ENGINEERING BY TRENCO
A MiTek Affiliate

RE: J1220-5666
Lot 12 Forest Ridge

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: J1220-5666
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.1
Wind Code: ASCE 7-10 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 25 individual, dated Truss Design Drawings and 0 Additional Drawings.

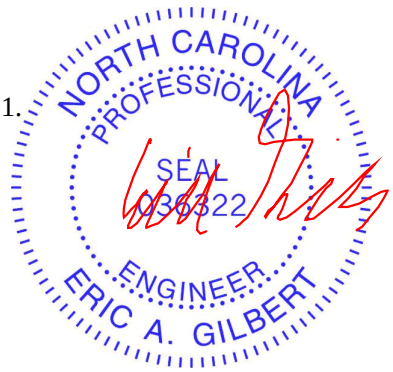
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	E14068408	A1	1/7/2021	21	E14068428	V1	1/7/2021
2	E14068409	A1A	1/7/2021	22	E14068429	V2	1/7/2021
3	E14068410	A1GE	1/7/2021	23	E14068430	V3	1/7/2021
4	E14068411	A2	1/7/2021	24	E14068431	V4	1/7/2021
5	E14068412	A2A	1/7/2021	25	E14068432	V5	1/7/2021
6	E14068413	A2GE	1/7/2021				
7	E14068414	B1	1/7/2021				
8	E14068415	B1GE	1/7/2021				
9	E14068416	B2	1/7/2021				
10	E14068417	C1GE	1/7/2021				
11	E14068418	D1	1/7/2021				
12	E14068419	D1-GR	1/7/2021				
13	E14068420	D1SG	1/7/2021				
14	E14068421	G1	1/7/2021				
15	E14068422	G1GE	1/7/2021				
16	E14068423	H1	1/7/2021				
17	E14068424	H1GE	1/7/2021				
18	E14068425	M1	1/7/2021				
19	E14068426	M1GE	1/7/2021				
20	E14068427	M2	1/7/2021				

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

Truss Design Engineer's Name: Gilbert, Eric

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

North Carolina COA: C-0844



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

January 07, 2021

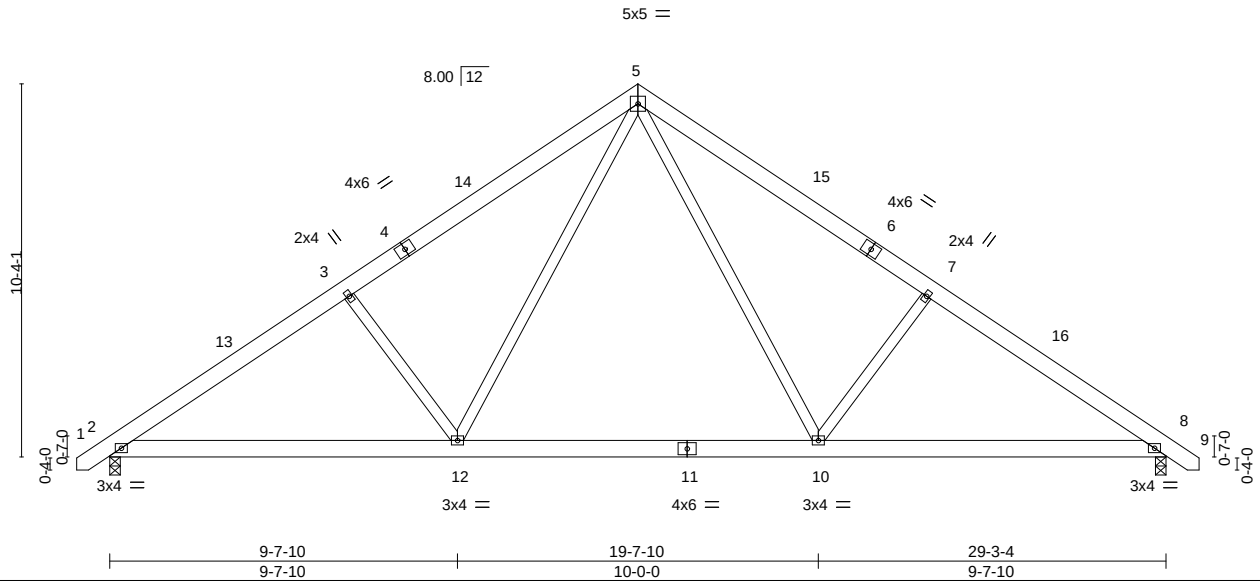
Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	A1	COMMON	6	1	E14068408
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:39 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-5F5YPt1jEx8We_cyPsmkfQbgAHhTNIn?ROATbxzldX2

-0-11-0	6-7-10	14-7-10	22-7-10	29-3-4	30-2-4
0-11-0	6-7-10	8-0-0	8-0-0	6-7-10	0-11-0

Scale: 3/16"=1'



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.16	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.22	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	12	>999	240	Weight: 203 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 5-8-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=1213/0-3-8, 8=1213/0-3-8
Max Horz 2=246(LC 11)
Max Uplift 2=-74(LC 12), 8=-74(LC 13)
Max Grav 2=1278(LC 19), 8=1278(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1860/370, 3-5=-1670/418, 5-7=-1670/418, 7-8=-1842/370
BOT CHORD 2-12=-185/1634, 10-12=0/1020, 8-10=-194/1450
WEBS 5-10=-125/814, 7-10=-482/287, 5-12=-125/814, 3-12=-482/287

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 14-7-10, Exterior(2) 14-7-10 to 19-0-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 2 and 74 lb uplift at joint 8.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	A1A	COMMON	2	1	E14068409
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:40 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-ZSewdD2L?EGNF7B8zZHzCe8lMh3F6fa8g2w07NzIdX1

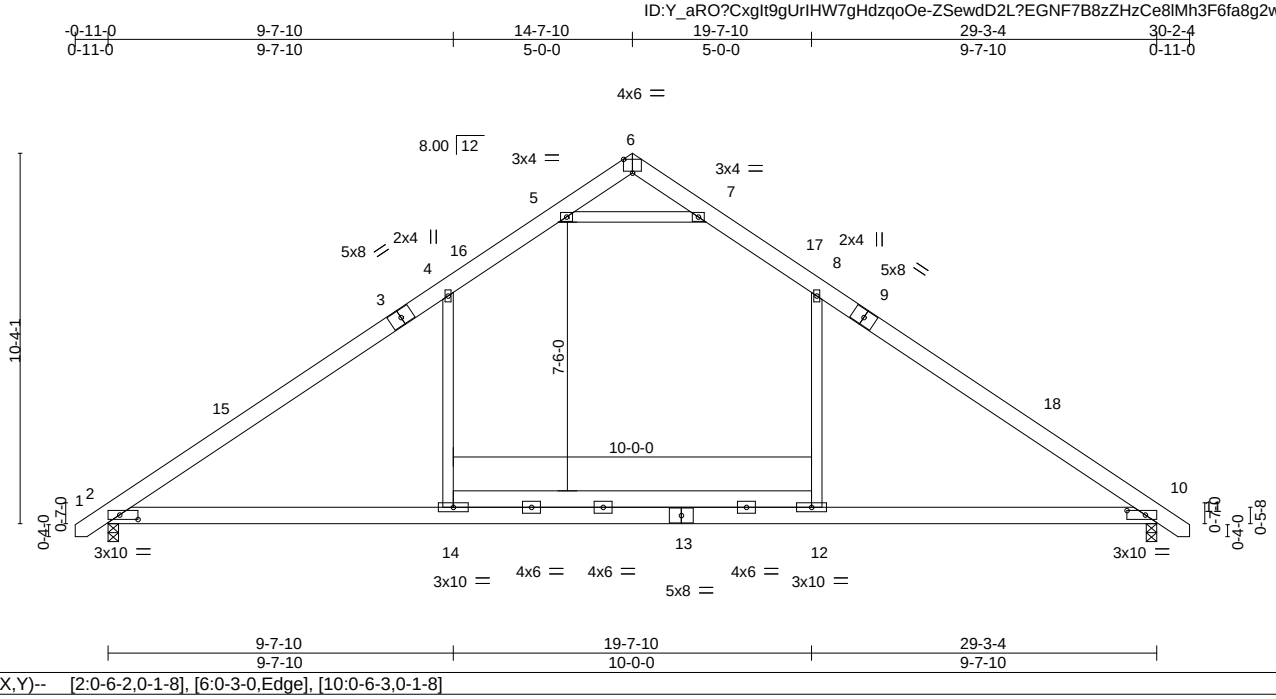


Plate Offsets (X,Y)-- [2:0-6-2,0-1-8], [6:0-3-0,Edge], [10:0-6-3,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.30	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.46	10-12	>762	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.03	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.26	2-14	>999	240	Weight: 204 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP 2400F 2.0E
BOT CHORD 2x6 SP 2400F 2.0E
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. (lb/size) 2=1213/0-3-8, 10=1213/0-3-8
Max Horz 2=246(LC 11)
Max Uplift 2=-74(LC 12), 10=-74(LC 13)
Max Grav 2=1360(LC 19), 10=1360(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1843/286, 4-5=-1270/368, 5-6=-233/953, 6-7=-233/953, 7-8=-1270/368, 8-10=-1844/286
BOT CHORD 2-14=-54/1399, 12-14=-58/1399, 10-12=-54/1399
WEBS 4-14=0/559, 8-12=0/560, 5-7=-2439/702

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 14-7-10, Exterior(2) 14-7-10 to 19-0-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 2 and 74 lb uplift at joint 10.

