

RE: J1220-5685  
 Weaver / Lot 67 Thomas Farm / Harnett

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: J1220-5685  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

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

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

This package includes 16 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E15350533	A1	1/29/2021
2	E15350534	A1GE	1/29/2021
3	E15350535	A2	1/29/2021
4	E15350536	A3	1/29/2021
5	E15350537	A4	1/29/2021
6	E15350538	A4GE	1/29/2021
7	E15350539	B1	1/29/2021
8	E15350540	B2	1/29/2021
9	E15350541	B2GR	1/29/2021
10	E15350542	VB1	1/29/2021
11	E15350543	VB2	1/29/2021
12	E15350544	VB3	1/29/2021
13	E15350545	VB4	1/29/2021
14	E15350546	VB5	1/29/2021
15	E15350547	VB6	1/29/2021
16	E15350548	VB7	1/29/2021

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844

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



January 29, 2021

Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350533
J1220-5685	A1	COMMON	1	1		

Comtech, Inc, Fayetteville, NC - 28314,

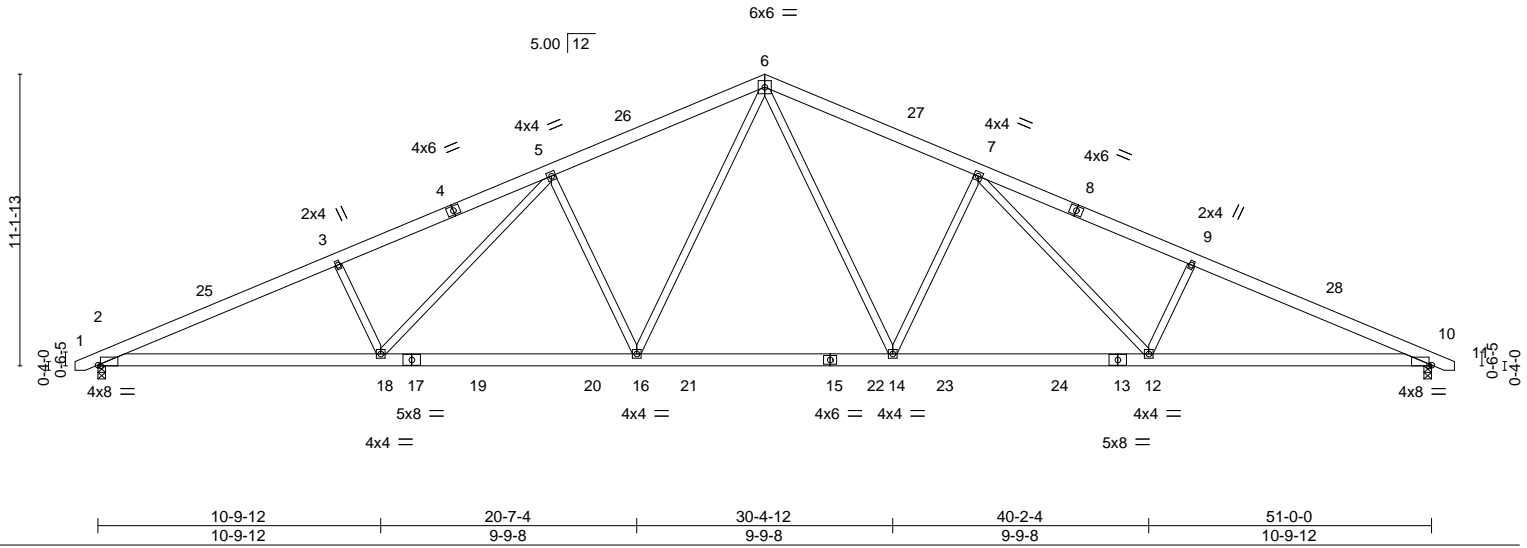
8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Jan 26 16:04:39 2021 Page 1

ID:OVkgzkCZiFyccLxPk0HiYpztgE1-uZ7w0wDo9J7Fvx2GMvNq4CFAZH3gK6P\_pALzrRE6

Job Reference (optional)

0-10-8 9-2-3 17-4-2 25-6-0 33-7-14 41-9-13 51-0-0 51-10-8  
0-10-8 9-2-3 8-1-14 8-1-14 8-1-14 8-1-14 8-1-14 9-2-3 0-10-8

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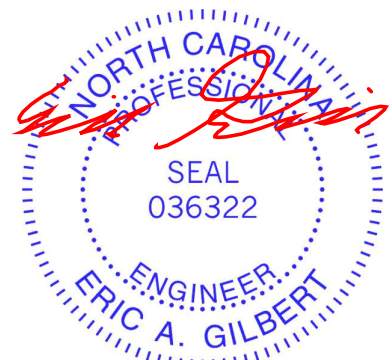
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.54	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.71	Vert(LL) -0.32 14-16 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.93	Vert(CT) -0.57 14-16 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.17 10 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.16 16 >999 240	Weight: 349 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-0-14 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 9-5-5 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
Max Horz 2=131(LC 16)  
Max Uplift 2=-140(LC 12), 10=-140(LC 13)  
Max Grav 2=2151(LC 2), 10=2151(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-4699/875, 3-5=-4532/906, 5-6=-3592/789, 6-7=-3592/789, 7-9=-4532/906,  
9-10=-4699/875  
BOT CHORD 2-18=-684/4262, 16-18=-480/3547, 14-16=-266/2708, 12-14=-488/3547, 10-12=-677/4262  
WEBS 3-18=-468/269, 5-18=-163/881, 5-16=-857/331, 6-16=-206/1284, 6-14=-206/1284,  
7-14=-857/331, 7-12=-163/881, 9-12=-468/269

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-2 to 4-5-1, Interior(1) 4-5-1 to 25-6-0, Exterior(2) 25-6-0 to 30-7-3, Interior(1) 30-7-3 to 51-8-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 140 lb uplift at joint 2 and 140 lb uplift at joint 10.



January 27, 2021

Job J1220-5685	Truss A1GE	Truss Type GABLE	Qty 1	Ply 1	Weaver / Lot 67 Thomas Farm / Harnett Job Reference (optional)	E15350534
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ID:OVkgzkCZiFyccLxPk0HiYpztgE1-J8p2fxFhREVqoNmr21wYhqtplVkdGbomoMDTmgzrRE3

