

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 1800932-1800932A  
CL 3145 CP

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: I35954404 thru I35954429

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844



January 25, 2019

Sevier, Scott

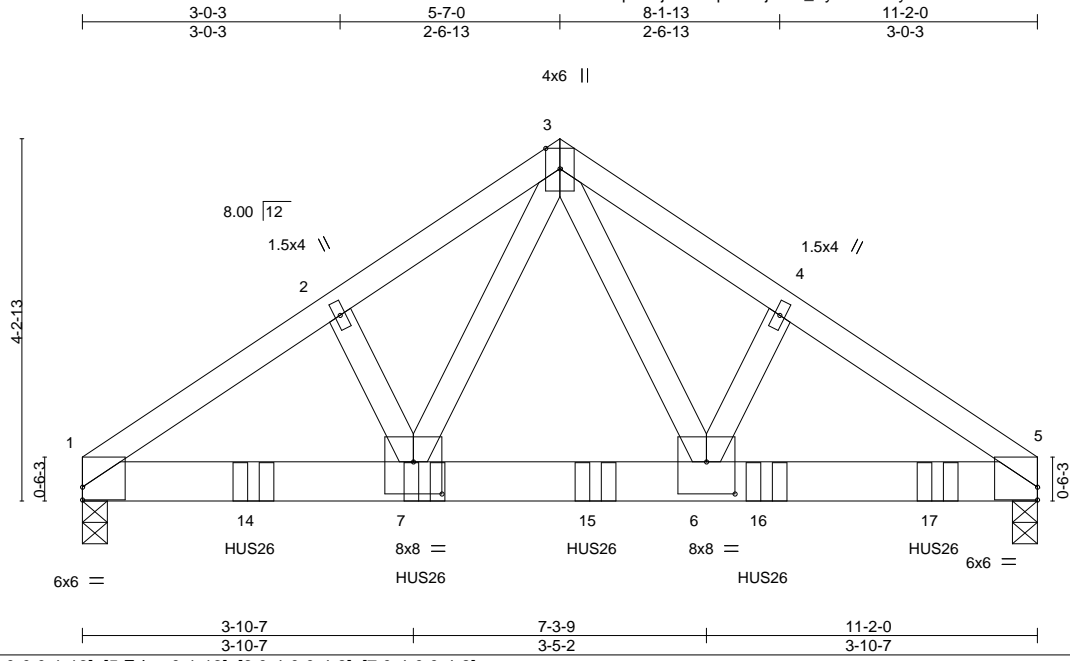
**IMPORTANT NOTE:** Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job 1800932-1800932A	Truss GR01	Truss Type Common Girder	Qty 1	Ply 2	CL 3145 CP	135954404
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84 Components, Dunn, NC - 28334,

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Scale = 1:26.9

Plate Offsets (X,Y)--	[1:0-0-0,0-1-13], [5:Edge,0-1-13], [6:0-4-0,0-4-8], [7:0-4-0,0-4-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.30	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.93	Vert(LL) -0.04 6-7 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.64	Vert(CT) -0.08 6-7 >999 180		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Horz(CT) 0.02 5 n/a n/a		
				Weight: 128 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-2-6 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 1=3723/0-3-8, 5=4216/0-3-8  
 Max Horz 1=87(LC 7)  
 Max Uplift 1=808(LC 8), 5=916(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-5228/1158, 2-3=-5164/1193, 3-4=-5221/1206, 4-5=-5279/1169  
 BOT CHORD 1-7=-914/4329, 6-7=-598/3068, 5-6=-927/4388  
 WEBS 3-6=-693/3087, 3-7=-669/2980

**NOTES-**

- 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 808 lb uplift at joint 1 and 916 lb uplift at joint 5.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 10-0-0 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-5=-60, 8-11=-20  
 Concentrated Loads (lb)  
 Vert: 7=-1409(F) 14=-1409(F) 15=-1409(F) 16=-1409(F) 17=-1409(F)



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

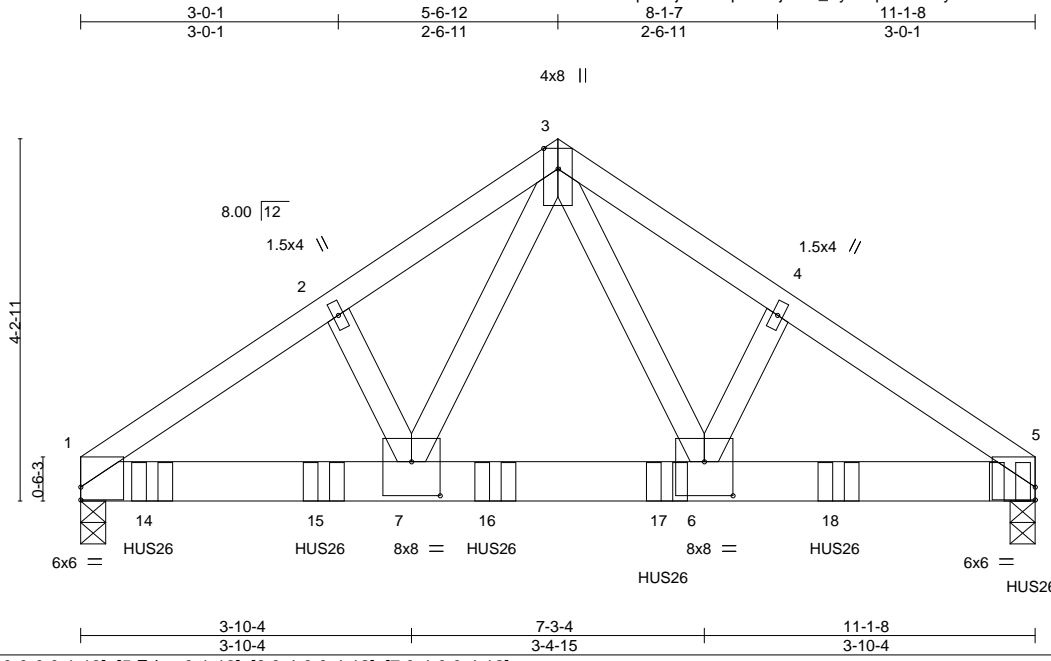


Job 1800932-1800932A	Truss GR02	Truss Type Common Girder	Qty 1	Ply 2	CL 3145 CP	135954405
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Scale = 1:26.9

Plate Offsets (X,Y)--	[1:0-0,0,0-1-13], [5:Edge,0-1-13], [6:0-4-0,0-4-12], [7:0-4-0,0-4-12]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	BC 0.36	Vert(LL)	-0.04	6-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.95	Vert(CT)	-0.09	6-7	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.73	Horz(CT)	0.02	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 127 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-10-5 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

<b>REACTIONS.</b> (lb/size)	1=4801/0-3-8 (req. 0-3-14), 5=5337/0-3-8 (req. 0-4-5)	<b>SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.</b>
Max Horz	1=86(LC 24)	
Max Uplift	1=813(LC 8), 5=897(LC 8)	
Max Grav	1=4920(LC 2), 5=5478(LC 2)	

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-5827/990, 2-3=-5776/1026, 3-4=-5604/999, 4-5=-5663/965
BOT CHORD 1-7=-777/4848, 6-7=-489/3363, 5-6=-751/4683
WEBS 3-6=-542/3178, 3-7=-594/3512

- NOTES-**
- 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-4-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - WARNING:** Required bearing size at joint(s) 1, 5 greater than input bearing size.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 813 lb uplift at joint 1 and 897 lb uplift at joint 5.
  - Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-3-8 oc max. starting at 0-10-0 from the left end to 11-1-8 to connect truss(es) to front face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.

<b>LOAD CASE(S)</b> Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-5=-60, 8-11=-20



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Continued on page 2

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**TRENCO**  
ENGINEERING BY  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job 1800932-1800932A	Truss GR02	Truss Type Common Girder	Qty 1	Ply <b>2</b>	CL 3145 CP Job Reference (optional)	135954405
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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 11=-1547(F) 14=-1542(F) 15=-1540(F) 16=-1540(F) 17=-1540(F) 18=-1540(F)

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818 Soundside Road  
Edenton, NC 27932

Job 1800932-1800932A	Truss M01	Truss Type MONOPITCH	Qty 2	Ply 1	CL 3145 CP	135954406
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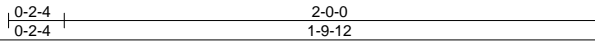
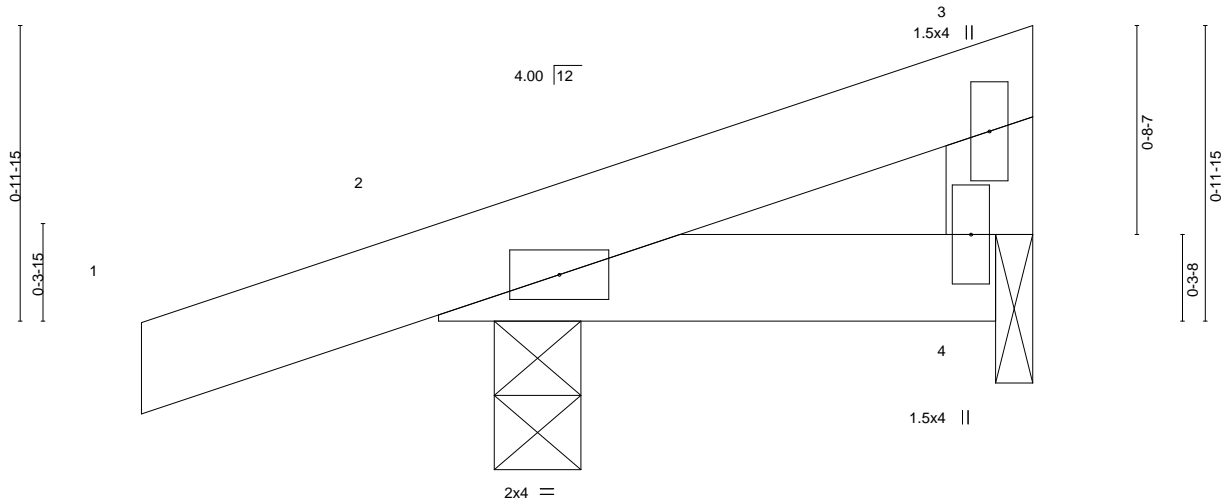
84 Components, Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:19 2019 Page 1

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Scale = 1:7.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP						
								Weight: 8 lb	FT = 20%

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

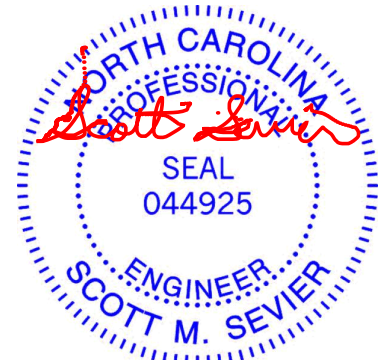
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=150/0-3-8, 4=58/0-1-8  
 Max Horz 2=31(LC 7)  
 Max Uplift 2=-73(LC 8), 4=-3(LC 8)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 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.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 2 and 3 lb uplift at joint 4.



