

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: J0421-2748  
1504 Gregory Circle

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

Pages or sheets covered by this seal: E15710383 thru E15710418

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

North Carolina COA: C-0844



May 10, 2021

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Strzyzewski, Marvin

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

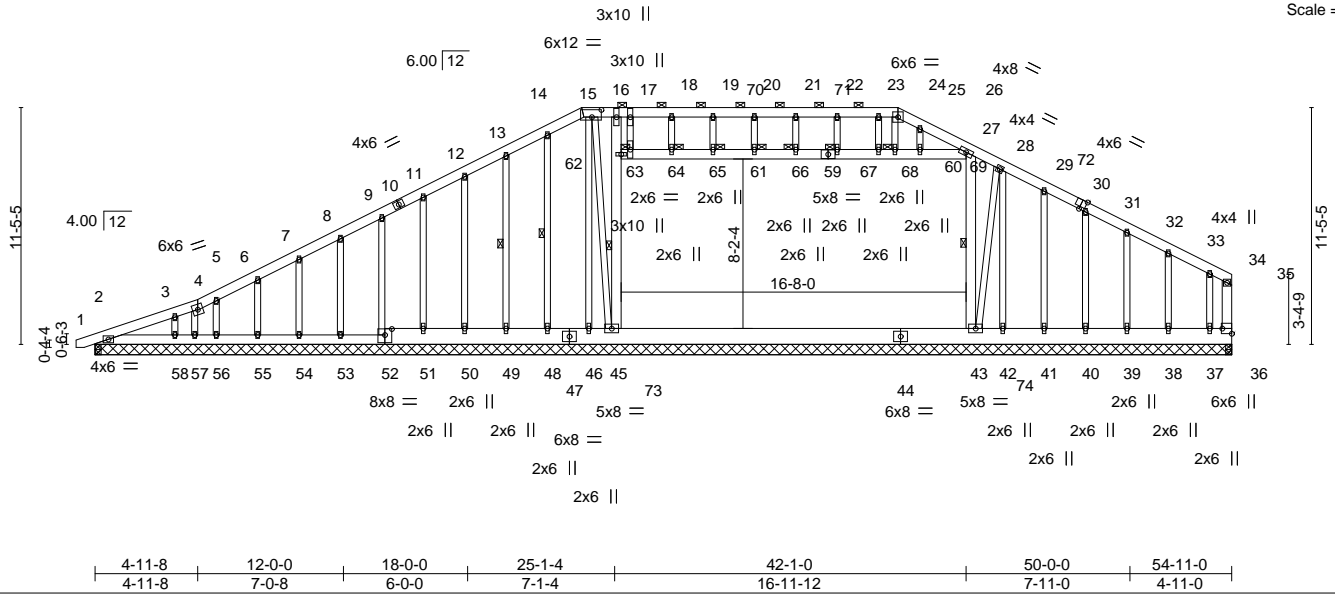
Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710383
J0421-2748	A1-GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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0-11-0	4-11-8	12-0-0	18-0-0	23-6-2	25-1-4	32-0-0	38-9-8	42-1-0	50-0-0	54-11-0
0-11-0	4-11-8	7-0-8	6-0-0	5-6-2	1-7-2	6-10-12	6-9-8	3-3-8	7-11-0	4-11-0

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Scale = 1:111.3

Plate Offsets (X,Y)--	[15:0-0-10,0-2-12], [15:0-5-8,0-4-4], [30:0-2-14,Edge], [36:Edge,0-5-8], [52:0-4-0,0-3-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.75	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.59	Vert(LL) -0.18 43-45 >999 360		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.52	Vert(CT) -0.24 43-45 >855 240		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.01 36 n/a n/a		
			Wind(LL) 0.00 2 >999 240	Weight: 610 lb	FT = 20%

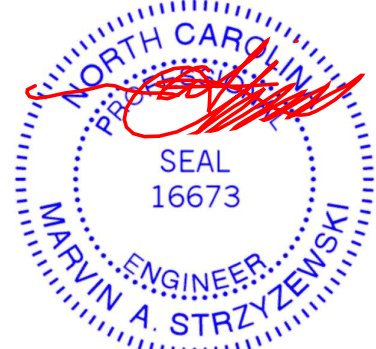
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 15-25.
BOT CHORD 2x10 SP No.1 *Except* 2-52: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-3-12 oc bracing: 45-46 8-4-3 oc bracing: 43-45 8-6-0 oc bracing: 42-43.
WEBS 2x4 SP No.2 *Except* 17-45,27-43,35-36,27-59,59-62: 2x6 SP No.1	WEBS 1 Row at midpt 45-62, 27-43, 13-49, 14-48
OTHERS 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 60, 61, 62, 64, 65, 66, 67

**REACTIONS.** All bearings 54-11-0.  
(lb) - Max Horz 2=310(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 52, 57, 53, 45, 39, 50, 56, 55, 54, 51, 49, 41, 40, 38 except 2=-139(LC 8), 36=-386(LC 9), 58=-102(LC 12), 46=-2257(LC 18), 42=-1801(LC 18), 37=-666(LC 1)  
Max Grav All reactions 250 lb or less at joint(s) 52, 57, 53, 39, 50, 56, 55, 54, 51, 49, 40, 38 except 2=298(LC 1), 2=298(LC 1), 45=2950(LC 18), 43=2470(LC 18), 36=901(LC 1), 36=901(LC 1), 58=325(LC 28), 48=407(LC 18), 41=547(LC 2), 37=357(LC 9)

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

TOP CHORD	BOT CHORD	WEBS
2-3=-459/169, 3-4=-426/213, 4-5=-440/231, 5-6=-432/246, 6-7=-406/262, 7-8=-398/277, 8-9=-399/292, 9-11=-394/307, 11-12=-395/323, 12-13=-396/339, 13-14=-406/361, 14-15=-360/368, 15-16=-329/350, 16-17=-373/366, 17-18=-538/427, 18-19=-538/427, 19-20=-538/427, 20-21=-538/427, 21-22=-538/427, 22-23=-538/427, 23-24=-538/427, 24-25=-540/427, 25-26=-606/461, 26-27=-753/478, 27-28=-193/277, 28-29=-315/264, 29-31=-263/213, 31-32=-270/183, 32-33=-267/150, 33-34=-278/130, 34-35=-379/167, 35-36=-412/174	2-58=-139/326, 57-58=-139/326, 56-57=-140/332, 55-56=-140/332, 54-55=-140/332, 53-54=-140/332, 52-53=-140/333, 51-52=-139/330, 50-51=-139/329, 49-50=-139/329, 48-49=-139/329, 46-48=-139/329, 45-46=-139/329, 43-45=-158/356	45-62=-1234/674, 17-62=-1705/922, 27-43=-957/351, 16-46=-201/316, 18-63=-337/632, 28-43=-327/700, 16-45=-266/425

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-8-11 to 4-11-8, Interior(1) 4-11-8 to 23-6-12, Exterior(2R) 23-6-12 to 29-0-11, Interior(1) 29-0-11 to 38-9-8, Exterior(2R) 38-9-8 to 44-3-6, Interior(1) 44-3-6 to 54-8-4 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.



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Continued on page 2 drainage to prevent water ponding.

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710383
J0421-2748	A1-GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:06 2021 Page 2  
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**NOTES-**

- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 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 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 52, 57, 53, 45, 39, 50, 56, 55, 54, 51, 49, 41, 40, 38 except (jt=lb) 2=139, 36=386, 58=102, 46=2257, 42=1801, 37=666.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 13) Attic room checked for L/360 deflection.

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710384
J0421-2748	A2	ROOF TRUSS	6	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

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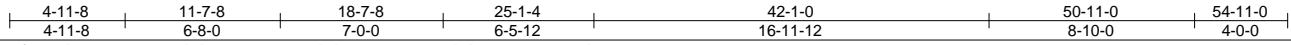
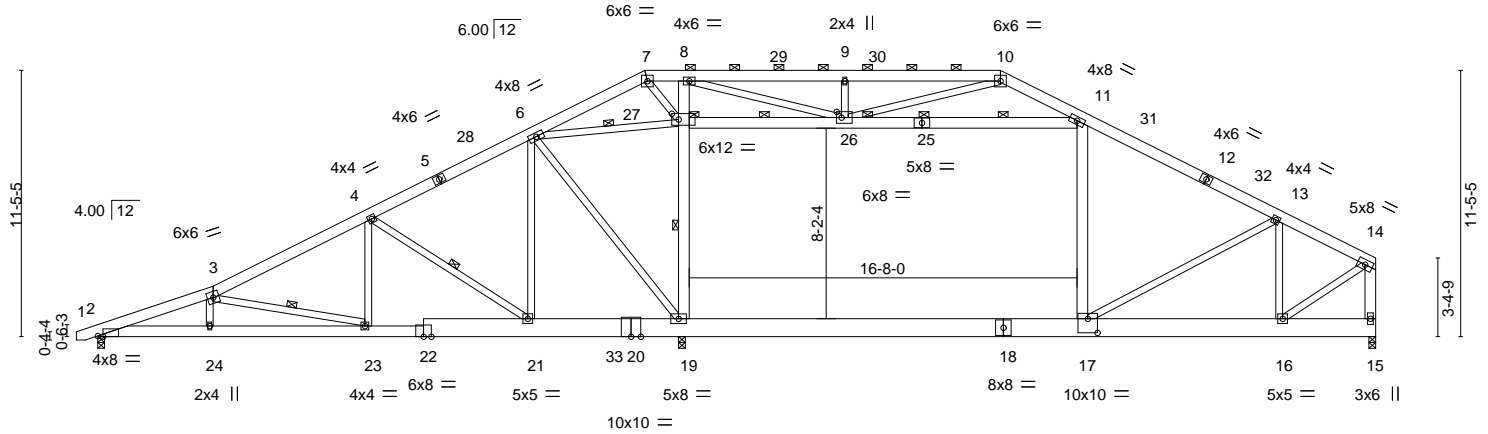


Plate Offsets (X,Y)-- [2:0-2-11,Edge], [17:0-5-0,0-7-4], [26:0-2-8,0-3-0], [27:0-3-8,0-3-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	2-0-0	TC 0.40	Vert(LL) -0.37	17-19	>953	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.78	Vert(CT) -0.63	17-19	>561	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.79	Horz(CT) 0.09	15	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) 0.10	17	>999	240		
								Weight: 541 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x10 SP 2400F 2.0E \*Except\*  
2-22: 2x6 SP No.1, 20-22: 2x10 SP No.1  
WEBS 2x4 SP No.2 \*Except\*  
8-19, 11-17, 14-15, 11-25, 25-27: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-6-5 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-10.  
Rigid ceiling directly applied or 9-10-14 oc bracing.  
BOT CHORD  
WEBS 1 Row at midpt 3-23, 4-21, 19-27, 26-27, 6-27  
2 Rows at 1/3 pts 11-26  
JOINTS 1 Brace at Jt(s): 26, 27

**REACTIONS.**

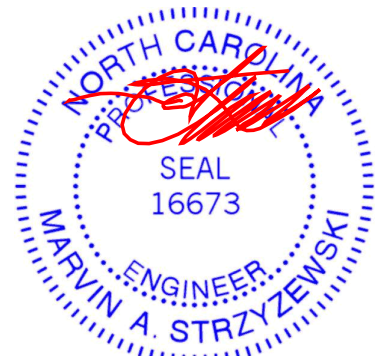
(size) 2=0-3-8, 19=0-3-8, 15=0-3-8  
Max Horz 2=199(LC 12)  
Max Grav 2=1774(LC 2), 19=2456(LC 28), 15=2325(LC 29)

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

TOP CHORD 2-3=4518/598, 3-4=3310/421, 4-6=2369/314, 6-7=179/1010, 7-8=198/1187, 8-9=1078/263, 9-10=1079/263, 10-11=927/317, 11-13=2982/122, 13-14=2001/184, 14-15=2177/195  
BOT CHORD 2-24=623/4230, 23-24=630/4220, 21-23=327/2927, 19-21=70/2038, 17-19=0/2568, 16-17=134/1778  
WEBS 3-23=1335/317, 4-23=0/654, 4-21=1074/318, 19-27=1405/417, 8-27=1073/385, 11-17=0/817, 13-17=0/955, 13-16=1258/84, 14-16=169/2138, 26-27=3744/465, 11-26=1963/35, 9-26=376/263, 8-26=485/2089, 10-26=74/306, 6-21=173/438, 6-19=0/1003, 6-27=3346/394, 7-27=538/168

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) -0-8-11 to 4-11-8, Interior(1) 4-11-8 to 23-6-12, Exterior(2R) 23-6-12 to 29-0-11, Interior(1) 29-0-11 to 38-9-8, Exterior(2R) 38-9-8 to 44-3-6, Interior(1) 44-3-6 to 54-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Ceiling dead load (10.0 psf) on member(s). 26-27, 11-26; Wall dead load (5.0psf) on member(s). 19-27, 11-17
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 17-19
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.



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**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



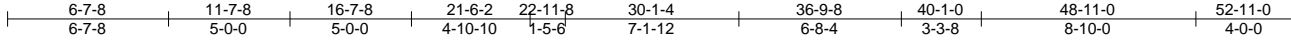
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710385
J0421-2748	A3	ROOF TRUSS	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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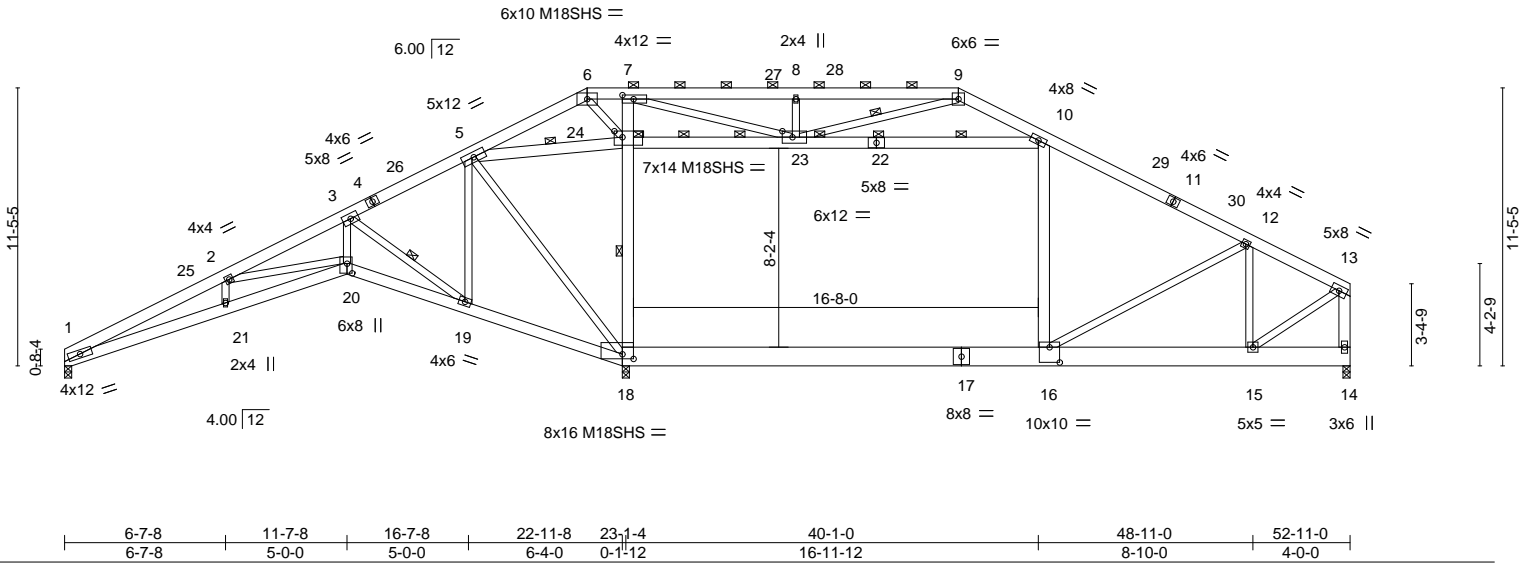


Plate Offsets (X,Y)-- [7:0-5-8,0-2-0], [16:0-5-0,0-7-8], [18:0-5-8,0-2-5], [20:0-4-12,0-2-8], [23:0-5-0,0-3-0], [24:0-4-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.86	Vert(LL) -0.60 16-18 >599 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.73	Vert(CT) -1.05 16-18 >339 240	M18SHS	244/190
BCLL 0.0 *	Rep Stress Incr YES	WB 0.82	Horz(CT) 0.35 14 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.14 16-18 >999 240		
				Weight: 508 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP 2400F 2.0E \*Except\*  
 17-18,14-17: 2x10 SP 2400F 2.0E  
 WEBS 2x4 SP No.2 \*Except\*  
 7-18,10-16,13-14,10-22,5-24,22-24: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-3-4 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 6-9.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 7-3-12 oc bracing: 16-18.  
 WEBS 1 Row at midpt 18-24, 9-23, 3-19, 5-24  
 2 Rows at 1/3 pts 23-24, 10-23  
 JOINTS 1 Brace at Jt(s): 23, 24

**REACTIONS.**

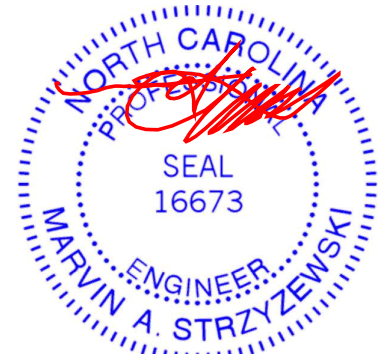
(size) 1=0-3-8, 18=0-3-8, 14=0-3-8  
 Max Horz 1=195(LC 12)  
 Max Grav 1=1139(LC 2), 18=2605(LC 28), 14=1952(LC 29)

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

TOP CHORD 1-2=-4701/277, 2-3=-4234/35, 3-5=-1677/3, 5-6=-123/3605, 6-7=-116/4385, 7-8=0/1429, 8-9=0/1429, 9-10=-344/290, 10-12=-2593/0, 12-13=-1649/42, 13-14=-1788/46  
 BOT CHORD 1-21=-284/4291, 20-21=-285/4306, 19-20=0/3953, 18-19=0/1519, 16-18=0/2211, 15-16=-10/1470  
 WEBS 18-24=-2759/295, 7-24=-1547/273, 3-20=0/2719, 5-19=-5/934, 5-18=0/1126, 10-16=0/1004, 12-16=0/969, 12-15=-1247/0, 13-15=-20/1769, 23-24=-6546/174, 10-23=-2207/0, 8-23=-365/218, 7-23=-303/3361, 9-23=-1304/29, 3-19=-2889/148, 2-20=-608/336, 5-24=-5169/115, 6-24=-1857/115

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) 0-1-12 to 5-5-4, Interior(1) 5-5-4 to 21-6-2, Exterior(2R) 21-6-2 to 28-11-15, Interior(1) 28-11-15 to 36-9-8, Exterior(2R) 36-9-8 to 44-3-5, Interior(1) 44-3-5 to 52-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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.
- Ceiling dead load (10.0 psf) on member(s). 23-24, 10-23; Wall dead load (5.0psf) on member(s). 18-24, 10-16
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 16-18
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.