-0-10-8 25-6-0 51-0-0 51-10-8  
0-10-8 25-6-0 25-6-0 0-10-8

Scale = 1:88.8

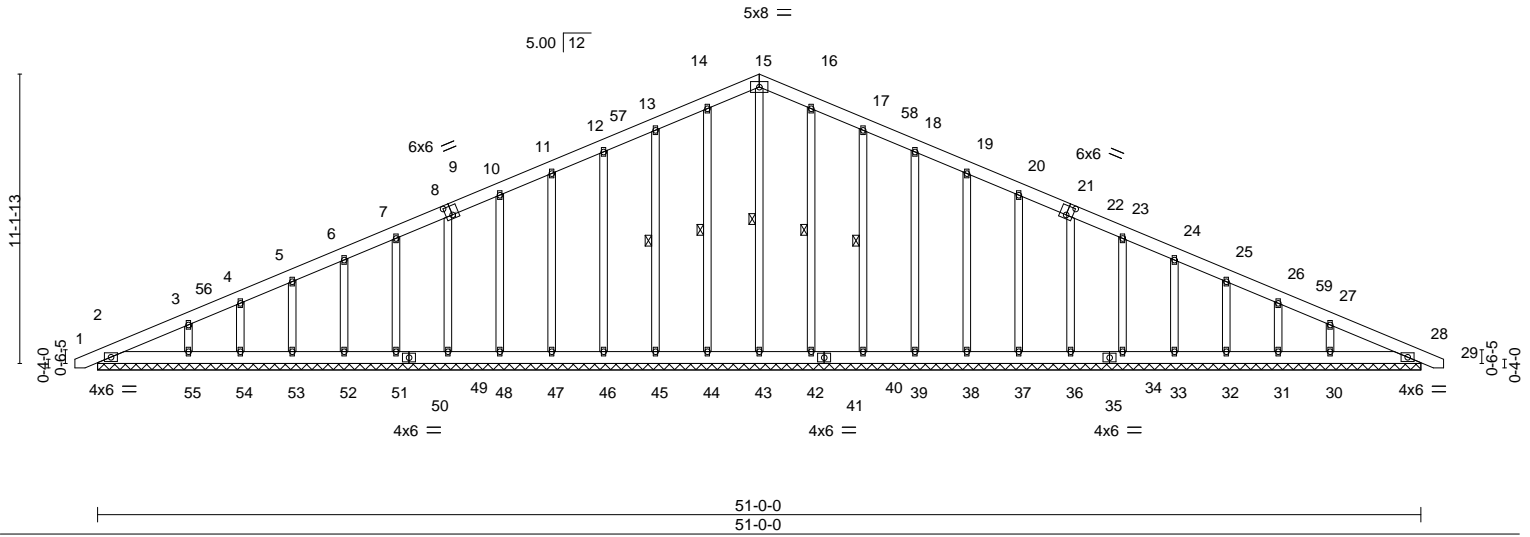


Plate Offsets (X,Y)-- [8:0-1-14,0-0-0], [9:0-3-0,0-4-4], [9:0-0-0,0-2-12], [21:0-3-0,0-4-4], [21:0-0-0,0-2-12], [22:0-1-14,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) 0.00 28 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.14	Vert(CT) 0.00 29 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 28 n/a n/a		
	Code IRC2015/TPI2014			Weight: 440 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS 1 Row at midpt 15-43, 14-44, 13-45, 16-42, 17-40

**REACTIONS.** All bearings 51-0-0.  
 (lb) - Max Horz 2=221(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 28, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 42, 40, 39, 38, 37, 36, 34, 33, 32, 31 except 55=108(LC 12), 30=107(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 28, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 42, 40, 39, 38, 37, 36, 34, 33, 32, 31 except 55=274(LC 23), 30=274(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-271/105, 10-11=-83/255, 11-12=-100/302, 12-13=-116/349, 13-14=-134/400, 14-15=-145/429, 15-16=-145/431, 16-17=-134/402, 17-18=-116/351, 18-19=-100/304, 19-20=-83/257  
 WEBS 3-55=-194/258, 27-30=-194/258

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDD=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-8-2 to 4-5-1, Exterior(2) 4-5-1 to 25-6-0, Corner(3) 25-6-0 to 30-7-3, Exterior(2) 30-7-3 to 51-8-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 28, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 42, 40, 39, 38, 37, 36, 34, 33, 32, 31 except (jt=lb) 55=108, 30=107.



January 27, 2021

Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350535
J1220-5685	A2	COMMON	4	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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ID:OVkgzkCZiFyccLxPk0HiYpztgE1-nKMQsHGJCYdhQWL1bkRnE2Qp1vsu?sviv10y1J6zrRE2

0-10-8 9-2-3 17-4-2 25-6-0 33-7-14 41-9-13 47-2-12 51-0-0 51-10-8  
 0-10-8 9-2-3 8-1-14 8-1-14 8-1-14 8-1-14 5-4-15 3-9-4 0-10-8

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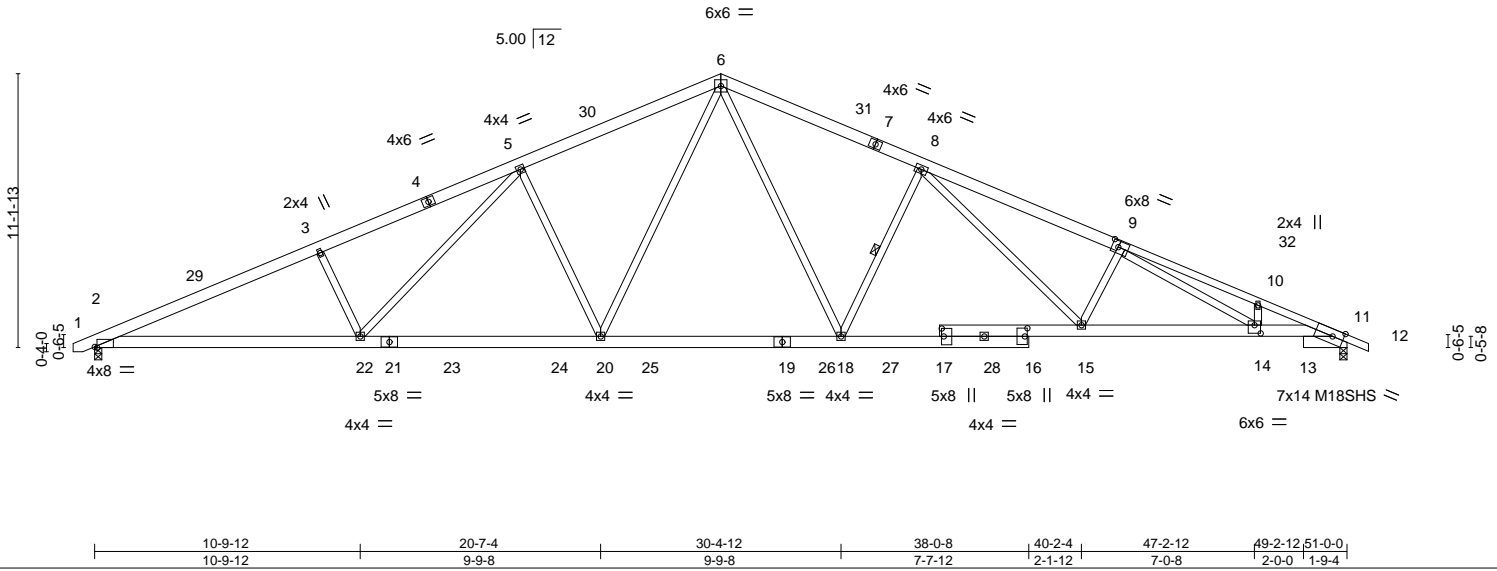


Plate Offsets (X,Y)-- [2:0-1-2,Edge], [9:0-3-0,0-3-0], [11:0-5-6,Edge], [14:0-3-0,0-4-0], [16:0-4-0,0-1-4], [17:0-3-14,0-1-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.77	Vert(LL) -0.40 18-20 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.93	Vert(CT) -0.73 18-20 >831 240	M18SHS	244/190
BCLL 0.0 *	Rep Stress Incr YES	WB 0.93	Horz(CT) 0.23 11 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.21 18-20 >999 240	Weight: 360 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 9-12: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x6 SP No.1 *Except* 11-17: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 8-18

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=131(LC 16)  
 Max Uplift 2=140(LC 12), 11=143(LC 13)  
 Max Grav 2=2147(LC 2), 11=2153(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-4687/874, 3-5=-4520/906, 5-6=-3591/790, 6-8=-3553/787, 8-9=-4983/963,  
 9-10=-5767/1124, 10-11=-5932/1059  
 BOT CHORD 2-22=-684/4251, 20-22=-479/3544, 18-20=-265/2692, 15-18=-501/3597, 14-15=-733/4746,  
 11-14=-888/5330  
 WEBS 3-22=-469/269, 5-22=-161/875, 5-20=-854/330, 6-20=-211/1311, 6-18=-203/1239,  
 8-18=-1019/367, 8-15=-224/1364, 9-15=-608/246, 9-14=-194/790

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-8-2 to 4-5-1, Interior(1) 4-5-1 to 25-6-0, Exterior(2) 25-6-0 to 30-7-3, Interior(1) 30-7-3 to 51-10-8 zone; C-C for members and forces & MWFRS for reactions shown; 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=140, 11=143.



Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350536
J1220-5685	A3	COMMON	4	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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 33-7-14 41-9-13 51-0-0 51-10-8  
 9-2-3 8-1-14 8-1-14 8-1-14 9-2-3 0-10-8

Scale = 1:86.2

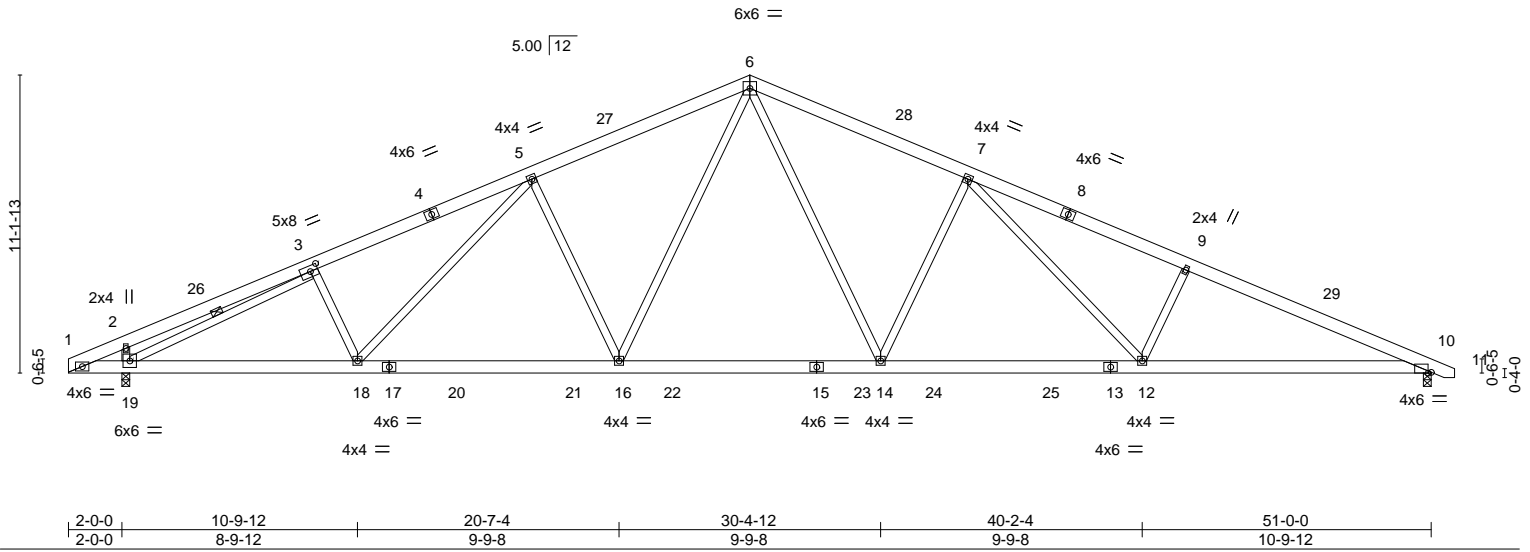


Plate Offsets (X,Y)-- [3:0-3-8,0-2-8], [10:0-1-6,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.52	Vert(LL) -0.28	12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.69	Vert(CT) -0.49	12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.93	Horz(CT) 0.15	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.13	12-14	>999	240		
							Weight: 359 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-2-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 9-9-4 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 3-19

**REACTIONS.** (size) 10=0-3-8, 19=0-3-8  
 Max Horz 19=-134(LC 17)  
 Max Uplift 10=-140(LC 13), 19=-135(LC 12)  
 Max Grav 10=2064(LC 2), 19=2206(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-595/7, 2-3=-742/136, 3-5=-3635/712, 5-6=-3273/723, 6-7=-3369/746,  
 7-9=-4314/864, 9-10=-4481/833  
 BOT CHORD 1-19=-4/606, 18-19=-464/3269, 16-18=-406/3152, 14-16=-223/2502, 12-14=-445/3342,  
 10-12=-638/4062  
 WEBS 5-18=-50/329, 5-16=-654/290, 6-16=-164/1085, 6-14=-207/1282, 7-14=-859/332,  
 7-12=-164/885, 9-12=-470/269, 2-19=-505/301, 3-19=-3043/546

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 5-1-3, Interior(1) 5-1-3 to 25-6-0, Exterior(2) 25-6-0 to 30-7-3, Interior(1) 30-7-3 to 51-8-2 zone; cantilever left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=140, 19=135.



January 27, 2021



Job J1220-5685	Truss A4	Truss Type COMMON	Qty 5	Ply 1	Weaver / Lot 67 Thomas Farm / Harnett Job Reference (optional)	E15350537
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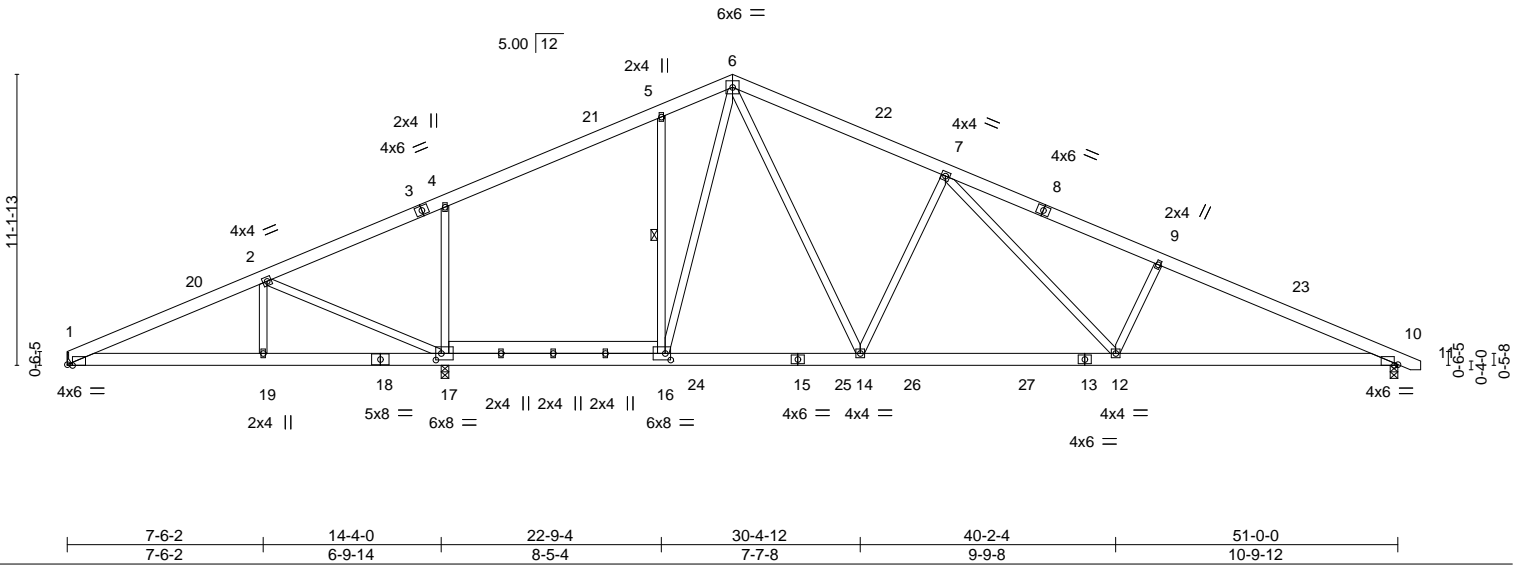
Comtech, Inc., Fayetteville, NC - 28314,

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ID:OVkgzkCZiFyccLxPk0HiYpztgE1-jjUBHzIZk9tPfqVPj9UFJTVD\_icZTmACUKR8N?zrRE0



Scale = 1:88.3



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.48	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.66	Vert(LL) -0.27 12-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.93	Vert(CT) -0.46 12-14 >958 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.12 10 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.11 14-16 >999 240	Weight: 370 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-5-1 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 5-16

**REACTIONS.** (size) 10=0-3-8, 1=Mechanical, 17=0-3-8  
 Max Horz 1=134(LC 13)  
 Max Uplift 10=138(LC 13), 1=6(LC 12), 17=171(LC 12)  
 Max Grav 10=1863(LC 2), 1=1340(LC 2), 17=1167(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=2811/425, 2-4=2378/348, 4-5=2444/484, 5-6=2327/575, 6-7=2848/610, 7-9=3812/724, 9-10=3980/692  
 BOT CHORD 1-19=293/2533, 17-19=293/2533, 16-17=111/2155, 14-16=88/2032, 12-14=319/2865, 10-12=509/3601  
 WEBS 2-19=0/258, 6-16=128/582, 6-14=228/1245, 7-14=856/332, 7-12=159/892, 9-12=475/270, 4-17=581/266, 2-17=637/213, 5-16=286/232

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-4 to 5-2-7, Interior(1) 5-2-7 to 25-6-0, Exterior(2) 25-6-0 to 30-7-3, Interior(1) 30-7-3 to 51-8-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 10=138, 17=171.



Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350538
J1220-5685	A4GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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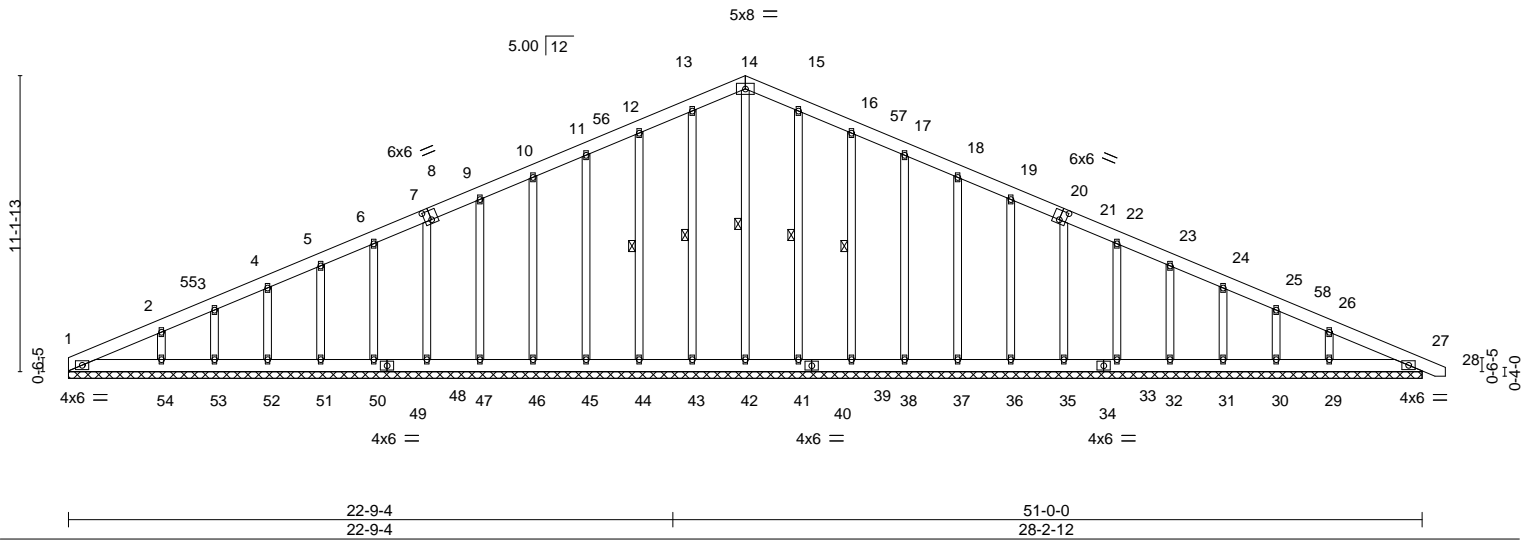


Plate Offsets (X,Y)-- [7:0-1-14,0-0-0], [8:0-3-0,0-4-4], [8:0-0-0,0-2-12], [20:0-3-0,0-4-4], [20:0-0-0,0-2-12], [21:0-1-14,0-0-0]

LOADING (psf)	SPACING-	CSL.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) 0.00 27 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 0.14	Horz(CT) 0.01 27 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 438 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS 1 Row at midpt 14-42, 13-43, 12-44, 15-41, 16-39

**REACTIONS.** All bearings 51-0-0.  
 (lb) - Max Horz 1=-225(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 27, 1, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 41, 39, 38, 37, 36, 35, 33, 32, 31, 30 except 54=-112(LC 12), 29=-107(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 27, 1, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 41, 39, 38, 37, 36, 35, 33, 32, 31, 30 except 54=282(LC 23), 29=274(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-273/105, 9-10=-83/256, 10-11=-100/302, 11-12=-116/350, 12-13=-134/400, 13-14=-145/430, 14-15=-145/431, 15-16=-134/402, 16-17=-116/351, 17-18=-100/304, 18-19=-83/257  
 WEBS 2-54=-202/281, 26-29=-194/258

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-0-0 to 5-1-3, Exterior(2) 5-1-3 to 25-6-0, Corner(3) 25-6-0 to 30-7-3, Exterior(2) 30-7-3 to 51-8-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 27, 1, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 41, 39, 38, 37, 36, 35, 33, 32, 31, 30 except (jt=lb) 54=112, 29=107.

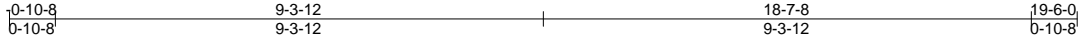


Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350539
J1220-5685	B1	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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4x4 =

Scale = 1:44.0

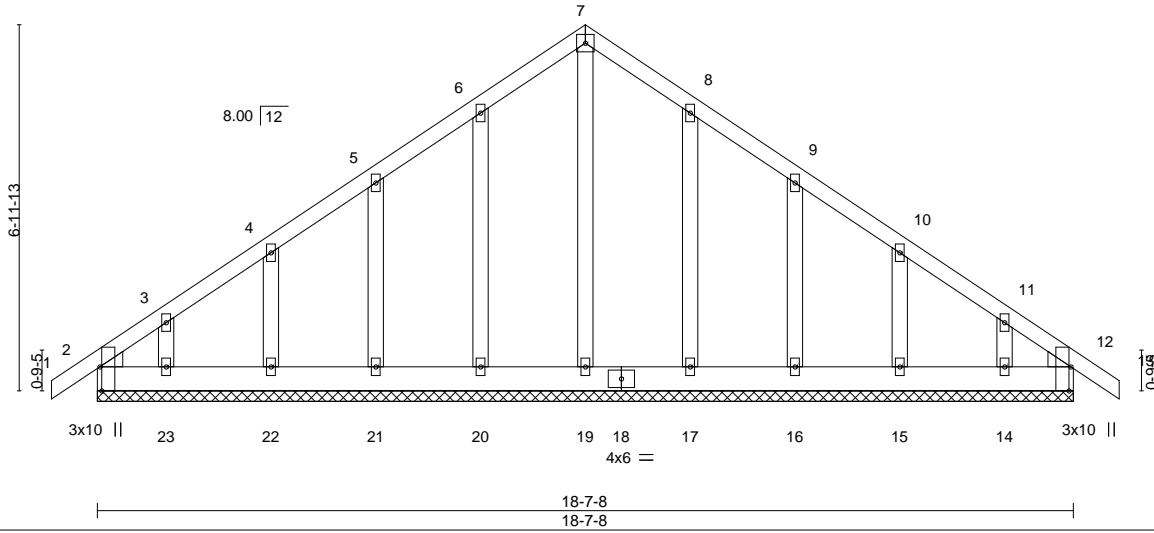


Plate Offsets (X,Y)-- [2:0-0-3,0-0-4], [2:0-0-6,0-4-1], [2:0-5-8,Edge], [12:0-0-3,0-0-4], [12:0-0-6,0-4-1], [12:0-5-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.04	Vert(LL) -0.00	12	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) -0.00	13	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 126 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2 , Right: 2x4 SP No.2

**BRACING-**

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

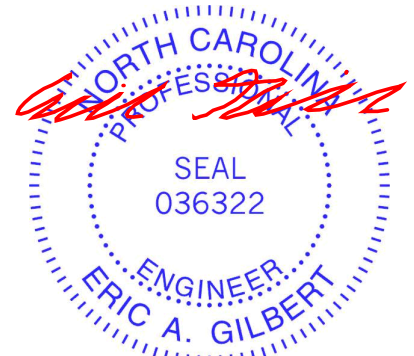
**REACTIONS.**

All bearings 18-7-8.  
 (lb) - Max Horz 2--204(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 17, 16, 15, 12 except 23--120(LC 12),  
 14--112(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 19, 20, 21, 22, 23, 17, 16, 15, 14, 12

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-3-12, Exterior(2) 3-3-12 to 9-3-12, Corner(3) 9-3-12 to 13-8-9, Exterior(2) 13-8-9 to 19-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 17, 16, 15, 12 except (jt=lb) 23=120, 14=112.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12.