January 25, 2019

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818 Soundside Road  
 Edenton, NC 27932

Job 1800932-1800932A	Truss M02	Truss Type MONOPITCH	Qty 3	Ply 1	CL 3145 CP	135954407
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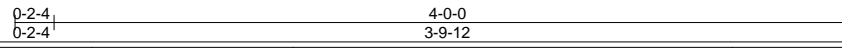
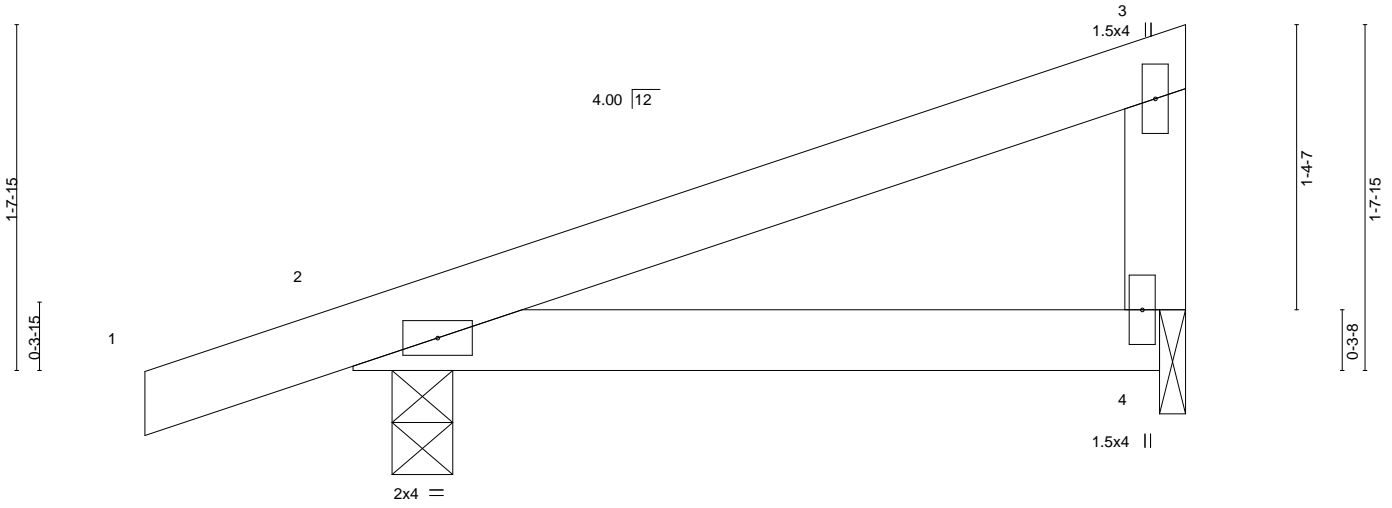
84 Components, Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:20 2019 Page 1

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Scale = 1:11.1



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 0.18	Vert(LL)	-0.01	4-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.02	4-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP						
								Weight: 15 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 4=146/0-1-8, 2=222/0-3-8  
 Max Horz 2=58(LC 7)  
 Max Uplift 4=-29(LC 8), 2=-81(LC 8)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 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.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 4 and 81 lb uplift at joint 2.



January 25, 2019

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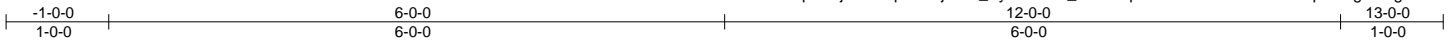


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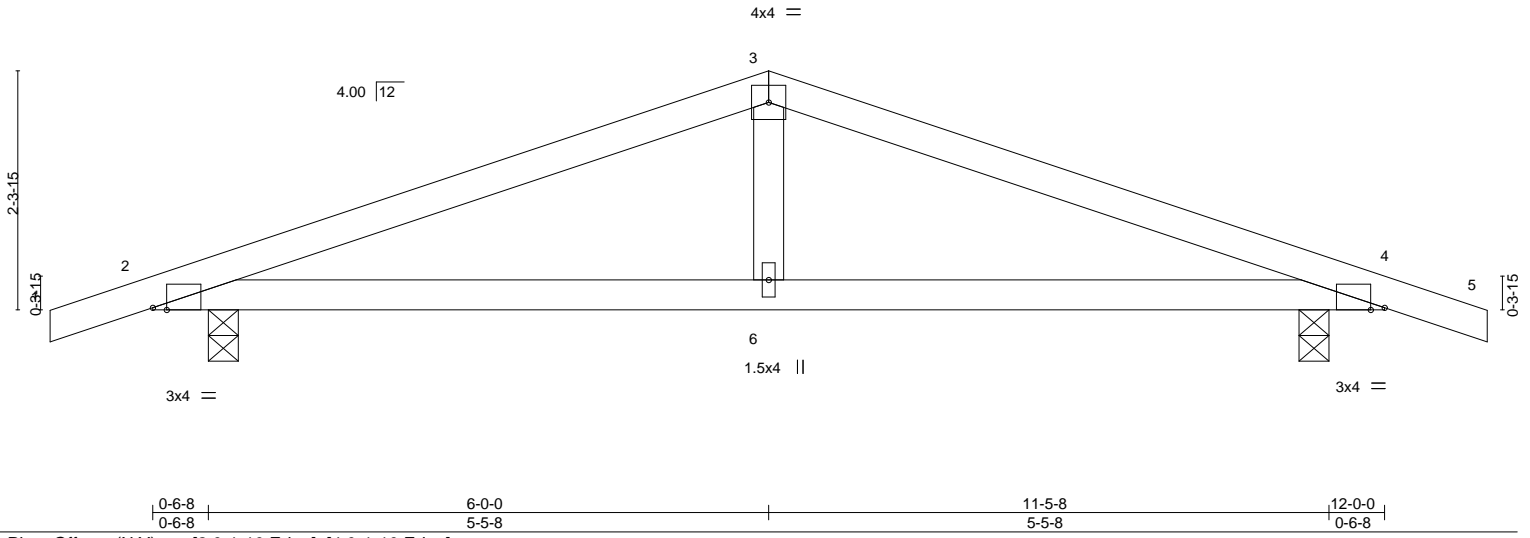
Job 1800932-1800932A	Truss P1	Truss Type Hip	Qty 3	Ply 1	CL 3145 CP	135954408
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8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:20 2019 Page 1  
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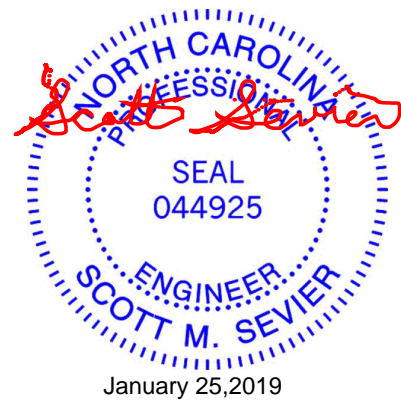
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	-0.02	6-14	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.04	6-14	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.01	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 43 lb	FT = 20%

<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.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=540/0-3-8, 4=540/0-3-8  
Max Horz 2=-29(LC 6)  
Max Uplift 2=-145(LC 8), 4=-145(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-645/111, 3-4=-645/111  
BOT CHORD 2-6=-28/556, 4-6=-28/556

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 145 lb uplift at joint 2 and 145 lb uplift at joint 4.



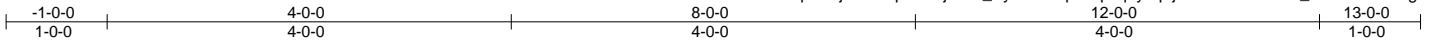


Job	Truss	Truss Type	Qty	Ply	CL 3145 CP	135954409
1800932-1800932A	PH	Hip Girder	1	1	Job Reference (optional)	

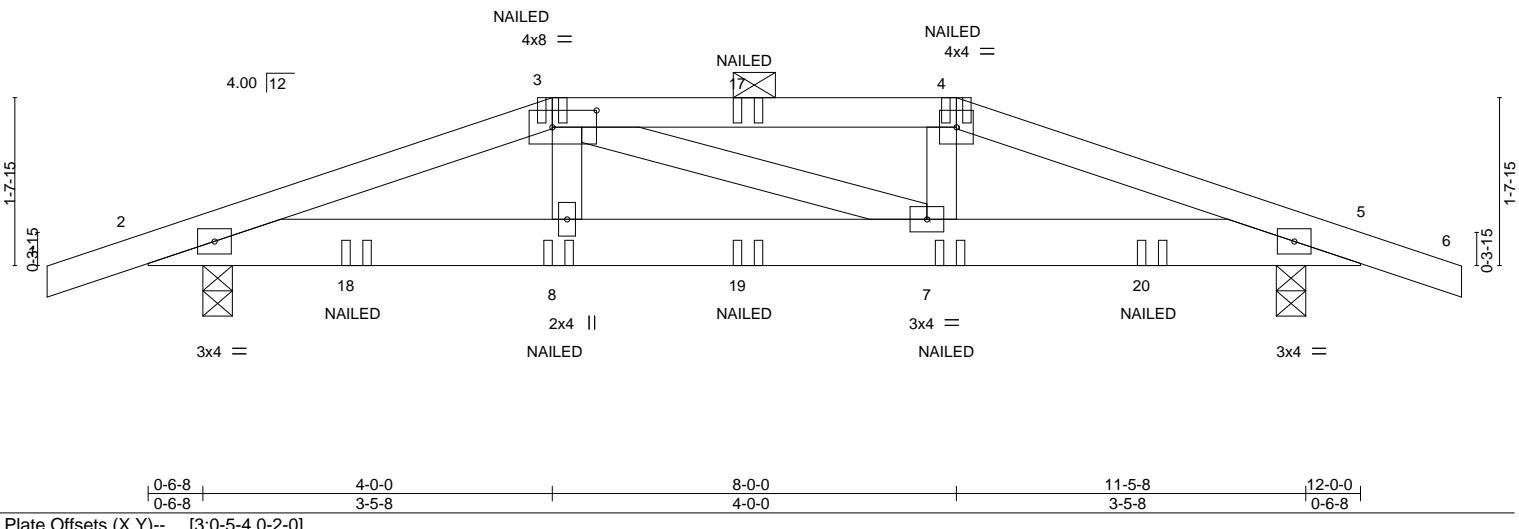
84 Components, Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:21 2019 Page 1