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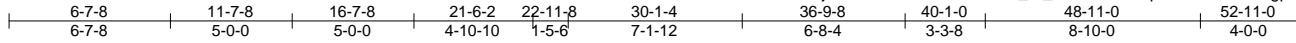


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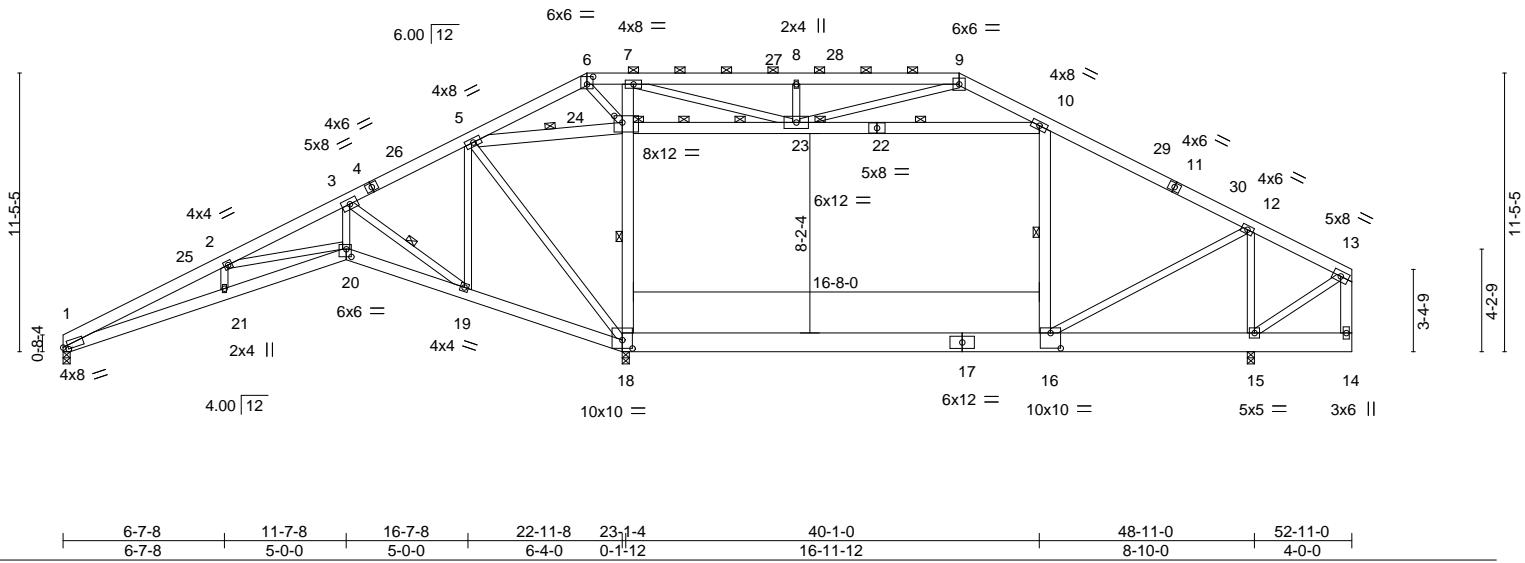
Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710386
J0421-2748	A4	ROOF TRUSS	3	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:19 2021 Page 1  
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Scale = 1:94.6



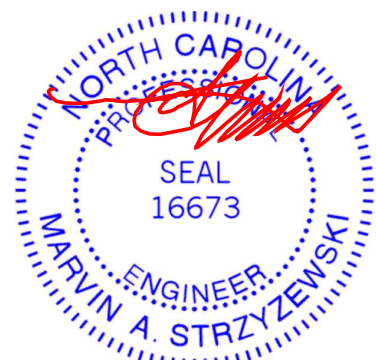
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.68	Vert(LL) -0.55 16-18 >568 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.70	Vert(CT) -0.91 16-18 >340 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.77	Horz(CT) 0.29 15 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.10 20-21 >999 240		Weight: 508 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-6-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD 2x6 SP 2400F 2.0E *Except* 17-18,14-17: 2x10 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 7-18,10-16,13-14,10-22,5-24,22-24: 2x6 SP No.1	WEBS 1 Row at midpt 18-24, 10-16, 10-23, 3-19, 5-24 2 Rows at 1/3 pts 23-24
	JOINTS 1 Brace at Jt(s): 23, 24

**REACTIONS.** (size) 1=0-3-8, 18=0-3-8, 15=0-3-8  
Max Horz 1=195(LC 12)  
Max Grav 1=1014(LC 2), 18=2554(LC 28), 15=2123(LC 29)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-4082/252, 2-3=-3532/10, 3-5=-1317/0, 5-6=-105/2669, 6-7=-110/3235,  
7-8=-182/829, 8-9=-182/829, 9-10=-546/261, 10-12=-1866/0  
BOT CHORD 1-21=-261/3733, 20-21=-262/3745, 19-20=0/3294, 18-19=0/1143, 16-18=0/1565  
WEBS 18-24=-2283/291, 7-24=-1365/267, 3-20=0/2324, 5-19=-6/819, 5-18=0/667,  
10-16=-168/610, 12-16=0/1865, 12-15=-2186/0, 23-24=-4764/135, 10-23=-1479/0,  
8-23=-374/218, 7-23=-300/2824, 9-23=-868/39, 3-19=-2511/152, 2-20=-647/340,  
5-24=-3744/73, 6-24=-1395/112

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 0-1-12 to 5-5-4, Interior(1) 5-5-4 to 21-6-2, Exterior(2R) 21-6-2 to 28-11-15, Interior(1) 28-11-15 to 36-9-8, Exterior(2R) 36-9-8 to 44-3-5, Interior(1) 44-3-5 to 52-8-4 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (10.0 psf) on member(s). 23-24, 10-23; Wall dead load (5.0psf) on member(s).18-24, 10-16
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 16-18
  - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Attic room checked for L/360 deflection.



May 10, 2021

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710387
J0421-2748	A5	PIGGYBACK BASE	3	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:23 2021 Page 1

ID:DFoRkbnIZjVH?nbttrBKZazEemi-VXKvhc1VrEvkiFZA3efAN75XIGbc8U?SAaxxuPzHwwY



Scale = 1:73.0

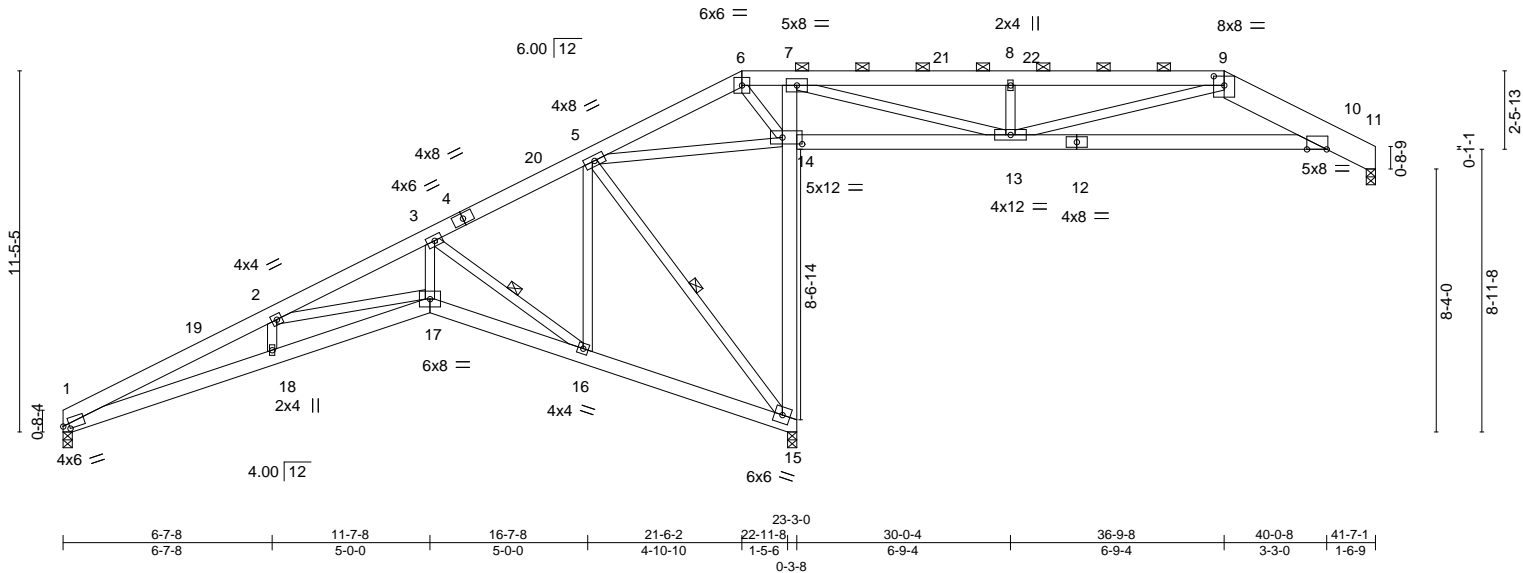


Plate Offsets (X,Y)-- [1:0-2-6,0-1-10], [9:0-4-0,0-3-8], [10:0-7-8,Edge], [14:0-7-8,0-2-8]

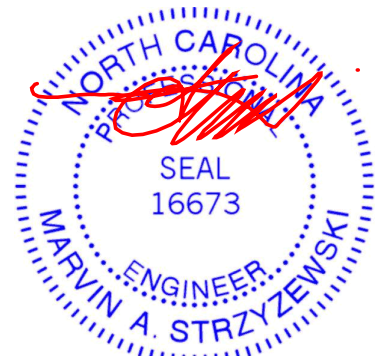
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.39	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.41	Vert(LL) -0.12 17-18 >999 360		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.83	Vert(CT) -0.25 17-18 >999 240		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.19 15 n/a n/a		
			Wind(LL) 0.13 17-18 >999 240	Weight: 315 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 9-11: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-5-4 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 3-16, 5-15

**REACTIONS.** (size) 11=0-3-8, 1=0-3-8, 15=0-3-8  
 Max Horz 1=307(LC 12)  
 Max Uplift 11=-63(LC 8), 1=-11(LC 12), 15=-164(LC 12)  
 Max Grav 11=617(LC 26), 1=753(LC 25), 15=2019(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2680/567, 2-3=-1781/396, 3-5=-371/61, 5-6=-313/1424, 6-7=-360/1691,  
 7-8=-1010/286, 8-9=-1013/285, 9-10=-1096/271  
 BOT CHORD 1-18=-768/2424, 17-18=-771/2426, 16-17=-514/1615, 15-16=-107/304, 14-15=-1688/407,  
 7-14=-1084/306, 13-14=-1603/458, 10-13=-180/1035  
 WEBS 5-16=-94/701, 5-14=-1220/330, 7-13=-462/2242, 9-13=-306/202, 3-17=-339/1319,  
 2-17=-757/271, 3-16=-1582/488, 5-15=-463/160, 6-14=-768/229, 8-13=-376/197

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; 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(2E) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 21-6-2, Exterior(2R) 21-6-2 to 27-8-13, Interior(1) 27-8-13 to 36-9-8, Exterior(2E) 36-9-8 to 41-5-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Bearing at joint(s) 11, 1, 15 considers parallel to grain value using ANSII/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 1 except (jt=lb) 15=164.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSII/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 10, 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 ANSII/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	1504 Gregory Circle	E15710388
J0421-2748	A6	PIGGYBACK BASE	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:28 2021 Page 2  
 ID:DFoRkbnIzjVH?nbtlrBKZazEemi-sV8OkK5efmX1p1S7rBEL4ApMOHMhprxcJseiZczHwwT

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-6=-60, 6-9=-60, 9-10=-60, 10-11=-81, 1-17=-20, 15-17=-20, 10-14=-20
- Concentrated Loads (lb)
  - Vert: 10=-1571(F)

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710389
J0421-2748	A7	PIGGYBACK BASE	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:33 2021 Page 1

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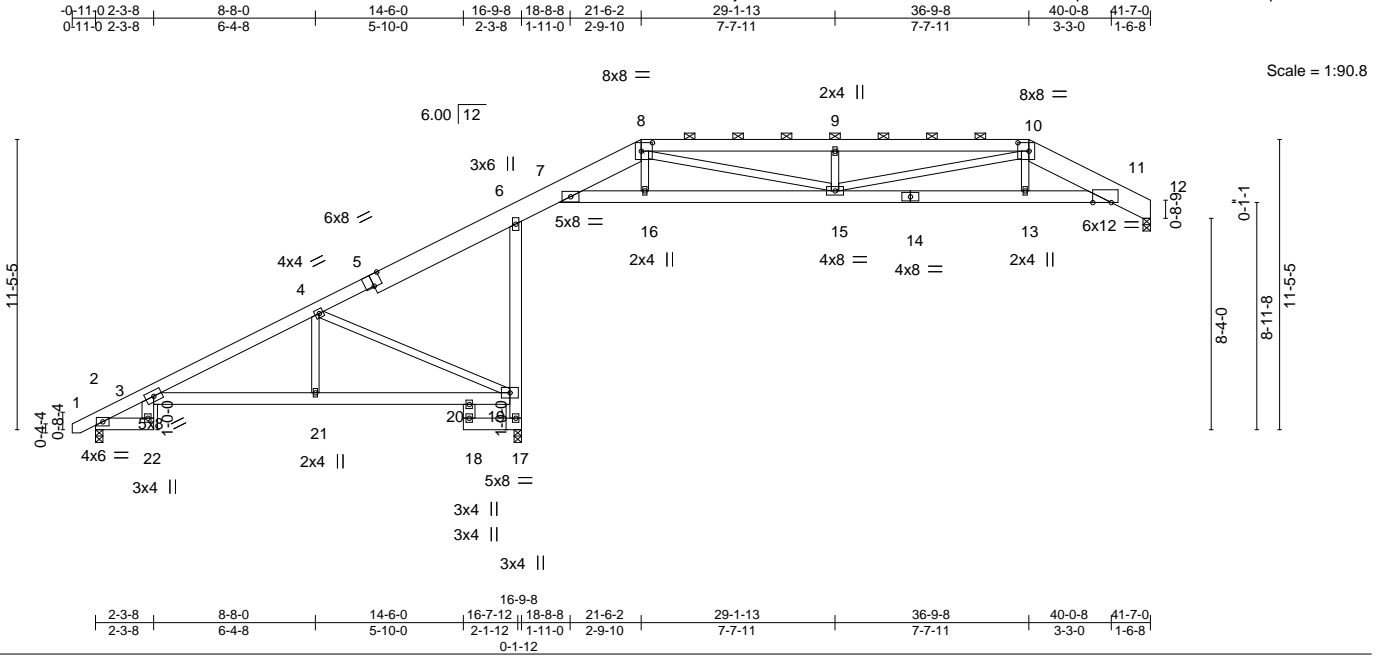


Plate Offsets (X,Y)-- [5:0-4-0,Edge], [8:0-5-4,0-4-0], [10:0-5-4,0-4-0], [11:0-8-12,0-0-0]

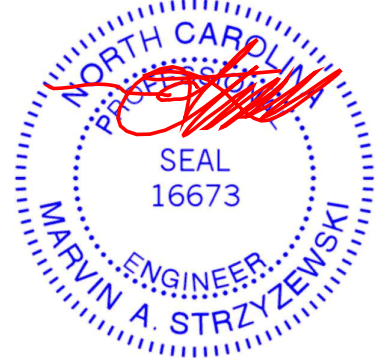
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.59	Vert(LL) -0.08 15 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.16 13-15 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.21	Horz(CT) 0.08 17 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.07 3-21 >999 240	Weight: 595 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 8-10,1-5: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 8-10.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-19,6-19.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 12=0-3-8, 2=0-3-8, 17=0-3-8  
 Max Horz 2=311(LC 8)  
 Max Uplift 12=-177(LC 4), 17=-210(LC 8)  
 Max Grav 12=2415(LC 1), 2=626(LC 21), 17=1851(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-396/0, 3-4=-785/0, 6-7=-395/48, 7-8=-2018/144, 8-9=-3309/308, 9-10=-3309/308,  
 10-11=-2787/220, 11-12=-806/71  
 BOT CHORD 3-21=-194/685, 20-21=-193/686, 19-20=-184/642, 17-19=-1821/227, 6-19=-1484/183,  
 7-16=-117/1737, 15-16=-112/1750, 13-15=-175/2772, 11-13=-180/2752  
 WEBS 4-21=0/385, 4-19=-775/218, 8-16=0/300, 8-15=-186/1632, 9-15=-459/178,  
 10-15=-340/785, 10-13=0/367

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 12 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 100 lb uplift at joint(s) except (jt=lb) 12=177, 17=210.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



May 10, 2021

Confirmed on page 2 representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710389
J0421-2748	A7	PIGGYBACK BASE	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:33 2021 Page 2  
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**NOTES-**

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1565 lb down and 133 lb up at 40-0-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-3=-60, 3-8=-60, 8-10=-60, 10-11=-60, 11-12=-81, 2-22=-20, 3-20=-20, 17-18=-20, 7-11=-20
- Concentrated Loads (lb)
  - Vert: 11=-1565(B)

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710390
J0421-2748	A8	PIGGYBACK BASE	2	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:38 2021 Page 1