February 13,2020

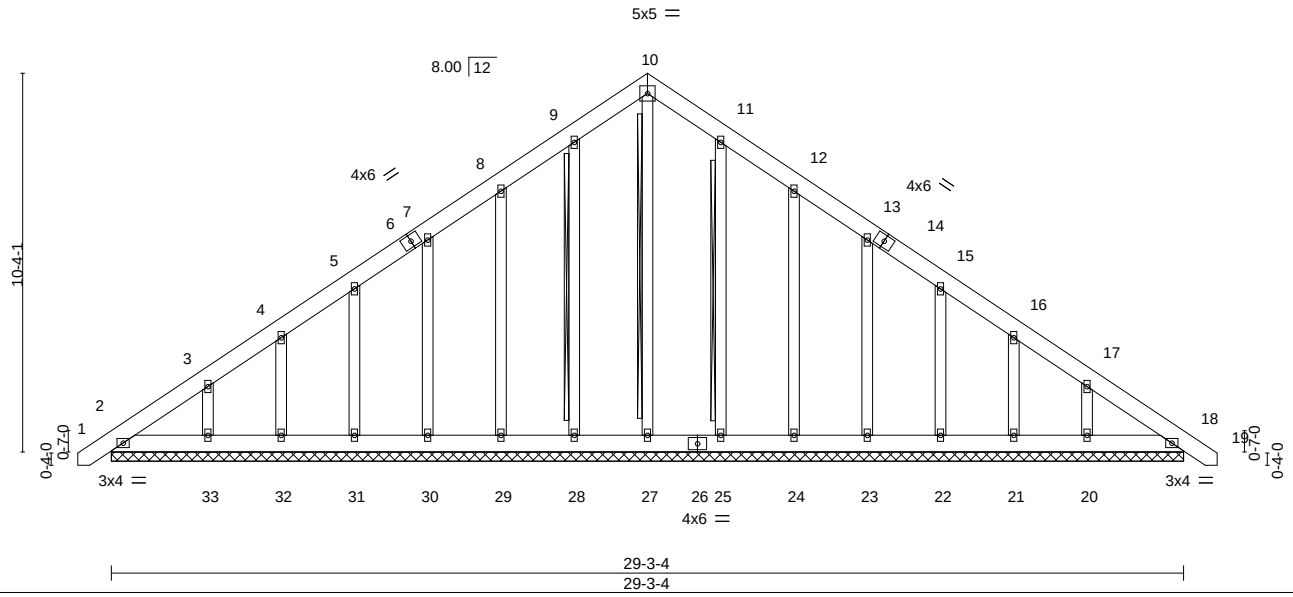
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	A1GE	COMMON SUPPORTED GAB	1	1	E14068410
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:41 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-1eCIqZ2zlYOEtHmLXHoCIrg3z5TarEIIvifZfpzldX0

-0-11-0 / 0-11-0 — 14-7-10 / 14-7-10 — 29-3-4 / 14-7-10 — 30-2-4 / 0-11-0

Scale = 1:62.9



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	0.00	18	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	18	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	18	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 255 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.
WEBS T-Brace: 2x4 SPF No.2 - 10-27, 9-28, 11-25
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. All bearings 29-3-4.
(lb) - Max Horz 2=-307(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 28, 29, 30, 31, 32, 25, 23, 22, 21, 18 except 33=-120(LC 12), 24=-101(LC 13), 20=-118(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 28, 29, 30, 31, 32, 33, 25, 24, 23, 22, 21, 20, 18 except 27=258(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-300/229, 9-10=-233/262, 10-11=-233/262

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 28, 29, 30, 31, 32, 25, 23, 22, 21, 18 except (jt=lb) 33=120, 24=101, 20=118.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	A2	COMMON	8	1	E14068411
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:42 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-Vqmg2u3bWsW5VRLX4_JRH3DANVj7afLR7MP7CGzldX?

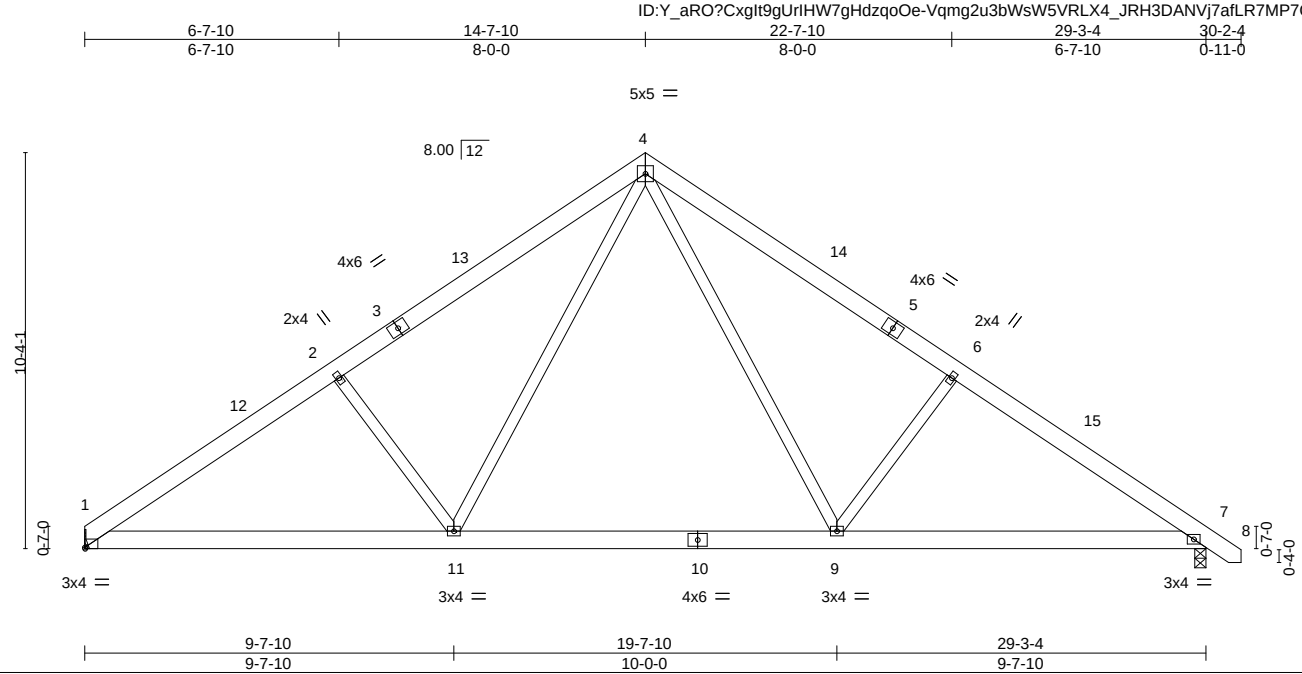


Plate Offsets (X,Y)-- [1:0-0-2,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.16	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.22	9-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	11	>999	240	Weight: 201 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 5-8-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=1162/Mechanical, 7=1217/0-3-8
Max Horz 1=-243(LC 8)
Max Uplift 1=-62(LC 12), 7=-74(LC 13)
Max Grav 1=1231(LC 19), 7=1282(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1861/384, 2-4=-1687/431, 4-6=-1677/420, 6-7=-1849/372
BOT CHORD 1-11=-203/1658, 9-11=0/1027, 7-9=-198/1455
WEBS 4-9=-126/814, 6-9=-482/287, 4-11=-130/830, 2-11=-493/293

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 14-7-10, Exterior(2) 14-7-10 to 19-0-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	A2A	COMMON	3	1	E14068412
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:43 2020 Page 1

ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-z1K2FE4DH9ey6bwjehrgqGlHGv4_J0obM08gkizldX_

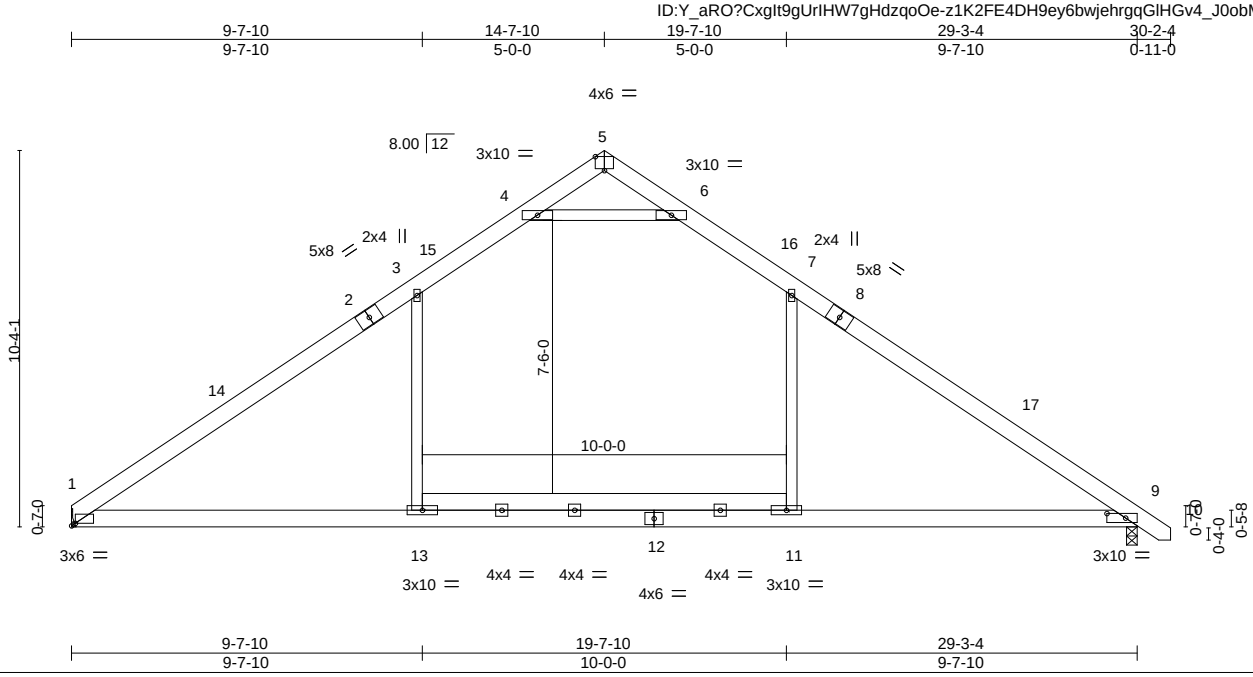


Plate Offsets (X,Y)-- [1:0-1-4,Edge], [5:0-3-0,Edge], [9:0-6-3,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.31	1-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.47	1-13	>736	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.26	1-13	>999	240	Weight: 202 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E
BOT CHORD 2x6 SP 2400F 2.0E
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. (lb/size) 1=1162/Mechanical, 9=1217/0-3-8
Max Horz 1=-243(LC 10)
Max Uplift 1=-62(LC 12), 9=-74(LC 13)
Max Grav 1=1235(LC 19), 9=1287(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1710/285, 3-4=-1191/374, 4-5=-238/884, 5-6=-247/884, 6-7=-1189/368, 7-9=-1723/288
BOT CHORD 1-13=-60/1304, 11-13=-64/1304, 9-11=-60/1304
WEBS 3-13=0/466, 7-11=0/487, 4-6=-2360/724

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 14-7-10, Exterior(2) 14-7-10 to 19-0-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9.