ID:t3epcH3jsYDtIBpFK2vjoozk\_By-0LU8zp?Tqtbg7ysqZj8UA2cTERvP3X\_P2hVACYzrugm



Scale = 1:22.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.02	7-8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.04	7-8	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.06	Horz(CT)	0.01	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						Weight: 58 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 5-10-9 oc purlins, except  
2-0-0 oc purlins (5-7-6 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

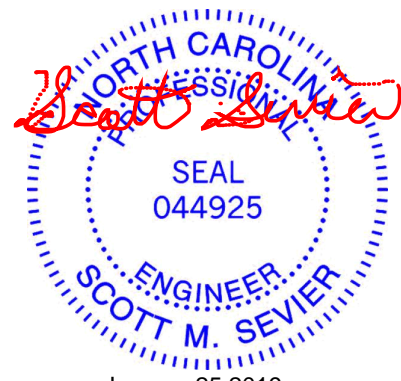
**REACTIONS.** (lb/size) 2=683/0-3-8, 5=683/0-3-8  
Max Horz 2=21(LC 7)  
Max Uplift 2=-185(LC 8), 5=-184(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1004/184, 3-4=-924/177, 4-5=-992/179  
BOT CHORD 2-8=-118/927, 7-8=-111/936, 5-7=-122/916

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 185 lb uplift at joint 2 and 184 lb uplift at joint 5.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-60, 4-6=-60, 2-5=-20  
Concentrated Loads (lb)  
Vert: 3=-22(F) 4=-22(F) 8=-15(F) 7=-15(F) 17=-22(F) 18=-87(F) 19=-15(F) 20=-87(F)



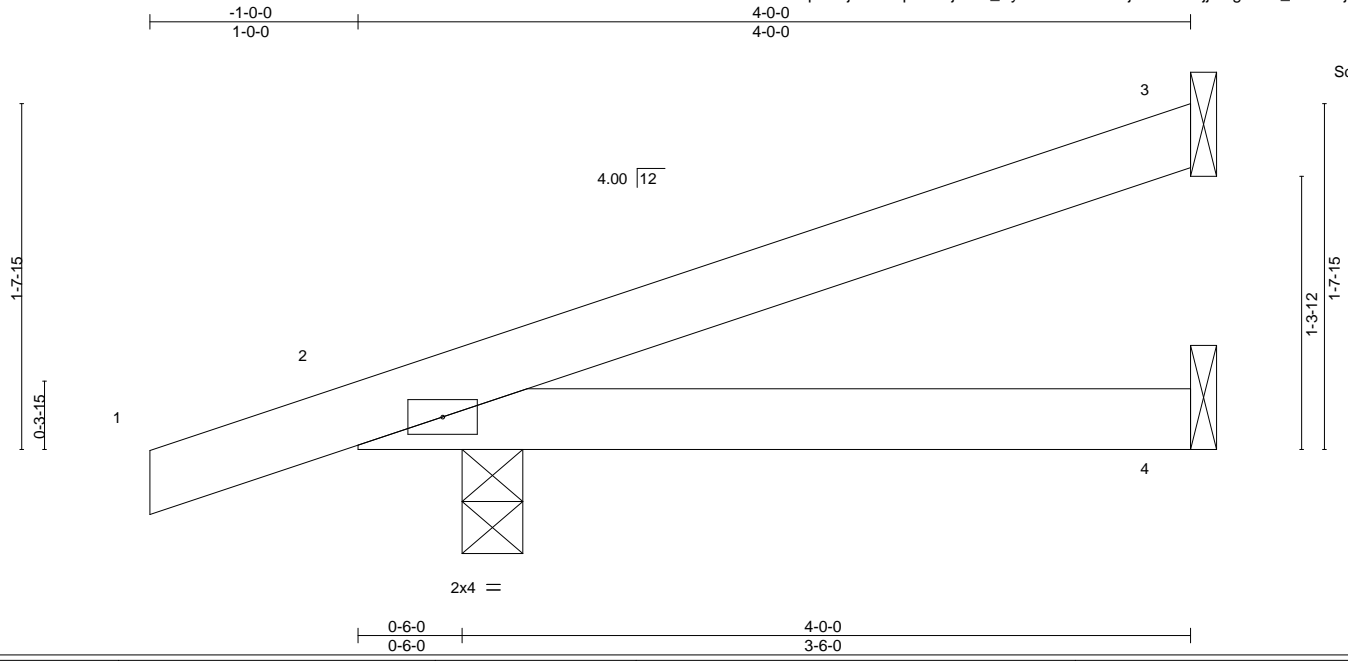


Job 1800932-1800932A	Truss PJ1	Truss Type Jack-Open	Qty 3	Ply 1	CL 3145 CP	135954410
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ID:t3epcH3jsYDtlBpFK2vjoozk\_By-UX2XA905bAjhl6R06QfjjG9gFrl5o\_AZGLFjk\_zrugl



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)	-0.01	4-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.01	4-9	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP					Weight: 14 lb	FT = 20%

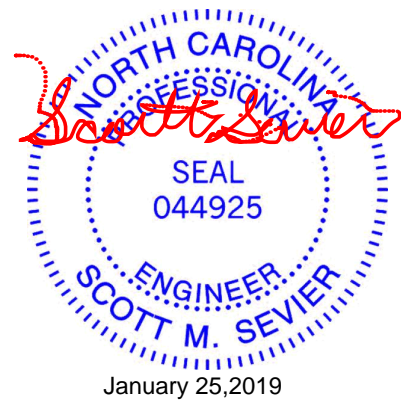
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=82/Mechanical, 2=258/0-3-8, 4=35/Mechanical  
 Max Horz 2=72(LC 8)  
 Max Uplift 3=-39(LC 8), 2=-86(LC 8)  
 Max Grav 3=82(LC 1), 2=258(LC 1), 4=60(LC 3)

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

**NOTES-**

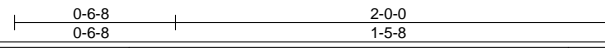
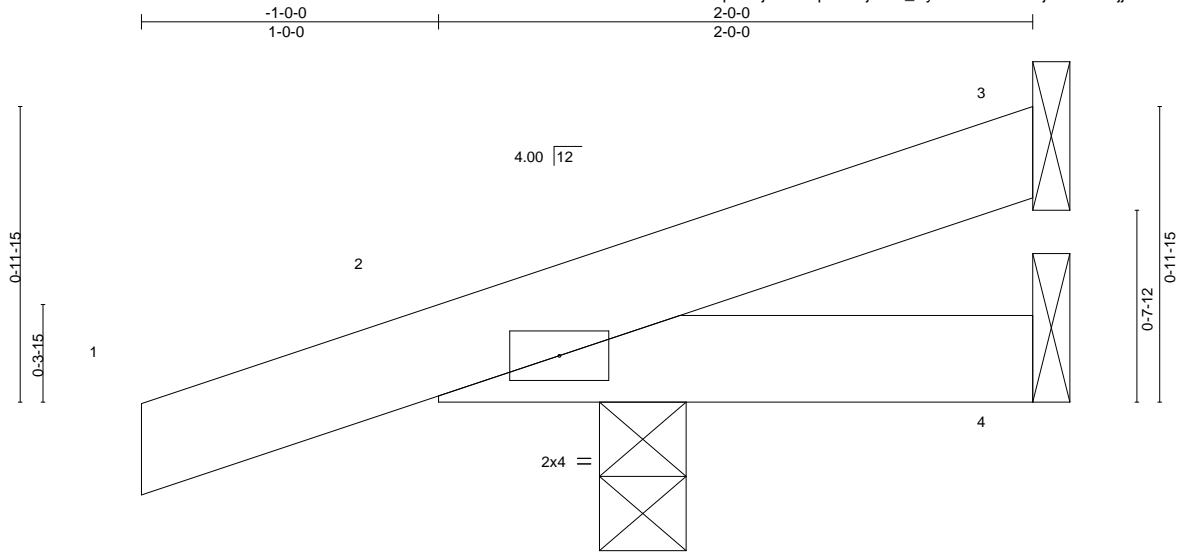
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 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.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 3 and 86 lb uplift at joint 2.



Job 1800932-1800932A	Truss PJ2	Truss Type Jack-Open	Qty 2	Ply 1	CL 3145 CP	135954411
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8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:22 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 0.09	Vert(LL)	-0.00	5	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP					Weight: 8 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 2-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=13/Mechanical, 4=-7/Mechanical, 2=213/0-3-8  
 Max Horz 2=46(LC 8)  
 Max Uplift 3=-5(LC 5), 4=-7(LC 1), 2=-96(LC 8)  
 Max Grav 3=13(LC 13), 4=20(LC 8), 2=213(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 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.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 3, 7 lb uplift at joint 4 and 96 lb uplift at joint 2.



January 25, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job 1800932-1800932A	Truss PJJ	Truss Type Half Hip Girder	Qty 2	Ply 1	CL 3145 CP	135954412
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Job Reference (optional)						ID:t3epcH3jsYDtIBpFK2vjoozk_By-yjcvOV1kMURYMG0Cg8AyGTisgFevXRDiV?_HHQzrugk

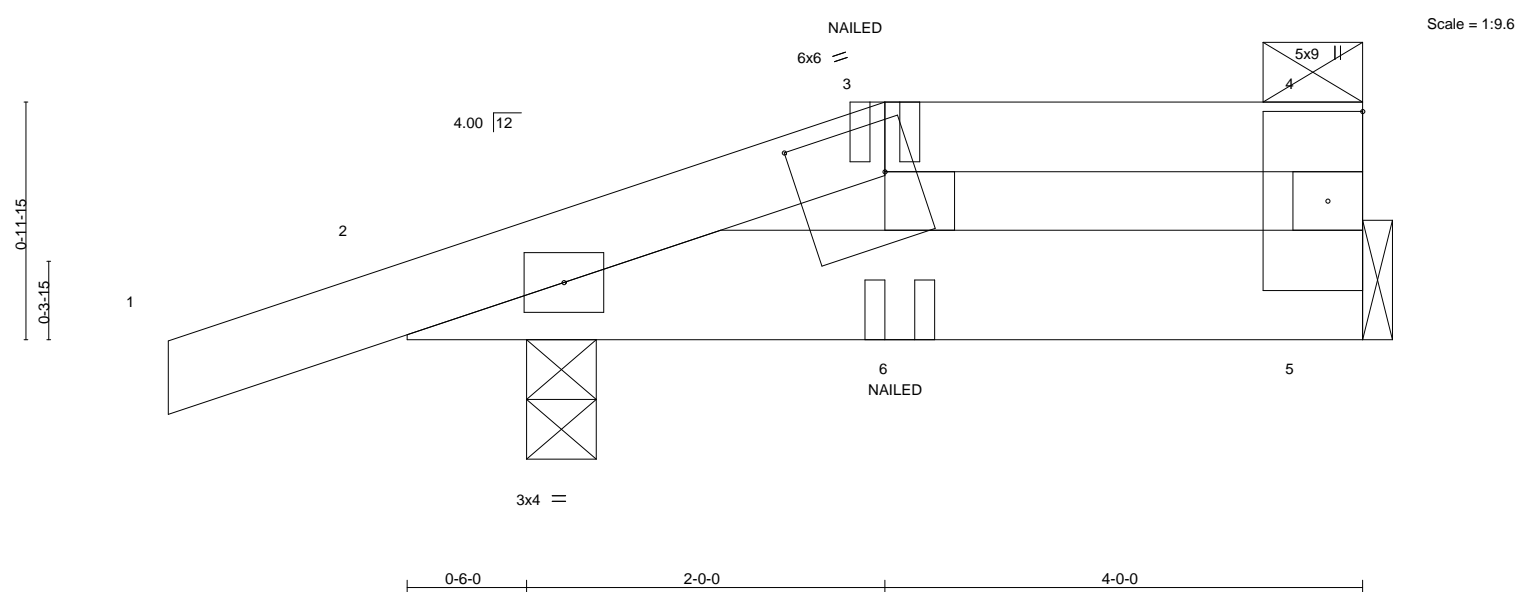
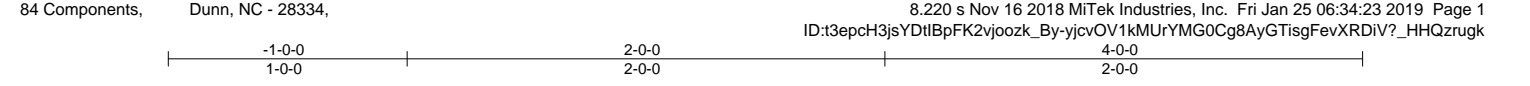