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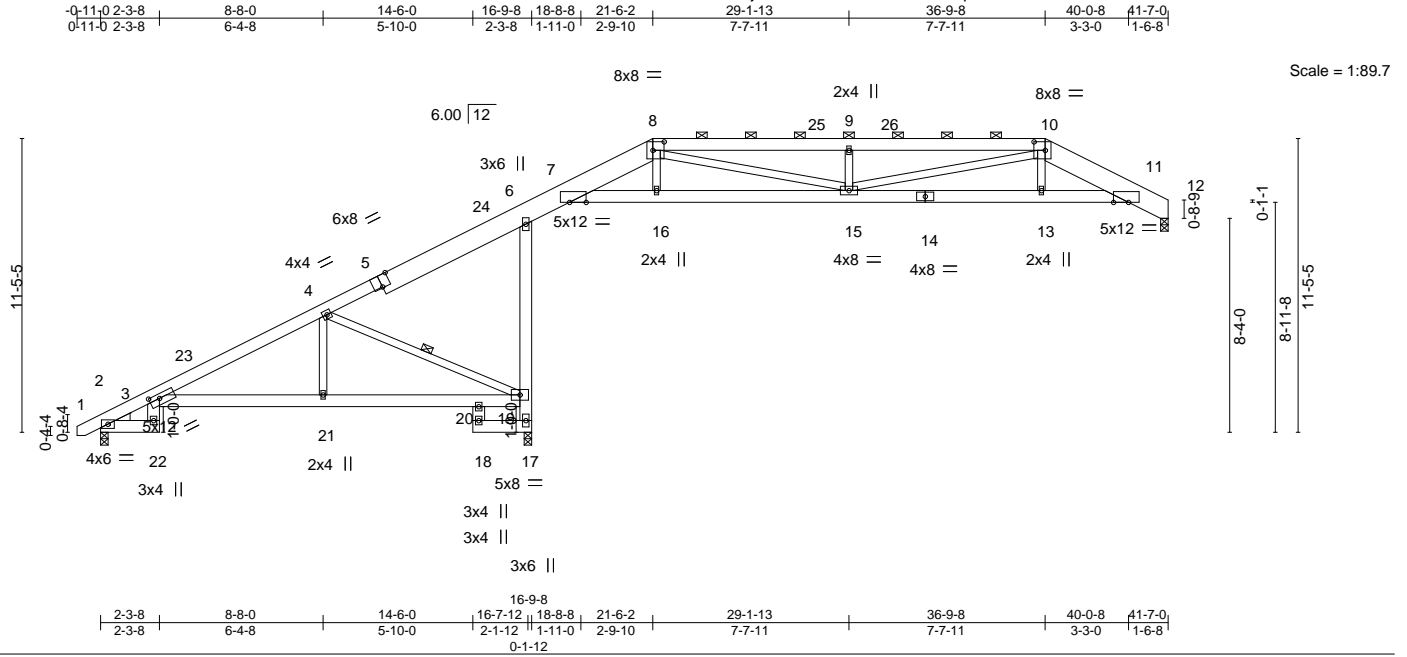


Plate Offsets (X,Y)-- [3:0-4-12,0-2-1], [5:0-4-0,Edge], [7:0-7-12,0-0-0], [8:0-5-4,0-4-0], [10:0-5-4,0-4-0], [11:0-7-0,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.65	Vert(LL) -0.12 3-21 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.45	Vert(CT) -0.25 3-21 >783 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.32	Horz(CT) 0.17 17 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.14 3-21 >999 240	Weight: 298 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x10 SP No.1 \*Except\*  
8-10,1-5: 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (4-4-4 max.): 8-10.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-19,6-19.  
WEBS 1 Row at midpt 4-19

**REACTIONS.**

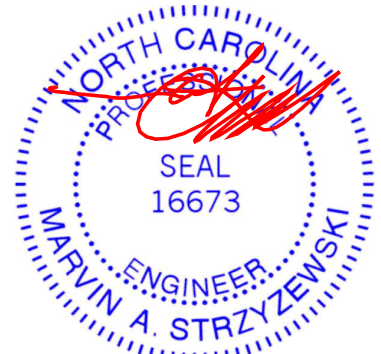
(size) 12=0-3-8, 2=0-3-8, 17=0-3-8  
Max Horz 2=311(LC 12)  
Max Uplift 12=-56(LC 8), 17=-201(LC 12)  
Max Grav 12=943(LC 1), 2=633(LC 25), 17=1751(LC 1)

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

TOP CHORD 2-3=-396/0, 3-4=-807/24, 6-7=-362/100, 7-8=-1814/336, 8-9=-2808/594, 9-10=-2808/594, 10-11=-2054/435, 11-12=-312/82  
BOT CHORD 3-21=-213/706, 20-21=-213/707, 19-20=-195/666, 17-19=-1721/480, 6-19=-1374/414, 7-16=-211/1558, 15-16=-207/1571, 13-15=-334/1890, 11-13=-338/1874  
WEBS 4-21=0/384, 4-19=-795/246, 8-16=0/293, 8-15=-296/1298, 9-15=-469/224, 10-15=-190/1023, 10-13=0/313

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 21-6-2, Exterior(2R) 21-6-2 to 27-8-13, Interior(1) 27-8-13 to 36-9-8, Exterior(2E) 36-9-8 to 41-5-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 12 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 100 lb uplift at joint(s) 12 except (jt=lb) 17=201.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 10, 2021

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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



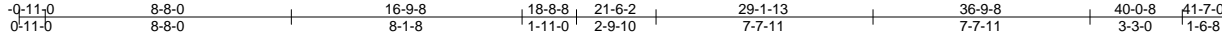
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710391
J0421-2748	A9	PIGGYBACK BASE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:42 2021 Page 1

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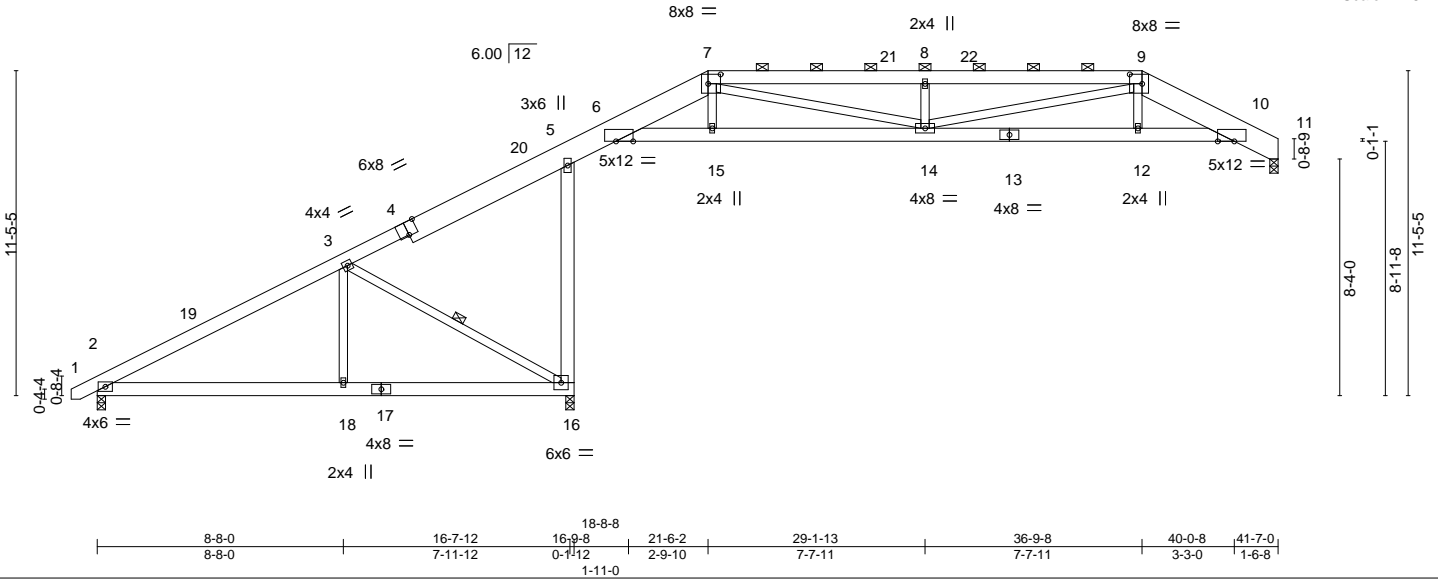


Plate Offsets (X,Y)-- [4:0-4-0,Edge], [6:0-7-4,0-0-0], [7:0-5-4,0-4-0], [9:0-5-4,0-4-0], [10:0-7-0,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.39	Vert(LL) -0.13	14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.36	Vert(CT) -0.26	14	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.31	Horz(CT) 0.07	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.10	14	>999	240		
							Weight: 292 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x10 SP No.1 \*Except\*  
7-9,1-4: 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (4-3-11 max.): 7-9.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 5-16.  
WEBS 1 Row at midpt 3-16

**REACTIONS.**

(size) 11=0-3-8, 16=0-3-8, 2=0-3-8  
Max Horz 2=311(LC 12)  
Max Uplift 11=-55(LC 8), 16=-193(LC 12)  
Max Grav 11=953(LC 1), 16=1725(LC 1), 2=649(LC 25)

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

TOP CHORD 2-3=-763/0, 5-6=-358/100, 6-7=-1899/372, 7-8=-2867/617, 8-9=-2867/617, 9-10=-2080/445, 10-11=-316/83  
BOT CHORD 2-18=-175/575, 16-18=-175/575, 5-16=-1333/394, 6-15=-254/1659, 14-15=-249/1673, 12-14=-344/1914, 10-12=-348/1899  
WEBS 3-18=0/395, 7-15=0/299, 7-14=-279/1278, 8-14=-467/224, 9-14=-205/1060, 9-12=0/314, 3-16=-673/206

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 21-6-2, Exterior(2R) 21-6-2 to 27-8-13, Interior(1) 27-8-13 to 36-9-8, Exterior(2E) 36-9-8 to 41-5-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 11 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 100 lb uplift at joint(s) 11 except (jt=lb) 16=193.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 10, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710392
J0421-2748	A10-GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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ID:DFoRkbnIZjVH?nbltrBKZazEemi-RNPOzgeRNOtHsL70Bw4f4Nm97Mm7eAZ9pbBFnGzHwx2

-0-11-0	22-5-2	37-8-8	42-6-0
0-11-0	21-6-2	15-3-6	4-9-8

Scale = 1:80.3

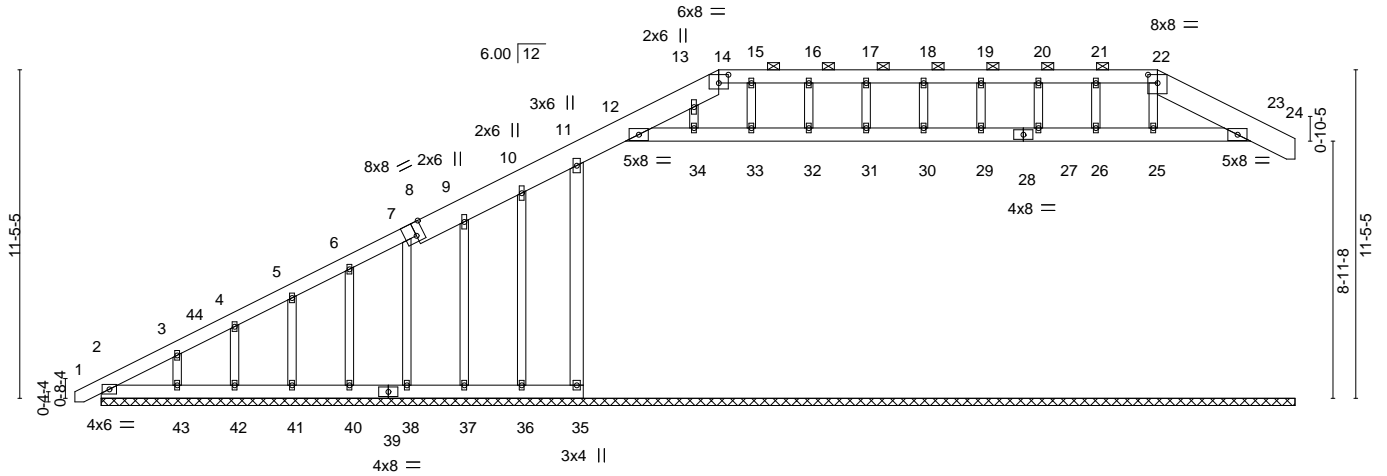


Plate Offsets (X,Y)--	[7:0-1-15,0-0-0], [8:0-3-4,Edge], [8:0-0-0,0-2-12], [14:0-4-0,0-3-8], [22:0-4-0,0-3-8]
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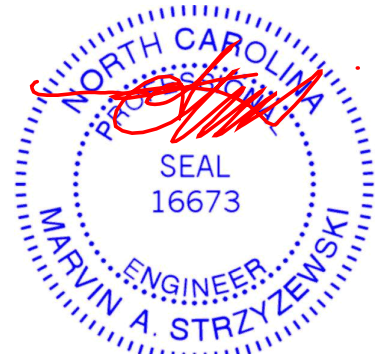
LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.03	Vert(LL) 0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) 0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) -0.01	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 306 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 14-22,1-8: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 14-22.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-35.
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 41-7-0.  
 (lb) - Max Horz 2=454(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 35, 25, 26, 27, 29, 30, 31, 32, 33, 34, 36, 37, 38, 40, 41, 42 except 12=108(LC 12), 23=103(LC 13), 43=123(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 24, 35, 12, 2, 25, 26, 27, 29, 30, 31, 32, 33, 34, 36, 37, 38, 40, 41, 42, 43 except 23=260(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-481/174, 3-4=-396/135, 4-5=-345/117, 5-6=-293/97

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-9-2 to 3-7-11, Exterior(2N) 3-7-11 to 21-6-2, Corner(3R) 21-6-2 to 25-10-15, Exterior(2N) 25-10-15 to 36-9-8, Corner(3E) 36-9-8 to 41-5-4 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.
  - Provide adequate drainage to prevent water ponding.
  - 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) 35, 25, 26, 27, 29, 30, 31, 32, 33, 34, 36, 37, 38, 40, 41, 42 except (jt=lb) 12=108, 23=103, 43=123.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 10, 2021

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710393
J0421-2748	A11	PIGGYBACK BASE	2	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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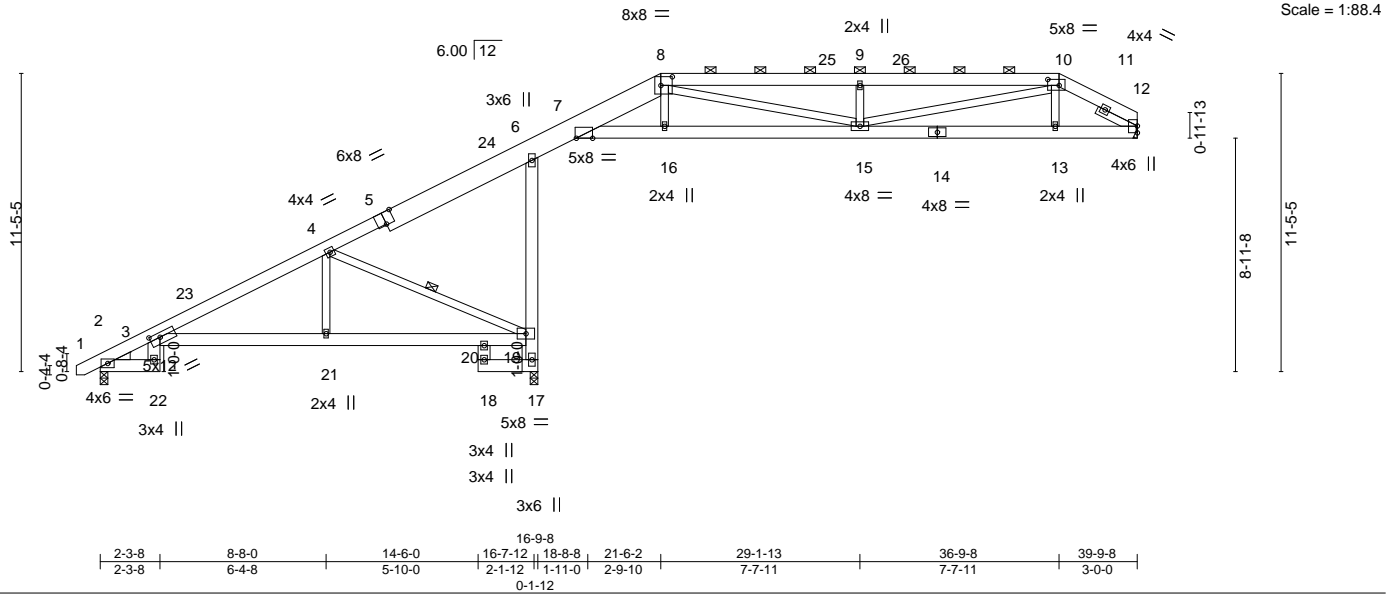
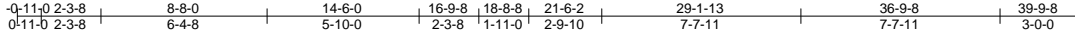


Plate Offsets (X,Y)-- [3:0-4-12,0-2-1], [5:0-4-0,Edge], [7:0-7-8,0-0-0], [8:0-5-4,0-4-0], [10:0-5-4,0-2-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.66	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.46	Vert(LL) -0.13 3-21 >999 360		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.32	Vert(CT) -0.25 3-21 >778 240		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.17 17 n/a n/a		
			Wind(LL) 0.15 3-21 >999 240	Weight: 286 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 5-8: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (4-7-4 max.): 8-10.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.2	6-0-0 oc bracing: 17-19,6-19.
WEDGE Left: 2x4 SP No.3	WEBS 1 Row at midpt 4-19
SLIDER Right 2x4 SP No.2 -x 1-8-0	

**REACTIONS.** (size) 12=Mechanical, 2=0-3-8, 17=0-3-8  
 Max Horz 2=321(LC 12)  
 Max Uplift 12=-62(LC 8), 17=-210(LC 12)  
 Max Grav 12=875(LC 1), 2=638(LC 25), 17=1679(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-402/0, 3-4=-822/4, 6-7=-338/75, 7-8=-1672/311, 8-9=-2464/521, 9-10=-2464/521, 10-12=-1484/317  
 BOT CHORD 3-21=-217/720, 20-21=-217/721, 19-20=-200/682, 17-19=-1649/475, 6-19=-1295/408, 7-16=-212/1434, 15-16=-207/1447, 13-15=-209/1229, 12-13=-214/1218  
 WEBS 4-21=0/384, 4-19=-808/250, 8-16=0/289, 8-15=-247/1072, 9-15=-488/230, 10-15=-256/1312, 10-13=0/259