February 13,2020

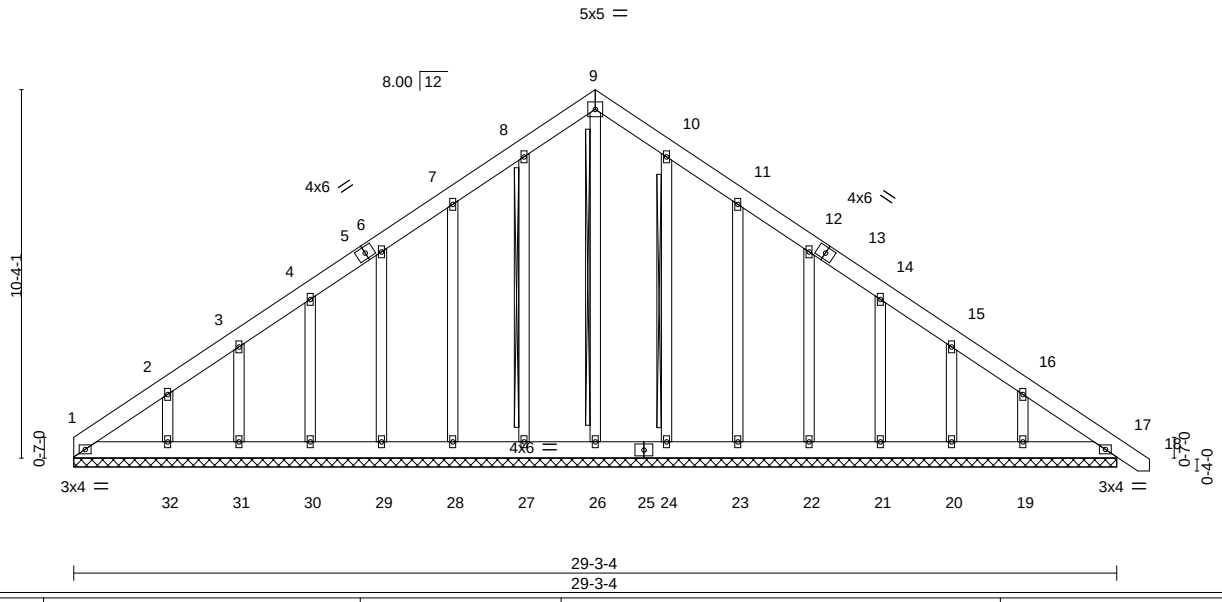
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	A2GE	COMMON SUPPORTED GAB	1	1	E14068413
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:44 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-RDuRSa5r2TmpklVwCPMvMUIaDIUH2b1kbguDF8zldWz

14-7-10 29-3-4 30-2-4
14-7-10 14-7-10 0-11-0

Scale = 1:64.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	0.00	17	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	17	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	17	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 253 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.
WEBS T-Brace: 2x4 SPF No.2 - 9-26, 8-27, 10-24
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. All bearings 29-3-4.
(lb) - Max Horz 1=-303(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 27, 28, 29, 30, 31, 24, 22, 21, 20, 17 except 32=-127(LC 12), 23=-101(LC 13), 19=-118(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20, 19, 17 except 26=258(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-303/231, 8-9=-233/262, 9-10=-233/262

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 1, 27, 28, 29, 30, 31, 24, 22, 21, 20, 17 except (jt=lb) 32=127, 23=101, 19=118.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	B1	ATTIC	4	1	E14068414
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:45 2020 Page 1

ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-wPSpgw6UpnugMv46m6t8vhrW7ifGn3QuqKdnnazIdWy

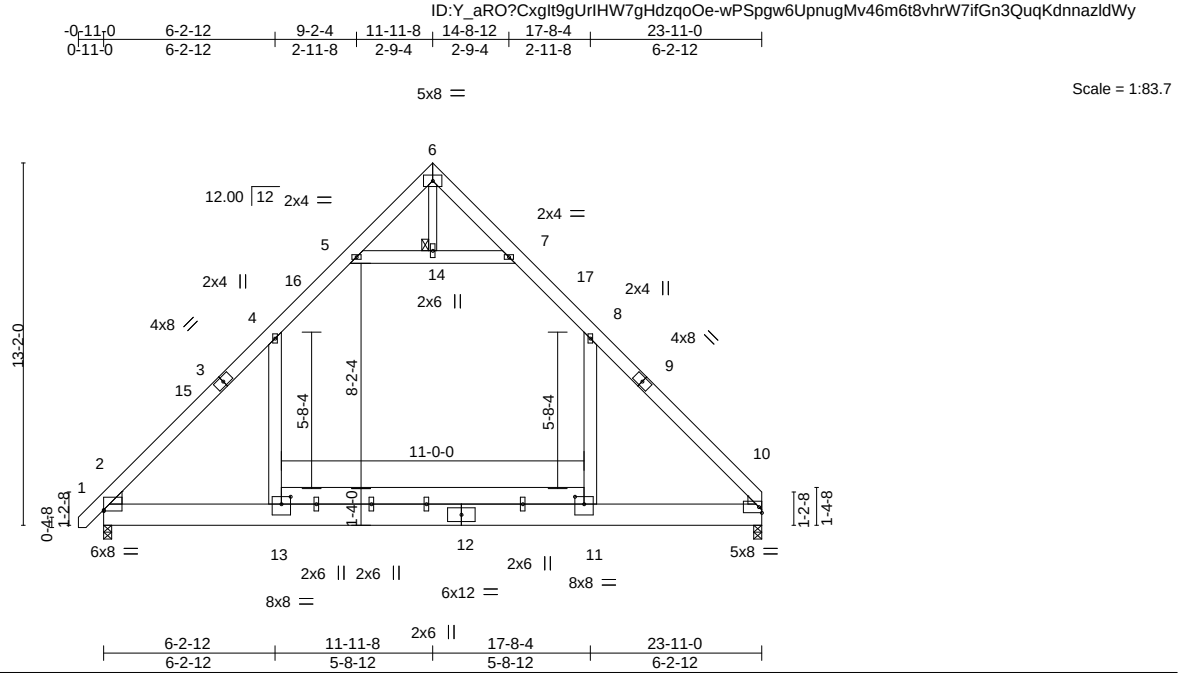


Plate Offsets (X,Y)-- [2:0-0-0,0-0-8], [11:0-4-0,0-3-4], [13:0-4-0,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.26	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.46	11-13	>614	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.11	11-13	>999	240	Weight: 260 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1 *Except*
11-13: 2x8 SP No.1
WEBS 2x6 SP No.1 *Except*
6-14: 2x4 SP No.2
WEDGE
Left: 2x6 SP No.2, Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 14

REACTIONS. (lb/size) 2=1298/0-3-8, 10=1240/0-3-8
Max Horz 2=303(LC 9)
Max Grav 2=1537(LC 20), 10=1495(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1994/0, 4-5=-1081/148, 7-8=-1086/154, 8-10=-1967/0
BOT CHORD 2-13=0/1171, 11-13=0/1171, 10-11=0/1171
WEBS 8-11=0/864, 4-13=0/902, 5-14=-1393/230, 7-14=-1393/230

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-6 to 3-7-7, Interior(1) 3-7-7 to 11-11-8, Exterior(2) 11-11-8 to 16-4-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-14, 7-14; Wall dead load (5.0psf) on member(s).8-11, 4-13
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-13
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
8) Attic room checked for L/360 deflection.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	B1GE	GABLE	1	1	E14068415
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:46 2020 Page 1

ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-Oc0BtG66a40Xz2fIJqONSvNhA60mWUJ12_NKK1zIdWx

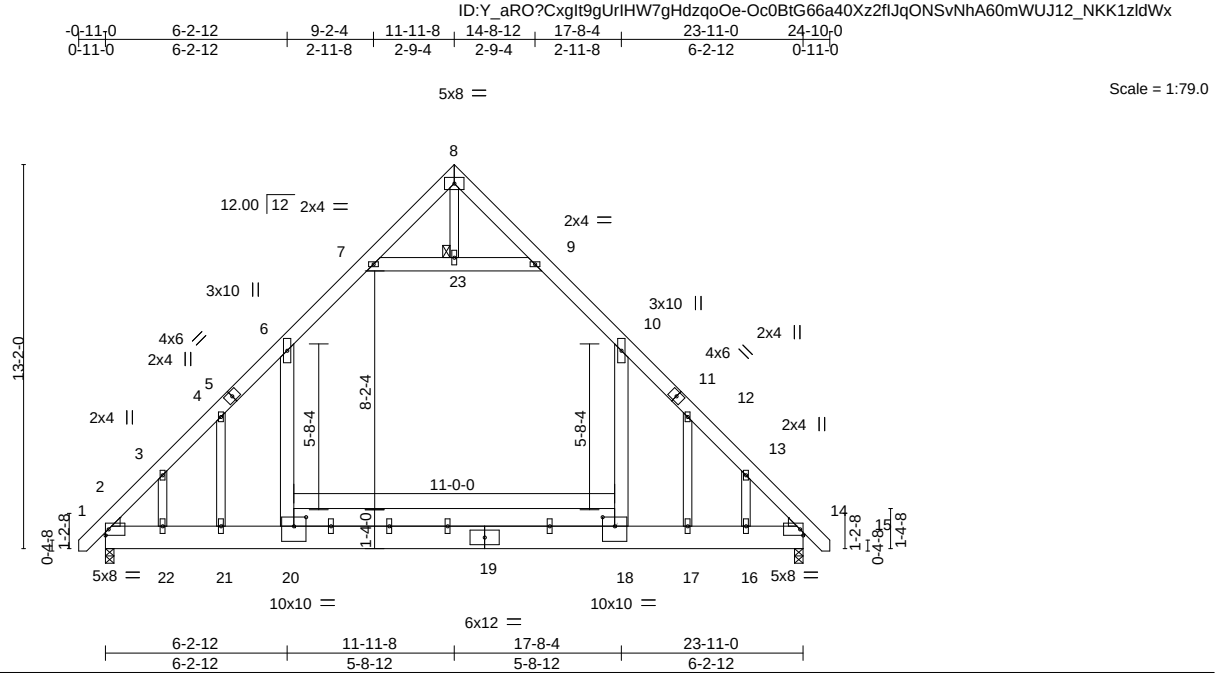


Plate Offsets (X,Y)-- [18:0-5-0,0-3-12], [20:0-5-0,0-3-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.22	18-20	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.39	18-20	>736	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.13	20	>999	240	Weight: 279 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x10 SP No.1 *Except* 18-20: 2x8 SP No.1
WEBS	2x6 SP No.1 *Except* 8-23: 2x4 SP No.2
OTHERS	2x4 SP No.2

WEDGE
Left: 2x4 SP No.3, Right: 2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 23

REACTIONS. (lb/size) 2=1297/0-3-8, 14=1297/0-3-8
Max Horz 2=-382(LC 10)
Max Grav 2=1530(LC 20), 14=1530(LC 21)

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

TOP CHORD	2-3=-1993/0, 3-4=-1620/0, 4-6=-2062/75, 6-7=-1090/194, 9-10=-1090/194, 10-12=-2061/75, 12-13=-1620/0, 13-14=-1992/0
BOT CHORD	2-22=0/1204, 21-22=0/1206, 20-21=0/1203, 18-20=0/1203, 17-18=0/1203, 16-17=0/1205, 14-16=0/1203
WEBS	10-18=-21/1193, 6-20=-22/1193, 7-23=-1313/294, 9-23=-1313/294, 4-21=-740/164, 3-22=0/396, 12-17=-740/164, 13-16=0/396

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x6 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
8) Ceiling dead load (10.0 psf) on member(s). 6-7, 9-10, 7-23, 9-23; Wall dead load (5.0psf) on member(s).10-18, 6-20
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 18-20
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
11) Attic room checked for L/360 deflection.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	B2	ATTIC	6	1	E14068416
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:47 2020 Page 1

ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-soZZ5c7kLO9ObCEVtXvc_6ws5WLcFz_AHd6usTzIdWw

