8=-868/237, 8-10=-202/1198, 10-11=-218/698
BOT CHORD 2-20=-403/2167, 18-20=-223/1666, 16-18=-20/791, 14-16=-339/259, 13-14=-594/259, 11-13=-539/275
WEBS 3-20=-385/229, 5-20=-45/601, 5-18=-731/262, 6-18=0/271, 7-18=-135/764, 7-16=-725/191, 8-16=-119/1228, 8-14=-2200/384, 10-14=-525/212

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 20-0-0, Exterior(2) 20-0-0 to 24-2-15, Interior(1) 24-2-15 to 28-0-0, Exterior(2) 28-0-0 to 32-2-15, Interior(1) 32-2-15 to 48-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) WARNING: Required bearing size at joint(s) 14 greater than input bearing size.
7) All bearings are assumed to be User Defined crushing capacity of 425 psi.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 14. This connection is for uplift only and does not consider lateral forces.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


December 12,2019

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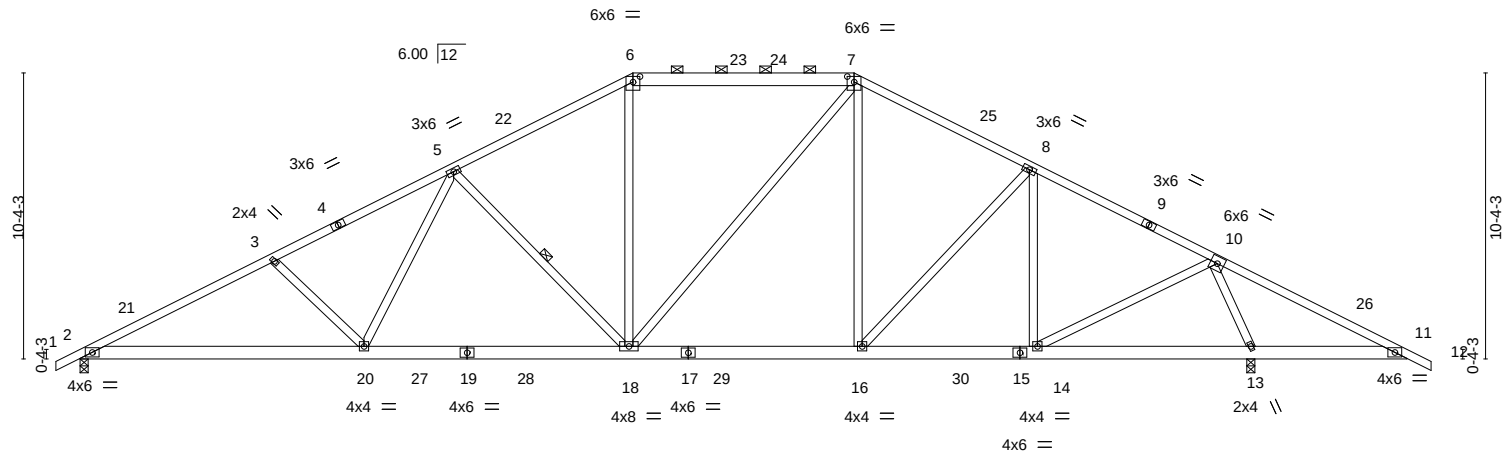
| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | B4 | PIGGYBACK BASE | 4 | 1 | I39593185 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:03 2019 Page 1
ID:ExmXTTPyjcUBk1Wsk0_IyJyA0WE-r6c6FHn?Z3NHDA?n008?wxrULi90Q_tuktJIqPy9k5Q

-0-10-8 7-0-5 13-6-3 20-0-0 28-0-0 34-5-13 40-11-11 48-0-0 48-10-8
0-10-8 7-0-5 6-5-13 6-5-13 8-0-0 6-5-13 6-5-13 7-0-5 0-10-8

Scale = 1:83.4




10-3-4 20-0-0 28-0-0 34-5-13 42-4-4 42-6-0 48-0-0
10-3-4 9-8-12 8-0-0 6-5-13 7-10-7 0-1-12 5-6-0

Plate Offsets (X,Y)-- [6:0-3-0,0-2-7], [7:0-3-0,0-2-7]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.71 | Vert(LL) | -0.18 | 18-20 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.74 | Vert(CT) | -0.33 | 18-20 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.63 | Horz(CT) | 0.08 | 13 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 316 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x4 SP No.2 *Except* 6-7: 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 7-18: 2x4 SP No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-4-6 oc purlins, except 2-0-0 oc purlins (4-7-10 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-13.
WEBS 1 Row at midpt 5-18

**REACTIONS.** (lb/size) 2=1718/0-3-8, 13=2224/0-3-8
Max Horz 2=174(LC 16)
Max Uplift 2=-213(LC 12), 13=-245(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3180/397, 3-5=-2880/382, 5-6=-2081/379, 6-7=-1788/373, 7-8=-1858/358, 8-10=-1783/283, 10-11=-226/640
BOT CHORD 2-20=-417/2764, 18-20=-237/2259, 16-18=-31/1594, 14-16=-74/1527, 13-14=0/359, 11-13=-488/282
WEBS 3-20=-383/229, 5-20=-46/592, 5-18=-724/263, 6-18=-4/537, 7-18=-117/444, 7-16=-25/260, 8-14=-489/156, 10-14=-141/1337, 10-13=-2151/409

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 20-0-0, Exterior(2) 20-0-0 to 24-2-15, Interior(1) 24-2-15 to 28-0-0, Exterior(2) 28-0-0 to 32-2-15, Interior(1) 32-2-15 to 48-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be User Defined crushing capacity of 425 psi.
7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 13. This connection is for uplift only and does not consider lateral forces.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