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; 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(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 21-6-2, Exterior(2R) 21-6-2 to 27-8-13, Interior(1) 27-8-13 to 36-9-8, Exterior(2E) 36-9-8 to 39-9-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12 except (jt=lb) 17=210.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 10, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710394
J0421-2748	A12	PIGGYBACK BASE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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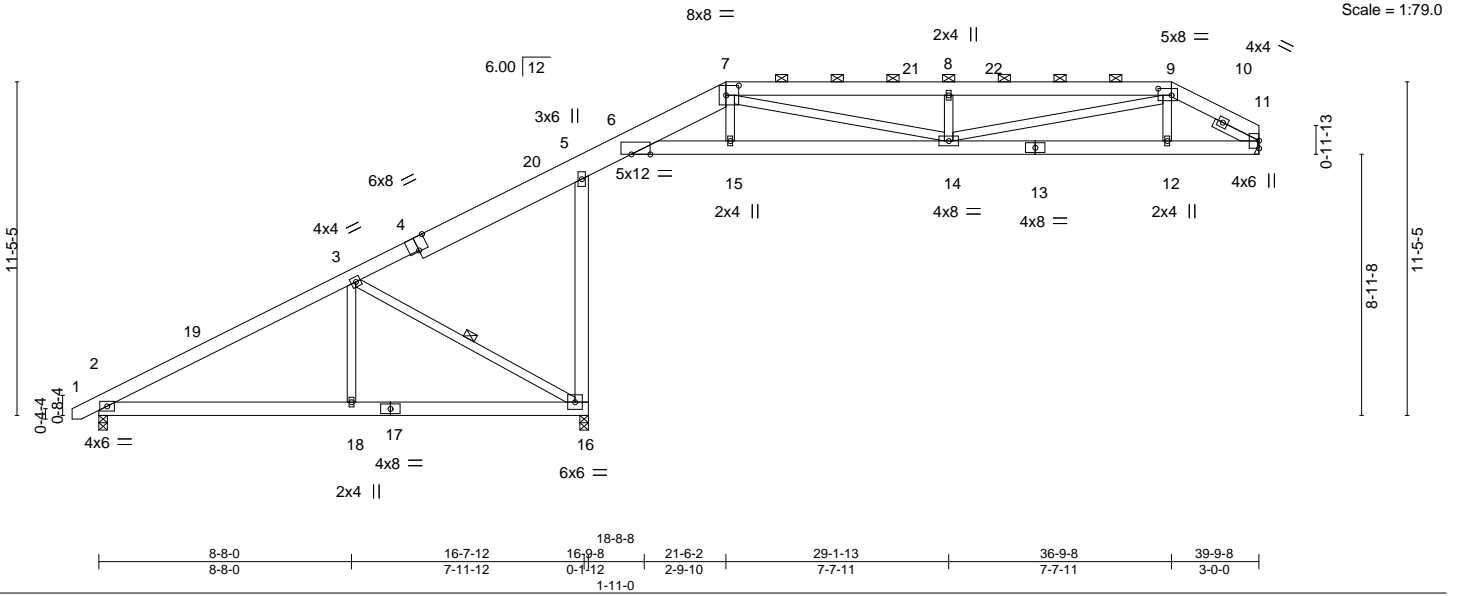
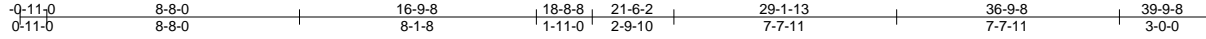


Plate Offsets (X,Y)-- [4:0-4-0,Edge], [6:0-7-12,0-0-0], [7:0-5-4,0-4-0], [9:0-5-8,0-2-12]

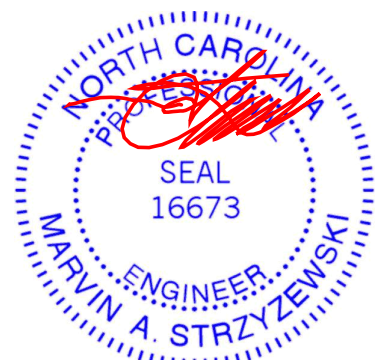
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.31	Vert(LL)	-0.10	14	>999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.28	Vert(CT)	-0.21	14-15	>999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.33	Horz(CT)	0.04	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL)	0.08	14	>999		
							Weight: 280 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 4-7: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (4-6-10 max.): 7-9.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.2	6-0-0 oc bracing: 5-16.
SLIDER Right 2x4 SP No.2 -x 1-8-0	WEBS 1 Row at midpt 3-16

**REACTIONS.** (size) 11=Mechanical, 16=0-3-8, 2=0-3-8  
 Max Horz 2=321(LC 12)  
 Max Uplift 11=-61(LC 8), 16=-201(LC 12)  
 Max Grav 11=886(LC 1), 16=1652(LC 1), 2=654(LC 25)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-774/0, 5-6=-334/74, 6-7=-1755/346, 7-8=-2520/544, 8-9=-2520/544, 9-11=-1504/325  
 BOT CHORD 2-18=-178/586, 16-18=-178/586, 5-16=-1253/387, 6-15=-254/1534, 14-15=-249/1547, 12-14=-216/1246, 11-12=-221/1235  
 WEBS 3-18=0/395, 7-15=0/294, 7-14=-228/1051, 8-14=-487/230, 9-14=-273/1352, 9-12=0/259, 3-16=-684/210

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 21-6-2, Exterior(2R) 21-6-2 to 27-8-13, Interior(1) 27-8-13 to 36-9-8, Exterior(2E) 36-9-8 to 39-9-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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) 11 except (jt=lb) 16=201.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



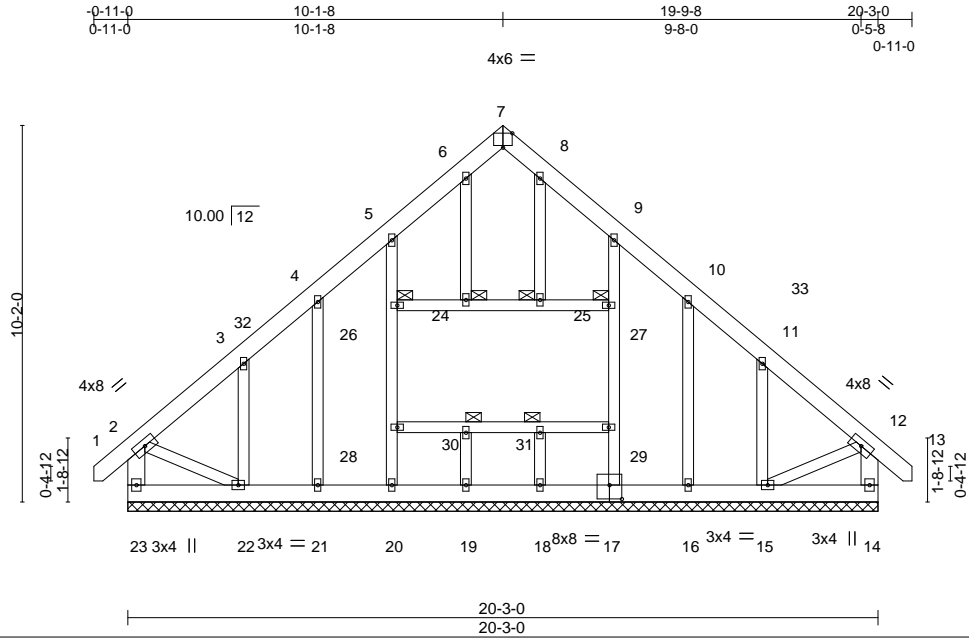
May 10, 2021



Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710395
J0421-2748	B1-GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:44 2021 Page 1  
ID:DFoRkbnIZjVH?nbtlrBKZazEemi-Oa6R5oHguhYljUgCnYX5kYTCGksPZA8y?LWY8hzHwwD



Scale = 1:62.2

Plate Offsets (X,Y)-- [7:0-3-0,Edge], [17:0-4-0,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) 0.00	12	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) 0.00	12	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S						
							Weight: 205 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 2-23,12-14: 2x6 SP No.1  
 OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6'-0" oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.  
 JOINTS 1 Brace at Jt(s): 24, 25, 26, 27, 30, 31

**REACTIONS.**

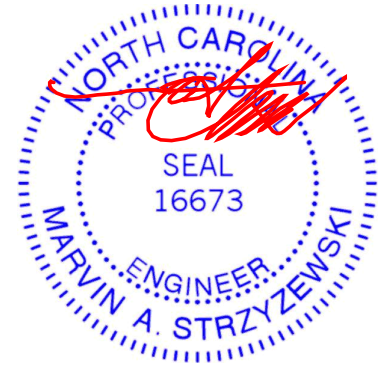
All bearings 20'-3".  
 (lb) - Max Horz 23=-334(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 23, 14 except 20=-120(LC 12), 21=-108(LC 12), 22=-283(LC 12), 17=-110(LC 13), 16=-113(LC 13), 15=-278(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 20, 21, 17, 16, 19, 18 except 23=356(LC 21), 14=353(LC 22), 22=265(LC 19), 15=255(LC 20)

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

TOP CHORD 2-23=-324/55, 2-3=-302/127, 11-12=-299/109, 12-14=-322/43  
 BOT CHORD 22-23=-301/310, 21-22=-147/332, 20-21=-147/332, 19-20=-150/336, 18-19=-150/336,  
 17-18=-150/336, 16-17=-145/329, 15-16=-145/329  
 WEBS 2-22=-148/328, 12-15=-145/326

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-9-9 to 3-7-4, Exterior(2N) 3-7-4 to 10-1-8, Corner(3R) 10-1-8 to 14-6-5, Exterior(2N) 14-6-5 to 21-0-9 zone; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 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" 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" tall by 2'-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) 23, 14 except (jt=lb) 20=120, 21=108, 22=283, 17=110, 16=113, 15=278.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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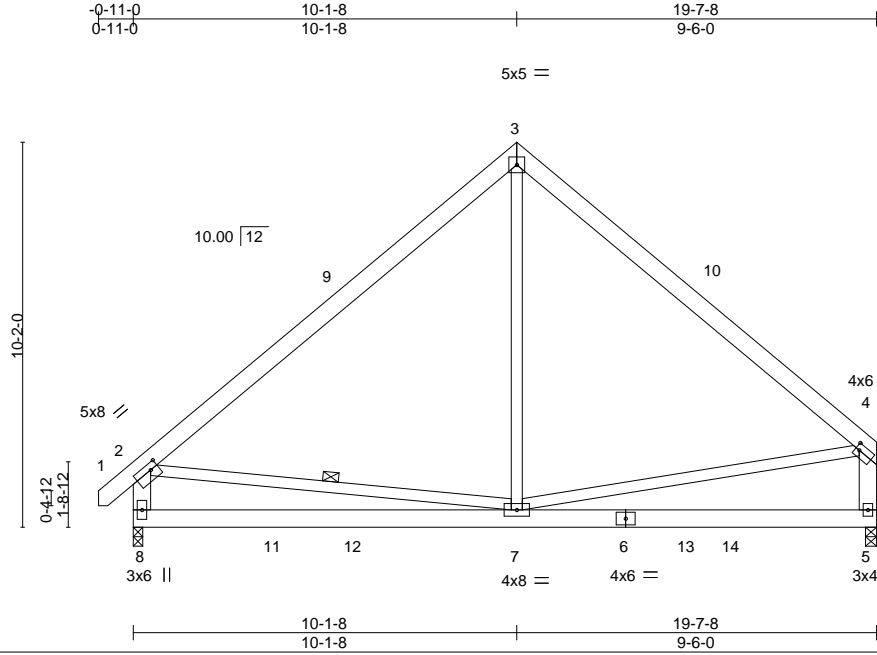


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710396
J0421-2748	B2	COMMON	2	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:45 2021 Page 1  
 ID:DFoRkbnIZjVH?nbttrBKZazEemi-smgpI8Jf\_hcLeFOLG2KGI0He78tIXH6E?G6g7zHwwC



Scale = 1:60.8

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.40	Vert(LL) -0.05	7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.27	Vert(CT) -0.10	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.32	Horz(CT) 0.01	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.07	7-8	>999	240		
							Weight: 157 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 2-8,4-5: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 2-7

**REACTIONS.**

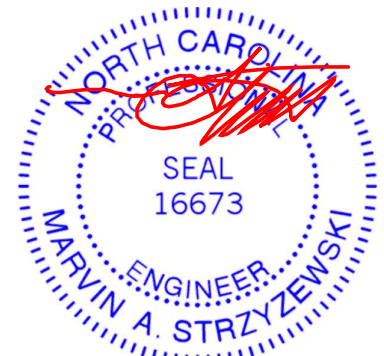
(size) 5=0-3-8, 8=0-3-0  
 Max Horz 8=211(LC 9)  
 Max Uplift 5=-86(LC 8), 8=-84(LC 8)  
 Max Grav 5=765(LC 1), 8=830(LC 1)

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

TOP CHORD 2-3=-760/413, 3-4=-732/387, 2-8=-740/388, 4-5=-684/339  
 BOT CHORD 7-8=-423/556  
 WEBS 3-7=-208/373, 2-7=-270/357, 4-7=-52/301

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) -0-9-9 to 3-7-4, Interior(1) 3-7-4 to 10-1-8, Exterior(2R) 10-1-8 to 14-6-5, Interior(1) 14-6-5 to 19-4-12 zone; porch 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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**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



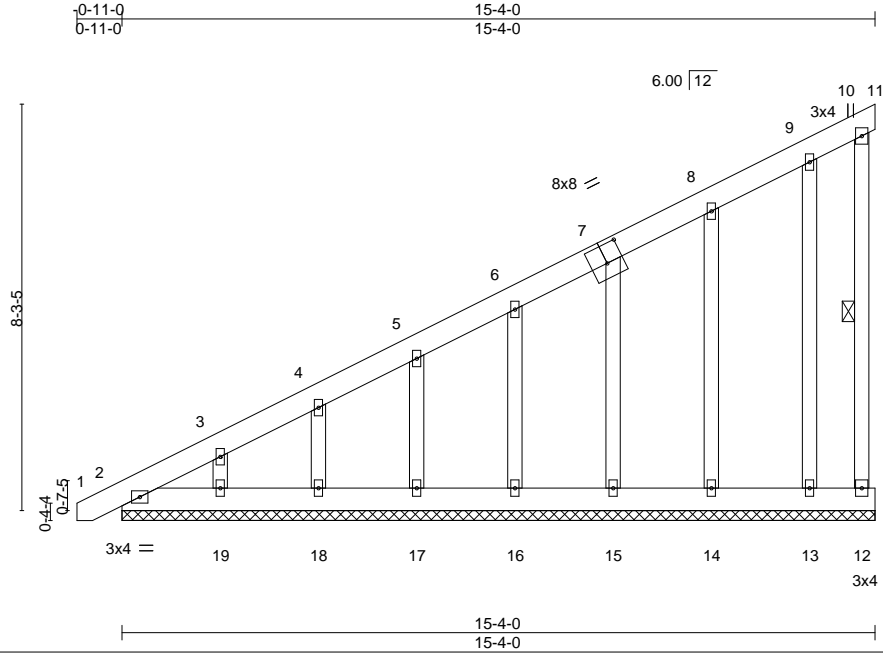
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710397
J0421-2748	C1-GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:46 2021 Page 1

ID:DFoRkbnIZjVH?nbttrBKZazEemi-KzDBVUlxQlpTzoqbvzZZpzYYKXYE121FSf?iCazHwwB



Scale = 1:46.9

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.02	Vert(LL) 0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.01	Vert(CT) 0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) -0.00	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S						
							Weight: 128 lb	FT = 20%

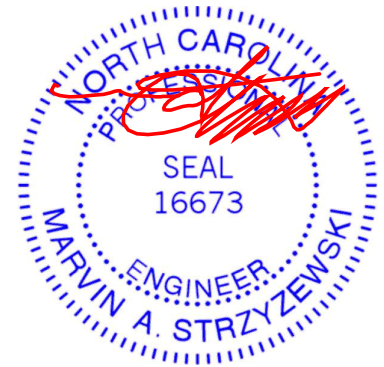
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.  
 WEBS 1 Row at midpt 10-12

**REACTIONS.** All bearings 15-4-0.  
 (lb) - Max Horz 2=375(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 11, 12, 19, 18, 17, 16, 15, 14, 13  
 Max Grav All reactions 250 lb or less at joint(s) 11, 12, 2, 19, 18, 17, 16, 15, 14, 13

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-412/164, 3-4=-343/135, 4-5=-287/114

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 15-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 2'-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 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.
  - 8) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 12, 19, 18, 17, 16, 15, 14, 13.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

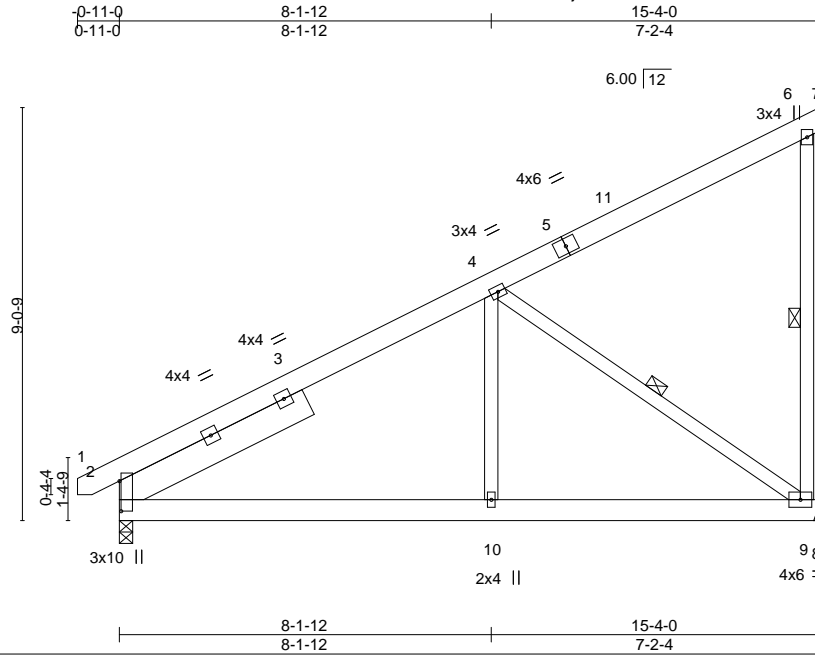
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710398
J0421-2748	C2	MONOPITCH	6	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:46 2021 Page 1  
 ID:DFoRkbnIZjVH?nbtlrBKZazEemi-KzDBVUlxQlpTzoqbvzZZpzYVTXVJ10CFsf?fCazHwwB