Plate Offsets (X,Y)--	[3:0-4-8,0-2-8], [4:0-0-0,0-1-12], [5:0-0-0,0-1-12], [6:0-1-11,0-0-9]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	6	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.01	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP						
								Weight: 18 lb	FT = 20%

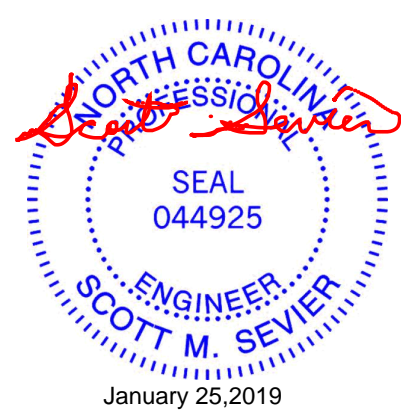
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 5=102/Mechanical, 2=267/0-3-8  
 Max Horz 2=32(LC 5)  
 Max Uplift 5=-22(LC 5), 2=-99(LC 8)  
 Max Grav 5=107(LC 18), 2=267(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 5 and 99 lb uplift at joint 2.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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



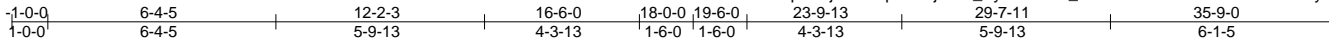


Job 1800932-1800932A	Truss T01A	Truss Type ROOF TRUSS	Qty 6	Ply 1	CL 3145 CP	135954414
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ID:3epcH3jsYDtIBpFK2vjoozk\_By-u6kfoB2\_u55Fca9boZDQLun2x26S?DB?yITOLJzrugi



Scale: 3/16"=1'

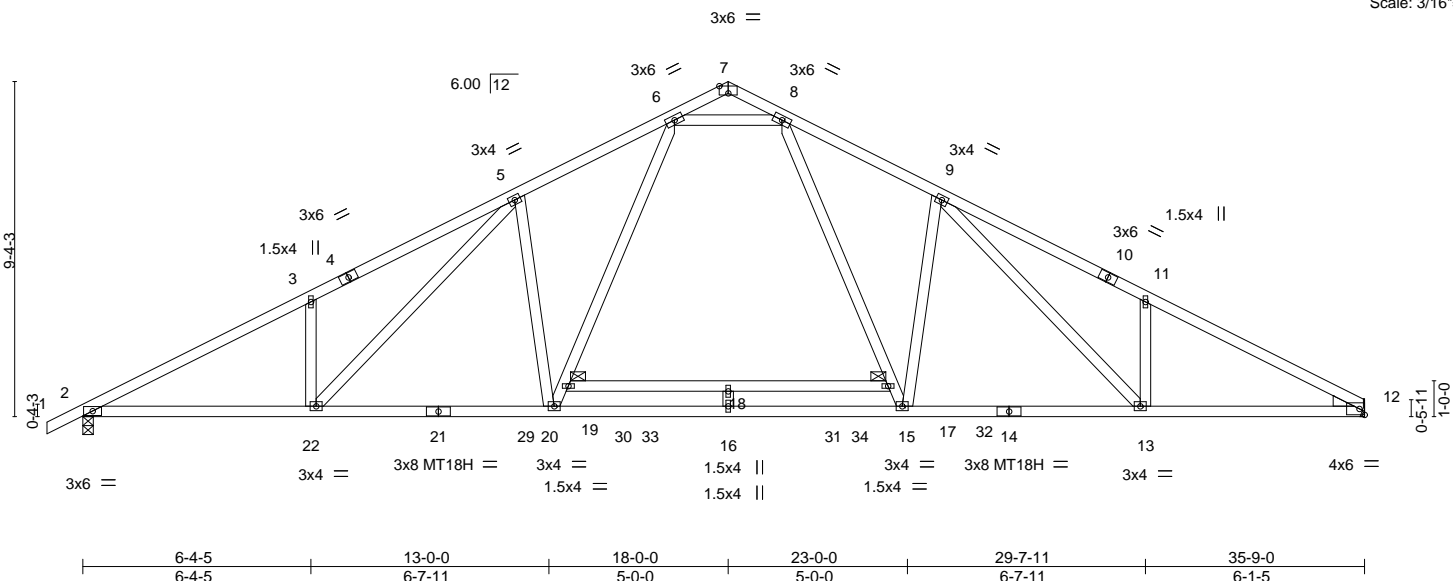


Plate Offsets (X,Y)--	[7:0-3-0,Edge]
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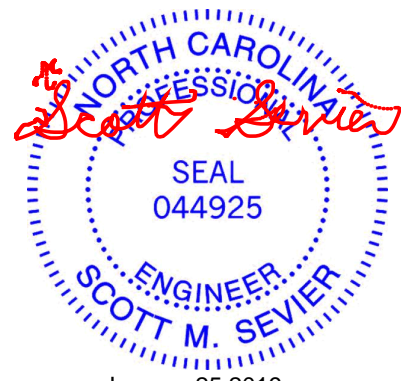
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.75	Vert(LL)	-0.50	18	>863	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.93	18	>461	MT18H	244/190
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.56	Horz(CT)	0.12	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						
								Weight: 210 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.2 *Except* 14-21: 2x4 SP DSS	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	
WEDGE	
Right: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=1620/0-3-8, 12=1560/Mechanical  
 Max Horz 2=186(LC 7)  
 Max Uplift 2=-291(LC 8), 12=-243(LC 8)  
 Max Grav 2=1710(LC 14), 12=1656(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3213/467, 3-5=-3256/605, 5-6=-2726/480, 8-9=-2705/479, 9-11=-3120/594,  
 11-12=-3112/459  
 BOT CHORD 2-22=-342/2957, 20-22=-168/2535, 16-20=-50/1931, 15-16=-50/1931, 13-15=-167/2421,  
 12-13=-333/2707  
 WEBS 8-17=-123/1175, 15-17=-170/1086, 9-15=-584/281, 9-13=-242/554, 11-13=-330/233,  
 5-20=-618/284, 5-22=-253/663, 3-22=-377/237, 19-20=-172/1126, 6-19=-125/1215,  
 6-8=-1891/425

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 291 lb uplift at joint 2 and 243 lb uplift at joint 12.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 75 lb down and 6 lb up at 18-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



LOAD CASE(S) Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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**TRENCO**  
ENGINEERING BY  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CL 3145 CP	I35954414
1800932-1800932A	T01A	ROOF TRUSS	6	1	Job Reference (optional)	

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**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-7=-60, 7-12=-60, 23-26=-20, 17-19=-20
- Concentrated Loads (lb)
  - Vert: 16=-75(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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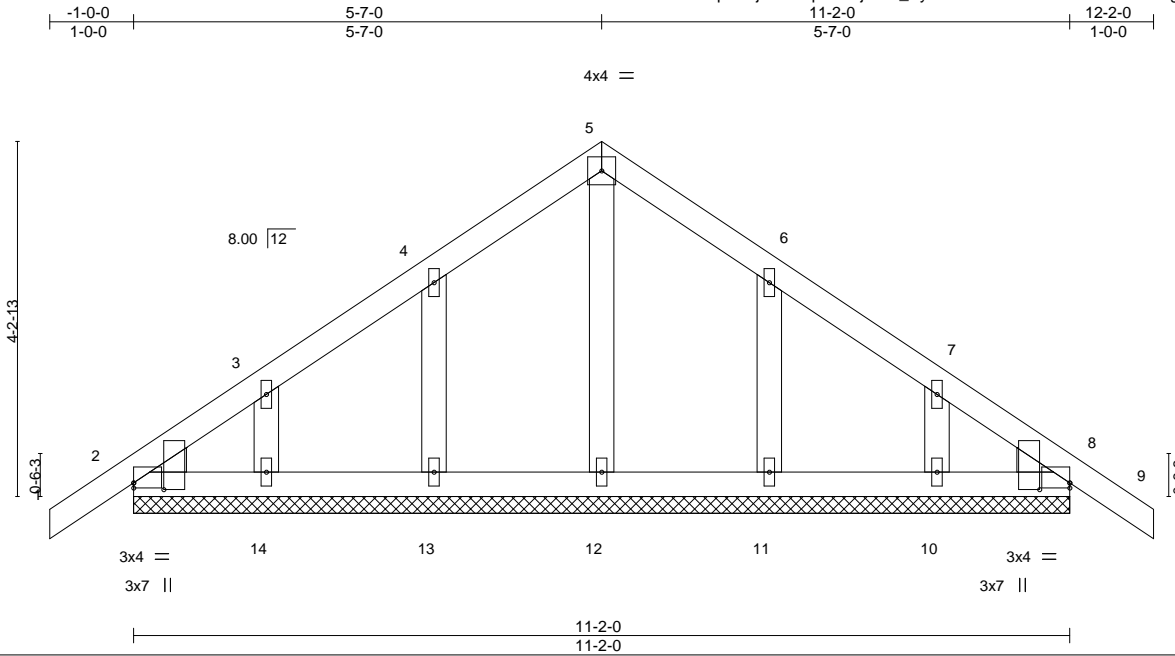
818 Soundside Road  
 Edenton, NC 27932



Job 1800932-1800932A	Truss T01GE	Truss Type Common Supported Gable	Qty 1	Ply 1	CL 3145 CP	135954415
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8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:26 2019 Page 1  
ID:t3epcH3jsYDIIBpFK2vjoozk\_By-NII10X3cfPD6DkknLGkft6KNJSgBkni8ByDxtlzrugh



Scale = 1:27.5

Plate Offsets (X,Y)--	[2:0-0-0,0-0-12], [2:0-0-15,0-4-5], [8:Edge,0-0-12], [8:0-0-15,0-4-5]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL) -0.00 9 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00 9 n/r 90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00 8 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 57 lb	FT = 20%

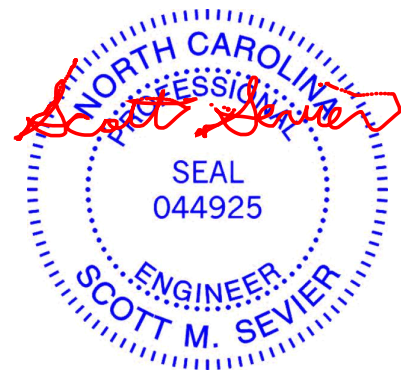
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3, Right: 2x4 SP No.3	

**REACTIONS.** All bearings 11-2-0.  
 (lb) - Max Horz 2=-102(LC 6)  
 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-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 8.