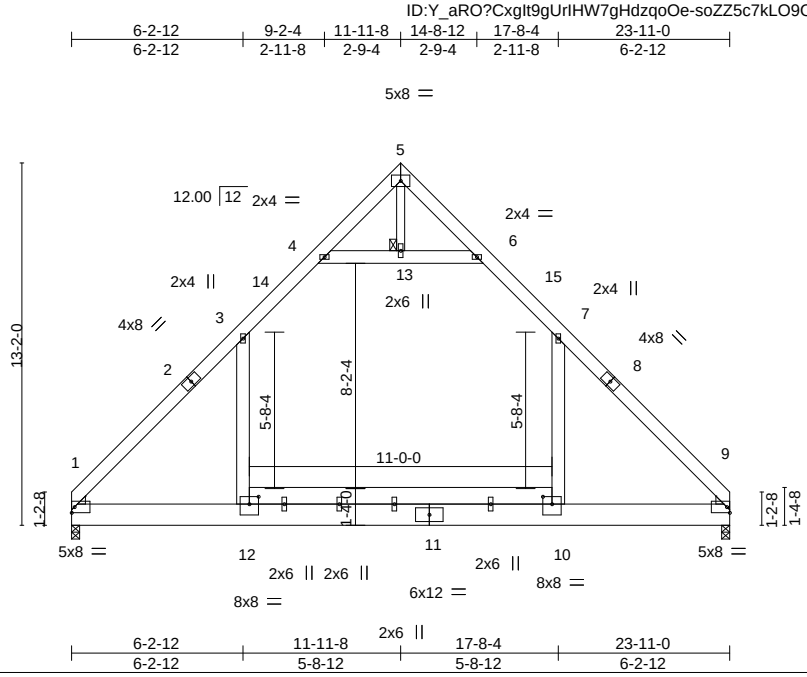


Plate Offsets (X,Y)-- [10:0-4-0,0-3-4], [12:0-4-0,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.26	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.47	10-12	>605	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.12	10-12	>999	240	Weight: 257 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1 *Except*
10-12: 2x8 SP No.1
WEBS 2x6 SP No.1 *Except*
5-13: 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3, Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 13

REACTIONS. (lb/size) 1=1241/0-3-8, 9=1241/0-3-8
Max Horz 1=-299(LC 8)
Max Grav 1=1496(LC 21), 9=1496(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1970/0, 3-4=-1084/153, 6-7=-1083/153, 7-9=-1970/0
BOT CHORD 1-12=0/1172, 10-12=0/1172, 9-10=0/1172
WEBS 7-10=0/869, 3-12=0/869, 4-13=-1399/234, 6-13=-1399/234

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 11-11-8, Exterior(2) 11-11-8 to 16-4-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Ceiling dead load (10.0 psf) on member(s). 3-4, 6-7, 4-13, 6-13; Wall dead load (5.0psf) on member(s).7-10, 3-12
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 10-12
7) Attic room checked for L/360 deflection.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	C1GE	COMMON SUPPORTED GAB	1	1	E14068417
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:48 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-K_7xIy8M6iHFDMphRFQrXKTGTwsL_RGKWHsROvzIdWv

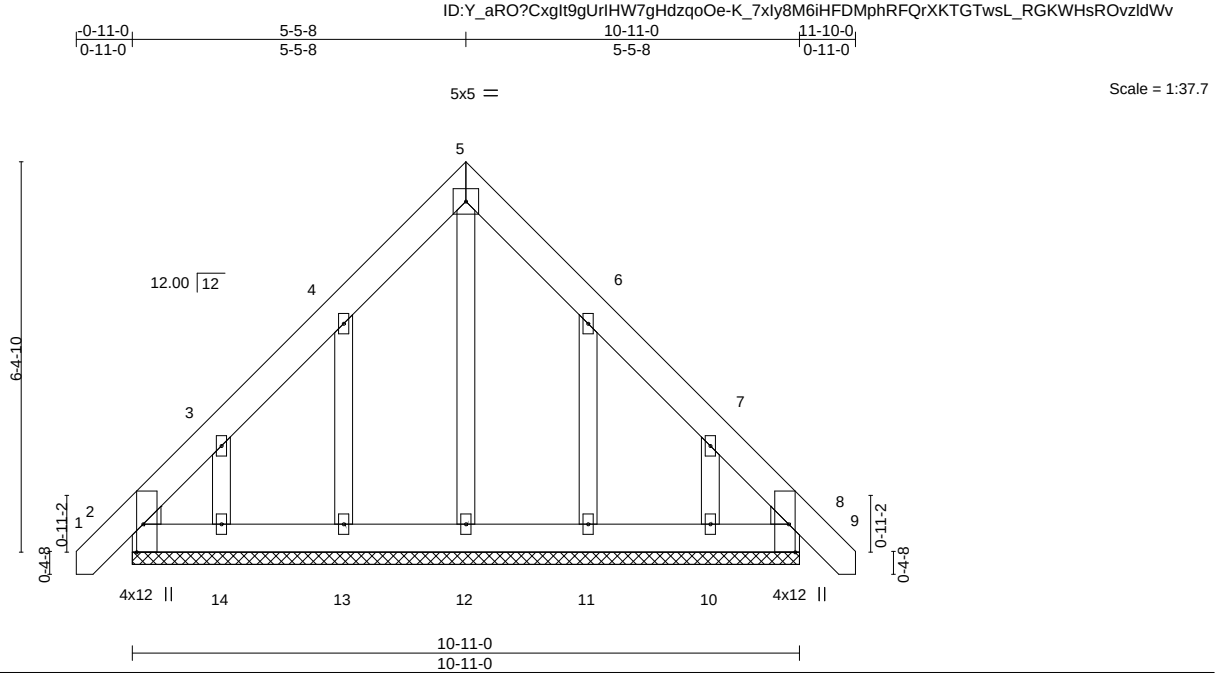


Plate Offsets (X,Y)-- [2:0-1-1,0-1-1], [2:0-2-2,0-4-7], [2:0-5-8,Edge], [8:0-1-1,0-1-1], [8:0-2-2,0-4-7], [8:0-5-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	-0.00	8	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	8	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 92 lb	FT = 20%

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

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

REACTIONS. All bearings 10-11-0.
(lb) - Max Horz 2=187(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8 except 13=-133(LC 12), 14=-170(LC 12), 11=-130(LC 13), 10=-167(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8 except (jt=lb) 13=133, 14=170, 11=130, 10=167.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	D1	COMMON	2	1	E14068418
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:49 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-oBhJWI9_t?P6qWNt?yx43X?MQJ6UjsITlxb_xMzldWu

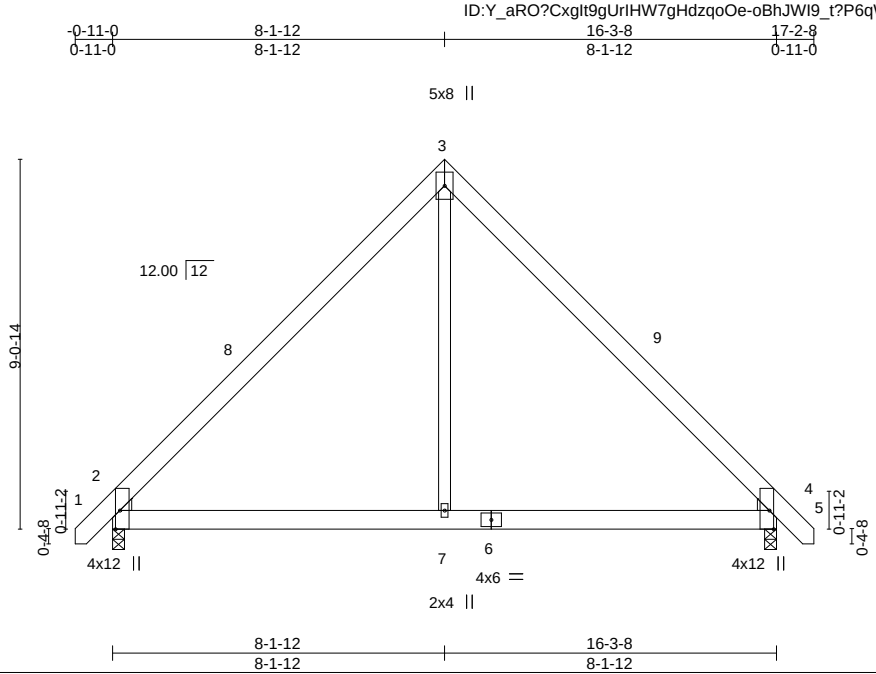


Plate Offsets (X,Y)-- [2:0-5-8,Edge], [2:0-2-2,0-4-7], [2:0-1-1,0-1-1], [4:0-1-1,0-1-1], [4:0-2-2,0-4-7], [4:0-5-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.05	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.08	4-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	2-7	>999	240	Weight: 112 lb	FT = 20%

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

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

REACTIONS. (lb/size) 4=696/0-3-8, 2=696/0-3-8
Max Horz 2=214(LC 11)
Max Uplift 4=-31(LC 13), 2=-31(LC 12)
Max Grav 4=863(LC 20), 2=863(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-820/187, 3-4=-820/188
BOT CHORD 2-7=0/528, 4-7=0/528
WEBS 3-7=0/582

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-6 to 3-7-7, Interior(1) 3-7-7 to 8-1-12, Exterior(2) 8-1-12 to 12-6-9 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	D1-GR	Common Girder	1	2	E14068419
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:50 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-GNFijd9ceJXySgy3YgTJclYZ_jK8SFndzbLYTozldWt

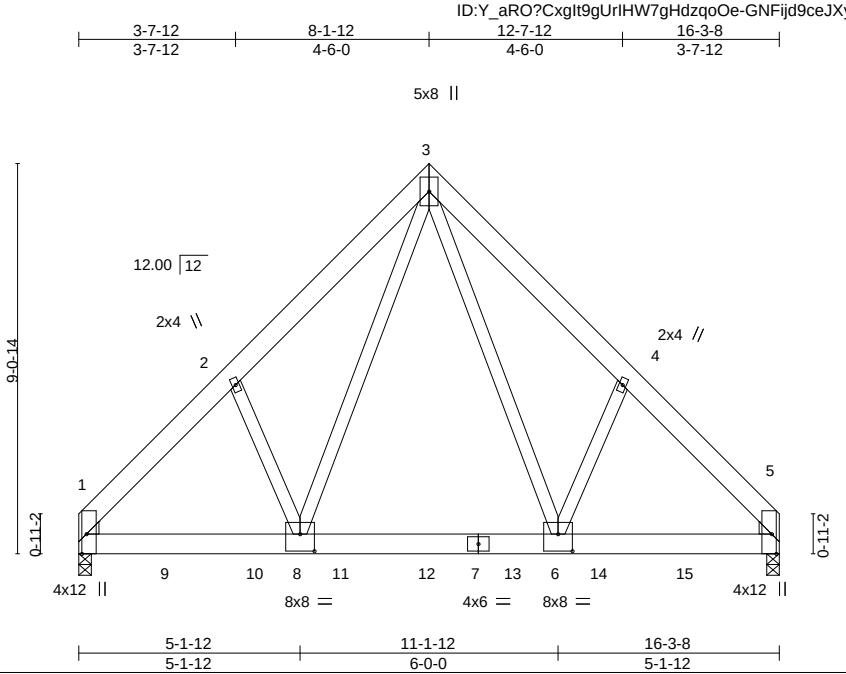


Plate Offsets (X,Y)-- [1:0-1-1,0-1-1], [1:0-2-2,0-4-7], [1:0-5-8,Edge], [5:0-5-8,Edge], [5:0-2-2,0-4-7], [5:0-1-1,0-1-1], [6:0-4-0,0-4-12], [8:0-4-0,0-4-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.07	6-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.14	6-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.05	6-8	>999	240	Weight: 263 lb	FT = 20%