Scale = 1:50.5

Plate Offsets (X,Y)-- [2:0-7-15,0-0-7]

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) -0.02	2-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.05	2-10	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.22	Horz(CT) 0.01	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.01	2-10	>999	240	Weight: 124 lb	FT = 20%

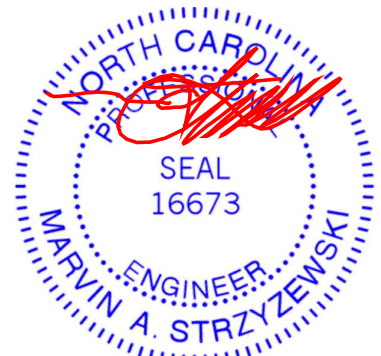
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x8 SP No.1 -x 4-7-14

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-9, 4-9

**REACTIONS.** (size) 9=Mechanical, 2=0-3-8  
 Max Horz 2=265(LC 12)  
 Max Uplift 9=143(LC 12)  
 Max Grav 9=612(LC 1), 2=649(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-719/40  
 BOT CHORD 2-10=-310/535, 9-10=-310/535  
 WEBS 4-10=0/349, 4-9=-653/379

- NOTES-**
- 1) Wind: ASCE 7-16; 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(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 15-4-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=143.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

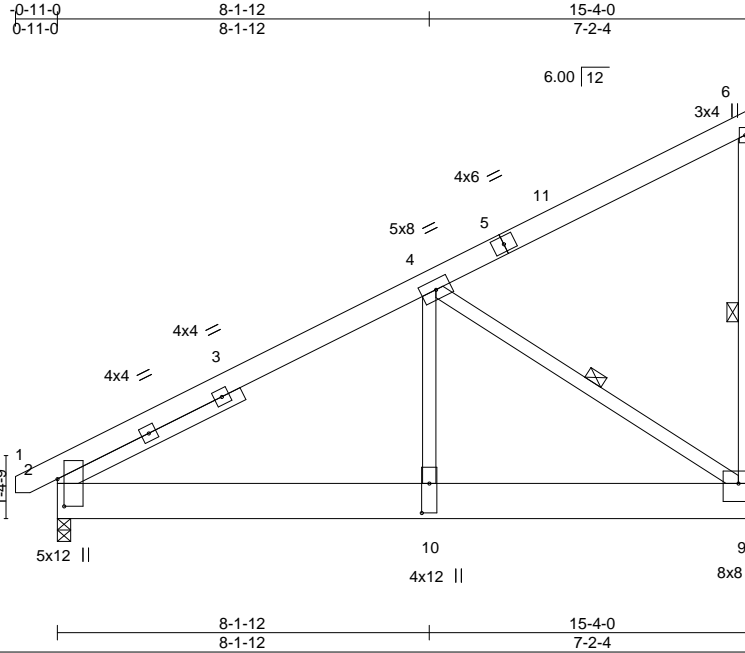
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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710399
J0421-2748	C3	MONOPITCH	2	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:47 2021 Page 1  
ID:DFoRkbnIZjVH?nbtlrBKZazEemi-o9nZjpJZBcxKaxPnTg4oLA5fbiEmM\_PhJlCkOzHwwA



Scale = 1:50.5

Plate Offsets (X,Y)-- [2:0-7-3,0-1-12], [9:0-4-0,0-4-12], [10:0-7-12,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.31	Vert(LL) -0.07	2-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.79	Vert(CT) -0.14	2-10	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.70	Horz(CT) 0.02	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.09	2-10	>999	240		
							Weight: 278 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x10 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.2 -x 4-6-3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-9, 4-9

**REACTIONS.**

(size) 9=Mechanical, 2=0-3-8  
 Max Horz 2=264(LC 12)  
 Max Uplift 9=644(LC 12), 2=485(LC 12)  
 Max Grav 9=5295(LC 1), 2=5166(LC 1)

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

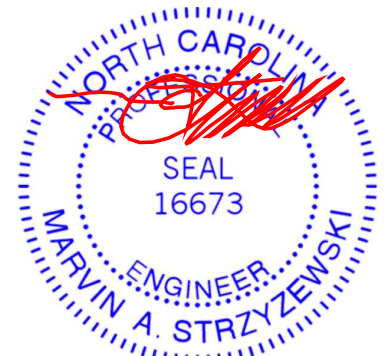
TOP CHORD 2-4=-5399/1915  
 BOT CHORD 2-10=-1943/4626, 9-10=-1943/4626  
 WEBS 4-10=-1979/5318, 4-9=-5613/2356

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 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.
- Wind: ASCE 7-16; 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(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 15-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) except (jt=lb) 9=644, 2=485.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-6=-60, 6-7=-20, 2-8=-620(F=-600)



May 10, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710400
J0421-2748	D1-GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:48 2021 Page 1  
ID:DFoRkbnIZjVH?nbttrBKZazEemi-GLLyw9KByv3BC5zz0Ob1uOetOLA8VYqYwzUmHSzHww9

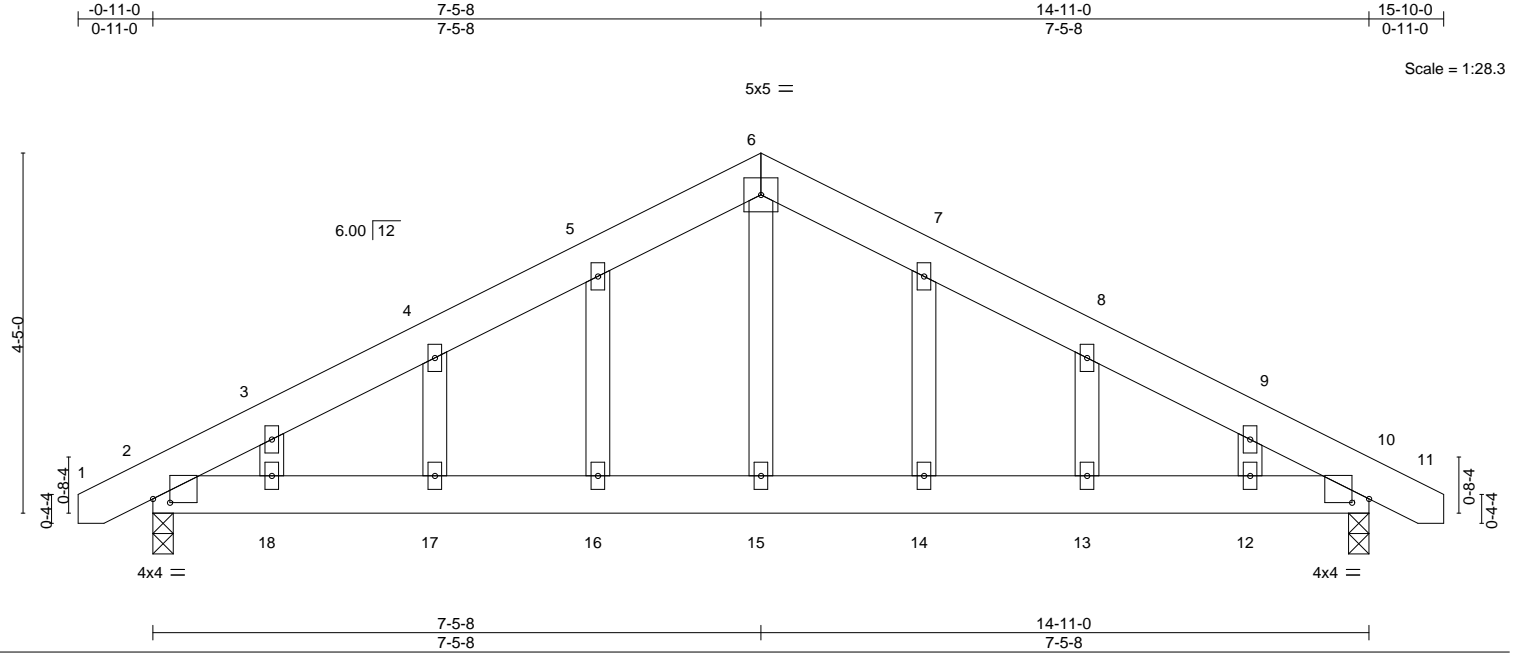


Plate Offsets (X,Y)-- [2:0-2-8,0-0-9], [10:0-2-8,0-0-9]

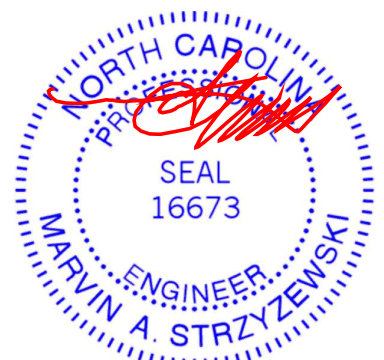
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.11	Vert(LL) -0.03	13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.05	13	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.01	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.03	17	>999	240		
							Weight: 98 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.
WEBS 2x4 SP No.2	
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-0, 10=0-3-0  
 Max Horz 2=-83(LC 17)  
 Max Uplift 2=-171(LC 9), 10=-171(LC 8)  
 Max Grav 2=640(LC 1), 10=640(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-820/345, 3-4=-754/378, 4-5=-719/425, 5-6=-700/483, 6-7=-700/483, 7-8=-719/425,  
 8-9=-754/378, 9-10=-820/345  
 BOT CHORD 2-18=-223/640, 17-18=-223/640, 16-17=-223/640, 15-16=-223/640, 14-15=-223/640,  
 13-14=-223/640, 12-13=-223/640, 10-12=-223/640  
 WEBS 6-15=-211/334

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-9-2 to 3-5-8, Exterior(2N) 3-5-8 to 7-5-8, Corner(3R) 7-5-8 to 11-10-5, Exterior(2N) 11-10-5 to 15-8-2 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 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) except (jt=lb) 2=171, 10=171.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

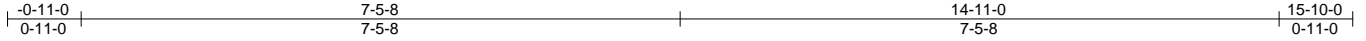


May 10, 2021

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710401
J0421-2748	D2	COMMON	4	1		

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:49 2021 Page 1  
ID:DFoRKbNIZjVH?nbtlrBKZazEemi-kYvK8VLPjDB2qFY9a56GRbA00IWreP4h8dEJpuzHww8



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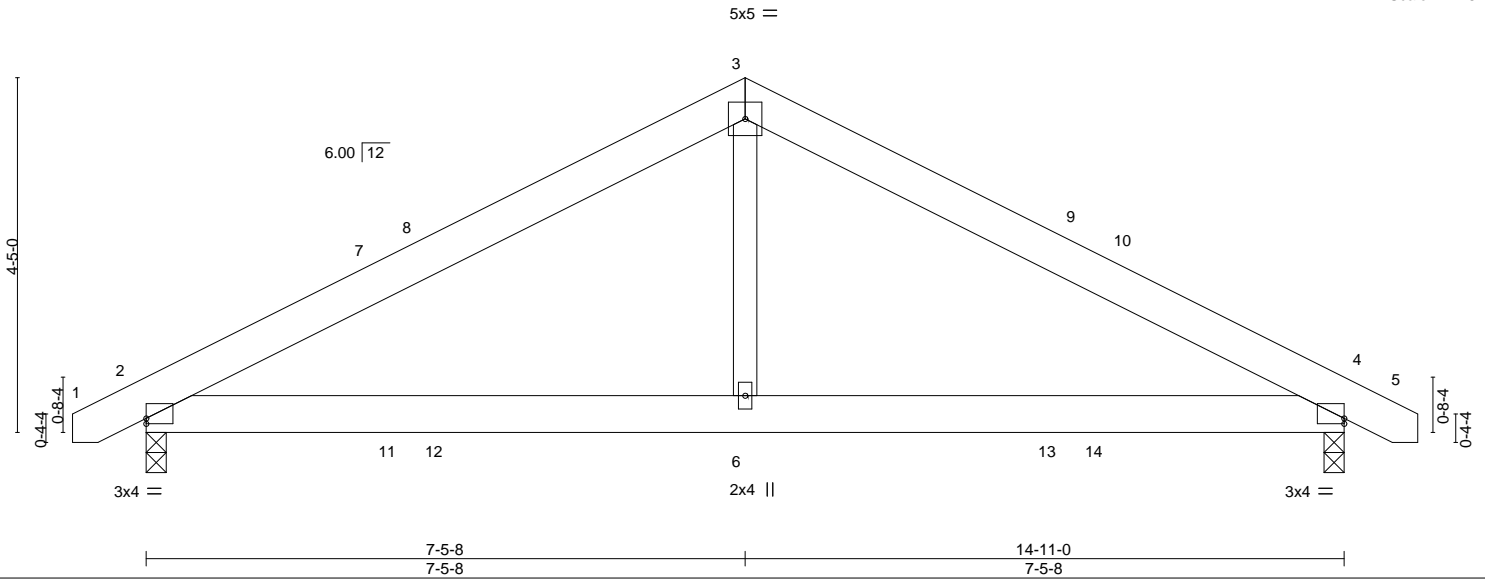


Plate Offsets (X,Y)-- [2:0-0-0,0-0-13], [4:Edge,0-0-13]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.25	Vert(LL) 0.03	4-6	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.04	2-6	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 84 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

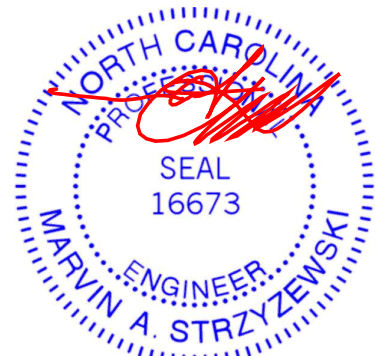
(size) 2=0-3-0, 4=0-3-0  
Max Horz 2=-53(LC 10)  
Max Uplift 2=-133(LC 9), 4=-133(LC 8)  
Max Grav 2=640(LC 1), 4=640(LC 1)

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

TOP CHORD 2-3=-813/545, 3-4=-813/545  
BOT CHORD 2-6=-344/629, 4-6=-344/629  
WEBS 3-6=-143/355

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 7-5-8, Exterior(2R) 7-5-8 to 11-10-5, Interior(1) 11-10-5 to 15-8-2 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=133, 4=133.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



May 10, 2021

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**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	1504 Gregory Circle	E15710402
J0421-2748	D3	COMMON	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:50 2021 Page 1  
ID:FoRkbnIZjVH?nbtIRBKZazEemi-DkTILrMRUXJvRP7M8peVzpjAW8s3zsKrNHztLLzHww7



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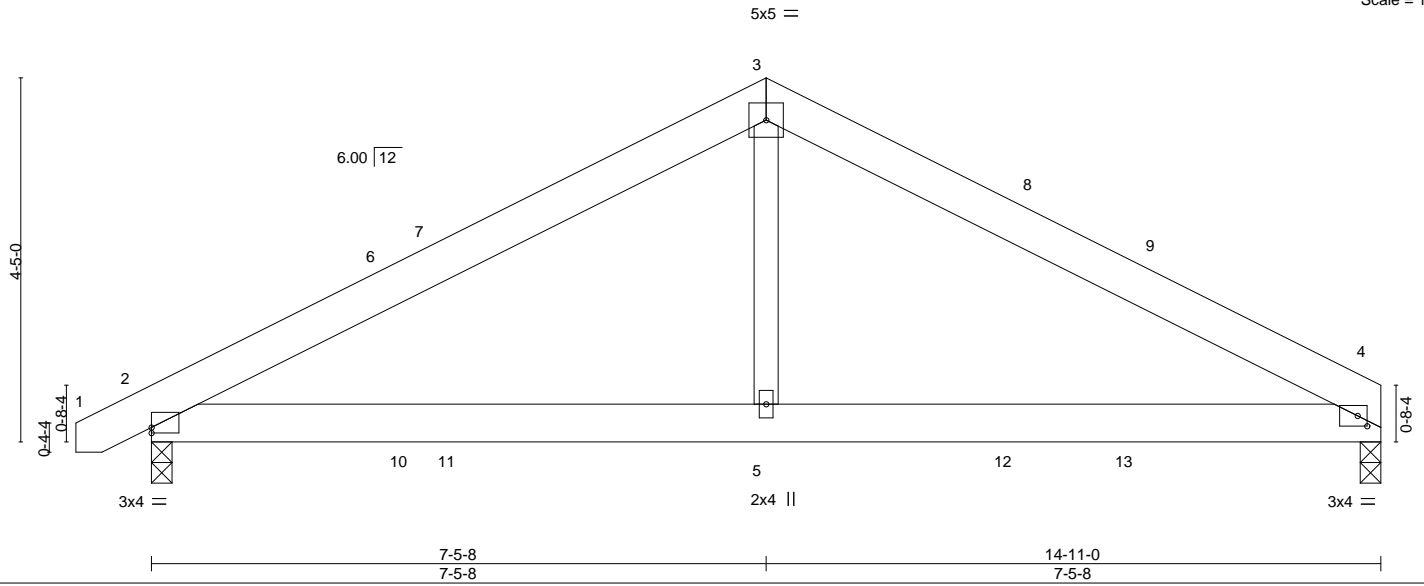


Plate Offsets (X,Y)-- [2:0-0-0,0-0-13], [4:0-1-6,0-1-8]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.26	Vert(LL) 0.03	2-5	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.04	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 82 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

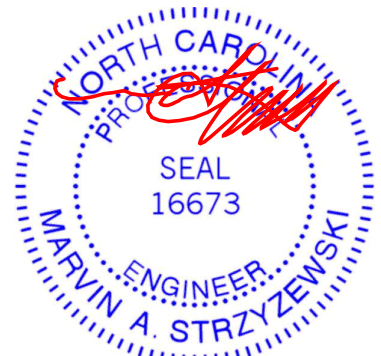
(size) 4=0-3-0, 2=0-3-0  
Max Horz 2=54(LC 9)  
Max Uplift 4=-129(LC 8), 2=-133(LC 9)  
Max Grav 4=585(LC 1), 2=641(LC 1)