December 12,2019

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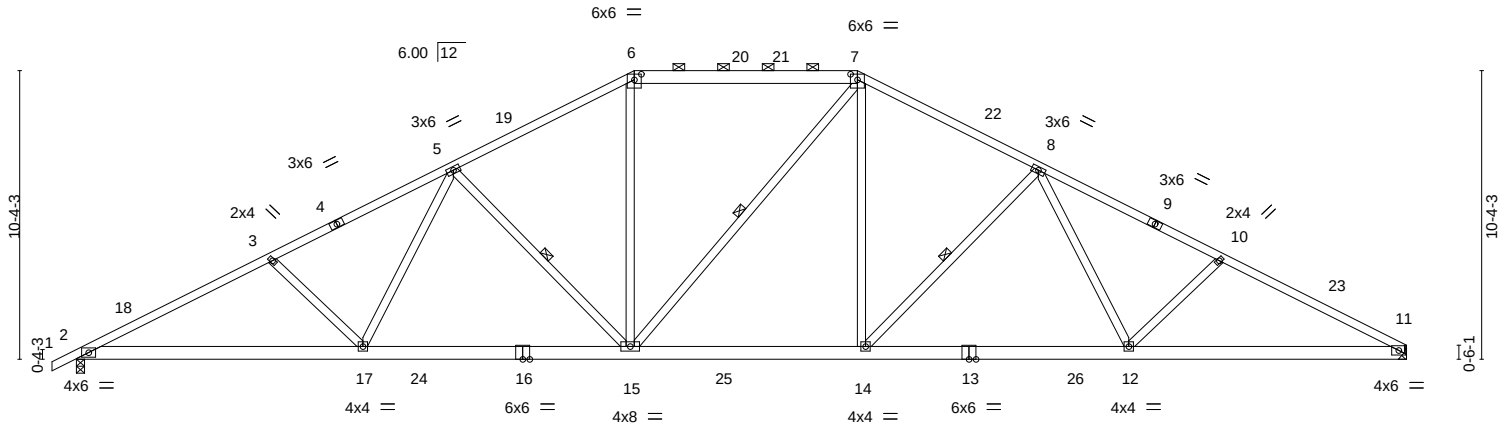
| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | B5 | PIGGYBACK BASE | 7 | 1 | I39593186 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:04 2019 Page 1
ID:ExmXTTPyjcUBk1Wsk0_IyJyA0WE-JJAUTcodKMW8qKazajfET8OeK6U_9Vs1zX3sMry9k5P

| -0-10-8 | 7-0-5 | 13-6-3 | 20-0-0 | 28-0-0 | 34-5-13 | 40-11-11 | 47-8-4 |
|---|---|---|---|---|---|---|---|
| 0-10-8 | 7-0-5 | 6-5-13 | 6-5-13 | 8-0-0 | 6-5-13 | 6-5-13 | 6-8-9 |

Scale = 1:82.6




| 10-3-4 | 20-0-0 | 28-0-0 | 37-8-12 | 47-8-4 |
|---|---|---|---|---|
| 10-3-4 | 9-8-12 | 8-0-0 | 9-8-12 | 9-11-8 |

Plate Offsets (X,Y)-- [6:0-3-0,0-2-7], [7:0-3-0,0-2-7]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.82 | Vert(LL) | -0.24 | 15-17 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.82 | Vert(CT) | -0.46 | 15-17 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.33 | Horz(CT) | 0.14 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 306 lb | FT = 20% |

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP No.2 *Except* 6-7: 2x6 SP No.2, 9-11: 2x4 SP No.1 |
| BOT CHORD | 2x6 SP No.2 |
| WEBS | 2x4 SP No.3 *Except* 7-15: 2x4 SP No.2 |

**BRACING-**

| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-0-8 max.): 6-7. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 1 Row at midpt 5-15, 7-15, 8-14 |

**REACTIONS.** (lb/size) 2=1958/0-3-8, 11=1895/Mechanical
Max Horz 2=182(LC 16)
Max Uplift 2=-218(LC 12), 11=-193(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3709/459, 3-5=-3410/446, 5-6=-2608/442, 6-7=-2258/445, 7-8=-2621/442, 8-10=-3353/448, 10-11=-3610/463
BOT CHORD 2-17=-435/3236, 15-17=-255/2731, 14-15=-114/2269, 12-14=-232/2712, 11-12=-330/3123
WEBS 3-17=-381/229, 5-17=-45/591, 5-15=-721/262, 6-15=-31/770, 7-14=-84/794, 8-14=-684/258, 8-12=-41/541, 10-12=-319/227

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 20-0-0, Exterior(2) 20-0-0 to 24-2-15, Interior(1) 24-2-15 to 28-0-0, Exterior(2) 28-0-0 to 32-2-15, Interior(1) 32-2-15 to 47-6-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be User Defined crushing capacity of 425 psi.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=193.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


December 12,2019

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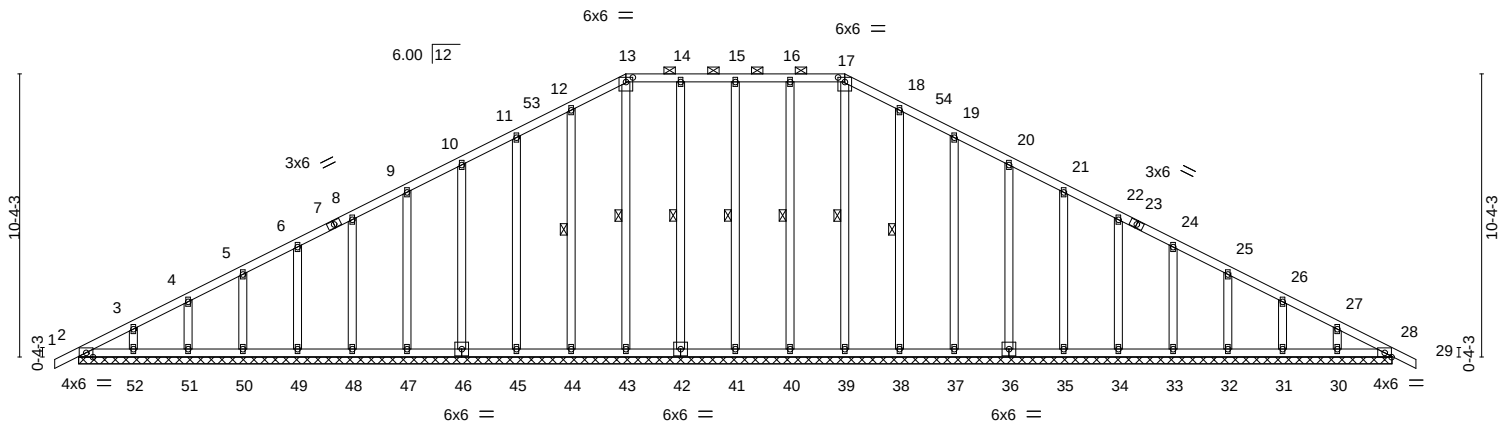
| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | BE | PIGGYBACK BASE SUPPO | 1 | 1 | I39593187 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:07 2019 Page 1
ID:ExmXTTPyjcUBk1Wsk0_IyJyA0WE-ktsd5eqVdHujhnJYFrCx5n0K5JhxMvPTfVHWzAy9k5M