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

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

REACTIONS. (lb/size) 1=4677/0-3-8, 5=4594/0-3-8
Max Horz 1=-204(LC 25)
Max Uplift 1=-284(LC 9), 5=-279(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-5218/357, 2-3=-4978/439, 3-4=-4966/438, 4-5=-5205/356
BOT CHORD 1-8=-272/3404, 6-8=-140/2318, 5-6=-188/3394
WEBS 3-6=-321/3530, 4-6=-187/402, 3-8=-323/3555, 2-8=-187/400

NOTES-
1) 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.
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.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=284, 5=279.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1146 lb down and 82 lb up at 2-0-12, 1146 lb down and 82 lb up at 4-0-12, 1142 lb down and 82 lb up at 6-0-12, 1142 lb down and 82 lb up at 8-0-12, 1142 lb down and 82 lb up at 10-0-12, and 1150 lb down and 82 lb up at 12-0-12, and 1150 lb down and 82 lb up at 14-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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

February 13,2020

Continued on page 2

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

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 9=-1142(B) 10=-1142(B) 11=-1142(B) 12=-1142(B) 13=-1142(B) 14=-1142(B) 15=-1142(B)

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	D1SG	GABLE	1	1	E14068420
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:51 2020 Page 1

ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-kZp4wzAEPdfp4qXG6N_Y9y5k77svBnemCF45?EzIdWs

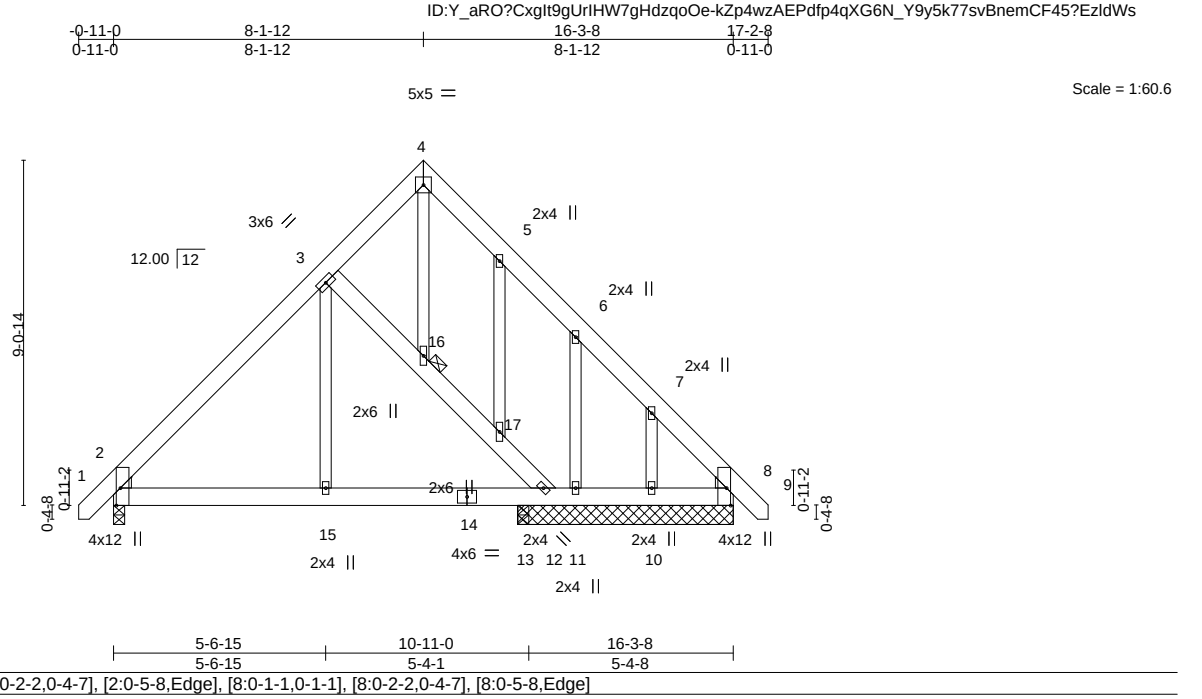


Plate Offsets (X,Y)-- [2:0-1-1,0-1-1], [2:0-2-2,0-4-7], [2:0-5-8,Edge], [8:0-1-1,0-1-1], [8:0-2-2,0-4-7], [8:0-5-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.01	2-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	2-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.01	2-15	>999	240	Weight: 150 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
3-15: 2x4 SP No.2
OTHERS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.2, Right: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 16

REACTIONS. All bearings 5-8-0 except (jt=length) 2=0-3-8, 13=0-3-8.
(lb) - Max Horz 2=-267(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2 except 12=-281(LC 12), 11=-163(LC 13), 10=-194(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 12, 10 except 2=537(LC 1), 8=272(LC 22), 11=255(LC 20), 13=257(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-511/53, 7-8=-369/247
BOT CHORD 2-15=-98/380, 13-15=-98/380, 12-13=-98/380, 11-12=-209/311, 10-11=-208/310, 8-10=-207/309
WEBS 3-16=-438/274, 16-17=-383/246, 12-17=-467/285

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 12=281, 11=163, 10=194.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	G1	COMMON	6	1	E14068421
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:52 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-ClNS8JBtAwnghz6Sg4VnhAdqBX8uwEPwRvqfXhzldWr

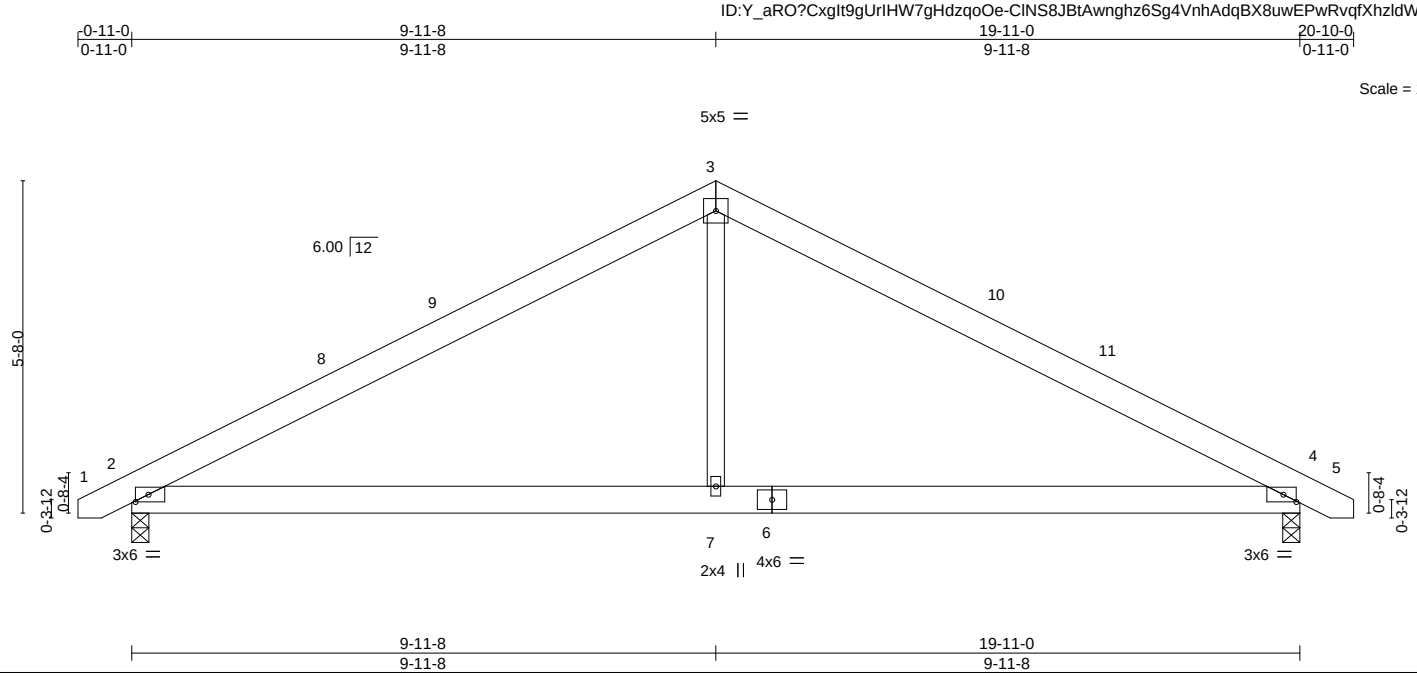


Plate Offsets (X,Y)-- [2:0-2-10,0-1-8], [4:0-2-10,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.05	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.12	4-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.04	2-7	>999	240	Weight: 111 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. (lb/size) 4=837/0-3-8, 2=837/0-3-8
Max Horz 2=-70(LC 10)
Max Uplift 4=-59(LC 13), 2=-59(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1108/272, 3-4=-1108/272
BOT CHORD 2-7=-87/865, 4-7=-87/865
WEBS 3-7=0/479

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 9-11-8, Exterior(2) 9-11-8 to 14-4-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

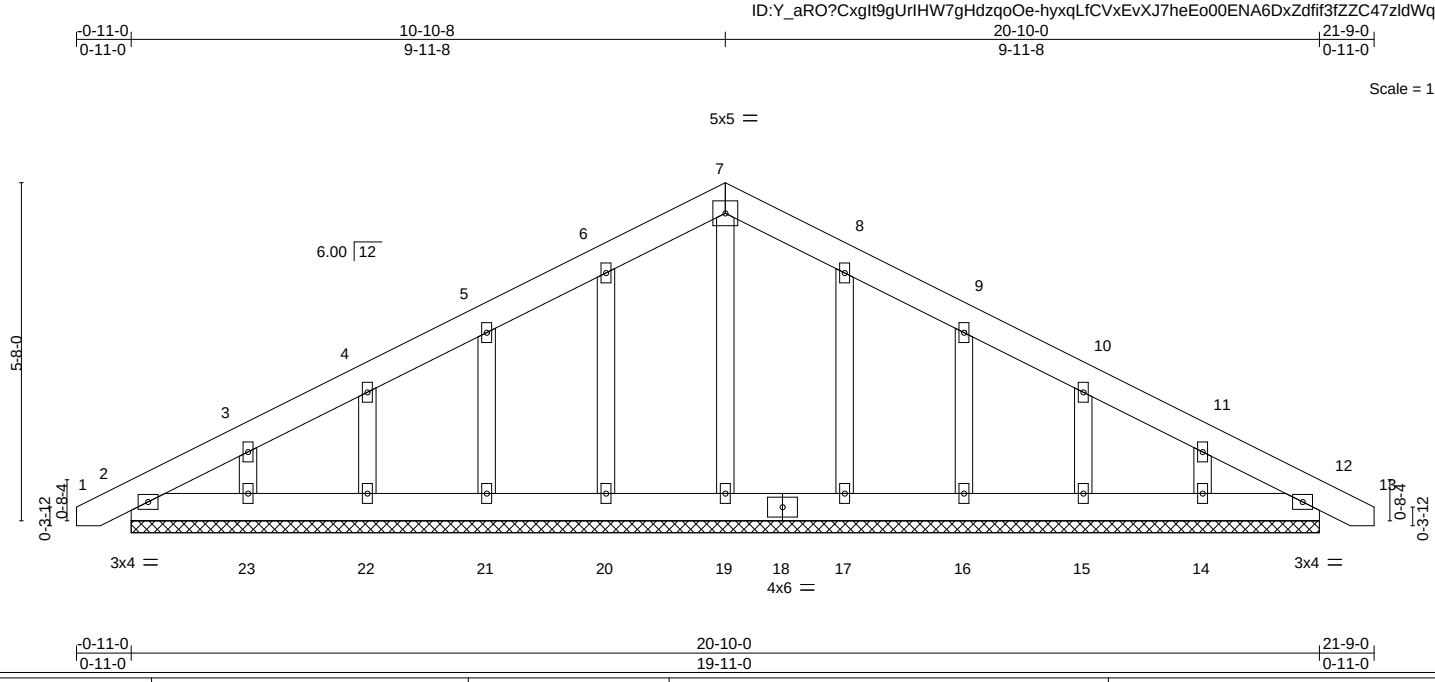
February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	G1GE	COMMON SUPPORTED GAB	1	1	E14068422
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:53 2020 Page 1

ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-hyxqLfCVxEvXJ7heEo00ENA6DxZdfif3fZZC47zldWq



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	0.00	12	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	12	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 138 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 19-11-0.