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

TOP CHORD 2-3=-817/546, 3-4=-814/522  
BOT CHORD 2-5=-338/633, 4-5=-338/633  
WEBS 3-5=-137/356

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 7-5-8, Exterior(2R) 7-5-8 to 11-10-5, Interior(1) 11-10-5 to 14-9-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=129, 2=133.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



May 10, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



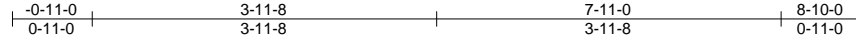
818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710403
J0421-2748	E1-GE	GABLE	1	1	Job Reference (optional)	

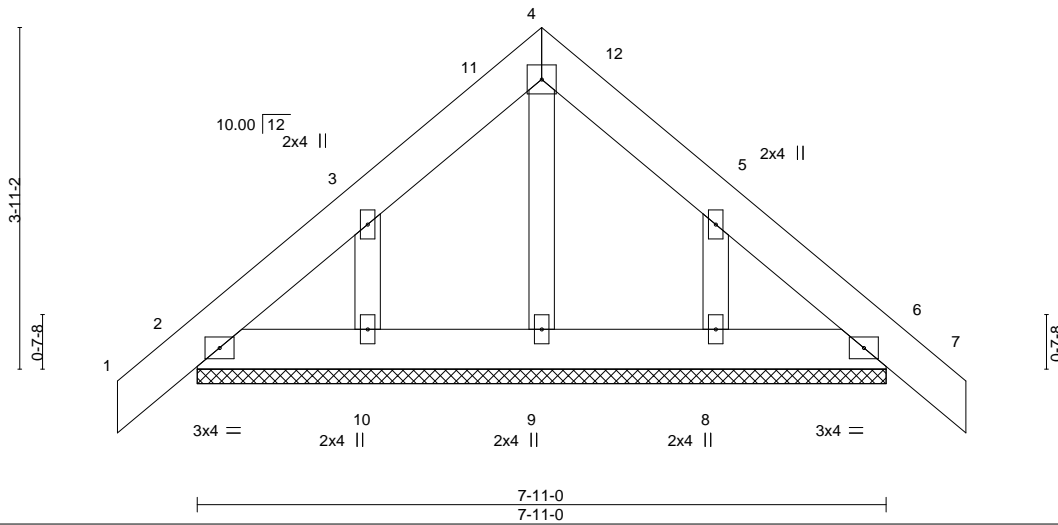
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:52 2021 Page 1  
ID:DFoRkbnIZjVH?nbtrBKZazEemi-96bSmXNi08ZdhjHkFEgz2EoaZybWRnJ8raSzQDzHww5



4x4 =

Scale = 1:26.5



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	6	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) -0.00	6	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) 0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P					Weight: 58 lb	FT = 20%

**LUMBER-**

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

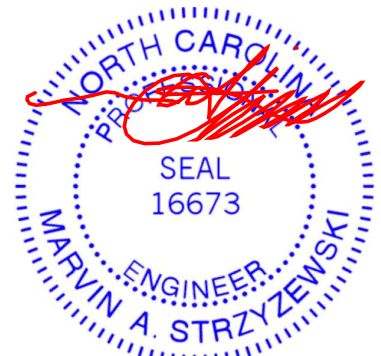
**REACTIONS.**

All bearings 7-11-0.  
(lb) - Max Horz 2=-122(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-123(LC 12), 8=-121(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-10=-202/282, 5-8=-202/281

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 3-5-13, Exterior(2N) 3-5-13 to 3-11-8, Corner(3R) 3-11-8 to 8-4-5, Exterior(2N) 8-4-5 to 8-10-0 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.
- 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, 6 except (jt=lb) 10=123, 8=121.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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**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



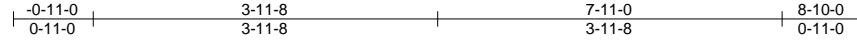
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710404
J0421-2748	E2	COMMON	5	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

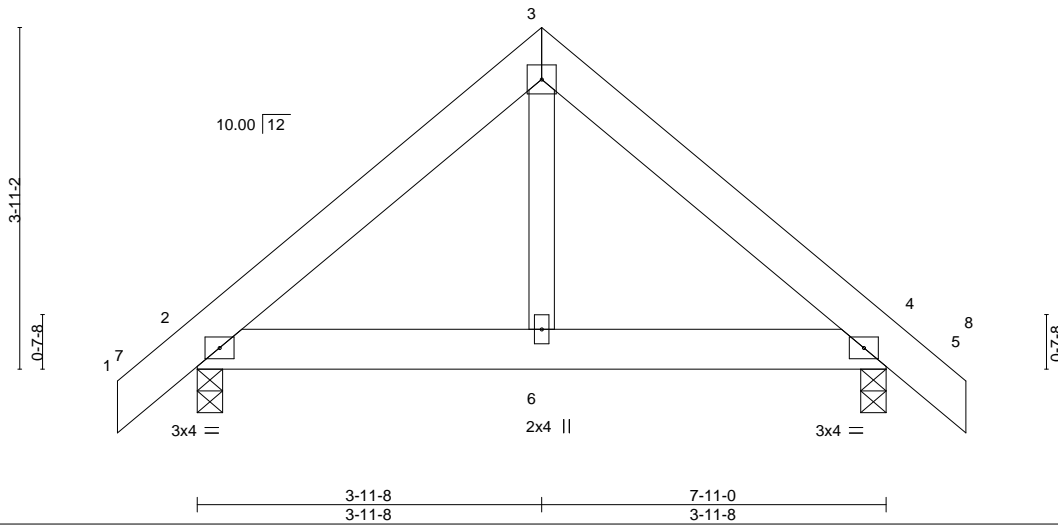
8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:53 2021 Page 1

ID:DFoRkBNIZjVH?nbtlrBKZazEemi-dJ8r\_tOKnShUsspxBCbRLk7MxBAEhH3ECXygzHww4



4x4 =

Scale = 1:26.5



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.11	Vert(LL) -0.00	6	>999	360		MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT) -0.00	2-6	>999	240			
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT) 0.00	4	n/a	n/a			
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL) 0.00	2	>999	240			
	Code IRC2018/TPI2014							Weight: 54 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

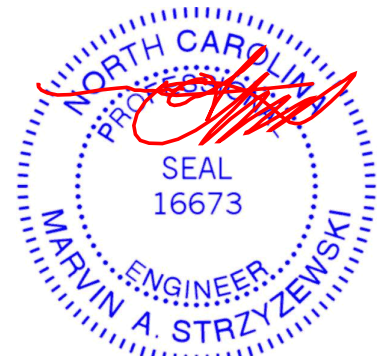
(size) 2=0-3-8, 4=0-3-8  
 Max Horz 2=-97(LC 10)  
 Max Uplift 2=-28(LC 12), 4=-28(LC 13)  
 Max Grav 2=369(LC 1), 4=369(LC 1)

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

TOP CHORD 2-3=-308/122, 3-4=-308/122

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 3-11-8, Exterior(2R) 3-11-8 to 8-4-5, Interior(1) 8-4-5 to 8-10-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

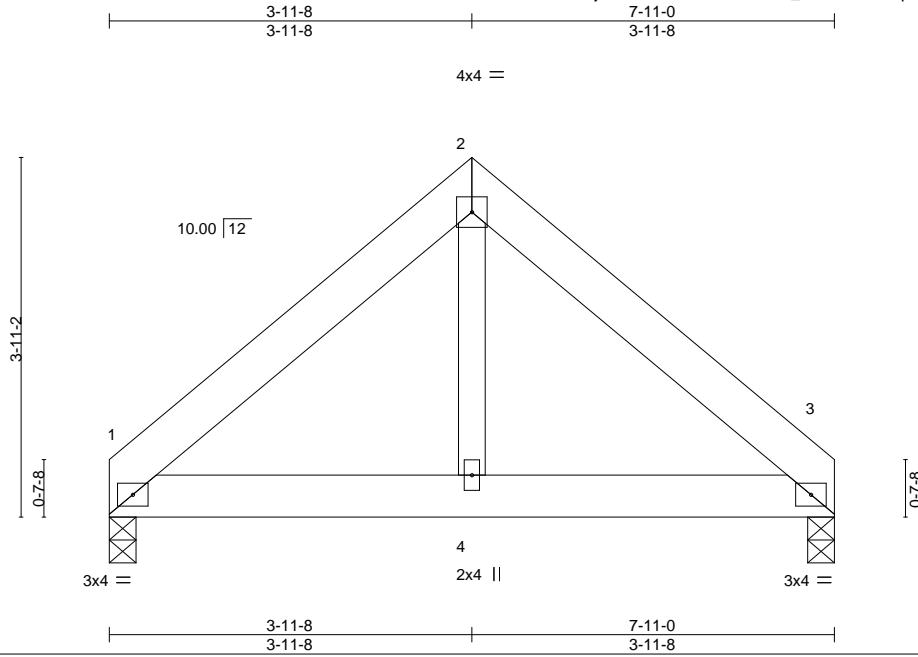


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710405
J0421-2748	E3	COMMON	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:53 2021 Page 1  
 ID:DFoRkbnIZjVH?nbtlrBKZazEemi-dJ8r\_tOKnShUlsxpBCbRLkMxBAEh3ECXygzHww4



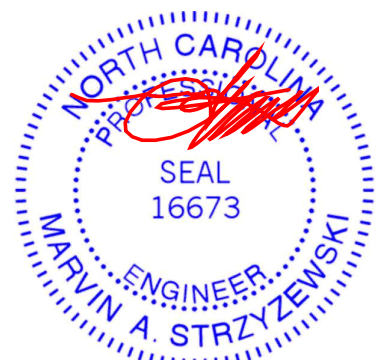
LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.12	Vert(LL) -0.00	4	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT) -0.00	1-4	>999	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00	3	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P	Wind(LL) 0.00	4	>999	240		Weight: 49 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.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 1=0-3-8, 3=0-3-8  
 Max Horz 1=81(LC 9)  
 Max Uplift 1=-12(LC 12), 3=-12(LC 13)  
 Max Grav 1=305(LC 1), 3=305(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-300/114, 2-3=-300/130

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

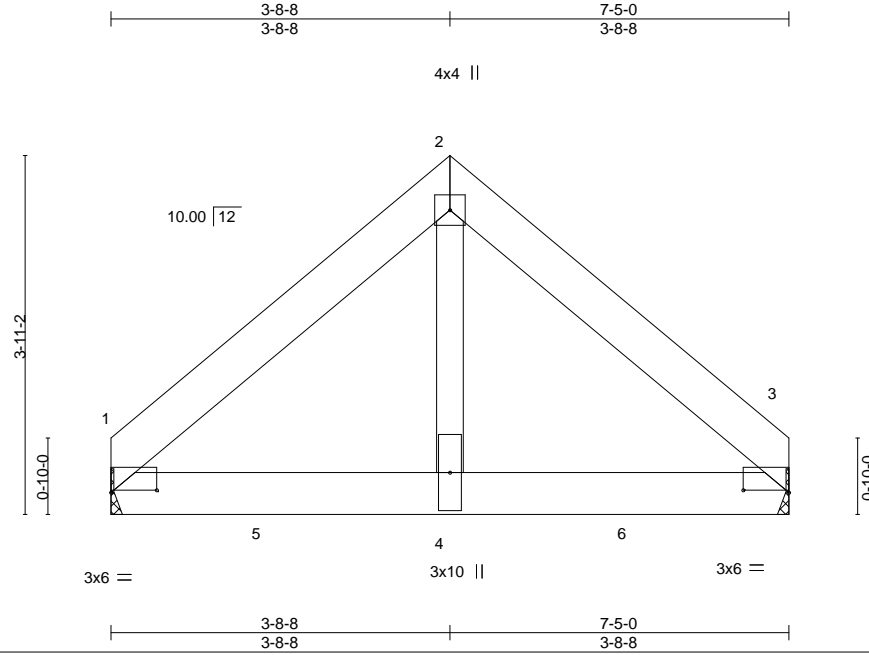


May 10, 2021

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710406
J0421-2748	E4	Common Girder	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:54 2021 Page 1  
ID:DFoRkbnIzjVH?nbtlrBKZazEemi-5ViDBDPyYlpKw0R7NfiR8ftvwm70va0Qlux4U6zHww3



Scale = 1:25.2

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

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.11	Vert(LL) -0.02	3-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.66	Vert(CT) -0.04	3-4	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.48	Horz(CT) 0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P	Wind(LL) 0.01	3-4	>999	240	Weight: 46 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 1=Mechanical, 3=Mechanical  
Max Horz 1=-81(LC 25)  
Max Uplift 1=-121(LC 8), 3=-121(LC 9)  
Max Grav 1=1577(LC 1), 3=1583(LC 1)

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

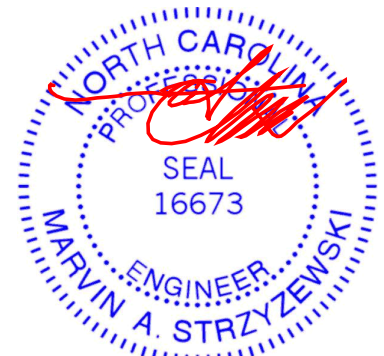
TOP CHORD 1-2=-1666/144, 2-3=-1666/144  
BOT CHORD 1-4=-78/1175, 3-4=-78/1175  
WEBS 2-4=-109/1973

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=121, 3=121.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 855 lb down and 82 lb up at 1-8-8, and 855 lb down and 82 lb up at 3-8-8, and 866 lb down and 81 lb up at 5-8-8 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: 1-2=-60, 2-3=-60, 1-3=-20  
Concentrated Loads (lb)  
Vert: 4=-855 5=-855 6=-866



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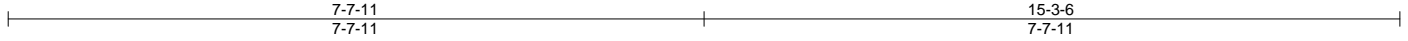
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710407
J0421-2748	PB1	GABLE	2	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:56 2021 Page 1

ID:DFoRkbnIZjVH?nbtlrBKZazEemi-1uqzcuQC3N32AKbWU3kvD4zGFZyBNbejmCQBZ\_zHww1



Scale = 1:25.3

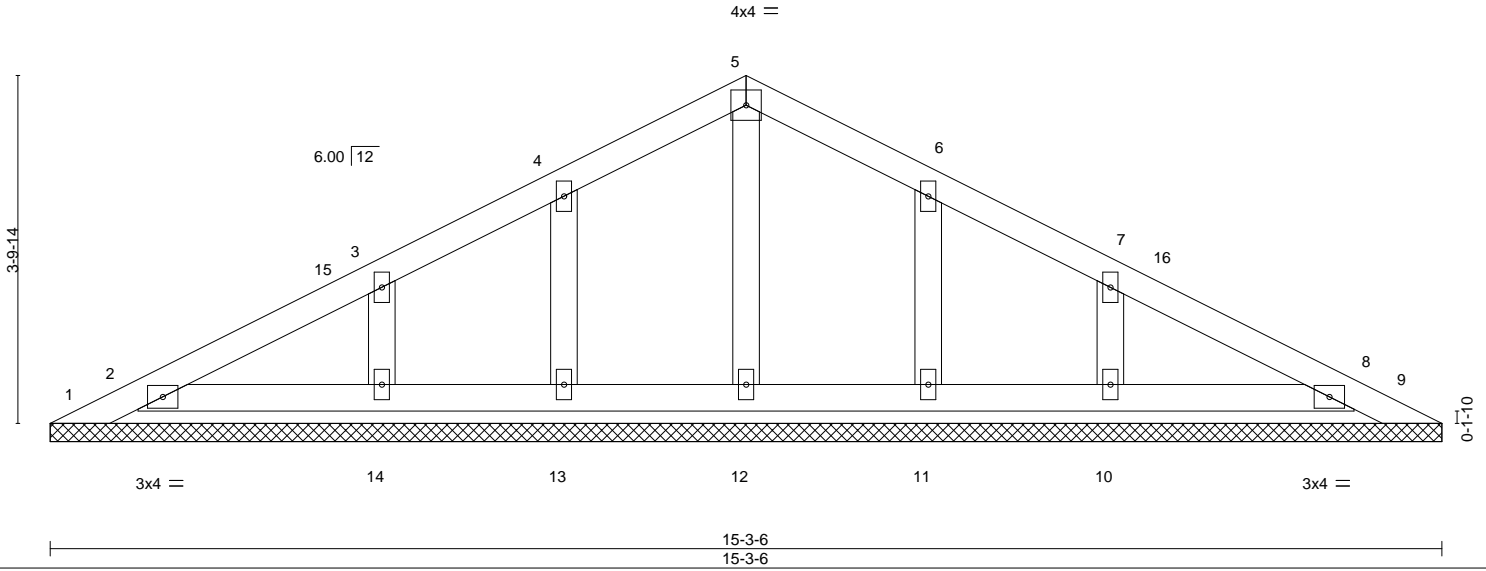


Plate Offsets (X,Y)-- [6:0-0-0,0-0-0], [7:0-0-0,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 60 lb	FT = 20%

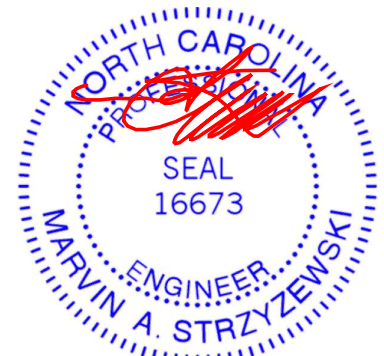
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

**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 15-3-6.  
 (lb) - Max Horz 1=74(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 2, 8, 13, 14, 11, 10  
 Max Grav All reactions 250 lb or less at joint(s) 1, 9, 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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 4-8-11, Interior(1) 4-8-11 to 7-7-11, Exterior(2R) 7-7-11 to 12-0-8, Interior(1) 12-0-8 to 14-11-7 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) 1, 9, 2, 8, 13, 14, 11, 10.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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**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