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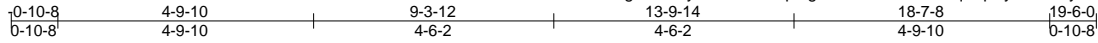


Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350540
J1220-5685	B2	COMMON	2	1	Job Reference (optional)	

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ID:OVkgzkCZiFyccLxPk0HiYpztgE1-bUkh7LL4oONq8SpBy?YBUJfyCJ4XPiXoPyPLVmzrRDy



4x6 ||

Scale = 1:43.3

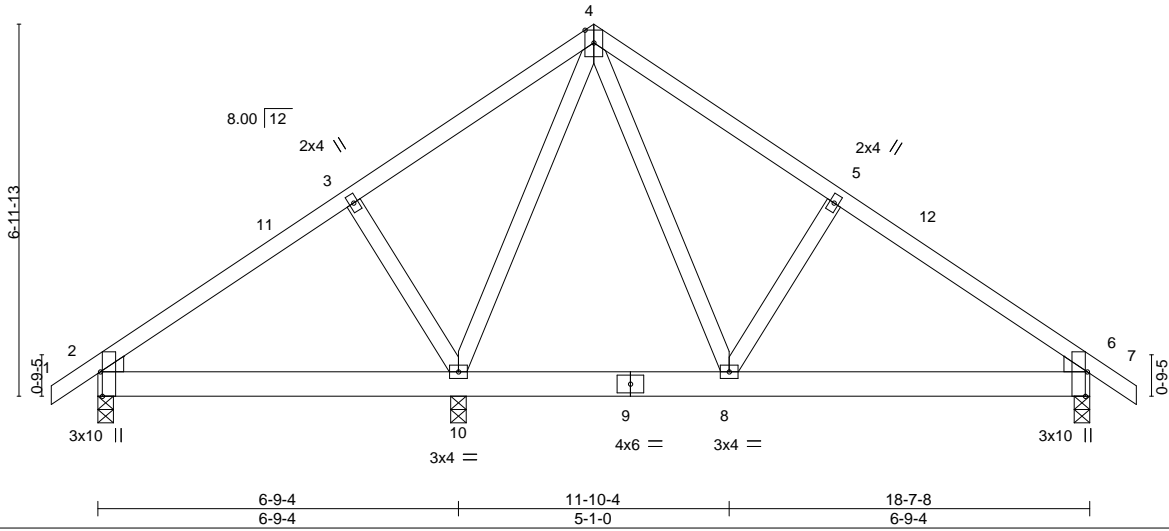


Plate Offsets (X,Y)-- [2:0-0-3,0-0-4], [2:0-0-6,0-4-1], [2:0-5-8,Edge], [6:0-0-3,0-0-4], [6:0-0-6,0-4-1], [6:0-5-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.21	Vert(LL) -0.02	6-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.04	6-8	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.39	Horz(CT) 0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03	2-10	>999	240		
							Weight: 113 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2 , Right: 2x4 SP No.2

**BRACING-**

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

**REACTIONS.**

(size) 2=0-3-8, 10=0-3-8, 6=0-3-8  
 Max Horz 2=-163(LC 10)  
 Max Uplift 2=-29(LC 8), 10=-71(LC 12), 6=-43(LC 13)  
 Max Grav 2=301(LC 23), 10=787(LC 1), 6=510(LC 1)

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

TOP CHORD 4-5=-413/133, 5-6=-521/84  
 BOT CHORD 6-8=0/354  
 WEBS 3-10=-314/214, 4-10=-458/65, 4-8=-65/415, 5-8=-290/198

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 9-3-12, Exterior(2) 9-3-12 to 13-10-13, Interior(1) 13-10-13 to 19-6-0 zone; porch left 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 6.



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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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



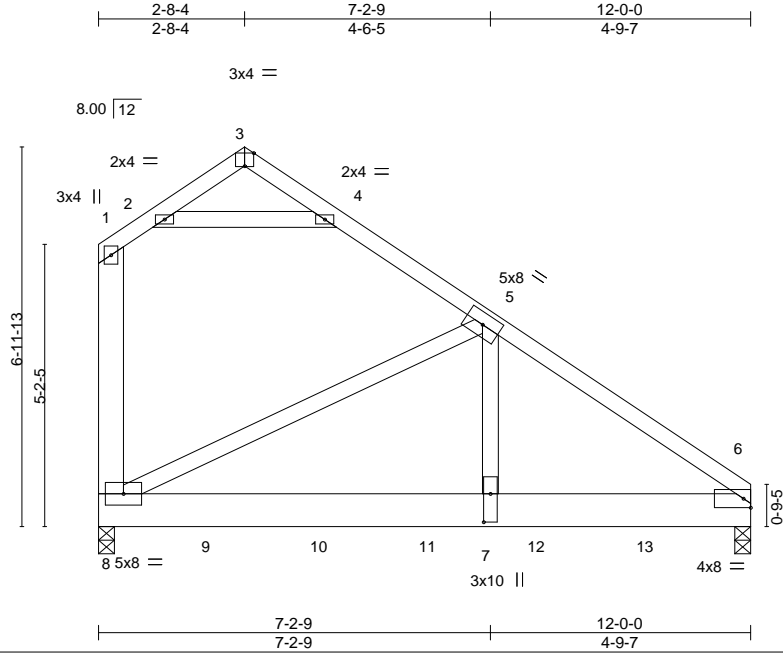
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350541
J1220-5685	B2GR	Common Girder	1	2	Job Reference (optional)	

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ID:OVkgzkCZIFyccLxPk0HiYpztgE1-YsrSY0MKK?eYOlyZ3QbfZkEX7aFtU95sGuSaezRdW



Scale = 1:42.4

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.48	Vert(LL) -0.09	7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.96	Vert(CT) -0.16	7-8	>846	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.96	Horz(CT) 0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05	7-8	>999	240		
							Weight: 180 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x8 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 1-8: 2x6 SP No.1

**BRACING-**

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

**REACTIONS.**

(size) 6=0-3-8, 8=0-3-8  
 Max Horz 8=-178(LC 9)  
 Max Uplift 6=-49(LC 9), 8=-111(LC 9)  
 Max Grav 6=3720(LC 2), 8=3696(LC 2)

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

TOP CHORD 4-5=-269/38, 5-6=-5119/58  
 BOT CHORD 7-8=0/4048, 6-7=0/4048  
 WEBS 5-7=0/4674, 5-8=-4339/166

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=111.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1320 lb down and 26 lb up at 2-0-12, 1320 lb down and 26 lb up at 4-0-12, 1320 lb down and 26 lb up at 6-0-12, and 1320 lb down and 26 lb up at 8-0-12, and 1320 lb down and 26 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-6=-60, 6-8=-20



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Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350541
J1220-5685	B2GR	Common Girder	1	<b>2</b>	Job Reference (optional)	

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 ID:OVkgzkCZiFyccLxPk0HiYpztgE1-YsrSY0MKK?eYOlyZ3QbfZklEX7aFtU95sGuSaezrRDw

**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 9=-1238(B) 10=-1238(B) 11=-1238(B) 12=-1238(B) 13=-1238(B)

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Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350542
J1220-5685	VB1	VALLEY	1	1	Job Reference (optional)	