-0-10-8 20-0-0 28-0-0 48-0-0 48-10-8
0-10-8 20-0-0 8-0-0 20-0-0 0-10-8

Scale = 1:84.2




48-0-0
48-0-0

Plate Offsets (X,Y)-- [13:0-3-0,0-2-0], [17:0-3-0,0-2-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | -0.00 | 28 | n/r | 120 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | -0.00 | 28 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.15 | Horz(CT) | 0.01 | 28 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 354 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 13-17.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 17-39, 16-40, 15-41, 14-42, 13-43, 12-44, 18-38

**REACTIONS.** All bearings 48-0-0.
(lb) - Max Horz 2=174(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 38, 37, 36, 35, 34, 33, 32, 31, 30
Max Grav All reactions 250 lb or less at joint(s) 2, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 38, 37, 36, 35, 34, 33, 32, 31, 30, 28

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 11-12=-101/287, 12-13=-118/334, 13-14=-104/317, 14-15=-104/317, 15-16=-104/317, 16-17=-104/317, 17-18=-118/336, 18-19=-101/289

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-0-0, Exterior(2) 2-0-0 to 20-0-0, Corner(3) 20-0-0 to 23-0-0, Exterior(2) 23-0-0 to 28-0-0, Corner(3) 28-0-0 to 31-0-0, Exterior(2) 31-0-0 to 48-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be User Defined crushing capacity of 425 psi.
11) n/a

12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


December 12,2019

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| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | BE2 | PIGGYBACK BASE SUPPO | 1 | 1 | I39593188 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:09 2019 Page 1
ID:ExmXTTPyjcUBk1Wsk0_IyJyA0WE-gG_NWKsm9v8Rx5TxNGFPAC5fc7NLqpvm6pmc13y9k5K

-0-10-8 20-0-0 28-0-0 48-0-0
0-10-8 20-0-0 8-0-0 20-0-0

Scale = 1:84.1

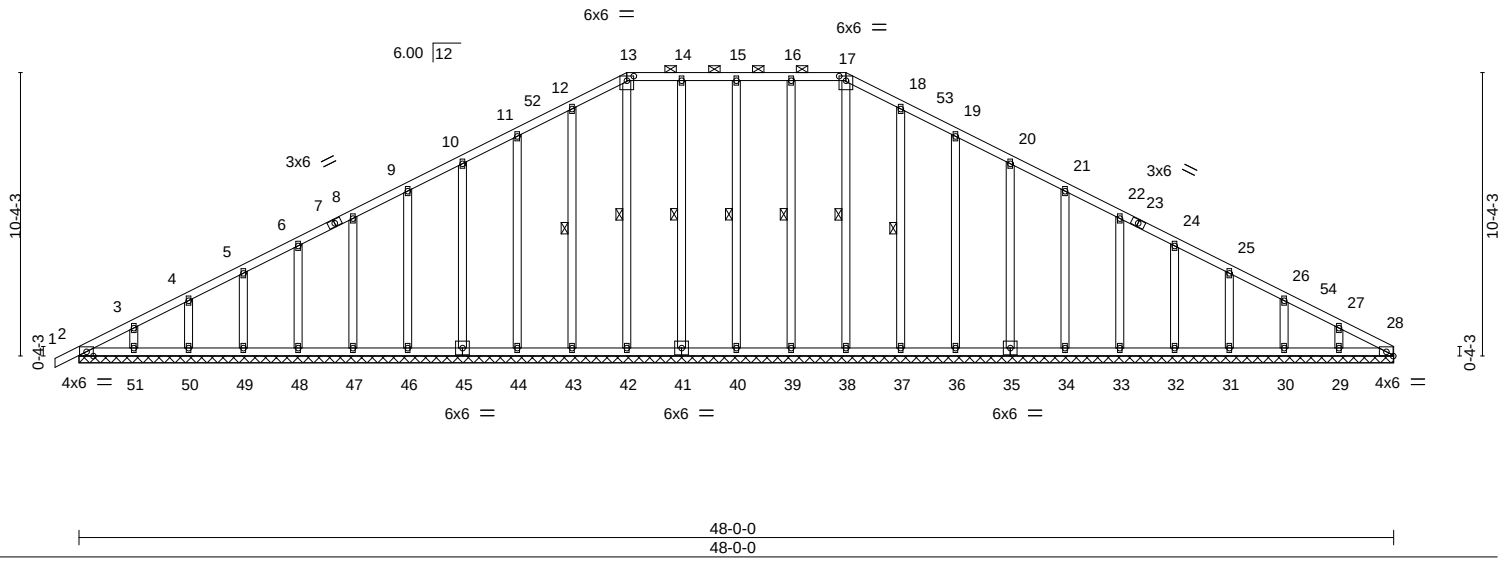


Plate Offsets (X,Y)-- [13:0-3-0,0-2-0], [17:0-3-0,0-2-0]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | -0.00 | 1 | n/r | 120 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | -0.00 | 1 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.15 | Horz(CT) | 0.01 | 28 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 353 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 13-17.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 17-38, 16-39, 15-40, 14-41, 13-42, 12-43, 18-37

**REACTIONS.** All bearings 48-0-0.
(lb) - Max Horz 2=181(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 37, 36, 35, 34, 33, 32, 31, 30, 29
Max Grav All reactions 250 lb or less at joint(s) 2, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 11-12=-99/280, 12-13=-117/327, 13-14=-103/310, 14-15=-103/310, 15-16=-103/310, 16-17=-103/310, 17-18=-117/328, 18-19=-99/281

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-0-0, Exterior(2) 2-0-0 to 20-0-0, Corner(3) 20-0-0 to 23-0-0, Exterior(2) 23-0-0 to 28-0-0, Corner(3) 28-0-0 to 31-0-0, Exterior(2) 31-0-0 to 48-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be User Defined crushing capacity of 425 psi.
11) n/a
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.