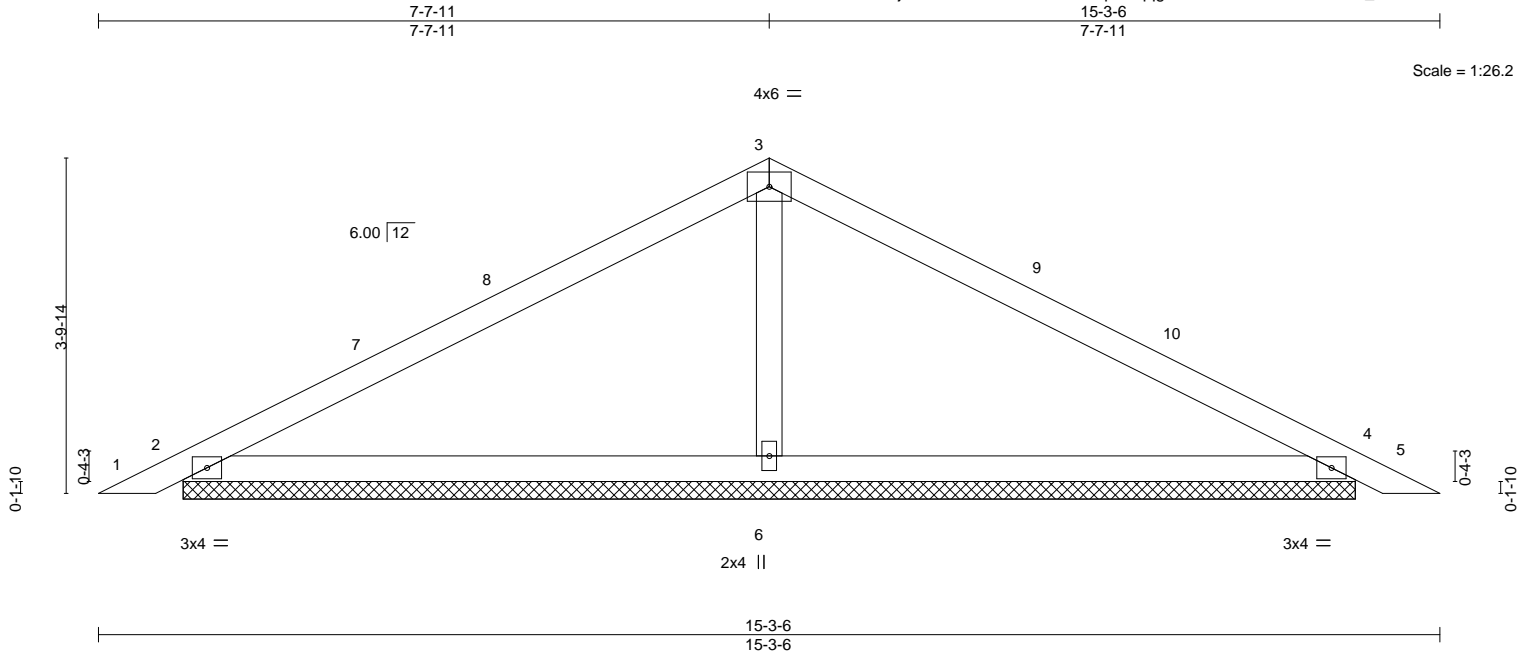


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710408
J0421-2748	PB2	PIGGYBACK	21	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:57 2021 Page 1  
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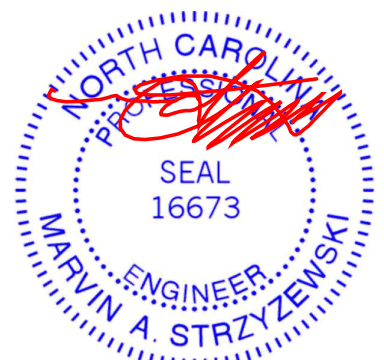
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.46	Vert(LL) 0.03	5	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.32	Vert(CT) 0.05	5	n/r	120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Horz(CT) 0.00	4	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 50 lb	FT = 20%
	Code IRC2018/TPI2014							

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

**REACTIONS.** (size) 2=13-4-4, 4=13-4-4, 6=13-4-4  
 Max Horz 2=-48(LC 10)  
 Max Uplift 2=-42(LC 12), 4=-50(LC 13)  
 Max Grav 2=287(LC 25), 4=287(LC 26), 6=577(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-6=-373/254

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 0-3-15 to 4-8-11, Interior(1) 4-8-11 to 7-7-11, Exterior(2R) 7-7-11 to 12-0-8, Interior(1) 12-0-8 to 14-11-7 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) 2, 4.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



May 10, 2021

Job J0421-2748	Truss VB-1	Truss Type Valley	Qty 1	Ply 1	1504 Gregory Circle Job Reference (optional)	E15710409
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:27:58 2021 Page 1  
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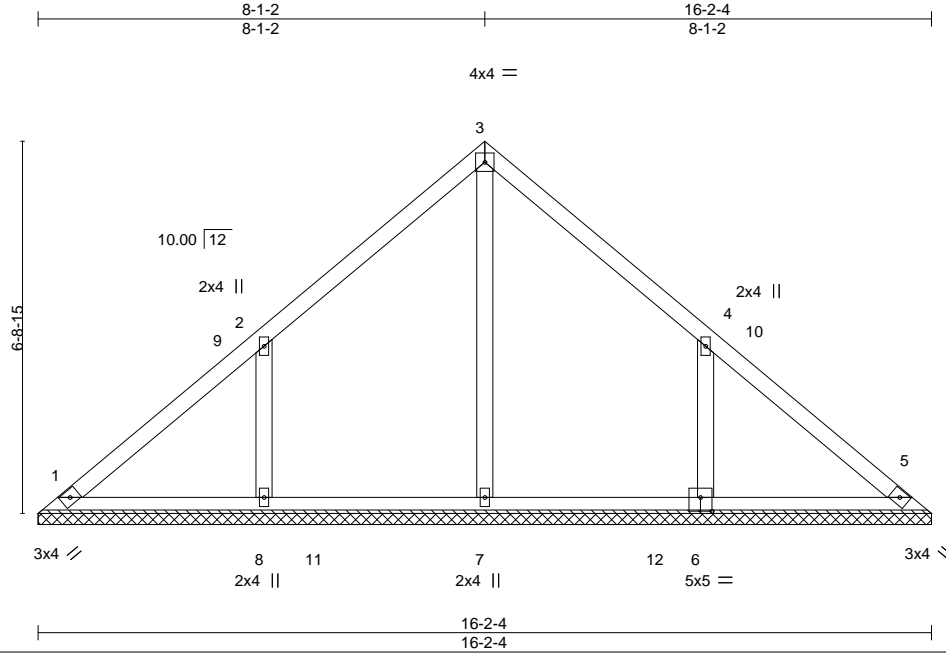


Plate Offsets (X,Y)-- [6:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.11	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 72 lb	FT = 20%
	Code IRC2018/TPI2014							

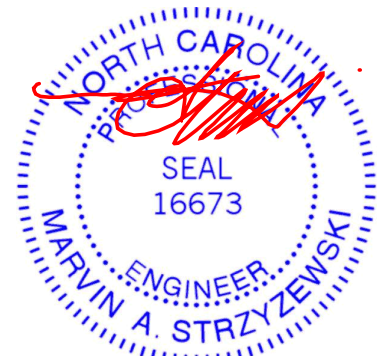
**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**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.** All bearings 16-2-4.  
(lb) - Max Horz 1=154(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=147(LC 12), 6=142(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=404(LC 19), 8=500(LC 19), 6=492(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=310/272, 4-6=303/266

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 8-1-2, Exterior(2R) 8-1-2 to 12-5-15, Interior(1) 12-5-15 to 15-9-6 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) 8=147, 6=142.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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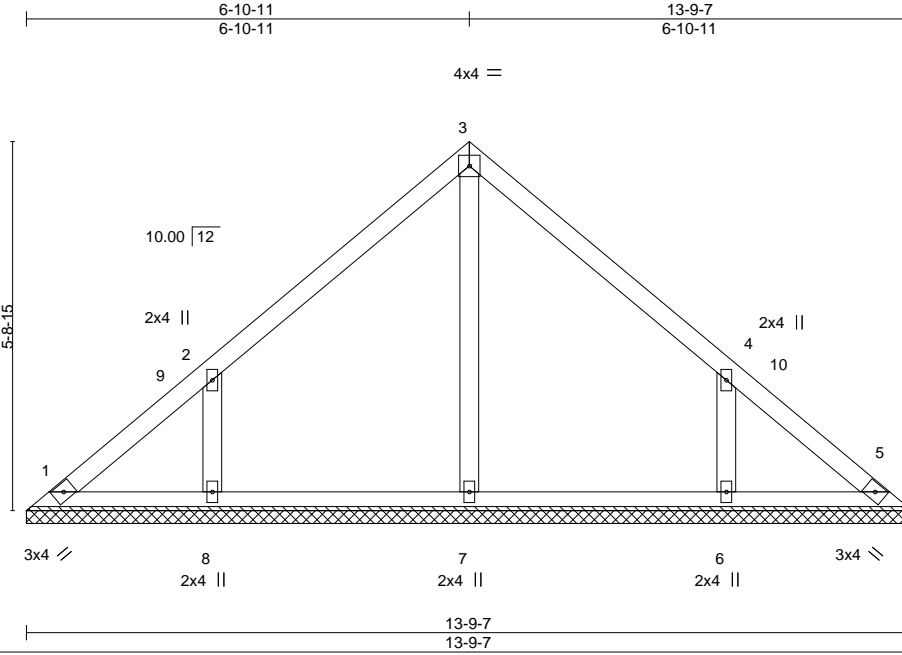
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710410
J0421-2748	VB-2	Valley	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:28:00 2021 Page 1

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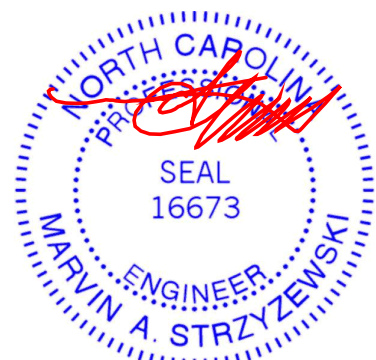
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						Weight: 59 lb	FT = 20%
	Code IRC2018/TPI2014								

<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 13-9-7.  
 (lb) - Max Horz 1=-130(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-128(LC 12), 6=-128(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=344(LC 19), 6=343(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-271/279, 4-6=-271/279

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 6-10-11, Exterior(2R) 6-10-11 to 11-3-8, Interior(1) 11-3-8 to 13-4-9 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 except (jt=lb) 8=128, 6=128.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



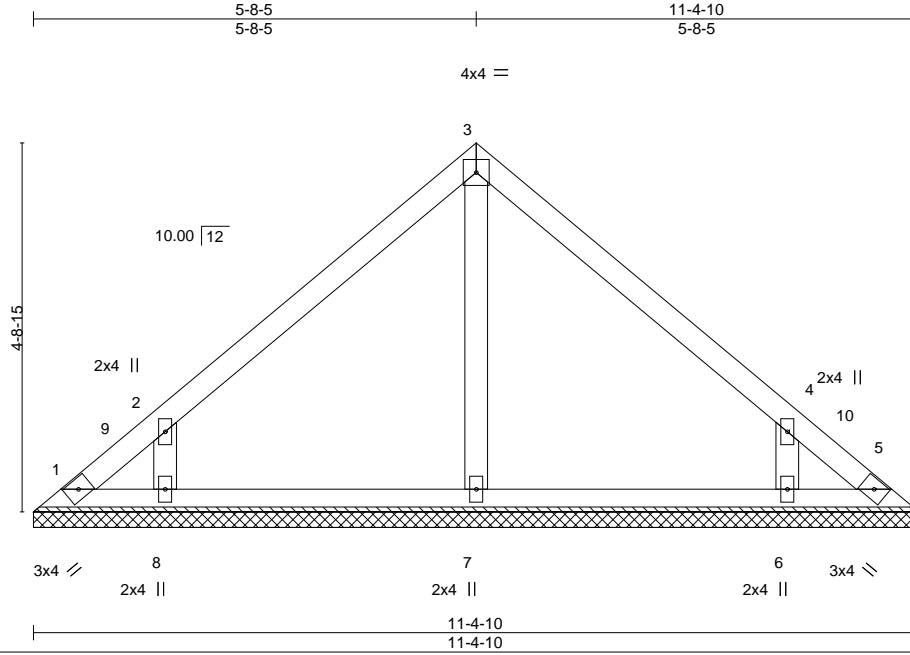
May 10, 2021



Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710411
J0421-2748	VB-3	Valley	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:28:03 2021 Page 1  
ID:DFoRkbnIZjVH?nbtlrBKZazEemi-KElc4IWbQWY3VPdsO1NY?YIQGOK\_WiVInod3I4zHww



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						Weight: 46 lb	FT = 20%
	Code IRC2018/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.**

All bearings 11-4-10.

(lb) - Max Horz 1=106(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=126(LC 12), 6=126(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=330(LC 19), 6=329(LC 20)

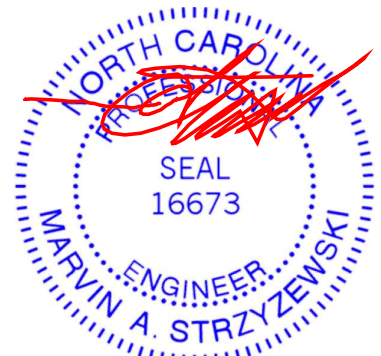
**FORCES.**

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

WEBS 2-8=-277/328, 4-6=-277/328

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 5-8-5, Exterior(2R) 5-8-5 to 10-1-2, Interior(1) 10-1-2 to 10-11-13 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 except (jt=lb) 8=126, 6=126.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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**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



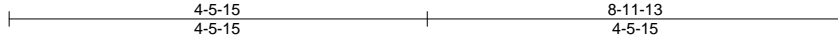
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710412
J0421-2748	VB-4	Valley	1	1	Job Reference (optional)	

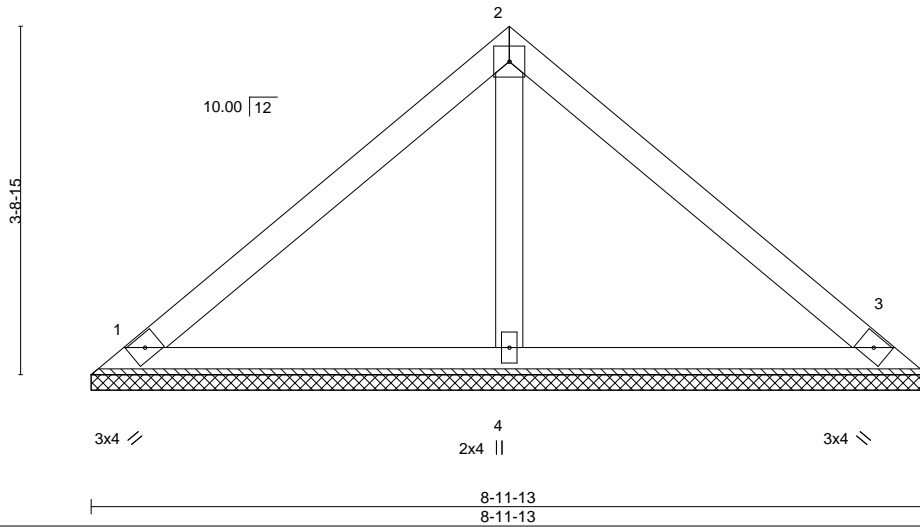
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:28:04 2021 Page 1

ID:DFoRKbNIZjVH?nbtlrBKZazEemi-oQJ?HdWDBq4w7ZC2ylunYmIzZoggFCTvbSMcqXzHwvv



Scale = 1:24.8



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.29	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.12	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 34 lb	FT = 20%
	Code IRC2018/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.

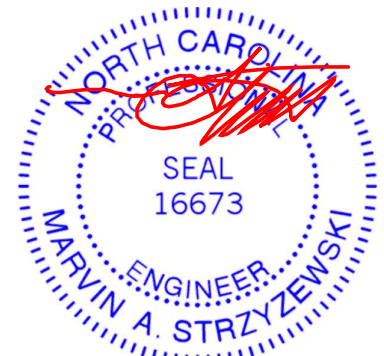
**REACTIONS.**

(size) 1=8-11-13, 3=8-11-13, 4=8-11-13  
 Max Horz 1=82(LC 9)  
 Max Uplift 1=-29(LC 13), 3=-36(LC 13)  
 Max Grav 1=189(LC 1), 3=189(LC 1), 4=276(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 7-16; 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(2E) 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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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**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

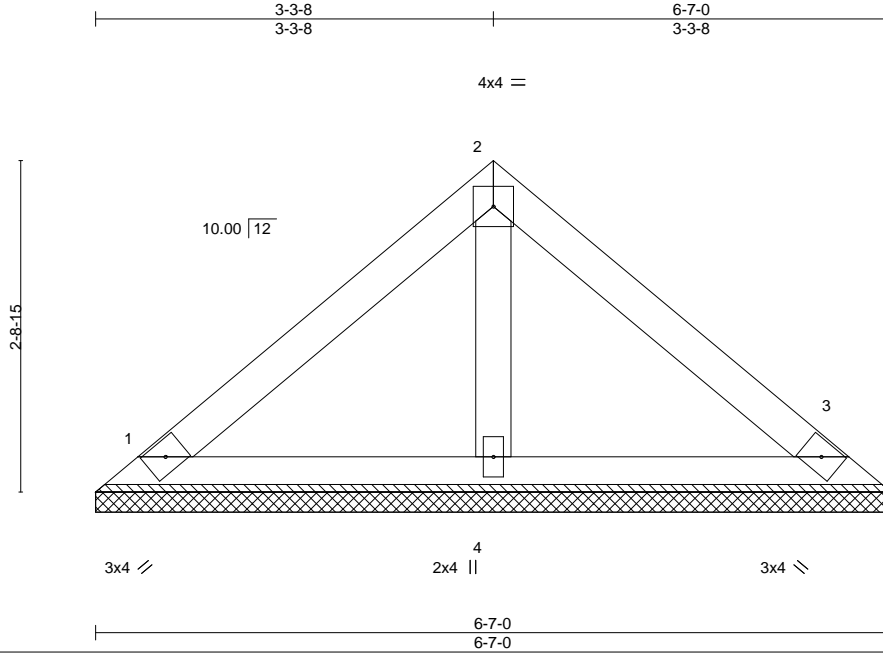


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710413
J0421-2748	VB-5	Valley	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:28:05 2021 Page 1  
ID:DFoRkbnIZjVH?nbtlrBKZazEemi-GdtNVzXry8CnlinEWSP04zrmJB1t\_f12q669MzzHwv



Scale = 1:19.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P						Weight: 24 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.