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8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Jan 26 16:04:52 2021 Page 1  
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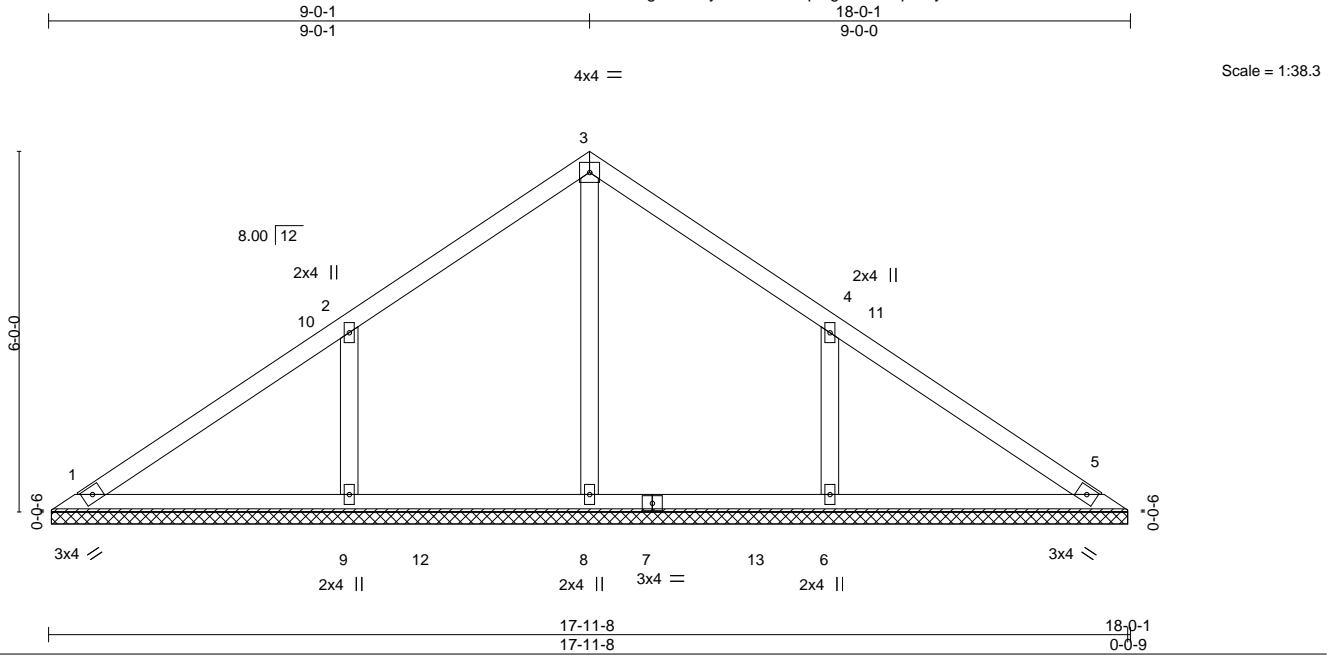


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.20	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 73 lb	FT = 20%

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

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

**REACTIONS.** All bearings 17-10-15.  
 (lb) - Max Horz 1=136(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=122(LC 12), 6=122(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=403(LC 19), 9=475(LC 19), 6=475(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-9=-364/231, 4-6=-364/231

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-15 to 5-0-1, Interior(1) 5-0-1 to 9-0-1, Exterior(2) 9-0-1 to 13-4-13, Interior(1) 13-4-13 to 17-6-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=122, 6=122.



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Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350543
J1220-5685	VB2	VALLEY	1	1	Job Reference (optional)	

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8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Jan 26 16:04:52 2021 Page 1  
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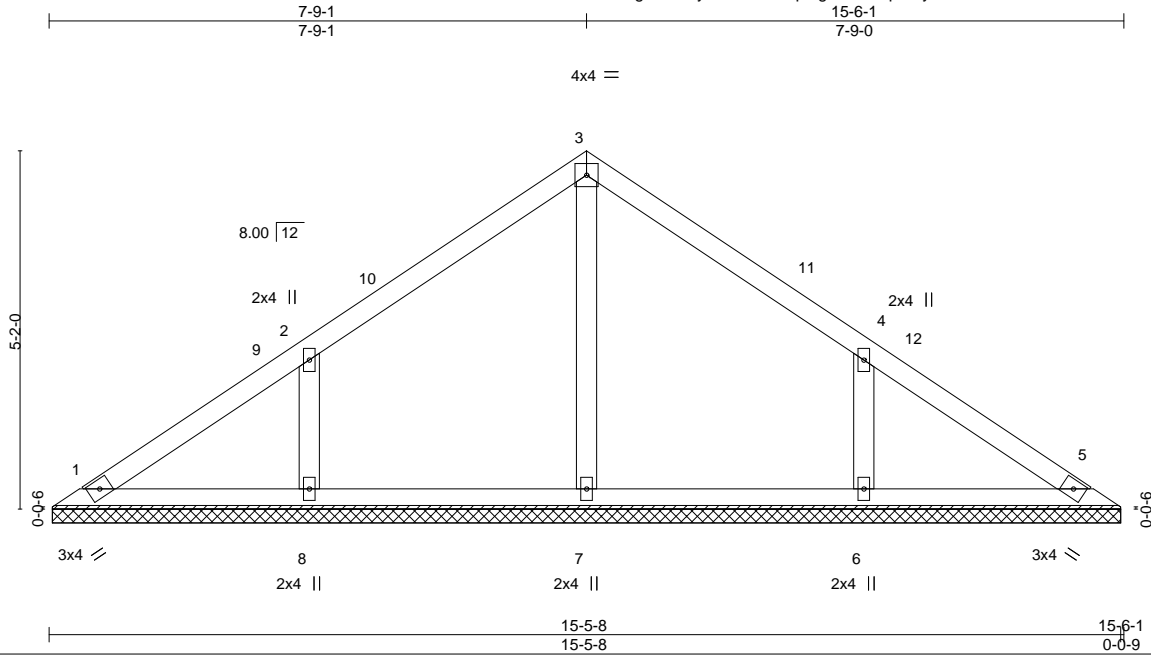


Plate Offsets (X,Y)--	[4:0-0-0,0-0-0]
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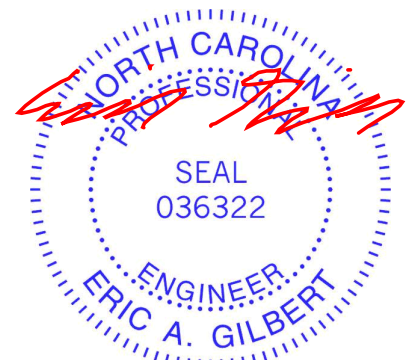
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.15	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.08	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 61 lb	FT = 20%

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

**REACTIONS.** All bearings 15-4-15.  
 (lb) - Max Horz 1=-116(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-104(LC 12), 6=-104(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=251(LC 1), 8=367(LC 19), 6=366(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-310/206, 4-6=-310/206

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 7-9-1, Exterior(2) 7-9-1 to 12-1-13, Interior(1) 12-1-13 to 15-0-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=104, 6=104.



January 27, 2021



Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350544
J1220-5685	VB3	VALLEY	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Jan 26 16:04:53 2021 Page 1  
 ID:OVkgzkCZiFyccLxPk0HiYpztgE1-UFzCziOasduGd36yBrd7e9qgUxUKLcrOKaNZeXzrRDU