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| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | C1 | PIGGYBACK | 24 | 1 | I39593189 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:10 2019 Page 1
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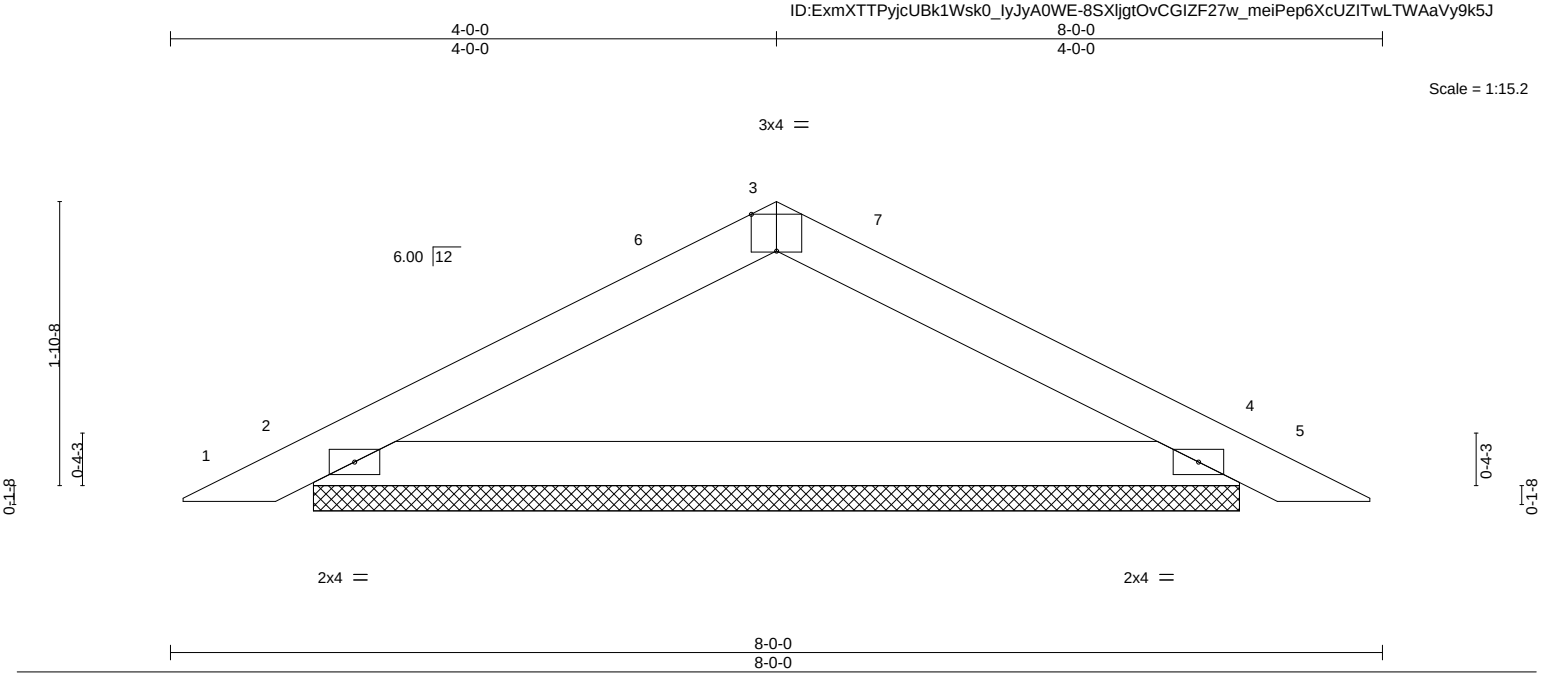


Plate Offsets (X,Y)-- [3:0-2-0,Edge]

| 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 | 0.16 | Vert(LL) | 0.00 | 5 | n/r | 120 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.49 | Vert(CT) | 0.01 | 5 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-P | | | | | | | Weight: 22 lb | FT = 20% |

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

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

**REACTIONS.** (lb/size) 2=278/6-1-6, 4=278/6-1-6
Max Horz 2=30(LC 16)
Max Uplift 2=-41(LC 12), 4=-41(LC 13)

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

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-11 to 3-4-11, Interior(1) 3-4-11 to 4-0-0, Exterior(2) 4-0-0 to 7-0-11, Interior(1) 7-0-11 to 7-7-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be User Defined crushing capacity of 425 psi.
7) n/a

8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.


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| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | CE | GABLE | 2 | 1 | I39593190 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:11 2019 Page 1
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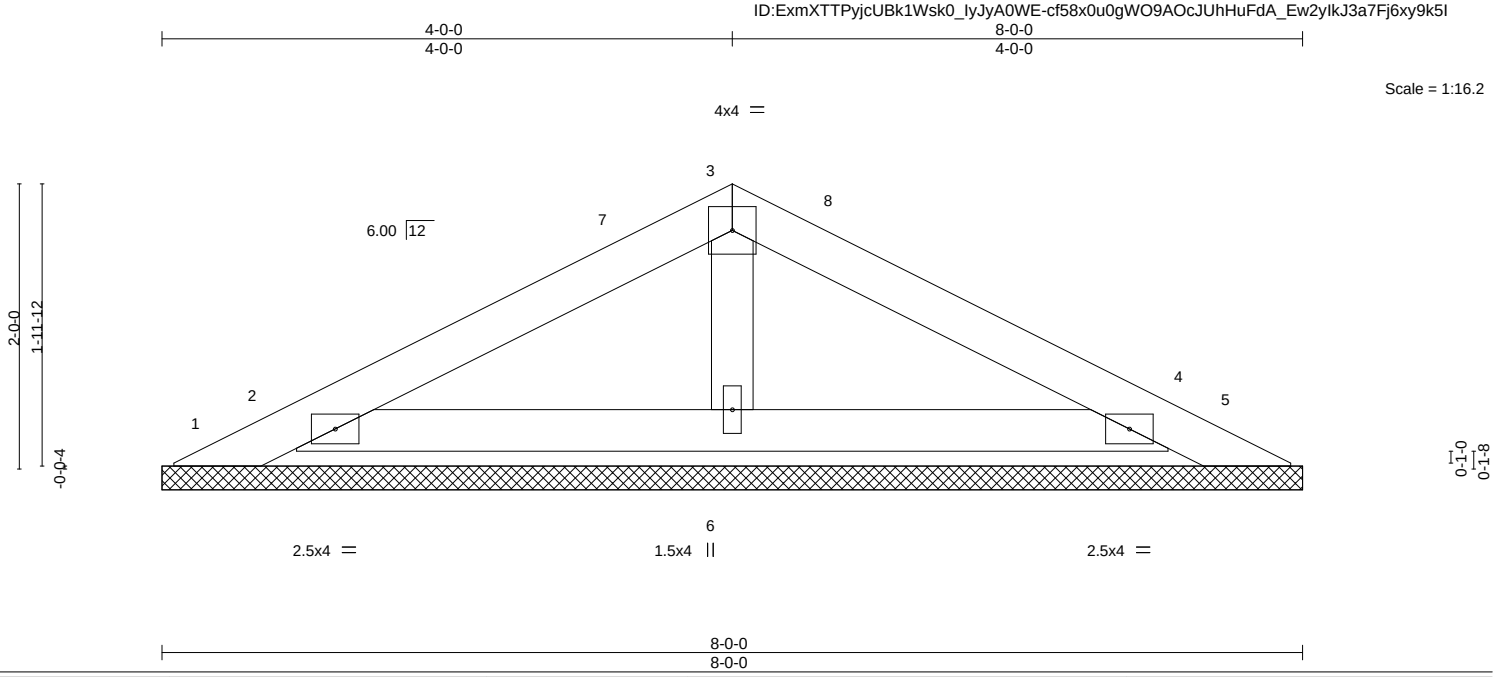