(lb) - Max Horz 2=108(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 23, 17, 16, 15, 14, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 19, 20, 21, 22, 23, 17, 16, 15, 14, 12

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 23, 17, 16, 15, 14, 12.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

February 13,2020

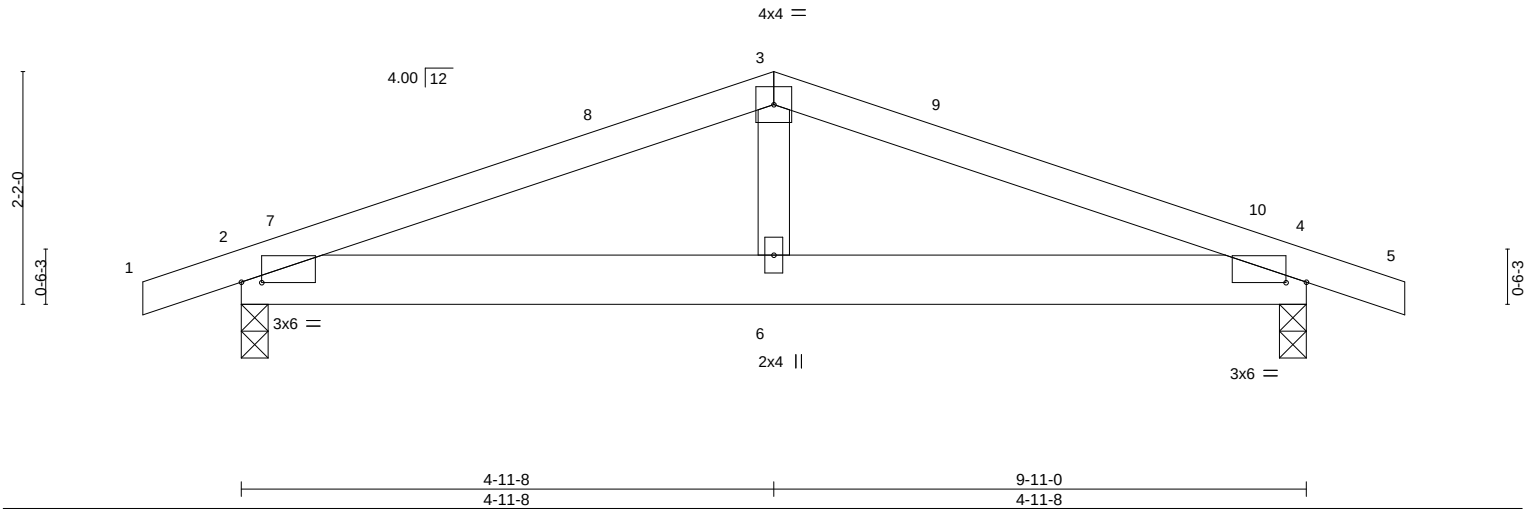
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	H1	Common	4	1	E14068423
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:54 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-98VCZ?D7iY1OxHGrnVXFmbjE4KtzO9nCuDJlcZzldWp

-0-11-0 / 0-11-0 — 4-11-8 / 4-11-8 — 9-11-0 / 4-11-8 — 10-10-0 / 0-11-0

Scale = 1:21.5



4-11-8 / 4-11-8 — 9-11-0 / 4-11-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.01	6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.02	4-6	>999	240	Weight: 44 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 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 9-7-8 oc bracing.

REACTIONS. (lb/size) 2=449/0-3-0, 4=449/0-3-0
Max Horz 2=23(LC 12)
Max Uplift 2=-177(LC 8), 4=-177(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-657/752, 3-4=-657/752
BOT CHORD 2-6=-628/566, 4-6=-628/566
WEBS 3-6=-312/233

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 4-11-8, Exterior(2) 4-11-8 to 9-4-5 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=177, 4=177.

February 13,2020

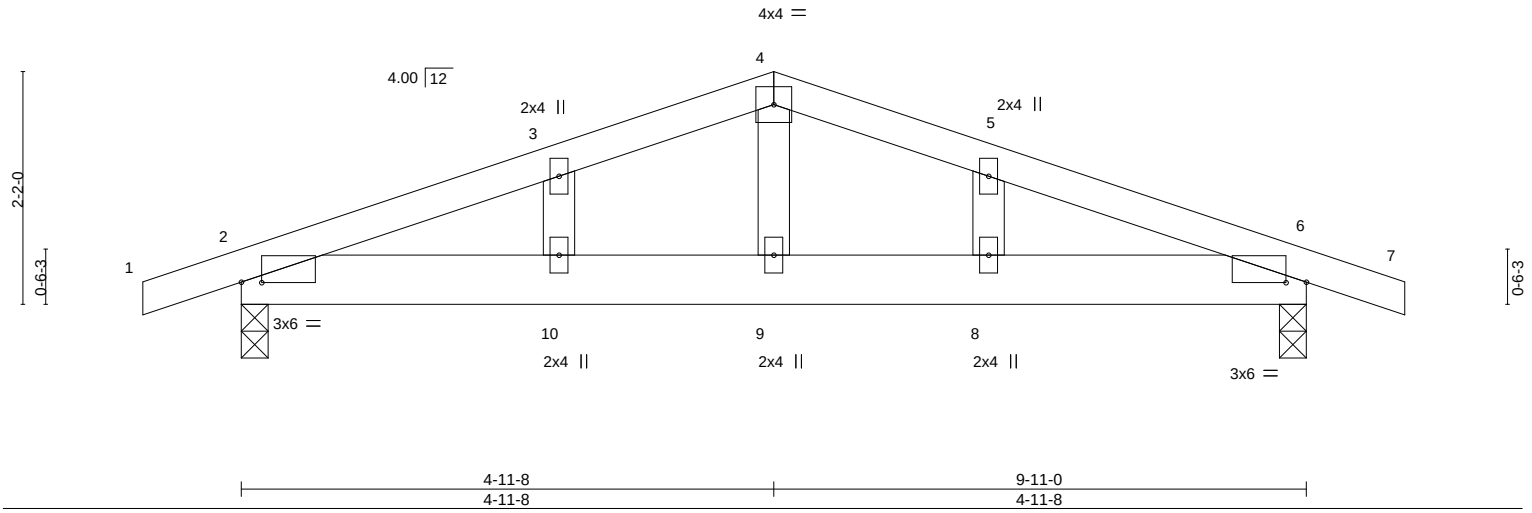
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	H1GE	GABLE	1	1	E14068424
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:55 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-dK2bmLDlSr9FYRr1LD2VJoFQukD07buM7t2J8?zIdWo

-0-11-0 / 0-11-0 — 4-11-8 / 4-11-8 — 9-11-0 / 4-11-8 — 10-10-0 / 0-11-0

Scale = 1:21.5



4-11-8 / 4-11-8 — 9-11-0 / 4-11-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.02	8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 46 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 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.
BOT CHORD Rigid ceiling directly applied or 9-5-1 oc bracing.

REACTIONS. (lb/size) 2=449/0-3-0, 6=449/0-3-0
Max Horz 2=40(LC 16)
Max Uplift 2=-252(LC 8), 6=-252(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-652/769, 3-4=-621/800, 4-5=-621/800, 5-6=-652/769
BOT CHORD 2-10=-662/573, 9-10=-662/573, 8-9=-662/573, 6-8=-662/573
WEBS 4-9=-376/245

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=252, 6=252.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	M1	MONOPITCH	5	1	E14068425
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:55 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-dK2bmLDlSr9FYRr1LD2VJoFQAkEK7bqM7t2J8?zIdWo

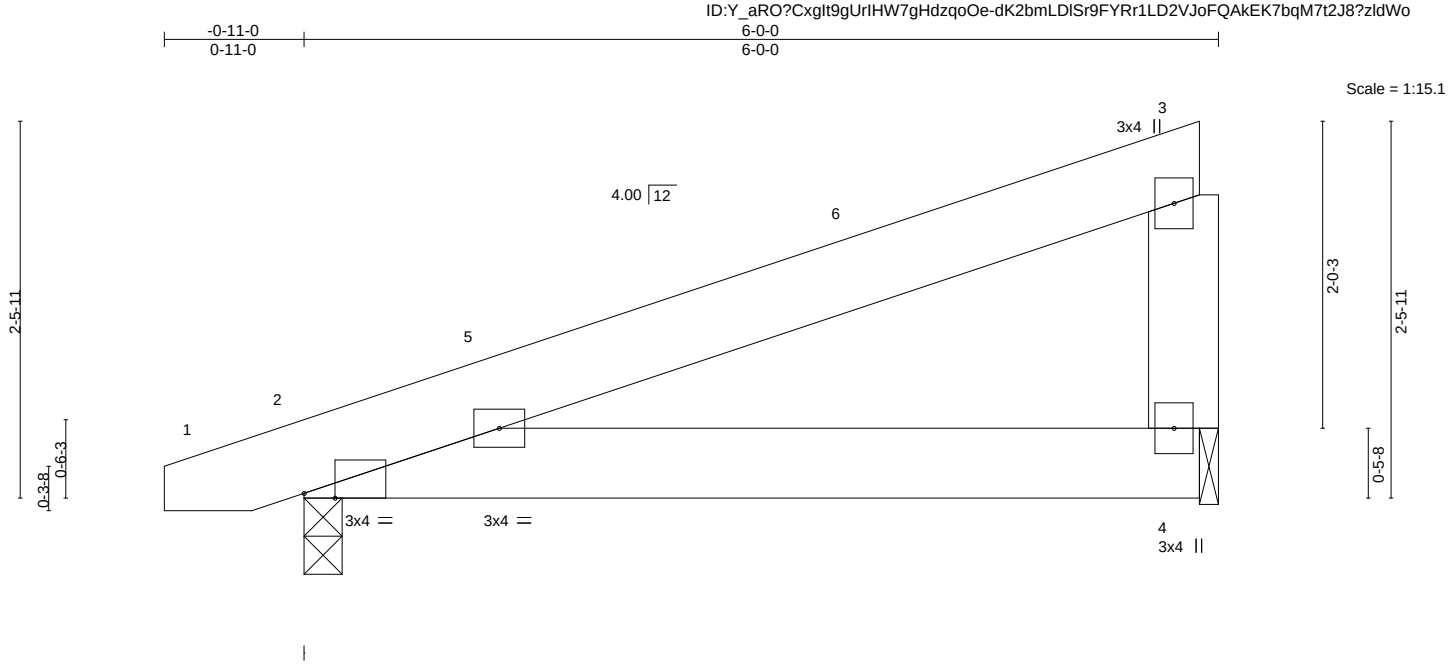


Plate Offsets (X,Y)-- [2:0-2-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.03	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.03	2-4	>999	240	Weight: 34 lb	FT = 20%

