ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0921-5307
Weaver/Lot 8 West Park/Harnett

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: E16163106 thru E16163121

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

North Carolina COA: C-0844

September 14,2021

Gilbert, Eric

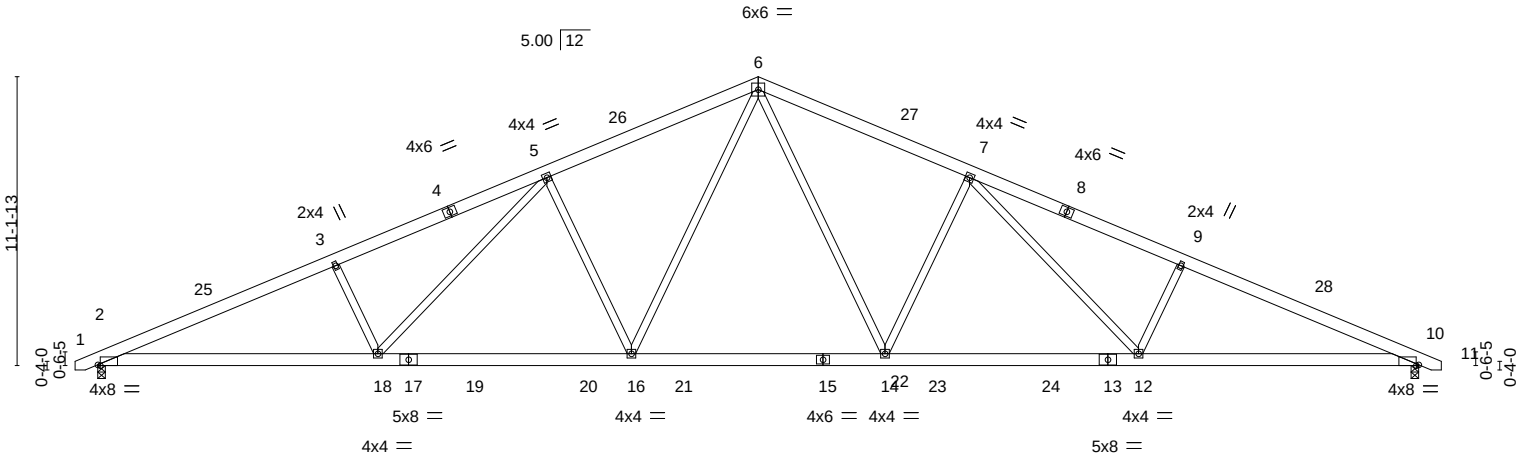
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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	Weaver/Lot 8 West Park/Harnett
J0921-5307	A1	COMMON	1	1	E16163106
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:23 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-EWHkECieO68K6z7UHwmshRzmXcZBTMwx_NE6ZAye0oI

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

Scale = 1:89.0



10-9-12	20-7-4	30-4-12	40-2-4	51-0-0
10-9-12	9-9-8	9-9-8	9-9-8	10-9-12

Plate Offsets (X,Y)-- [2:0-1-2,Edge], [10:0-1-2,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	0.54	Vert(LL)	-0.32	14-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.57	14-16	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.17	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.16	16	>999	240	Weight: 349 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 3-0-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-5-5 oc bracing.

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

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-2 to 4-5-1, Interior(1) 4-5-1 to 25-6-0, Exterior(2) 25-6-0 to 30-7-3, Interior(1) 30-7-3 to 51-8-2 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 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=140, 10=140.

September 14,2021

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

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	A1GE	GABLE	1	1	E16163107
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:25 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-AvOVftjvwjO1LHHsOLoKms2EVPP8xSpESgjDe3ye0oG