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.14 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.09 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-P | | | | | | | Weight: 24 lb | FT = 20% |

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

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

**REACTIONS.** All bearings 8-0-0.
(lb) - Max Horz 1=-30(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 2=-120(LC 12), 4=-113(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=271(LC 1), 4=271(LC 1)

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

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-11 to 3-4-11, Interior(1) 3-4-11 to 4-0-0, Exterior(2) 4-0-0 to 7-0-11, Interior(1) 7-0-11 to 7-7-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be User Defined crushing capacity of 425 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
10) n/a

11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.


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| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | P1 | COMMON | 4 | 1 | I39593191 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:12 2019 Page 1
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-0-10-8 0-10-8 | 5-0-0 5-0-0 | 10-0-0 5-0-0 | 10-10-8 0-10-8

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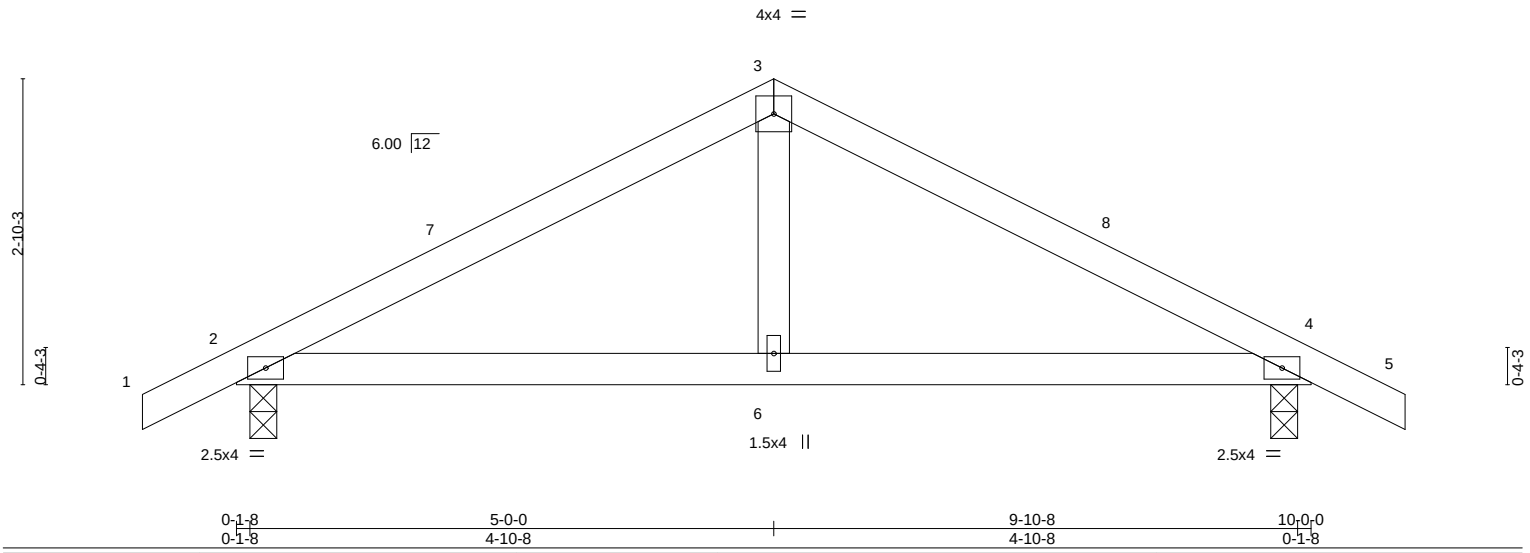


0-1-8 0-1-8 | 5-0-0 4-10-8 | 9-10-8 4-10-8 | 10-0-0 0-1-8

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.32 | Vert(LL) | 0.04 | 4-6 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.44 | Vert(CT) | -0.03 | 2-6 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.01 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 38 lb | FT = 20% |

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

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

**REACTIONS.** (lb/size) 2=450/0-3-0, 4=450/0-3-0
Max Horz 2=49(LC 16)
Max Uplift 2=-75(LC 9), 4=-75(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-540/445, 3-4=-540/442
BOT CHORD 2-6=-309/421, 4-6=-309/421

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-0-0, Exterior(2) 5-0-0 to 8-0-0, Interior(1) 8-0-0 to 10-10-8 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be User Defined crushing capacity of 425 psi.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.