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

REACTIONS. (lb/size) 2=274/0-3-0, 4=223/0-1-8
Max Horz 2=72(LC 8)
Max Uplift 2=-105(LC 8), 4=-96(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-9 to 3-9-4, Interior(1) 3-9-4 to 5-9-4 zone; porch left exposed;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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=105.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	M1GE	GABLE	1	1	E14068426
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:56 2020 Page 1
ID:Y_aRO?Cxglt9gUrIHW7gHdzqoOe-5Xcz_hEND9H6AbQDvwaks0ocY8Z_s2oVMXosgSzIdWn

-0-11-0 / 0-11-0 — 6-0-0 / 6-0-0

Scale = 1:15.1

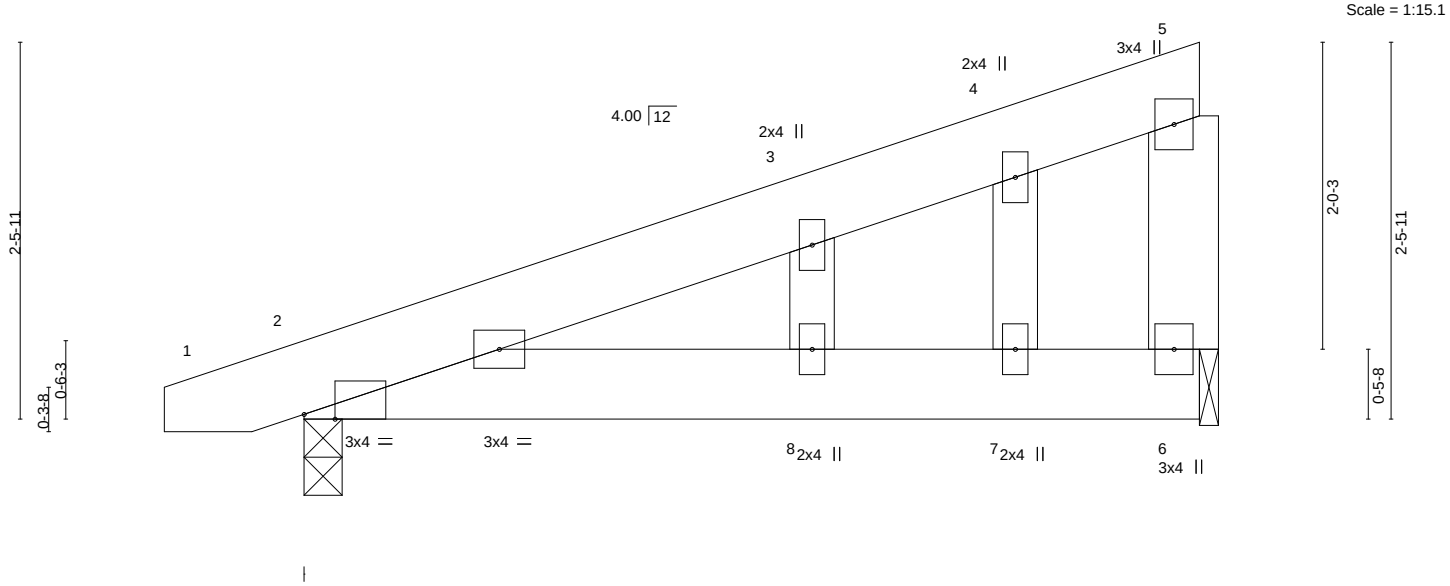


Plate Offsets (X,Y)-- [2:0-2-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.01	8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.02	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.01	8	>999	240	Weight: 37 lb	FT = 20%

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

REACTIONS. (lb/size) 2=274/0-3-0, 6=223/0-1-8
Max Horz 2=102(LC 8)
Max Uplift 2=-89(LC 8), 6=-79(LC 12)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Gable studs spaced at 1-4-0 oc.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/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 at joint(s) 6.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	M2	MONOPITCH	3	1	E14068427
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:57 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-ZjALB1F?_TPzol?QTe5zODLkOYu_bVKfaBXQDuzIdWm

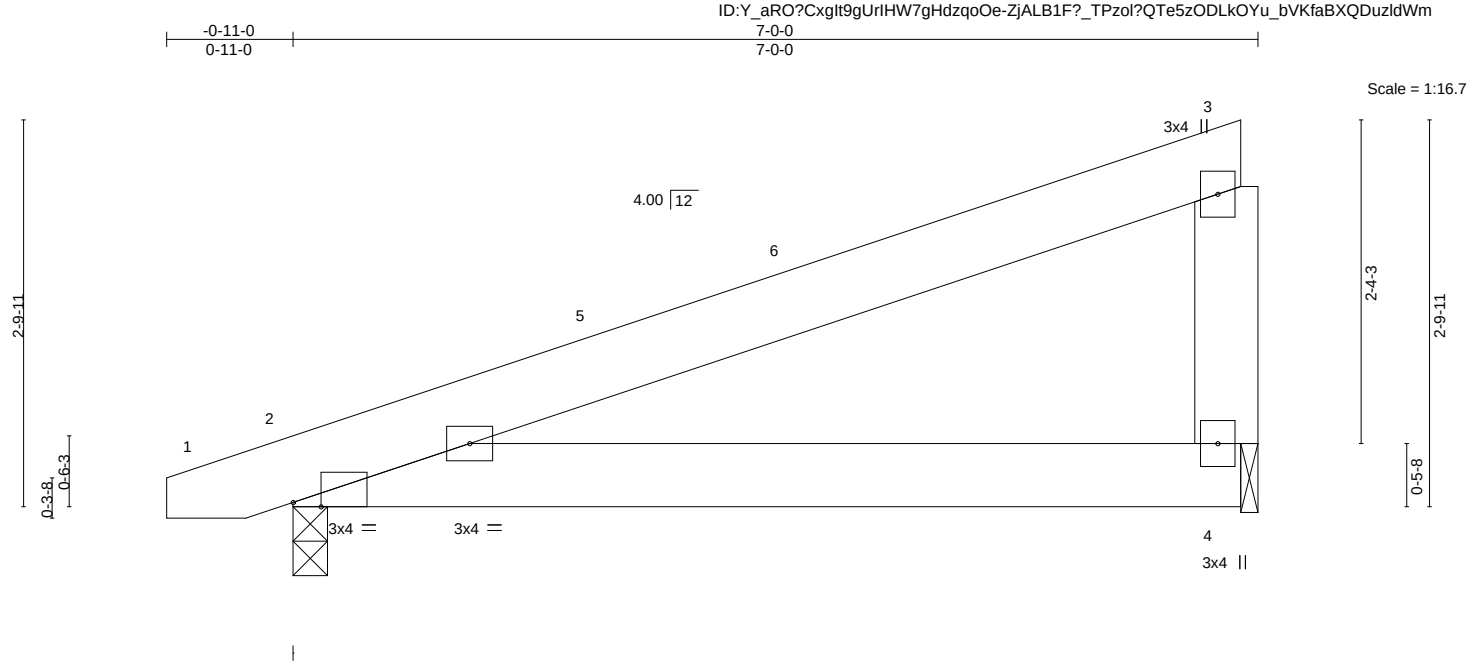


Plate Offsets (X,Y)-- [2:0-2-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.03	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.05	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.06	2-4	>999	240	Weight: 40 lb	FT = 20%

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

REACTIONS. (lb/size) 2=314/0-3-0, 4=263/0-1-8
Max Horz 2=83(LC 8)
Max Uplift 2=-119(LC 8), 4=-114(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-9 to 3-9-4, Interior(1) 3-9-4 to 6-9-4 zone; porch left exposed;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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=119, 4=114.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	V1	VALLEY	1	1	E14068428
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:58 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-1vkjONGdlmXqPuZc0LcCxRtx2yEoKxpoprHzlKzldWl

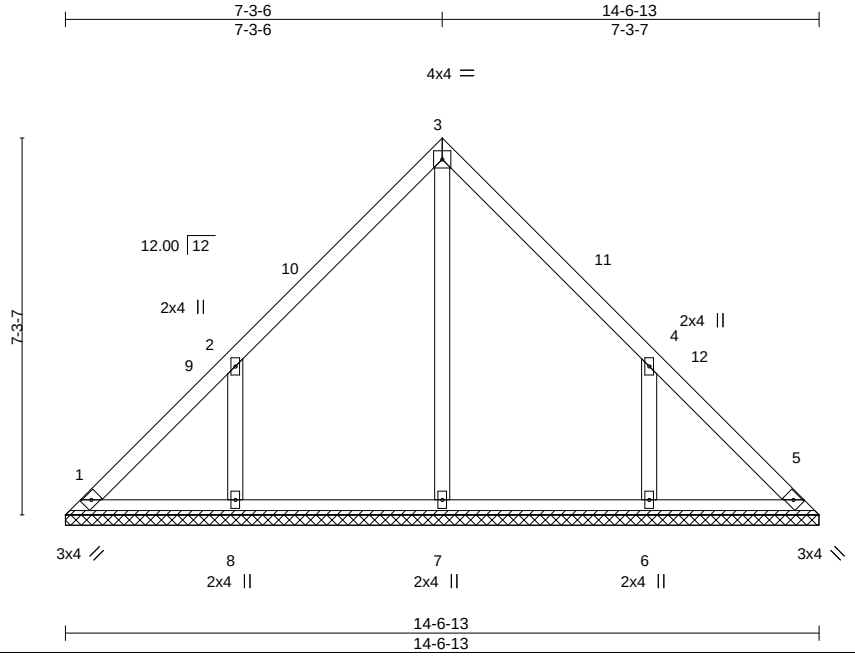


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 69 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 14-6-13.
(lb) - Max Horz 1=166(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-175(LC 12), 6=-175(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=349(LC 22), 8=436(LC 19), 6=436(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-380/298, 4-6=-380/298