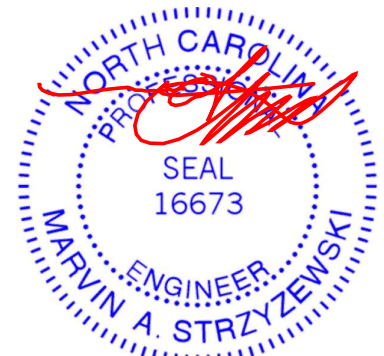
**REACTIONS.**

(size) 1=6-7-0, 3=6-7-0, 4=6-7-0  
Max Horz 1=-58(LC 8)  
Max Uplift 1=-20(LC 13), 3=-25(LC 13)  
Max Grav 1=134(LC 1), 3=134(LC 1), 4=195(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 7-16; 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(2E) 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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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**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

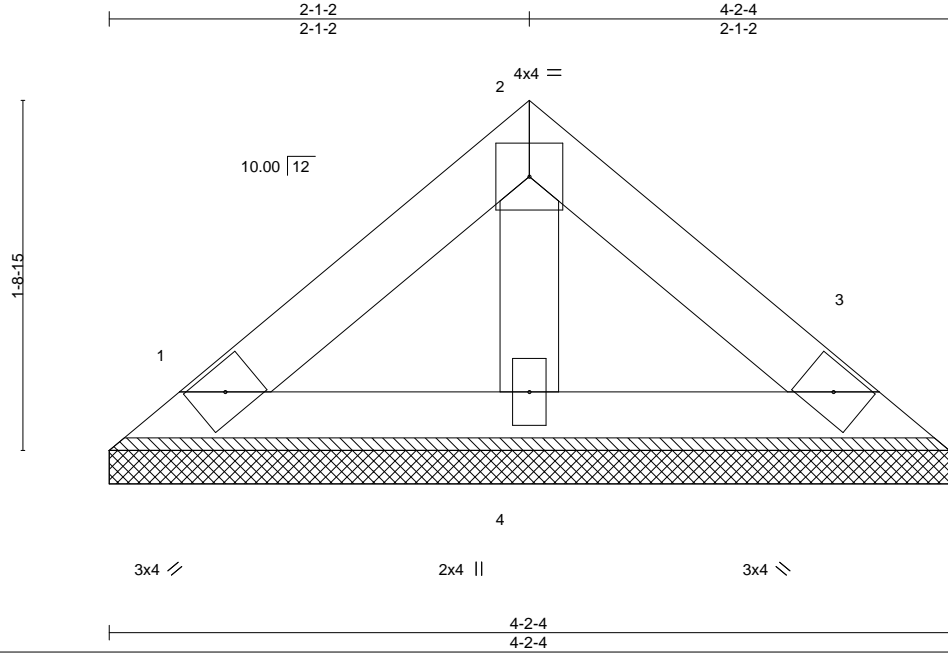


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710414
J0421-2748	VB-6	Valley	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:28:06 2021 Page 1  
ID:DFoRKbNIZjVH?nbtlrBKZazEemi-lpRIiYUjRkDmMR4AwFdBNzbnlj6OC3mrjuPzHwvt



Scale = 1:11.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	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: 15 lb	FT = 20%
	Code IRC2018/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 4-2-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

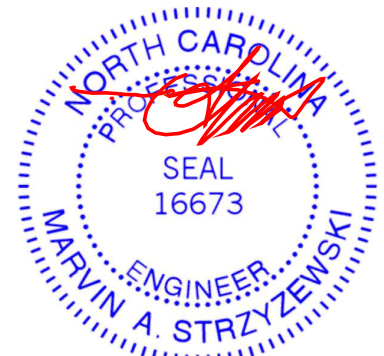
**REACTIONS.**

(size) 1=4-2-4, 3=4-2-4, 4=4-2-4  
Max Horz 1=34(LC 9)  
Max Uplift 1=12(LC 13), 3=-15(LC 13)  
Max Grav 1=78(LC 1), 3=78(LC 1), 4=114(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 7-16; 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(2E) 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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

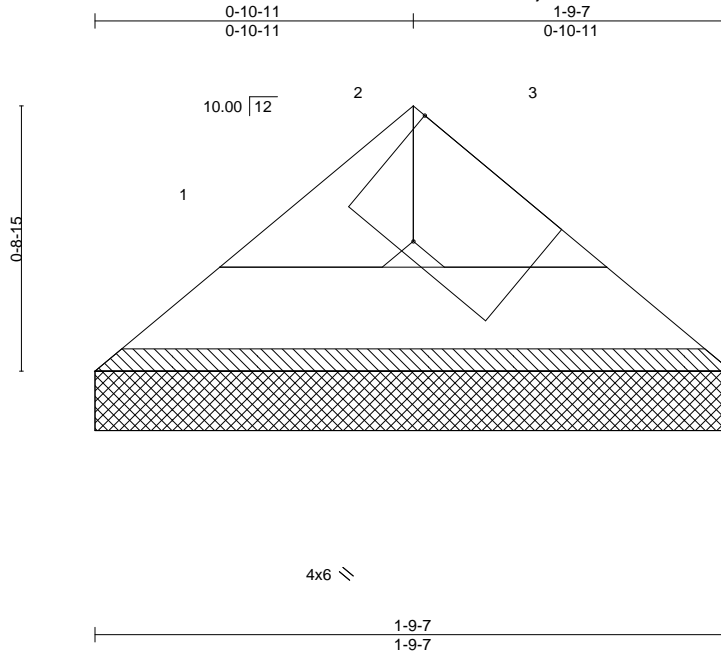


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710415
J0421-2748	VB-7	Valley	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:28:08 2021 Page 1  
ID:DFoRkbnIZjVH?nbtrBKZazEemi-hBYV7?akE3aLcAVpBbyjicTJ\_P2RB01UW4KqzIzHwvr



Scale = 1:6.5

Plate Offsets (X,Y)-- [1:0-2-2,0-1-12], [1:0-2-7,Edge], [2:0-1-7,0-1-12], [3:0-2-2,0-1-12]

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 0.01	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 IRC2018/TPI2014	Matrix-P					Weight: 5 lb	FT = 20%

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

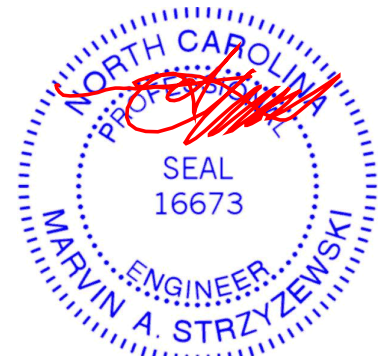
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 1-9-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=1-9-7, 3=1-9-7  
Max Horz 1=10(LC 9)  
Max Uplift 1=2(LC 12), 3=2(LC 13)  
Max Grav 1=39(LC 1), 3=39(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 7-16; 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(2E) 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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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**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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710416
J0421-2748	VD-1	Valley	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:28:11 2021 Page 1

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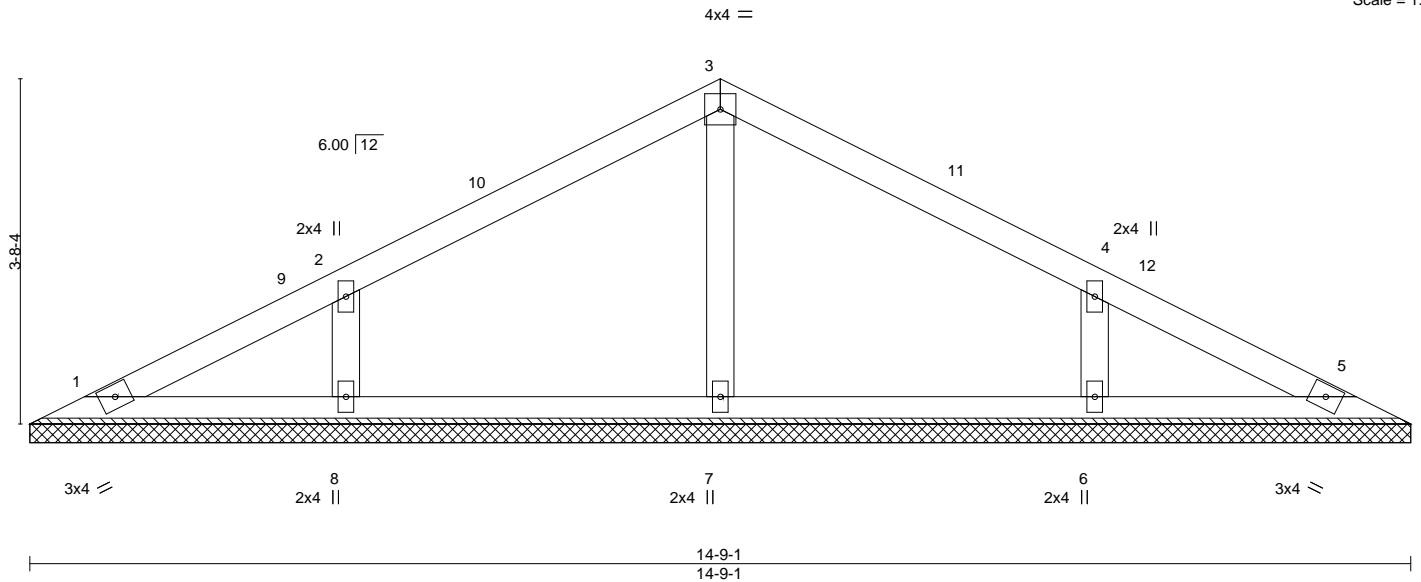
14-9-1

7-4-8

7-4-8

7-4-8

Scale = 1:24.6



<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	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 0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 52 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.

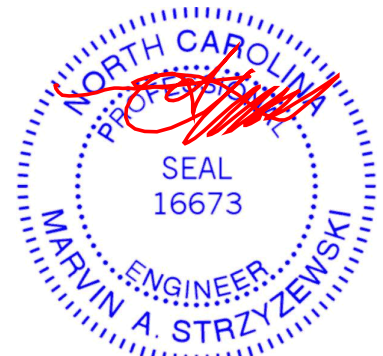
**REACTIONS.**

All bearings 14-9-1.  
 (lb) - Max Horz 1=44(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=280(LC 1), 8=322(LC 25), 6=322(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-246/255, 4-6=-246/255

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) 0-7-7 to 5-0-3, Interior(1) 5-0-3 to 7-4-8, Exterior(2R) 7-4-8 to 11-9-5, Interior(1) 11-9-5 to 14-1-10 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, 8, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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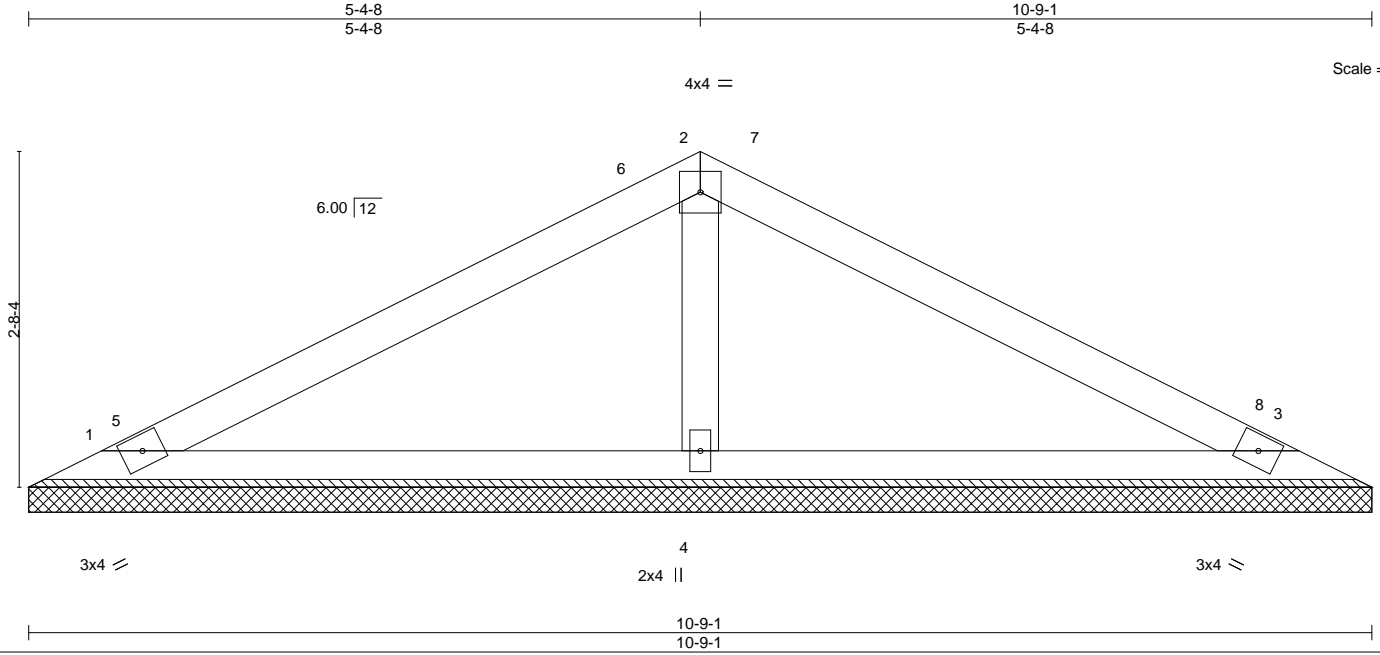


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710417
J0421-2748	VD-2	Valley	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:28:13 2021 Page 1  
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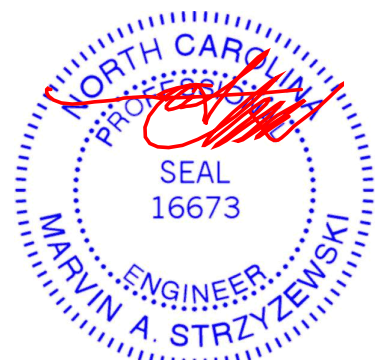
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.16	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 35 lb	FT = 20%

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

**REACTIONS.** (size) 1=10-9-1, 3=10-9-1, 4=10-9-1  
 Max Horz 1=31(LC 11)  
 Max Uplift 1=-23(LC 12), 3=-29(LC 13)  
 Max Grav 1=176(LC 25), 3=176(LC 26), 4=413(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-4=-273/236

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 0-7-7 to 5-0-3, Interior(1) 5-0-3 to 5-4-8, Exterior(2R) 5-4-8 to 9-9-5, Interior(1) 9-9-5 to 10-1-10 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.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

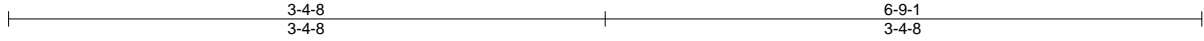


May 10, 2021

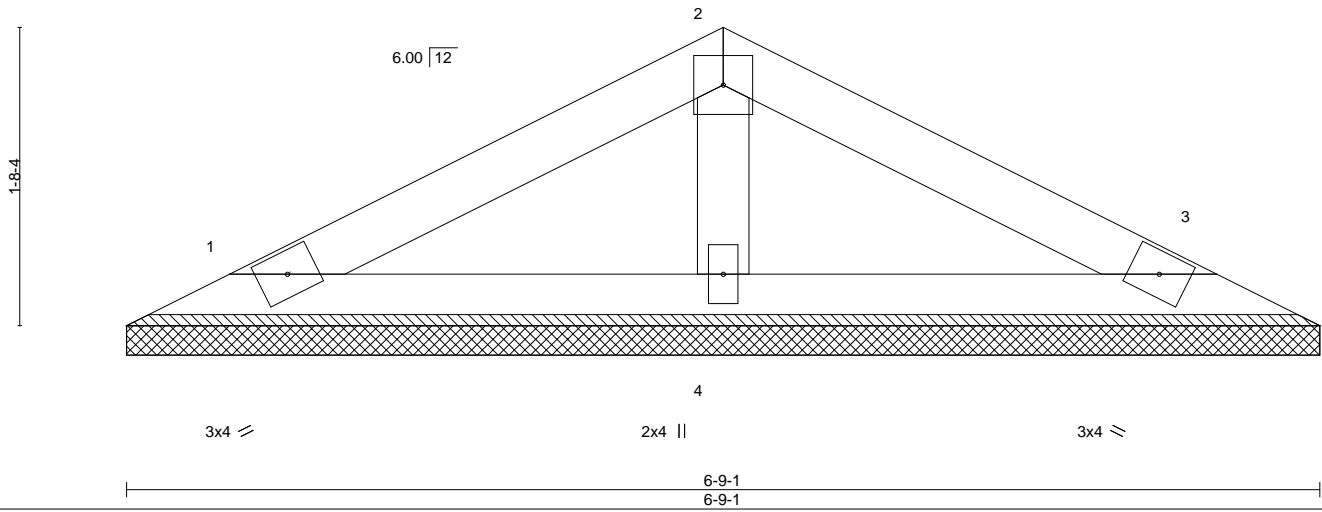
Job	Truss	Truss Type	Qty	Ply	1504 Gregory Circle	E15710418
J0421-2748	VD-3	Valley	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon May 10 10:28:14 2021 Page 1  
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Scale = 1:13.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.06	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P					Weight: 21 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.

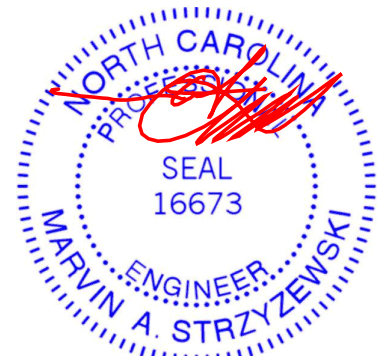
**REACTIONS.**

(size) 1=6-9-1, 3=6-9-1, 4=6-9-1  
Max Horz 1=-18(LC 10)  
Max Uplift 1=-18(LC 12), 3=-21(LC 13)  
Max Grav 1=112(LC 1), 3=112(LC 1), 4=217(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 7-16; 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(2E) 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.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

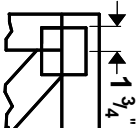


818 Soundside Road  
Edenton, NC 27932



# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

**4 X 4**

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

## LATERAL BRACING LOCATION



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

## BEARING



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

### Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.