January 25, 2019

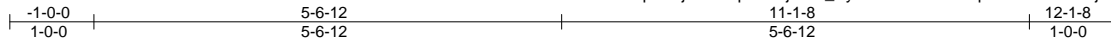




Job 1800932-1800932A	Truss T02GE	Truss Type Common Supported Gable	Qty 1	Ply 1	CL 3145 CP	135954417
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84 Components, Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:28 2019 Page 1  
ID:t3epcH3jsYDtIBpFK2vjoozk\_By-JhQoRC4sB0TqT1uAThm7zXPjoGMfChBRfGi2yezrugf



4x4 =

Scale = 1:27.4

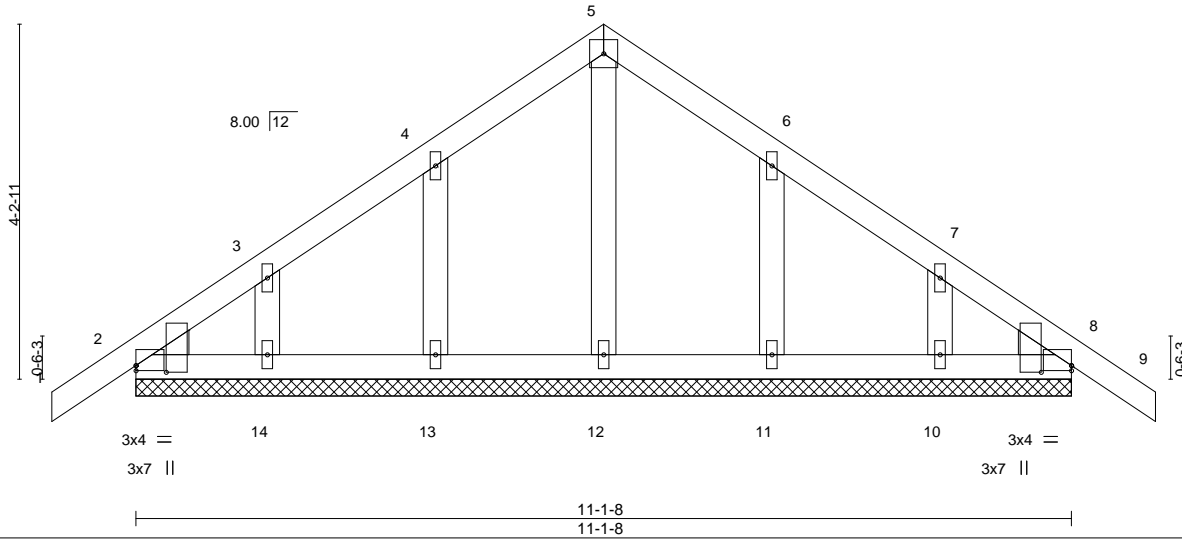


Plate Offsets (X,Y)--	[2:0-0-0,0-0-12], [2:0-0-15,0-4-5], [8:0-0-0,0-0-12], [8:0-0-15,0-4-5]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	9	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	9	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 57 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3, Right: 2x4 SP No.3	

**REACTIONS.** All bearings 11-1-8.  
 (lb) - Max Horz 2=-102(LC 6)  
 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-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 8.



January 25, 2019

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY</p>  <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 1800932-1800932A	Truss T03GE	Truss Type Common Supported Gable	Qty 1	Ply 1	CL 3145 CP	135954419
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84 Components, Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:30 2019 Page 1  
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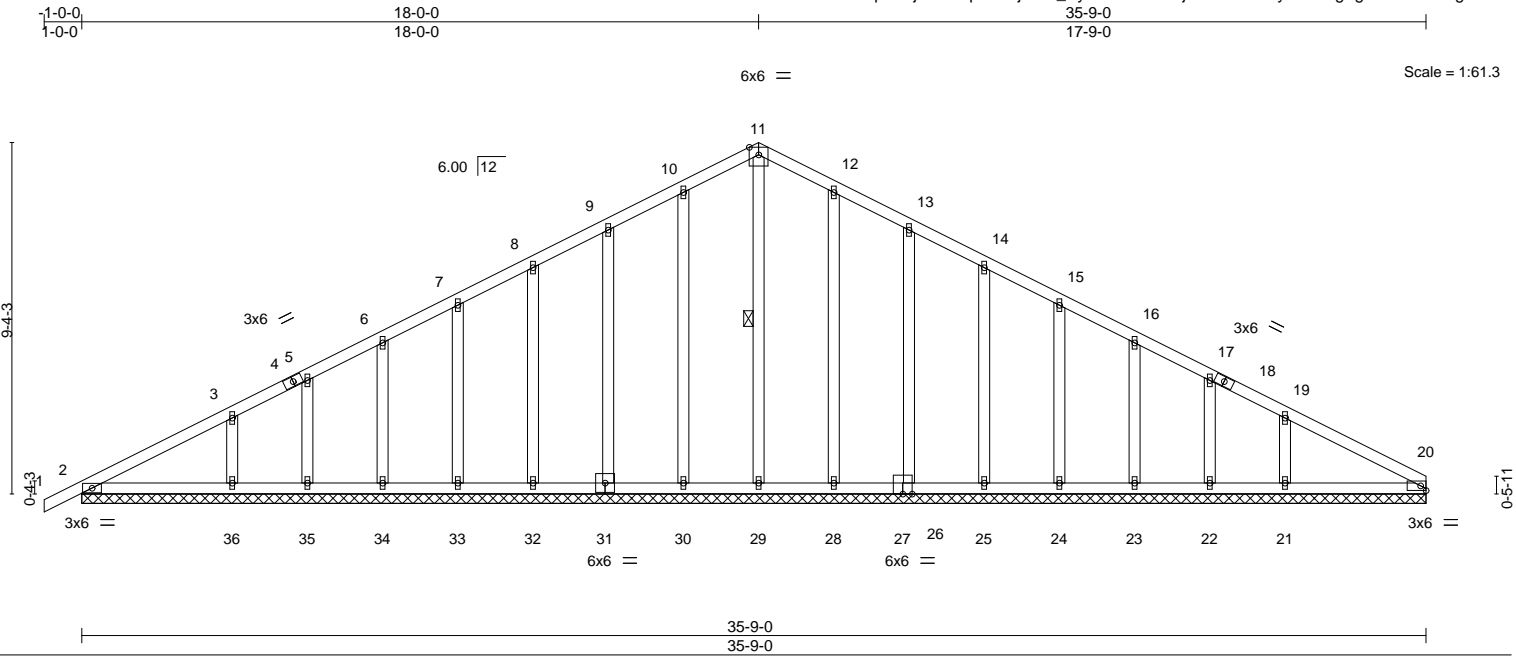


Plate Offsets (X,Y)-- [26:0-1-12,0-0-0], [27:0-0-0,0-1-12]

<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 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	0.01	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.01	20	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 228 lb	FT = 20%

<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.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	WEBS 1 Row at midpt 11-29

**REACTIONS.** All bearings 35-9-0.  
 (lb) - Max Horz 2=187(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 30, 31, 32, 33, 34, 35, 36, 28, 26, 25, 24, 23, 22 except 21=-109(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 29, 30, 31, 32, 33, 34, 35, 28, 26, 25, 24, 23, 22, 20 except 36=310(LC 17), 21=305(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 10-11=-61/251, 11-12=-54/251

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 1.5x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 30, 31, 32, 33, 34, 35, 36, 28, 26, 25, 24, 23, 22 except (jt=lb) 21=109.



January 25, 2019

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

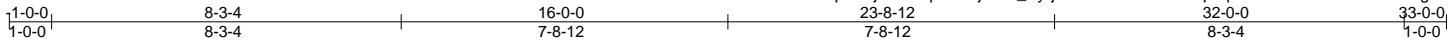
818 Soundside Road  
 Edenton, NC 27932

Job 1800932-1800932A	Truss T04	Truss Type Common	Qty 2	Ply 1	CL 3145 CP	135954420
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84 Components, Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:31 2019 Page 1