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| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | PE | COMMON SUPPORTED GAB | 1 | 1 | I39593192 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:13 2019 Page 1
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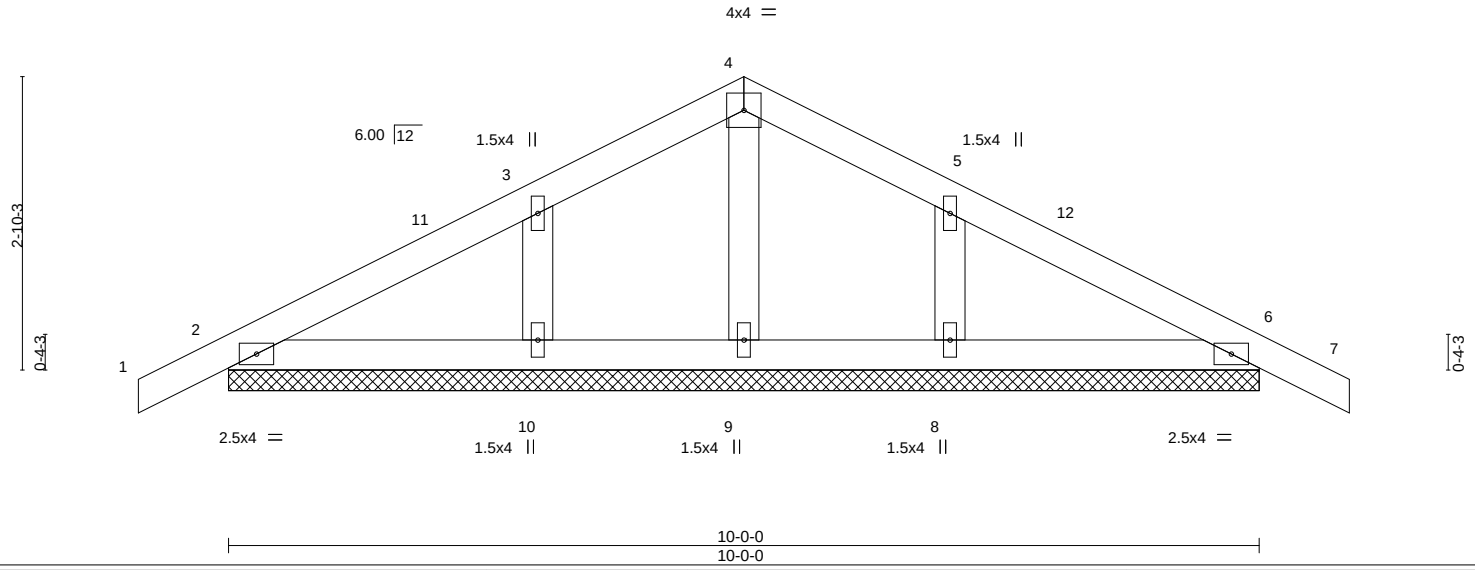
-0-10-8 0-10-8 | 5-0-0 5-0-0 | 10-0-0 5-0-0 | 10-10-8 0-10-8

Scale = 1:22.4




| 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 | 0.10 | Vert(LL) | 0.00 | 7 | n/r | 120 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.06 | Vert(CT) | 0.00 | 7 | n/r | 120 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.00 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 42 lb | FT = 20% |

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

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

**REACTIONS.** All bearings 10-0-0.
(lb) - Max Horz 2=-49(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 5-0-0, Corner(3) 5-0-0 to 8-0-0, Exterior(2) 8-0-0 to 10-10-8 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be User Defined crushing capacity of 425 psi.


December 12,2019



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| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | V1 | GABLE | 1 | 1 | I39593193 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:14 2019 Page 1
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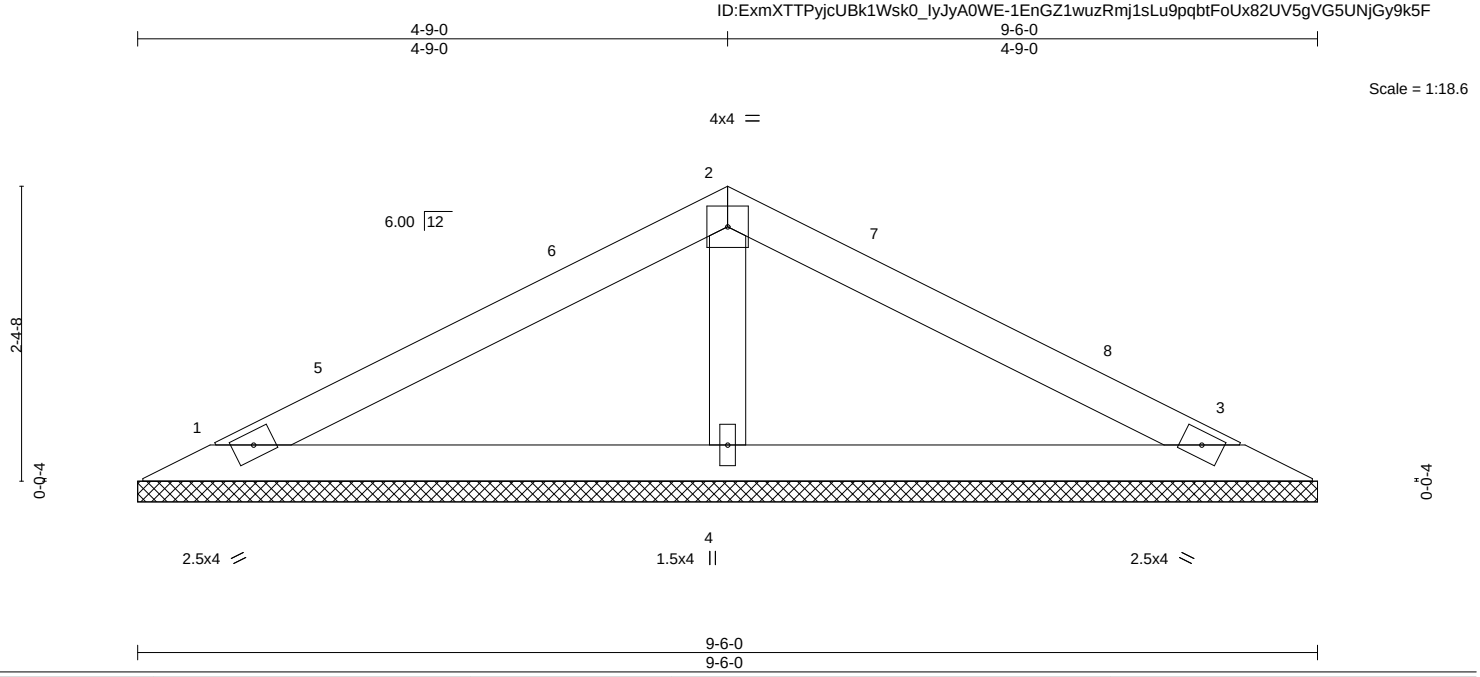


| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.23 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.17 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 30 lb | FT = 20% |

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

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

**REACTIONS.** (lb/size) 1=150/9-6-0, 3=150/9-6-0, 4=359/9-6-0
Max Horz 1=-34(LC 13)
Max Uplift 1=-30(LC 12), 3=-37(LC 13), 4=-17(LC 12)
Max Grav 1=152(LC 23), 3=152(LC 24), 4=359(LC 1)

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

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-9-0, Exterior(2) 4-9-0 to 7-9-0, Interior(1) 7-9-0 to 8-10-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be User Defined crushing capacity of 425 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.