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 7-3-6, Exterior(2) 7-3-6 to 11-8-3 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
5) 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=175, 6=175.
6) Non Standard bearing condition. Review required.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	V2	VALLEY	1	1	E14068429
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:59 2020 Page 1

ID:Y_aRO?Cxglt9gUrIHW7gHdzqoOe-V6l5ciGGW4fh128oa27RTeQ6wLbo3Ogx2V0WHnzldWk

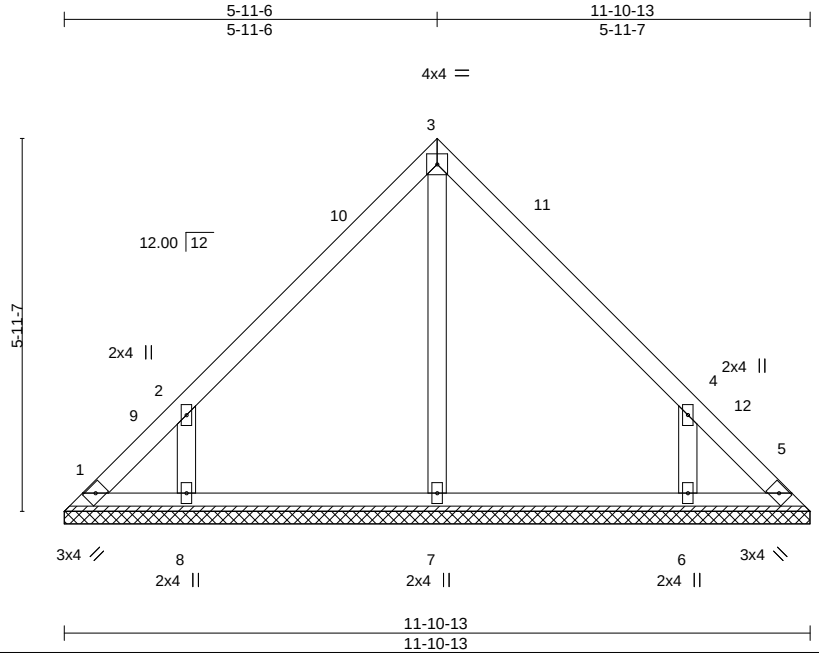


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 53 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 11-10-13.
(lb) - Max Horz 1=-134(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-160(LC 12), 6=-160(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=338(LC 19), 6=338(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-357/297, 4-6=-357/297

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-11-6, Exterior(2) 5-11-6 to 10-4-3 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=160, 6=160.
6) Non Standard bearing condition. Review required.

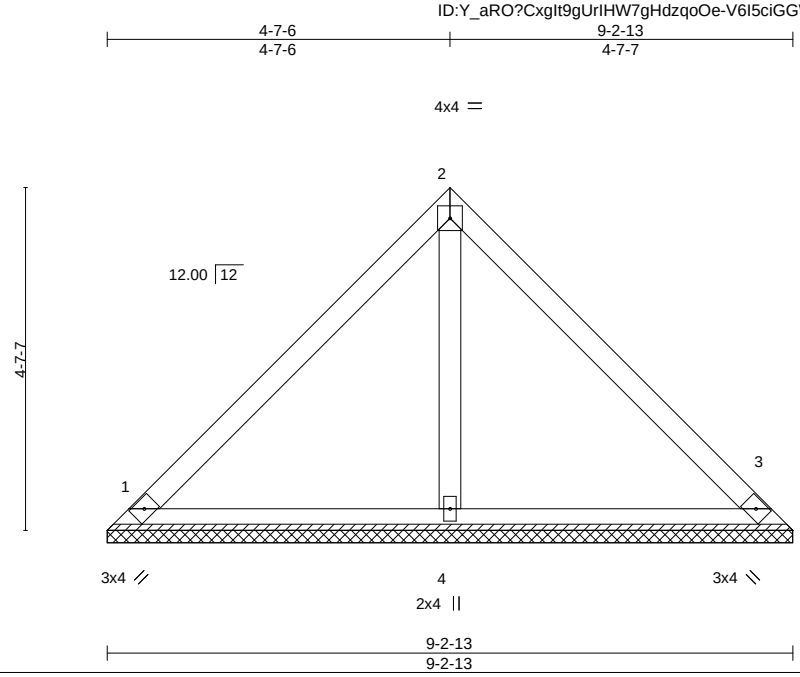
February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	V3	VALLEY	1	1	E14068430
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 06:59:59 2020 Page 1

ID:Y_aRO?CxgIt9gUrlHW7gHdzqoOe-V6I5ciGGW4fh128oa27RTeQ5?La53P?x2V0WHnzldWk



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 38 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. (lb/size) 1=193/9-2-13, 3=193/9-2-13, 4=296/9-2-13
Max Horz 1=102(LC 9)
Max Uplift 1=-25(LC 13), 3=-25(LC 13)

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

NOTES-

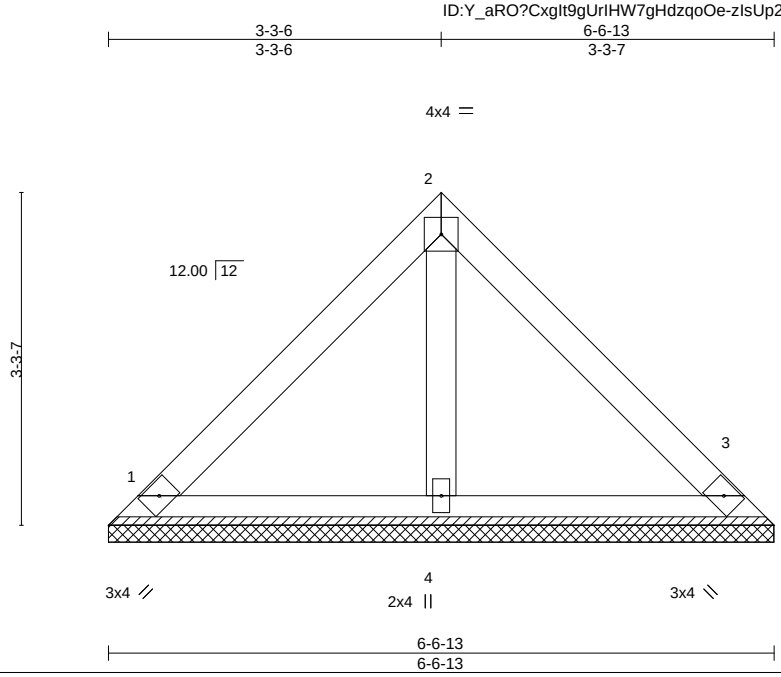
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) Non Standard bearing condition. Review required.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	V4	VALLEY	1	1	E14068431
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 07:00:00 2020 Page 1
ID:Y_aRO?CxgIt9gUrlHW7gHdzqoOe-zIsUp2HuHOnYfCj_8meg0szHdlxRoso5G9m4pDzldWj



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	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 IRC2015/TPI2014		Matrix-P							Weight: 26 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. (lb/size) 1=143/6-6-13, 3=143/6-6-13, 4=183/6-6-13
Max Horz 1=70(LC 9)
Max Uplift 1=-25(LC 13), 3=-25(LC 13)

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

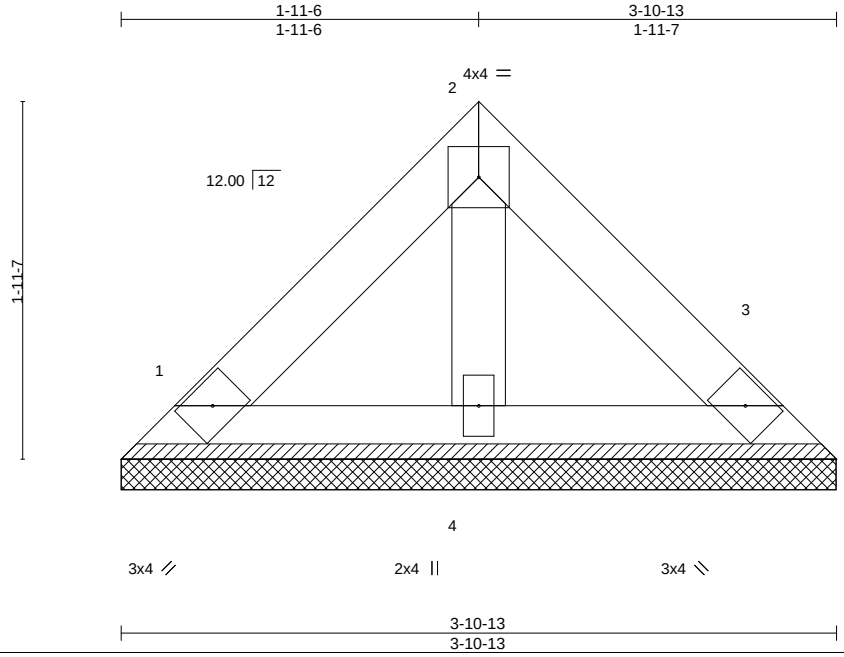
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) Non Standard bearing condition. Review required.

February 13,2020

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

Job	Truss	Truss Type	Qty	Ply	Lot 12 Forest Ridge
J1220-5666	V5	VALLEY	1	1	E14068432
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC 28309 8.130 s Mar 11 2018 MiTek Industries, Inc. Thu Feb 13 07:00:01 2020 Page 1
ID:Y_aRO?CxgIt9gUrlHW7gHdzqoOe-SUQs1OIW2hvPHMIBiT9vY3VU?9INXJCEVpVdMfzldWi



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 15 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=78/3-10-13, 3=78/3-10-13, 4=100/3-10-13
Max Horz 1=-38(LC 8)
Max Uplift 1=-14(LC 13), 3=-14(LC 13)

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

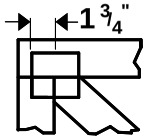
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) Non Standard bearing condition. Review required.

February 13,2020

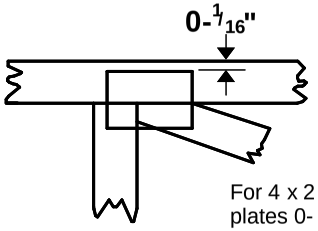
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

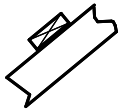
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

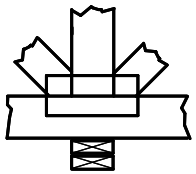
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

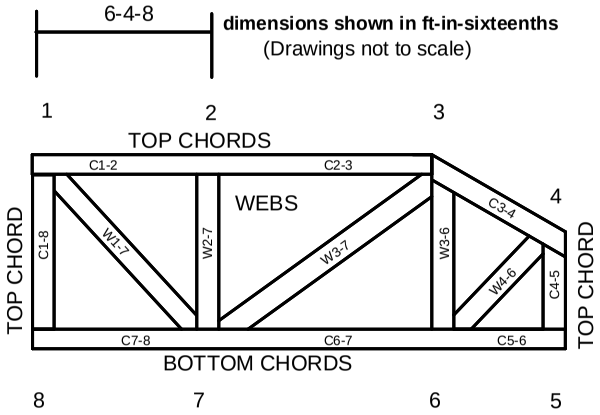


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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