ID:t3epcH3jsYDtlBpFK2vjoozk\_By-jG5w3E7ITxrPKVdl8pJqa912LT9RPzetLEwiZzzrugc



4x6 =

Scale = 1:54.5

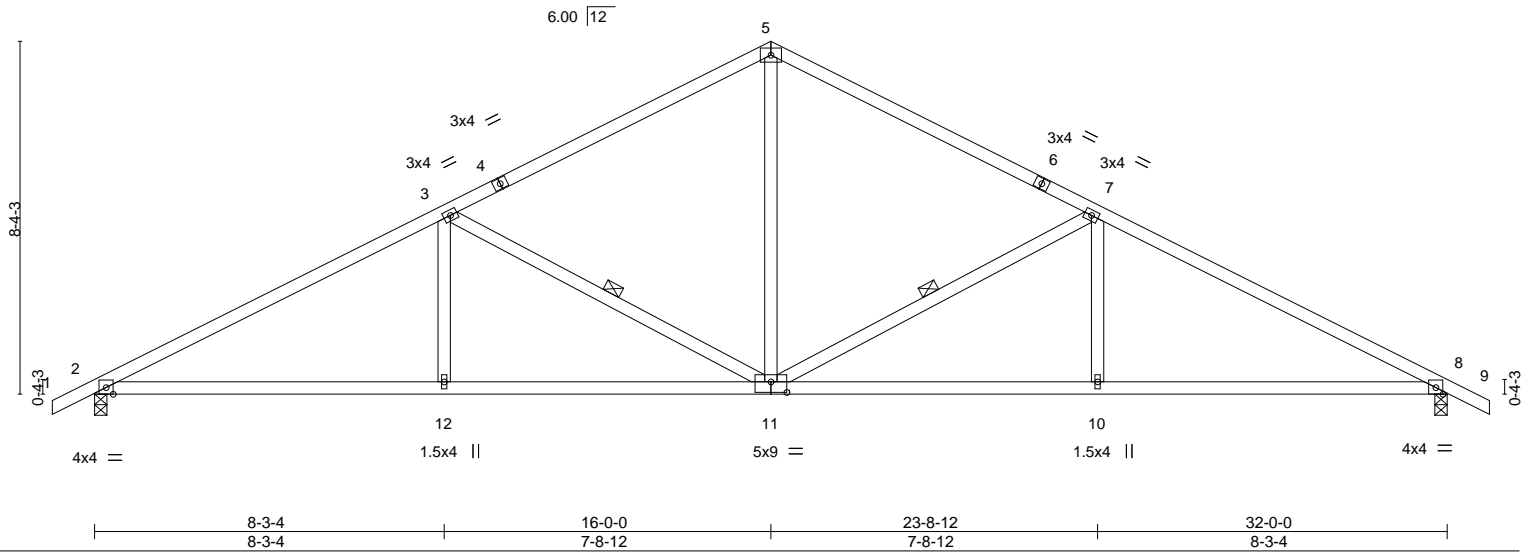


Plate Offsets (X,Y)--	[11:0-4-8,0-3-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.88	Vert(LL)	0.16	12-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.33	12-15	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.37	Horz(CT)	0.10	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 153 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.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 7-11, 3-11

**REACTIONS.** (lb/size) 2=1340/0-3-8, 8=1340/0-3-8  
Max Horz 2=-168(LC 6)  
Max Uplift 2=-311(LC 8), 8=-311(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2322/500, 3-5=-1568/419, 5-7=-1568/419, 7-8=-2322/500  
BOT CHORD 2-12=-317/2000, 11-12=-317/2000, 10-11=-317/2000, 8-10=-317/2000  
WEBS 5-11=-163/893, 7-11=-811/276, 7-10=0/345, 3-11=-811/276, 3-12=0/345

- 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=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=311, 8=311.



January 25, 2019

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



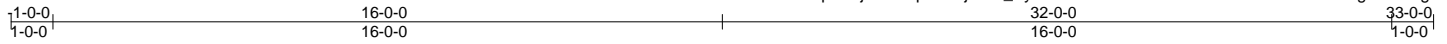
818 Soundside Road  
Edenton, NC 27932

Job 1800932-1800932A	Truss T04GE	Truss Type Common Supported Gable	Qty 1	Ply 1	CL 3145 CP	135954421
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84 Components, Dunn, NC - 28334,

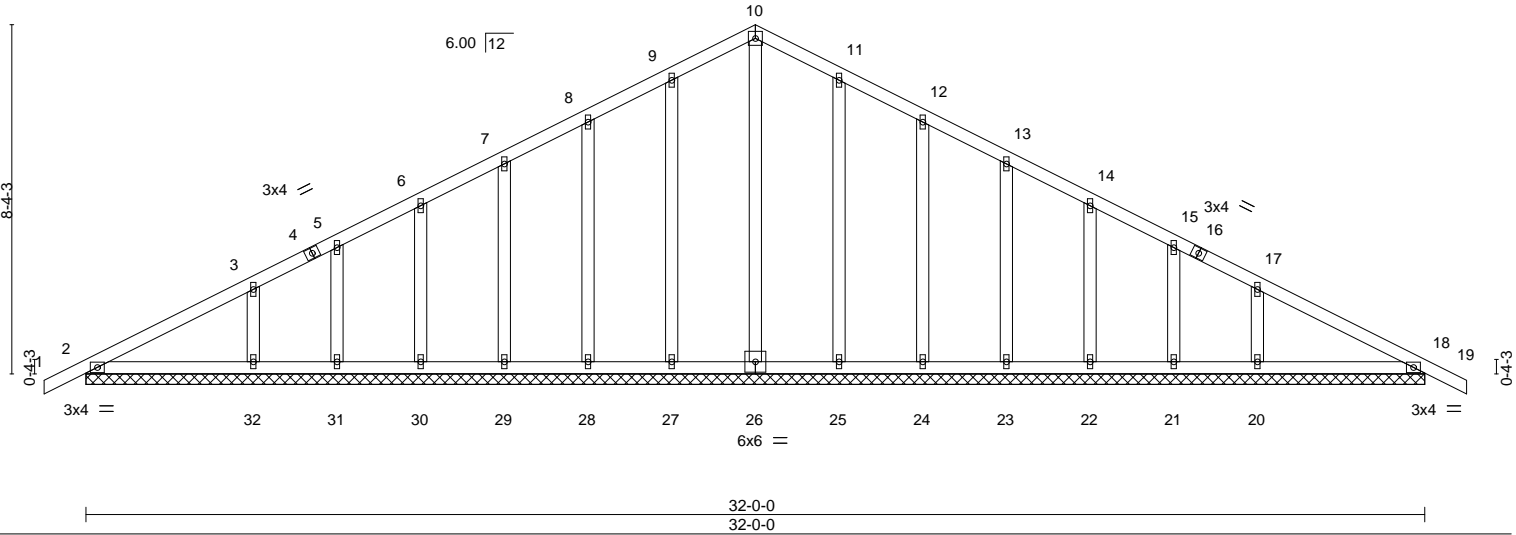
8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:32 2019 Page 1

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4x4 =

Scale = 1:55.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	0.00	19	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	0.01	19	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.01	18	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 193 lb	FT = 20%

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

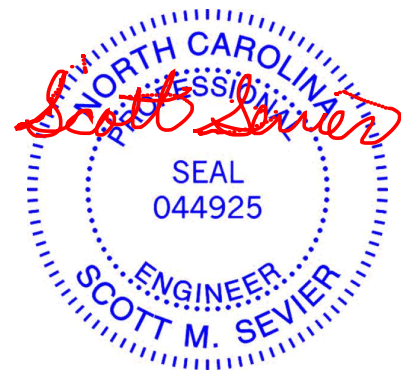
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 32-0-0.  
 (lb) - Max Horz 2=-168(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 27, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21, 20, 18  
 Max Grav All reactions 250 lb or less at joint(s) 2, 26, 27, 28, 29, 30, 31, 25, 24, 23, 22, 21, 18 except  
 32=310(LC 17), 20=310(LC 18)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 27, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21, 20, 18.



January 25, 2019

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



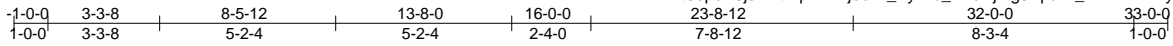
818 Soundside Road  
 Edenton, NC 27932



Job 1800932-1800932A	Truss T05	Truss Type COMMON	Qty 7	Ply 1	CL 3145 CP	135954422
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84 Components, Dunn, NC 28334

8.220 s Jan 5 2019 MiTek Industries, Inc. Fri Jan 25 15:44:22 2019 Page 1  
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5x12 MT18H ||

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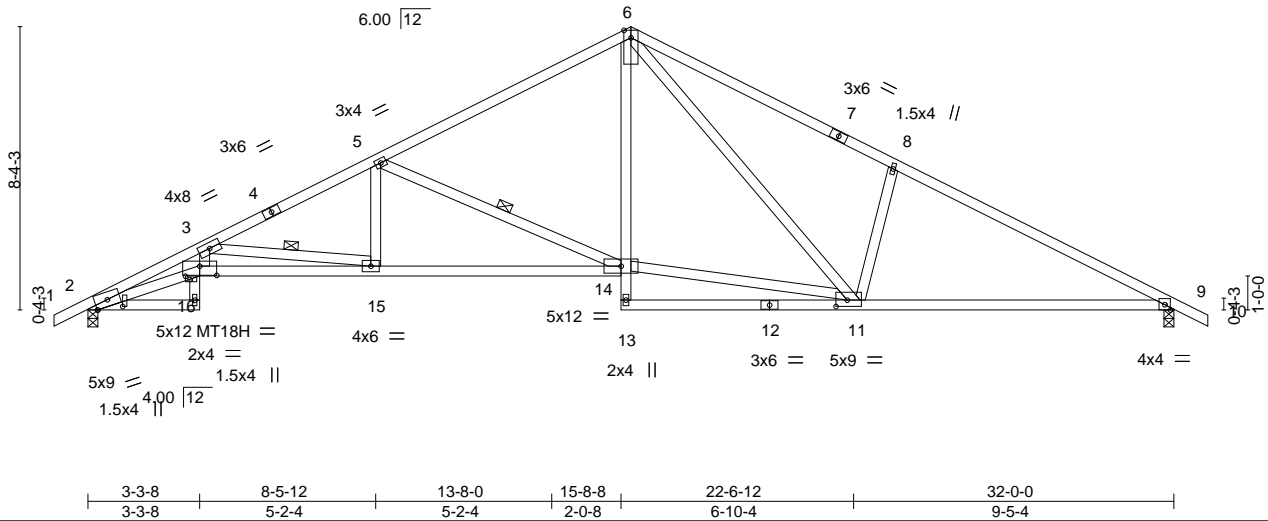


Plate Offsets (X,Y)--	[2:0-1-4,0-8-12], [11:0-3-15,0-2-4], [16:0-6-0,0-3-4], [16:0-1-9,0-1-2]
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LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.71	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.87	Vert(LL) -0.25 15-16 >999 240	MT18H	244/190
BCLL 0.0 *	Lumber DOL 1.15	WB 0.59	Vert(CT) -0.51 15-16 >753 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.26 9 n/a n/a		
	Code IRC2015/TPI2014			Weight: 177 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
3-16,6-13: 2x4 SP No.3, 14-16,2-16: 2x4 SP DSS	WEBS 1 Row at midpt 3-15, 5-14
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=1340/0-3-8, 9=1340/0-3-8  
 Max Horz 2=168(LC 7)  
 Max Uplift 2=-311(LC 8), 9=-311(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-5206/993, 3-4=-2861/577, 4-5=-2753/595, 5-6=-1776/439, 6-7=-2067/606,  
 7-8=-2182/568, 8-9=-2272/506  
 BOT CHORD 3-16=-184/1323, 15-16=-843/4765, 14-15=-383/2544, 6-14=-62/787, 9-11=-322/1977,  
 2-16=-837/4773  
 WEBS 3-15=-2246/466, 5-15=0/569, 5-14=-1148/314, 11-14=-86/1420, 6-11=-233/672,  
 8-11=-500/295

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 311 lb uplift at joint 2 and 311 lb uplift at joint 9.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard



January 25, 2019

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 Edenton, NC 27932

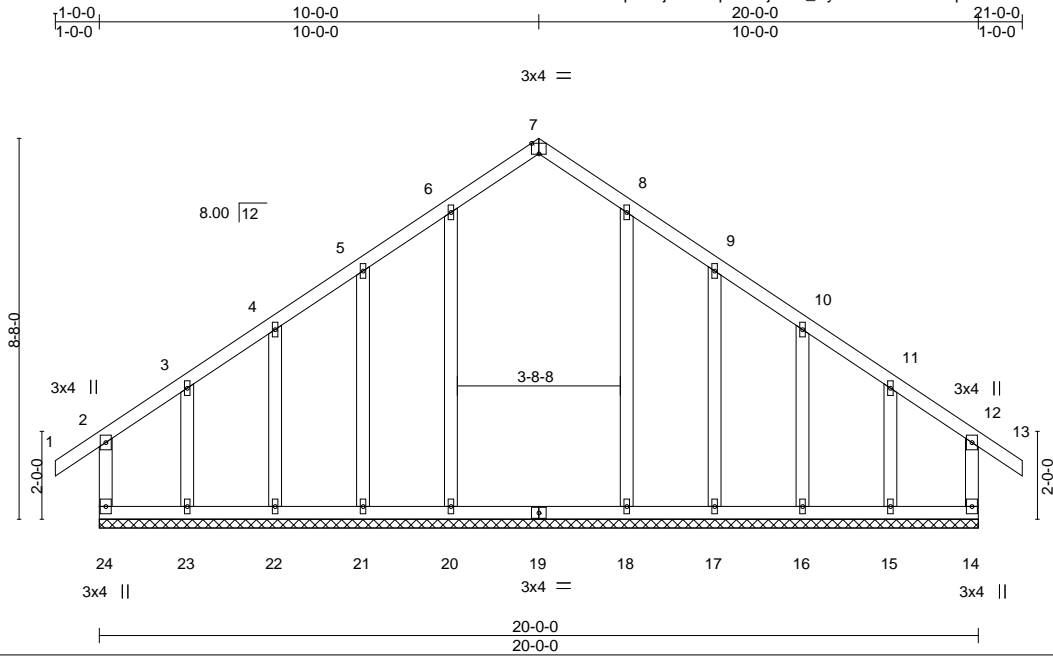


Job	Truss	Truss Type	Qty	Ply	CL 3145 CP	135954423
1800932-1800932A	T05GE	Common Supported Gable	1	1	Job Reference (optional)	

84 Components, Dunn, NC - 28334,

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ID:t3epcH3jsYDtIBpFK2vjoozk\_By-c1LRvcAFXALrp6wWNfOml?CiZ4jBLqYTGsuvikrugY



Scale = 1:52.4

Plate Offsets (X,Y)--	[7:0-2-0,Edge]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.00	13	n/r
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.00	12	n/r
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	-0.00	14	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R				
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							244/190
							Weight: 131 lb
							FT = 20%

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

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

**REACTIONS.** All bearings 20-0-0.  
 (lb) - Max Horz 24=237(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 22, 16 except 21=-167(LC 8), 23=-162(LC 8), 17=-167(LC 8), 15=-162(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 21, 22, 17, 16, 15 except 24=263(LC 14), 14=257(LC 13), 20=334(LC 13), 23=252(LC 6), 18=331(LC 14)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 1.5x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 14, 22, 16 except (jt=lb) 21=167, 23=162, 17=167, 15=162.



January 25, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



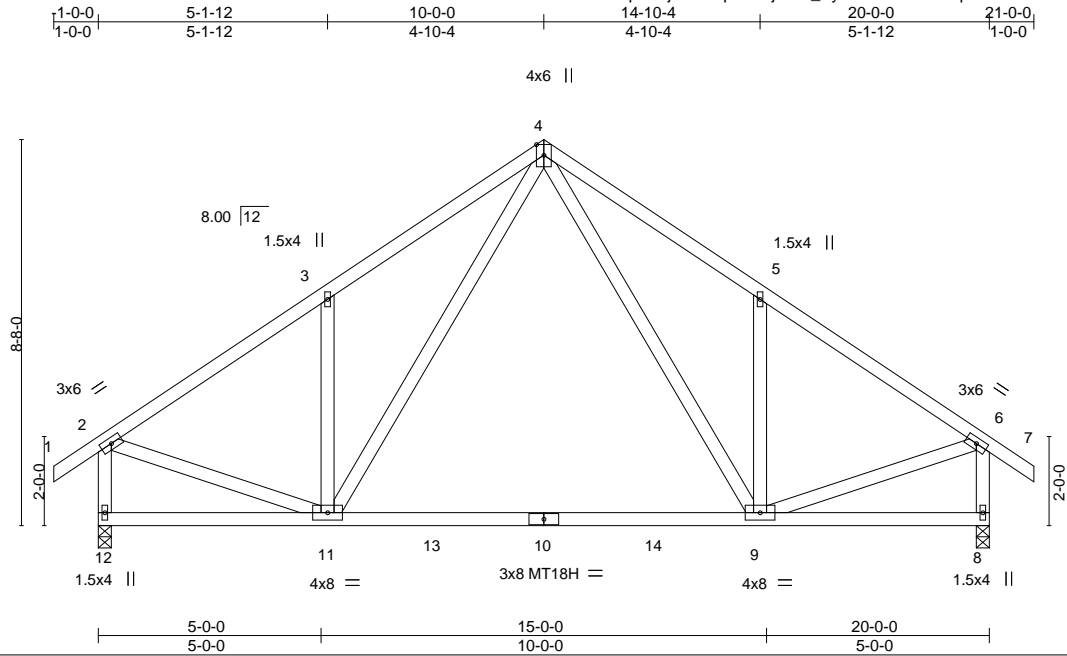
818 Soundside Road  
 Edenton, NC 27932

Job 1800932-1800932A	Truss T06	Truss Type Common	Qty 3	Ply 1	CL 3145 CP	135954424
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84 Components, Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:35 2019 Page 1

ID:t3epcH3jsYDtIBpFK2vjoozk\_By-c1LRvcAFXALrp6wWNfOml?CtV4YxLoxTGsuvikrugY



Scale = 1:51.7

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 0.29	Vert(LL)	-0.33	9-11	>724	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.88	Vert(CT)	-0.52	9-11	>453	180	MT18H	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.29	Horz(CT)	0.01	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS							
									Weight: 131 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, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 12=857/0-3-8, 8=857/0-3-8  
Max Horz 12=237(LC 7)  
Max Uplift 12=-216(LC 8), 8=-216(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-849/208, 3-4=-898/377, 4-5=-898/377, 5-6=-849/208, 2-12=-847/229, 6-8=-847/229  
BOT CHORD 9-11=0/538  
WEBS 4-9=-160/468, 5-9=-338/246, 4-11=-160/468, 3-11=-339/246, 2-11=-8/697, 6-9=-8/699

- 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=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=216, 8=216.



January 25, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



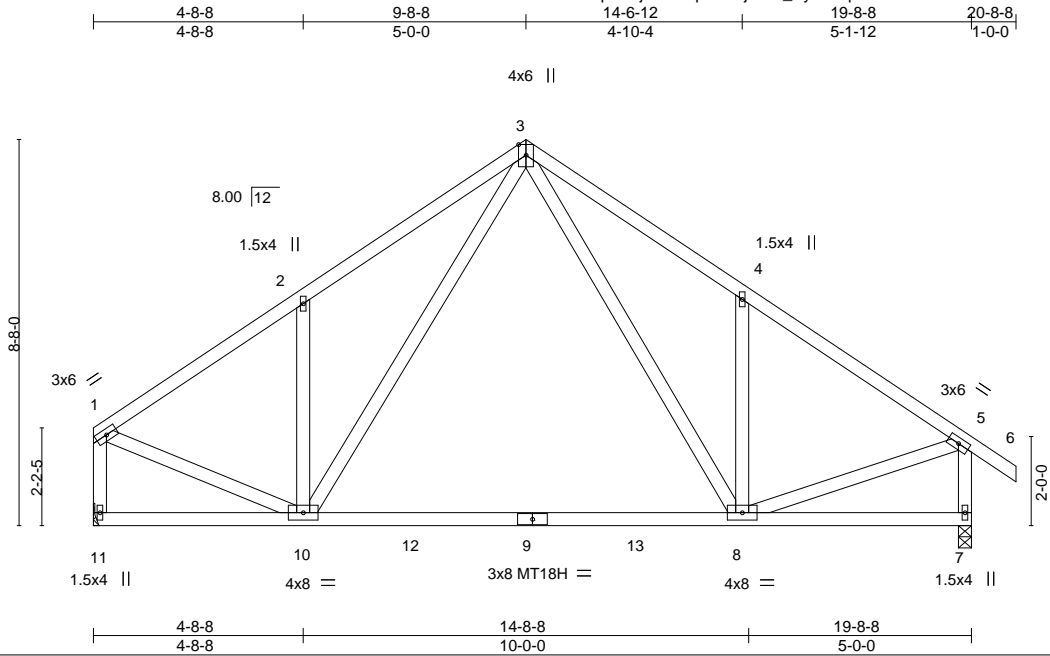
818 Soundside Road  
Edenton, NC 27932

Job 1800932-1800932A	Truss T07	Truss Type Common	Qty 3	Ply 1	CL 3145 CP	135954425
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84 Components, Dunn, NC - 28334,

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ID:t3epcH3jsYDtlBpFK2vjoozk\_By-4Dup6xBtUUhQGVixMv?HDk26Utv4FCcUWeTEAzrugX



Scale = 1:51.7

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	-0.34	8-10	>686	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.55	8-10	>427	MT18H	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.28	Horz(CT)	0.01	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 128 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, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 11=775/Mechanical, 7=847/0-3-8  
 Max Horz 11=-235(LC 6)  
 Max Uplift 11=-163(LC 8), 7=-211(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-808/190, 2-3=-872/363, 3-4=-889/371, 4-5=-841/203, 1-11=-786/171, 5-7=-840/224  
 BOT CHORD 8-10=0/527  
 WEBS 2-10=-343/252, 3-10=-146/435, 3-8=-160/475, 4-8=-338/246, 1-10=-52/691, 5-8=-2/692

- 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=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 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) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=163, 7=211.