December 12,2019




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| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | V1A | GABLE | 1 | 1 | I39593194 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:14 2019 Page 1
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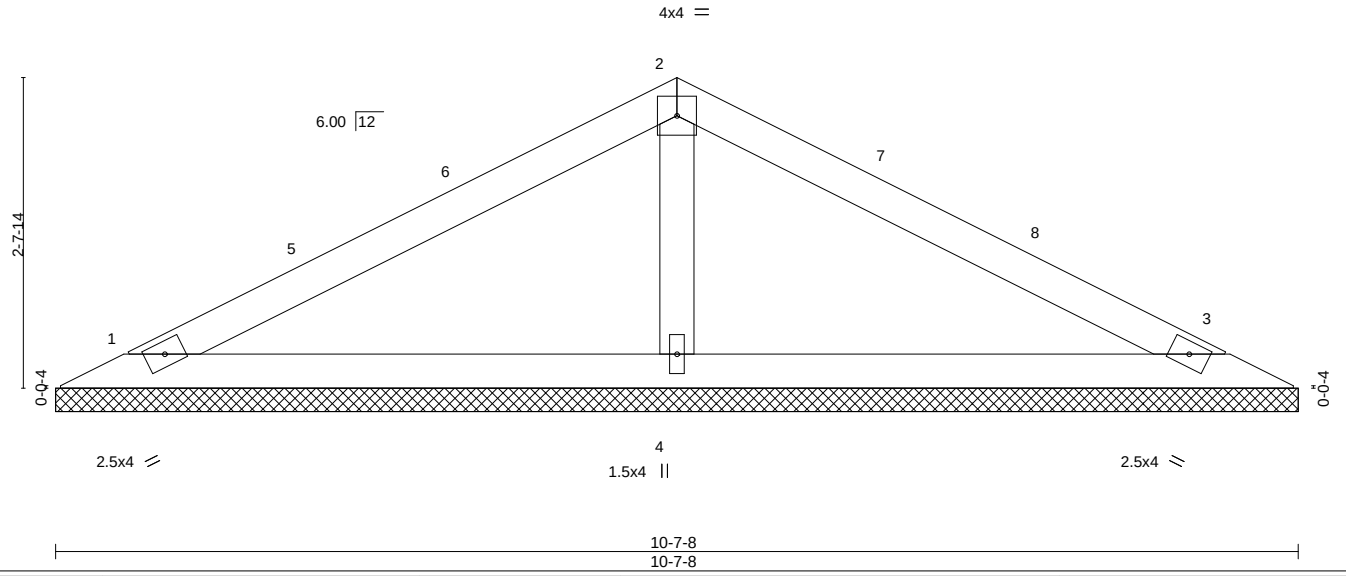
5-3-12 / 5-3-12 | 10-7-8 / 5-3-12

Scale = 1:19.7




10-7-8 / 10-7-8

| 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 | 0.31 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.22 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | Weight: 34 lb | FT = 20% |

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

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

**REACTIONS.** (lb/size) 1=171/10-7-8, 3=171/10-7-8, 4=408/10-7-8
Max Horz 1=39(LC 12)
Max Uplift 1=-35(LC 12), 3=-42(LC 13), 4=-19(LC 12)
Max Grav 1=173(LC 23), 3=173(LC 24), 4=408(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-270/120

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-3-12, Exterior(2) 5-3-12 to 8-3-12, Interior(1) 8-3-12 to 9-11-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be User Defined crushing capacity of 425 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.


December 12,2019

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| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | V2 | VALLEY | 1 | 1 | I39593195 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:15 2019 Page 1
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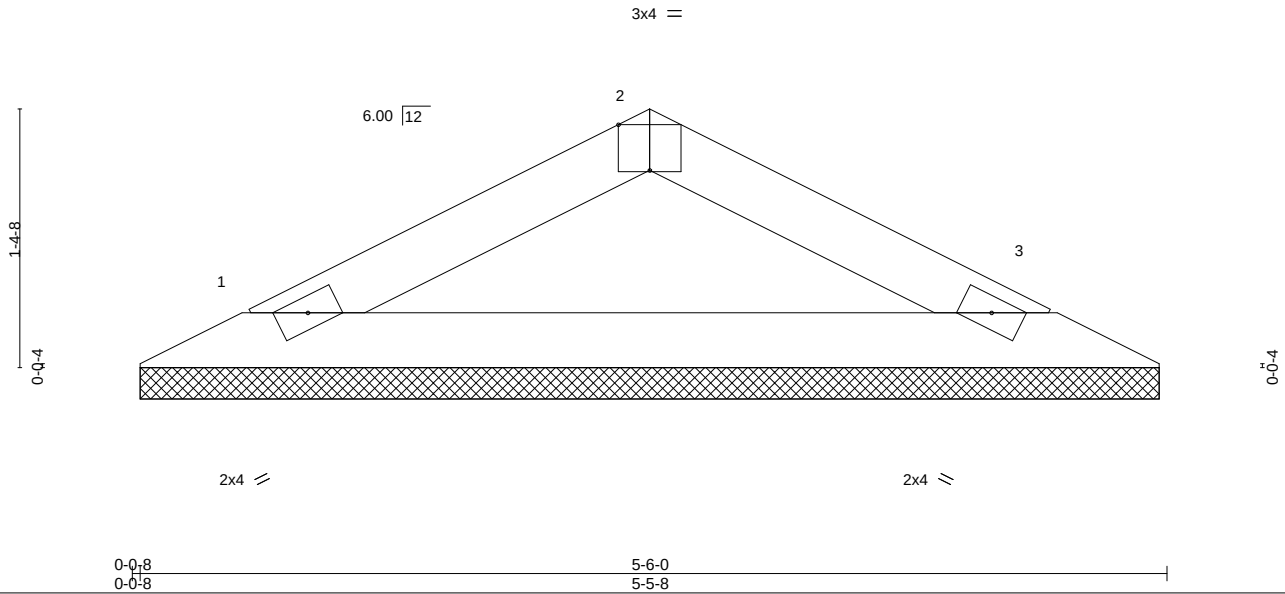


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 20.0 | Plate Grip DOL | 1.15 | TC | 0.13 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.38 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-P | | | | | | | Weight: 15 lb | FT = 20% |

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

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-6-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=170/5-5-0, 3=170/5-5-0
Max Horz 1=-18(LC 13)
Max Uplift 1=-20(LC 12), 3=-20(LC 13)

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

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be User Defined crushing capacity of 425 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.