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

Scale = 1:89.2

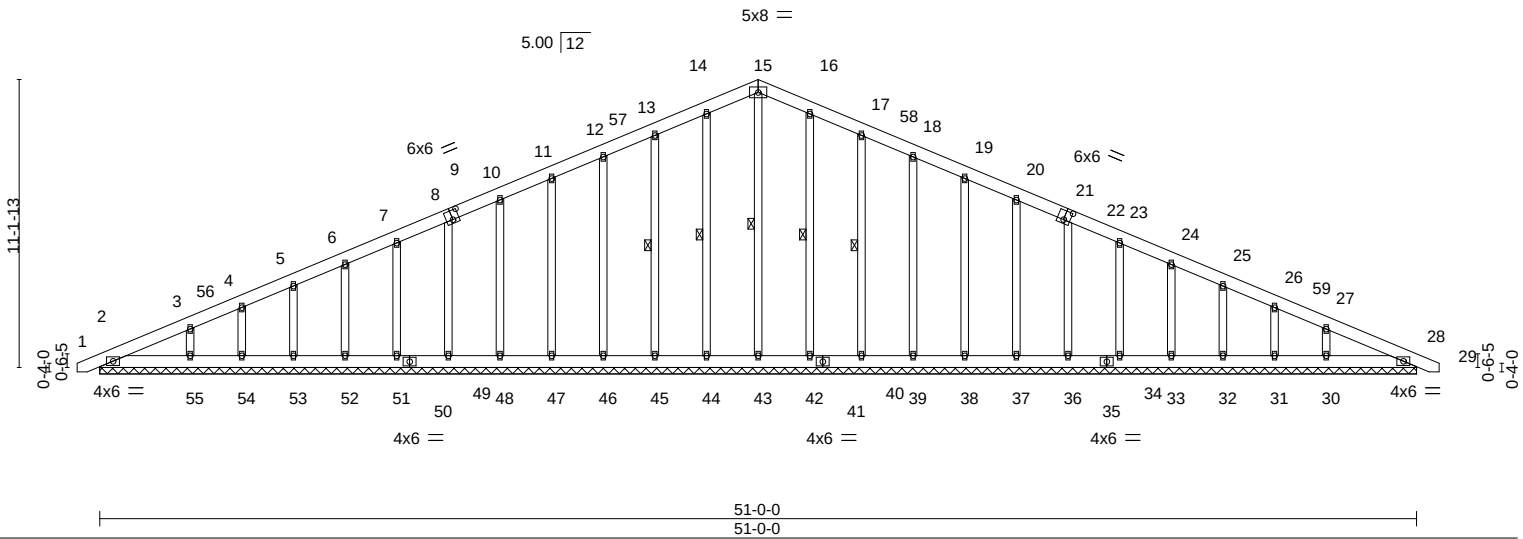


Plate Offsets (X,Y)-- [9:0-3-0,0-4-4], [21:0-3-0,0-4-4]

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	0.06	Vert(LL)	0.00	28	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	29	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	28	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 440 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 1 Row at midpt 15-43, 14-44, 13-45, 16-42, 17-40

REACTIONS. All bearings 51-0-0.
(lb) - Max Horz 2=221(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 28, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 42, 40, 39, 38, 37, 36, 34, 33, 32, 31 except 55=-108(LC 12), 30=-107(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 28, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 42, 40, 39, 38, 37, 36, 34, 33, 32, 31 except 55=274(LC 23), 30=274(LC 24)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-2 to 4-5-1, Exterior(2) 4-5-1 to 25-6-0, Corner(3) 25-6-0 to 30-7-3, Exterior(2) 30-7-3 to 51-8-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 28, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 42, 40, 39, 38, 37, 36, 34, 33, 32, 31 except (jt=lb) 55=108, 30=107.

September 14,2021

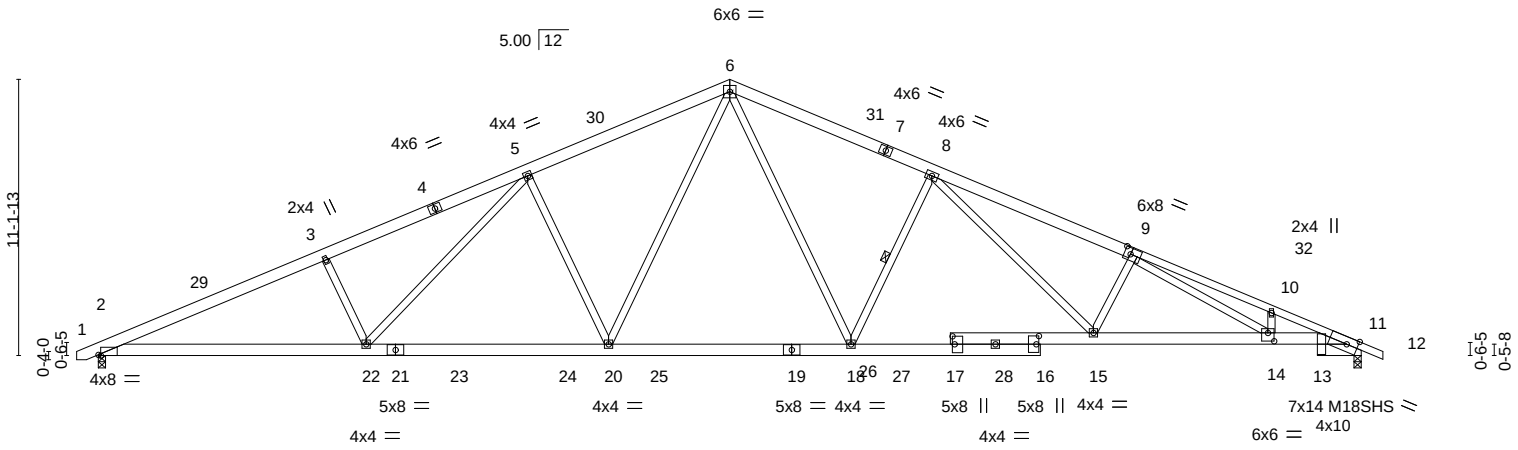
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	A2	COMMON	4	1	E16163108
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:27 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-6HWF4Zl9SLelabQFWmrosH8P_DtePAzXv_CKixye0oE