January 25, 2019

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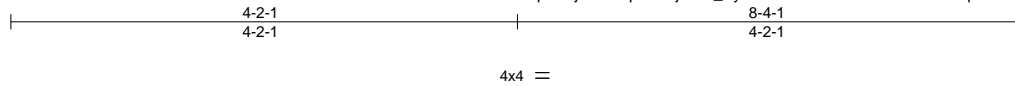
818 Soundside Road  
 Edenton, NC 27932

Job 1800932-1800932A	Truss V01	Truss Type Valley	Qty 1	Ply 1	CL 3145 CP	135954426
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84 Components, Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:37 2019 Page 1

ID:t3epcH3jsYDtIbPfk2vjozk\_By-YQsCKHBW3ncY2Q4uV4QEeQHBkuNapmGmJAN0mdzrugW



Scale = 1:19.0

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 0.44	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 29 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=158/8-4-1, 3=158/8-4-1, 4=274/8-4-1  
 Max Horz 1=-57(LC 6)  
 Max Uplift 1=-56(LC 8), 3=-56(LC 8), 4=-11(LC 8)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



January 25, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932

Job 1800932-1800932A	Truss V02	Truss Type Valley	Qty 1	Ply 1	CL 3145 CP	135954427
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84 Components, Dunn, NC - 28334,

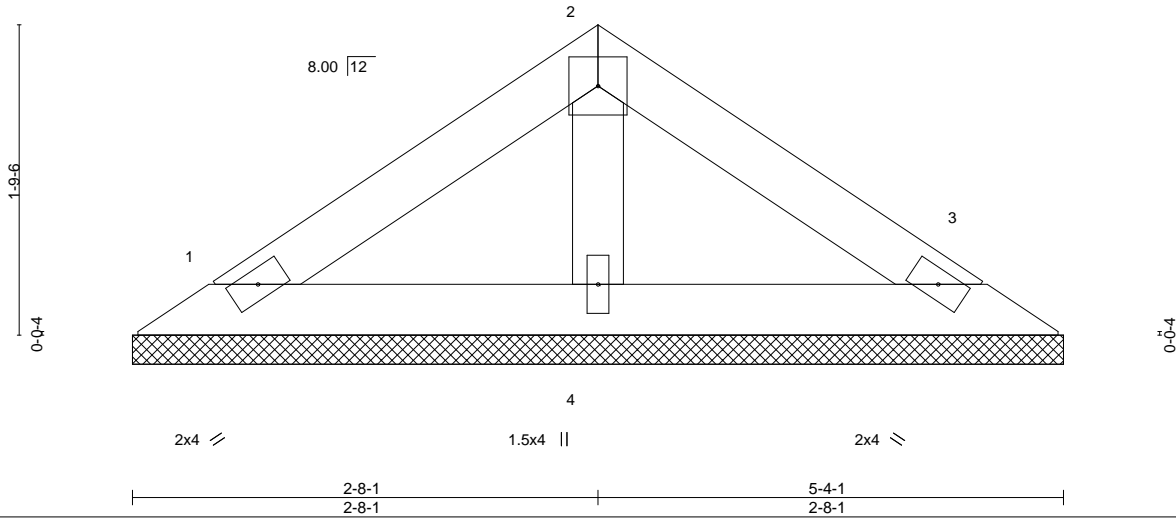
8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:37 2019 Page 1

ID:t3epcH3jsYDtIBpFK2vjoozk\_By-YQSKCHBW3ncY2Q4uV4QEQQHFNUPwpmZmjAN0mdzugW



4x4 =

Scale = 1:13.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 17 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-4-1 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=94/5-4-1, 3=94/5-4-1, 4=163/5-4-1  
 Max Horz 1=-34(LC 6)  
 Max Uplift 1=-33(LC 8), 3=-33(LC 8), 4=-7(LC 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=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



January 25, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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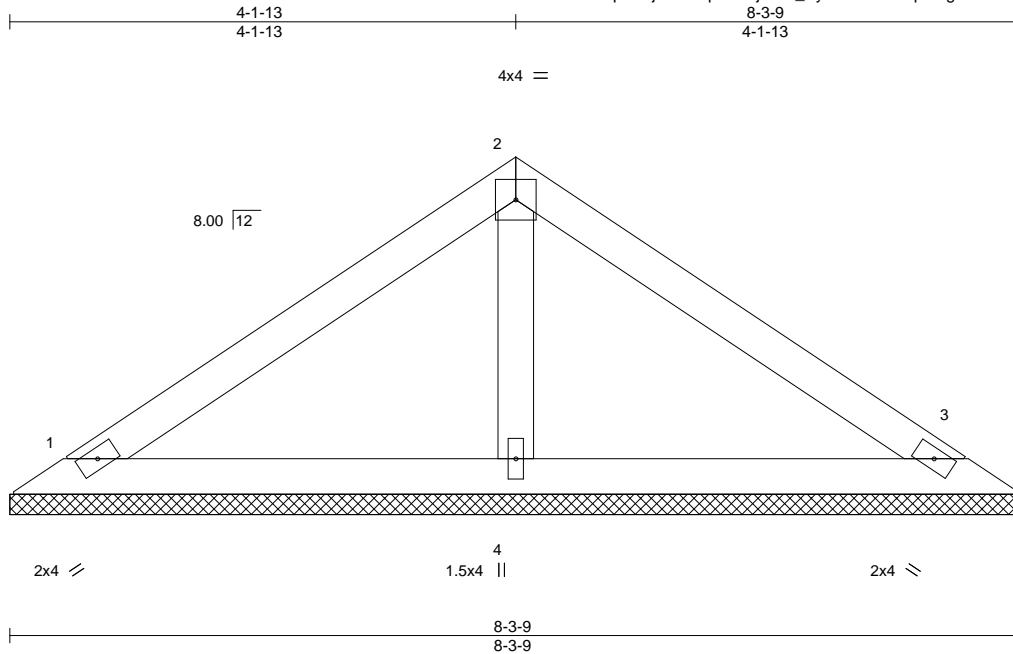


818 Soundside Road  
 Edenton, NC 27932

Job 1800932-1800932A	Truss V03	Truss Type Valley	Qty 1	Ply 1	CL 3145 CP	135954428
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84 Components, Dunn, NC - 28334,

8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:38 2019 Page 1  
ID:t3epcH3jsYDtIbPfk2vjoozk\_By-0c0aXdC8q5kPgaf52nxTMeqLZlJrYDwvyq7al3zrugV



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.43	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.23	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 29 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=157/8-3-9, 3=157/8-3-9, 4=273/8-3-9  
 Max Horz 1=-57(LC 6)  
 Max Uplift 1=-55(LC 8), 3=-55(LC 8), 4=-11(LC 8)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



January 25, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932



Job 1800932-1800932A	Truss V04	Truss Type Valley	Qty 1	Ply 1	CL 3145 CP	135954429
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84 Components, Dunn, NC - 28334,

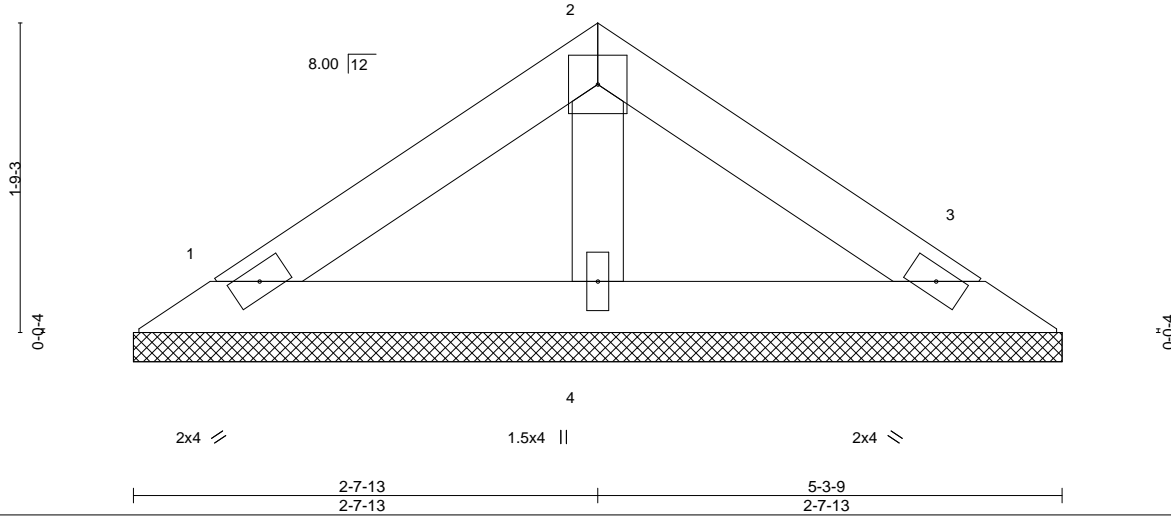
8.220 s Nov 16 2018 MiTek Industries, Inc. Fri Jan 25 06:34:39 2019 Page 1

ID:t3epcH3jsYDtIBpFK2vjoozk\_By-UoaylzDmbPsGHkEHcVTivrMawh5PHg33AUs7rVzrugU



4x4 =

Scale = 1:13.1



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	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 17 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-3-9 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=93/5-3-9, 3=93/5-3-9, 4=161/5-3-9  
 Max Horz 1=-34(LC 6)  
 Max Uplift 1=-33(LC 8), 3=-33(LC 8), 4=-7(LC 8)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=40ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



January 25, 2019

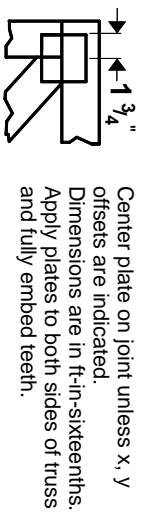
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY  
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 A MiTek Affiliate  
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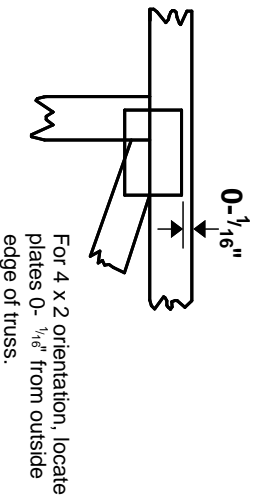


# Symbols

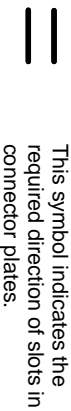
## PLATE LOCATION AND ORIENTATION



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- 1/8" from outside edge of truss.



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

## PLATE SIZE

4 X 4

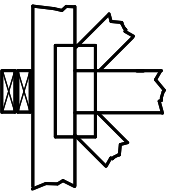
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

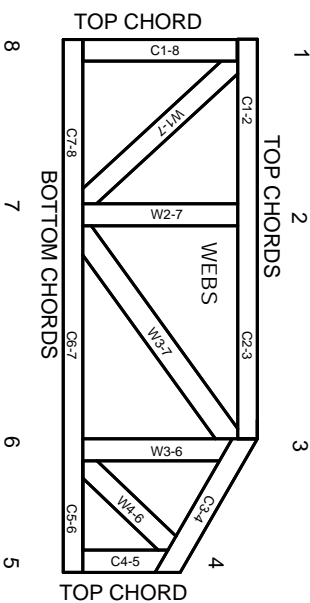


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: 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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MITek Engineering Reference Sheet: Mill-7473 rev. 10/03/2015



# 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.