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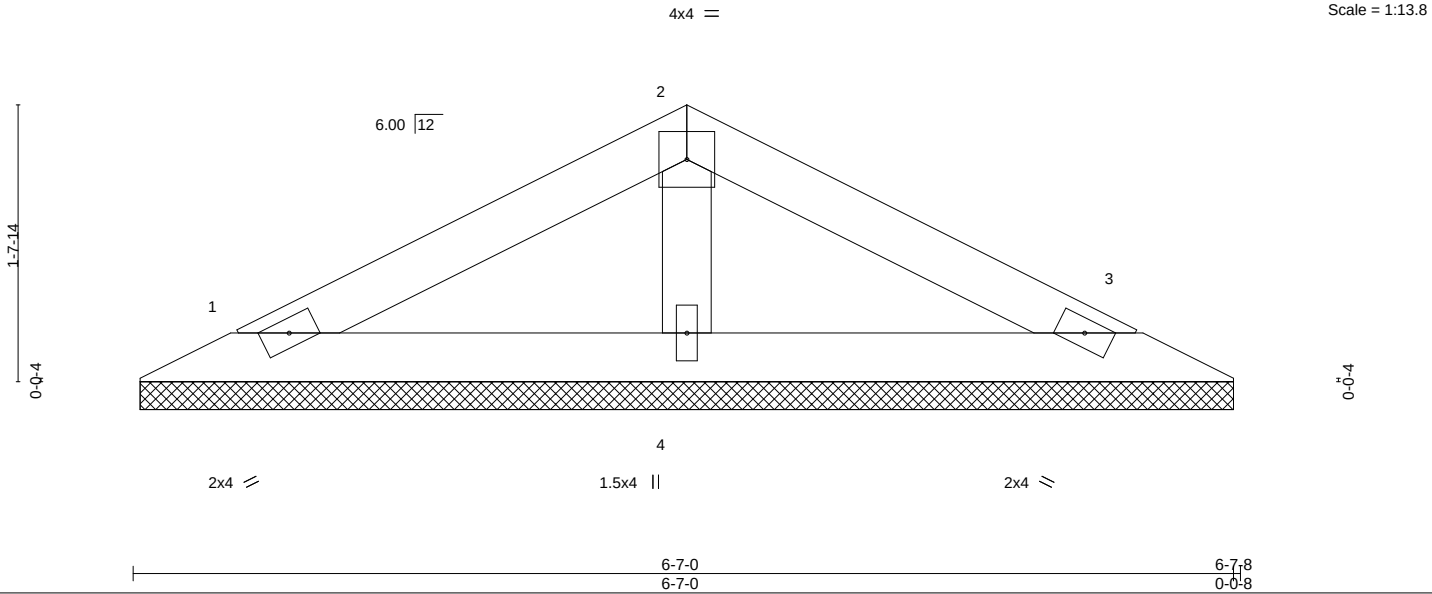
| Job | Truss | Truss Type | Qty | Ply | 150.1910.B |
|---|---|---|---|---|---|
| 22858A | V2A | VALLEY | 1 | 1 | I39593196 |
| | | | | | Job Reference (optional) |

84 Components (Dunn), Dunn, NC - 28334, 8.330 s Dec 5 2019 MiTek Industries, Inc. Thu Dec 12 10:56:16 2019 Page 1
ID:ExmXTTPyjcUBk1Wsk0_lyJyA0WE-zcv1_jx9V20RHAVHHEt3ygtqixlfz?VokPzUn9y9k5D

3-3-12 6-7-8
3-3-12 3-3-12




| 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 | 0.22 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.15 | BC | 0.12 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code IRC2015/TPI2014 | | Matrix-P | | | | | | | Weight: 20 lb | FT = 20% |

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

**REACTIONS.** (lb/size) 1=108/6-6-8, 3=108/6-6-8, 4=213/6-6-8
Max Horz 1=-22(LC 13)
Max Uplift 1=-25(LC 12), 3=-29(LC 13), 4=-1(LC 12)

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

**NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be User Defined crushing capacity of 425 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.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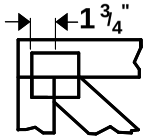
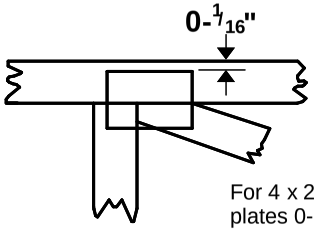
# Symbols

## PLATE LOCATION AND ORIENTATION




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




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

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

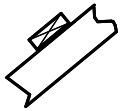
*** Plate location details available in MiTek 20/20 software or upon request.**

## PLATE SIZE

4 x 4

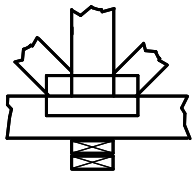
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

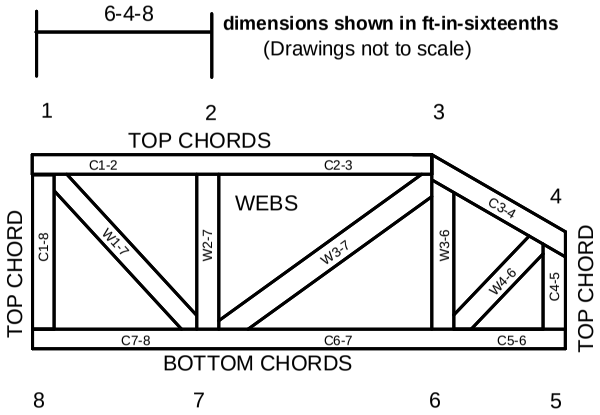


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

**Industry Standards:**

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System




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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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



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# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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