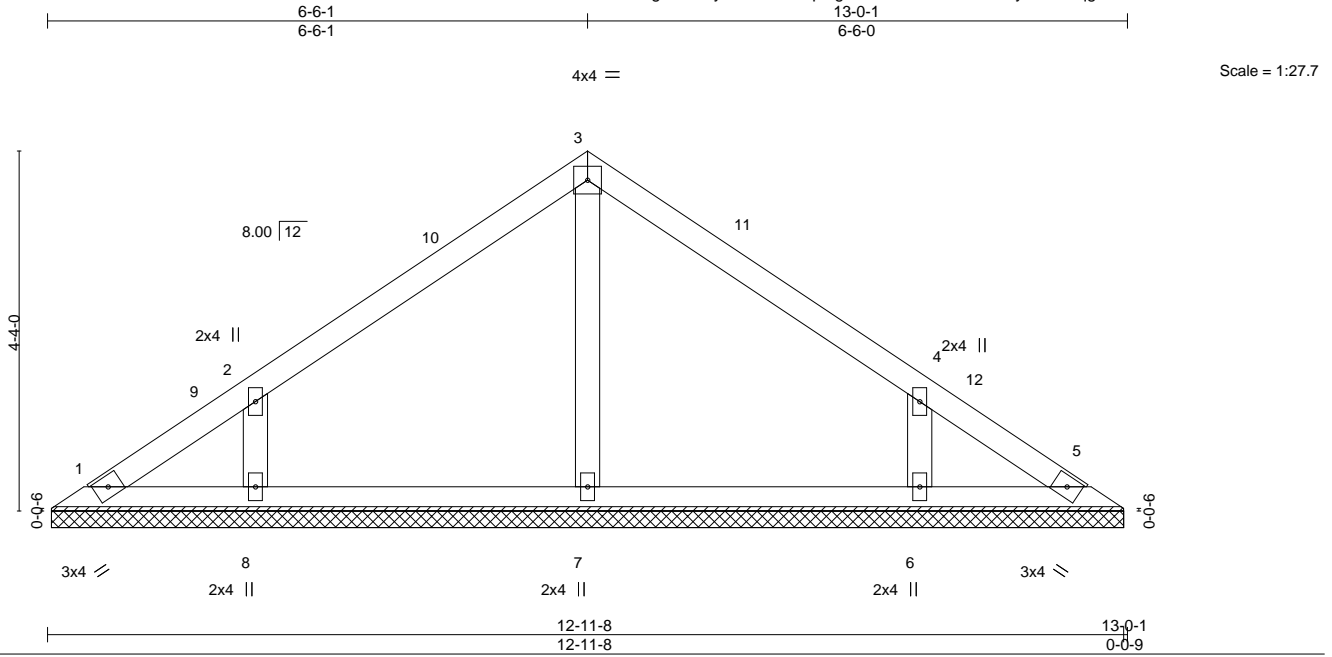


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 50 lb	FT = 20%

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

**REACTIONS.** All bearings 12-10-15.  
 (lb) - Max Horz 1=96(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=264(LC 1), 8=318(LC 19), 6=318(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-278/198, 4-6=-278/198

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 6-6-1, Exterior(2) 6-6-1 to 10-10-13, Interior(1) 10-10-13 to 12-6-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 6.

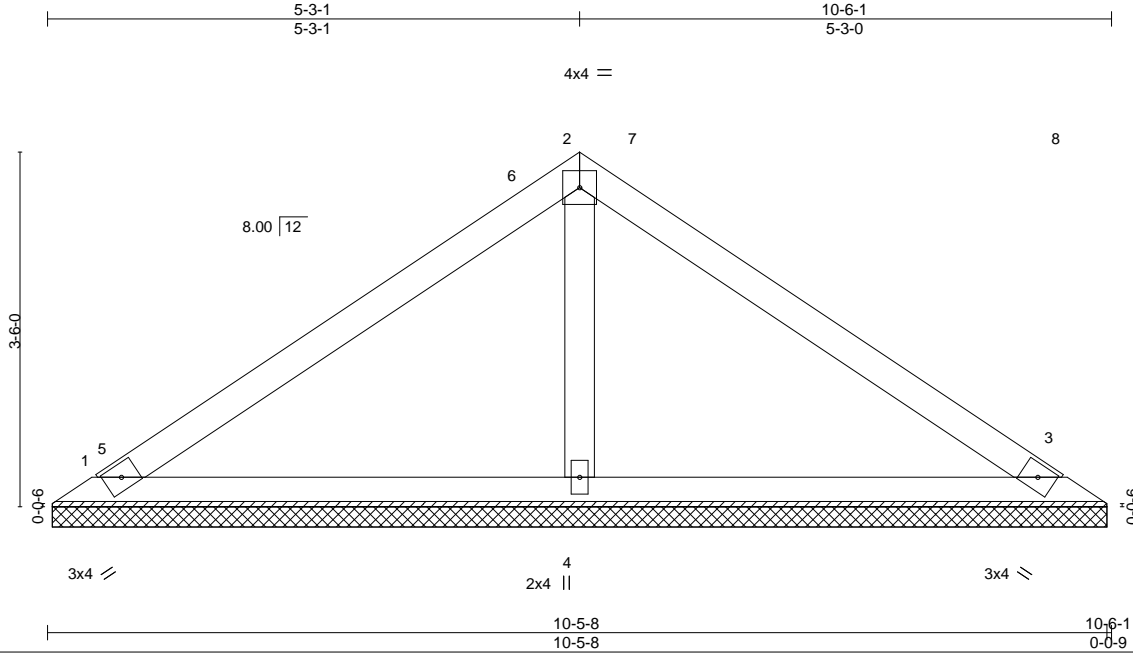


January 27, 2021

Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350545
J1220-5685	VB4	VALLEY	1	1	Job Reference (optional)	

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8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Jan 26 16:04:54 2021 Page 1  
ID:OVkgzkCZiFyccLxPKoHiYpztgE1-yRXaA2PCdw07FDh8lY8MBMnpXKpM438XZE76BzrRDt



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.24	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 37 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**

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

**BRACING-**

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

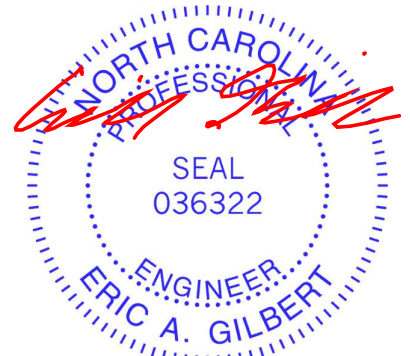
**REACTIONS.**

(size) 1=10-4-15, 3=10-4-15, 4=10-4-15  
Max Horz 1=-76(LC 8)  
Max Uplift 1=-24(LC 12), 3=-31(LC 13)  
Max Grav 1=189(LC 1), 3=189(LC 1), 4=383(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 5-3-1, Exterior(2) 5-3-1 to 9-7-13, Interior(1) 9-7-13 to 10-0-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



January 27, 2021

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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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

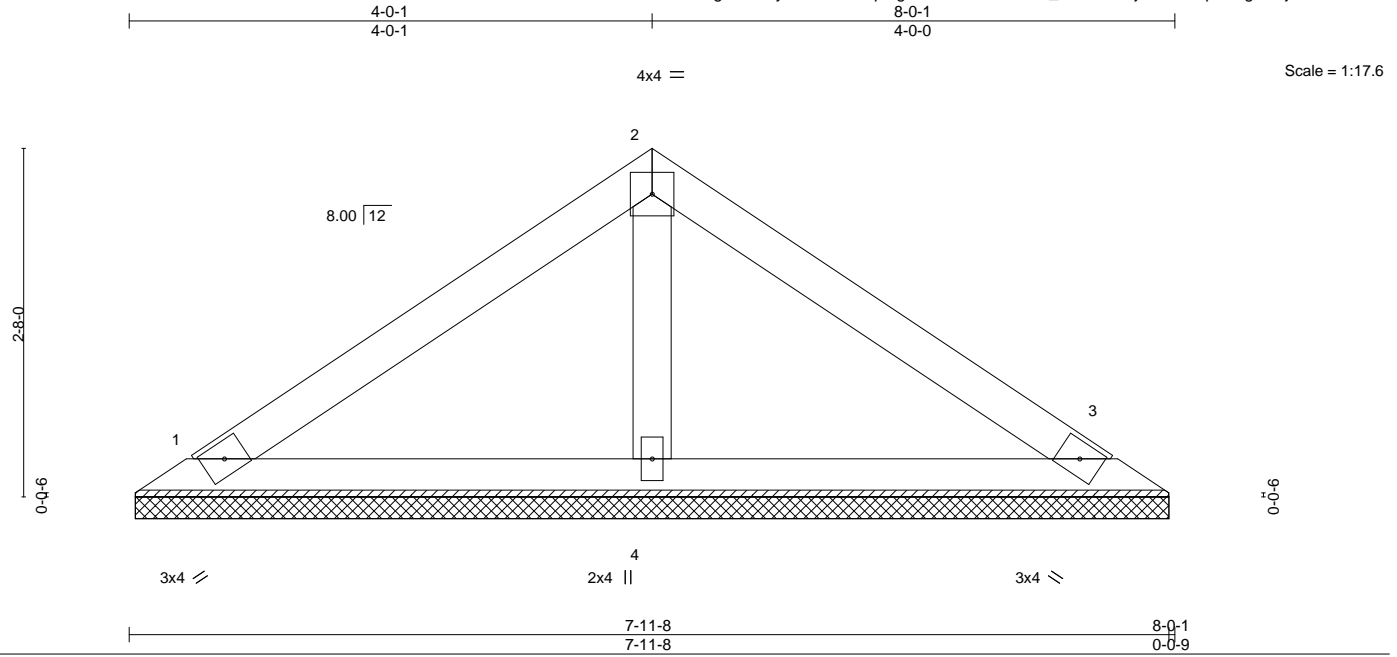


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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350546
J1220-5685	VB5	VALLEY	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Jan 26 16:04:55 2021 Page 1  
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-Qe5zNOQrOE8\_sNGKIGfbjav?Jk9mpWmgusfjQzrRDs



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.17	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 27 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**

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

**BRACING-**

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

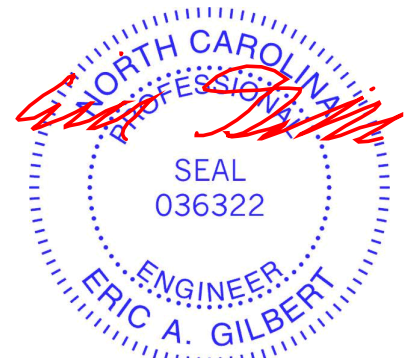
**REACTIONS.**

(size) 1=7-10-15, 3=7-10-15, 4=7-10-15  
Max Horz 1=56(LC 9)  
Max Uplift 1=-24(LC 12), 3=-30(LC 13)  
Max Grav 1=153(LC 1), 3=153(LC 1), 4=256(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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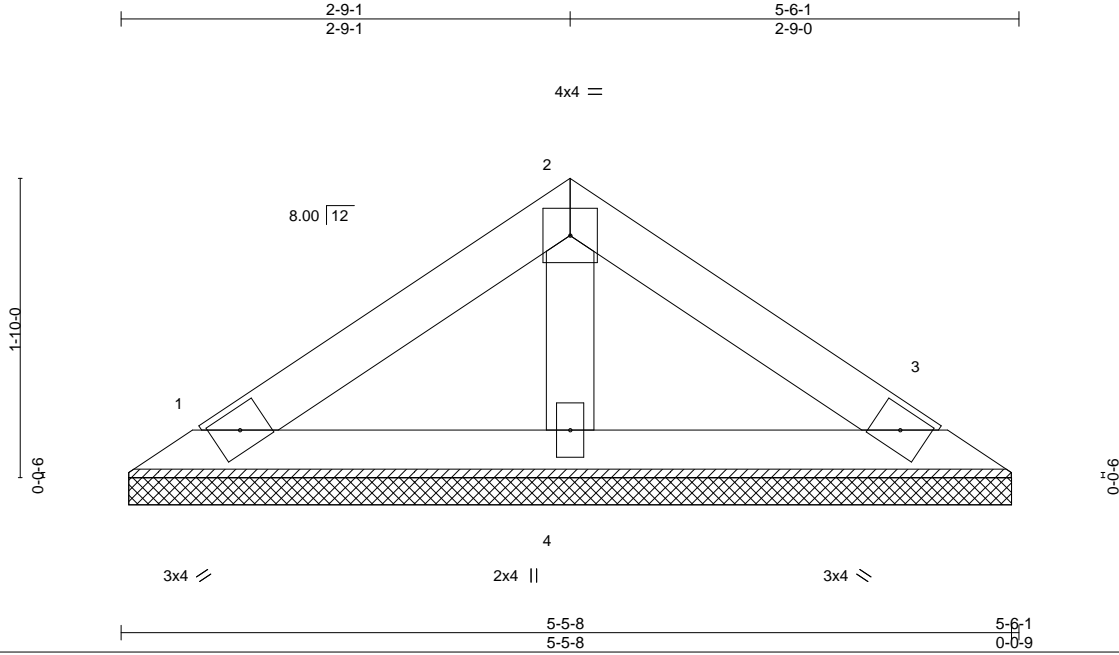
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350547
J1220-5685	VB6	VALLEY	1	1	Job Reference (optional)	

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8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Jan 26 16:04:56 2021 Page 1  
 ID:OVkgzkCZiFyccLxPk0HiYpztgE1-ufqLbkQT8YGrUWrXszAqGnSBi8WqYzAq0YcDFszrDR



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 18 lb	FT = 20%
	Code IRC2015/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-6-1 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 1=5-4-15, 3=5-4-15, 4=5-4-15  
 Max Horz 1=-36(LC 10)  
 Max Uplift 1=-16(LC 12), 3=-19(LC 13)  
 Max Grav 1=98(LC 1), 3=98(LC 1), 4=165(LC 1)

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

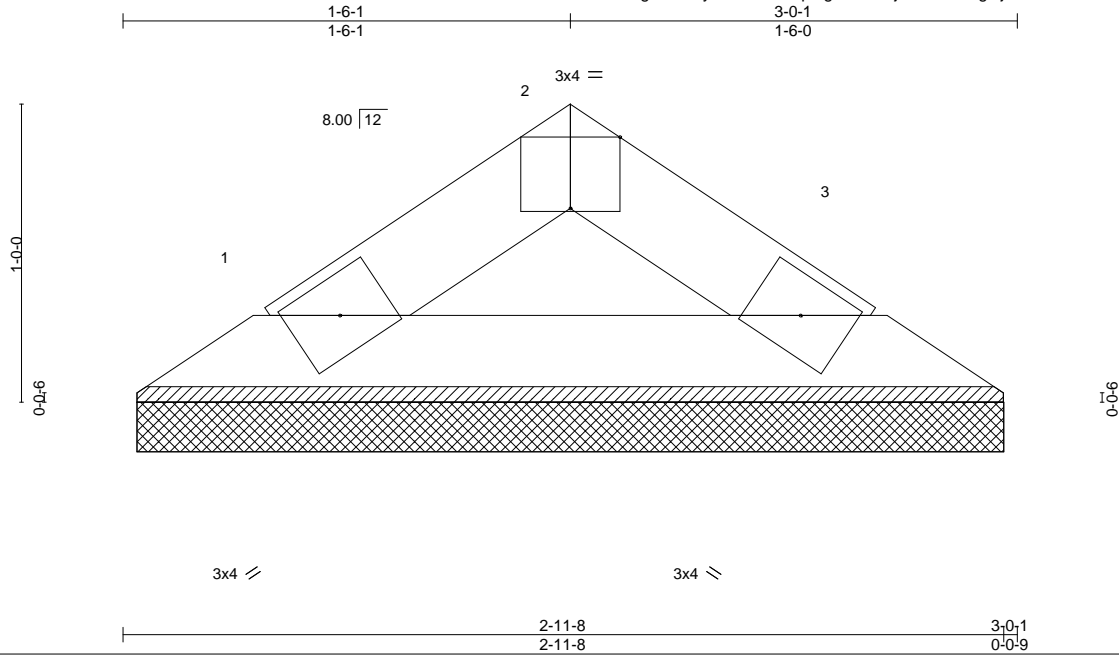
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber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



Job	Truss	Truss Type	Qty	Ply	Weaver / Lot 67 Thomas Farm / Harnett	E15350548
J1220-5685	VB7	VALLEY	1	1	Job Reference (optional)	

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8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Jan 26 16:04:57 2021 Page 1  
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-M0Djo4R5vrOi6gQjQhi3o??NGYs7HPdzFCLmnlzrRDq



Scale = 1:7.7

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.01	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P					Weight: 8 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-0-1 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=2-10-15, 3=2-10-15  
Max Horz 1=-16(LC 8)  
Max Uplift 1=-4(LC 12), 3=-4(LC 13)  
Max Grav 1=81(LC 1), 3=81(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; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



January 27, 2021

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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/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

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



# General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative 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.
21. The design does not take into account any dynamic or other loads other than those expressly stated.