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

Scale = 1:93.0



10-9-12	20-7-4	30-4-12	38-0-8	40-2-4	47-2-12	49-2-12	51-0-0
10-9-12	9-9-8	9-9-8	7-7-12	2-1-12	7-0-8	2-0-0	1-9-4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.40	18-20	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.73	18-20	>831	240	M18SHS	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.23	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.21	18-20	>999	240	Weight: 360 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except*
9-12: 2x4 SP No.1
BOT CHORD 2x6 SP No.1 *Except*
11-17: 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 8-18

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

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-2 to 4-5-1, Interior(1) 4-5-1 to 25-6-0, Exterior(2) 25-6-0 to 30-7-3, Interior(1) 30-7-3 to 51-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 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.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=140, 11=143.

September 14,2021

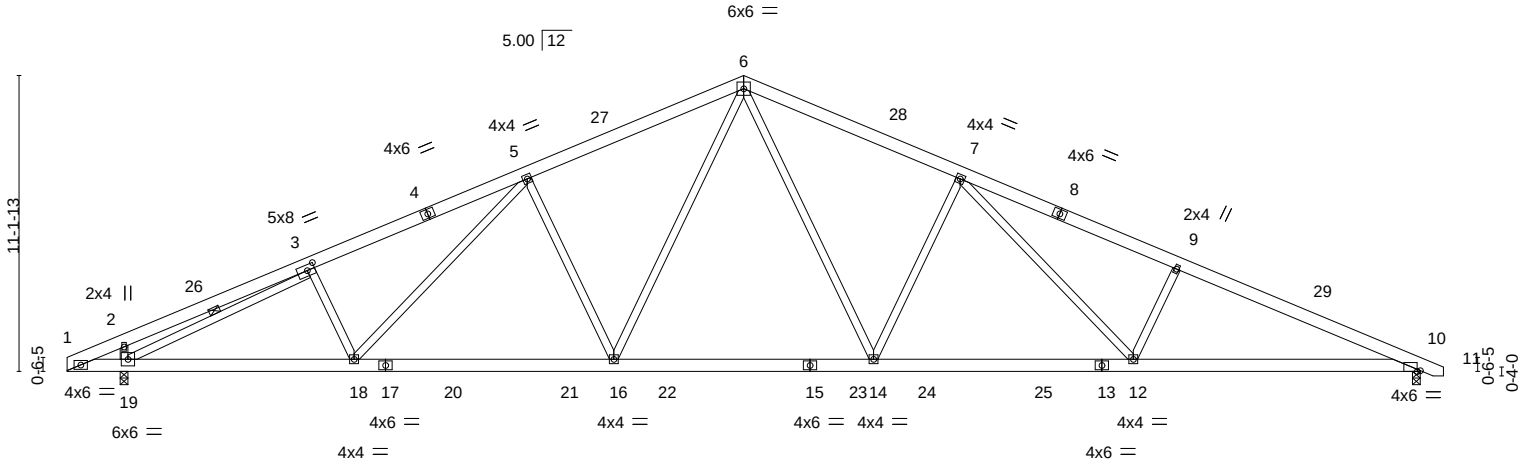
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	A3	COMMON	4	1	E16163109
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:29 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-3ge?VFmPzyuTquaedBtGxiDoH1dvt4NqNIhRnqye0oC

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

Scale = 1:86.8



2-0-0	10-9-12	20-7-4	30-4-12	40-2-4	51-0-0
2-0-0	8-9-12	9-9-8	9-9-8	9-9-8	10-9-12

Plate Offsets (X,Y)-- [3:0-3-8,0-2-8], [10:0-1-6,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	0.52	Vert(LL)	-0.28	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.49	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.15	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.13	12-14	>999	240	Weight: 359 lb	FT = 20%

LUMBER-
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 3-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-9-4 oc bracing.
WEBS 1 Row at midpt 3-19

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

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-595/7, 2-3=-742/136, 3-5=-3635/712, 5-6=-3273/723, 6-7=-3369/746, 7-9=-4314/864, 9-10=-4481/833
BOT CHORD 1-19=-4/606, 18-19=-464/3269, 16-18=-406/3152, 14-16=-223/2502, 12-14=-445/3342, 10-12=-638/4062
WEBS 5-18=-50/329, 5-16=-653/290, 6-16=-164/1085, 6-14=-207/1282, 7-14=-859/332, 7-12=-164/885, 9-12=-470/269, 2-19=-505/301, 3-19=-3043/546

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 5-1-3, Interior(1) 5-1-3 to 25-6-0, Exterior(2) 25-6-0 to 30-7-3, Interior(1) 30-7-3 to 51-8-2 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=140, 19=135.

September 14,2021

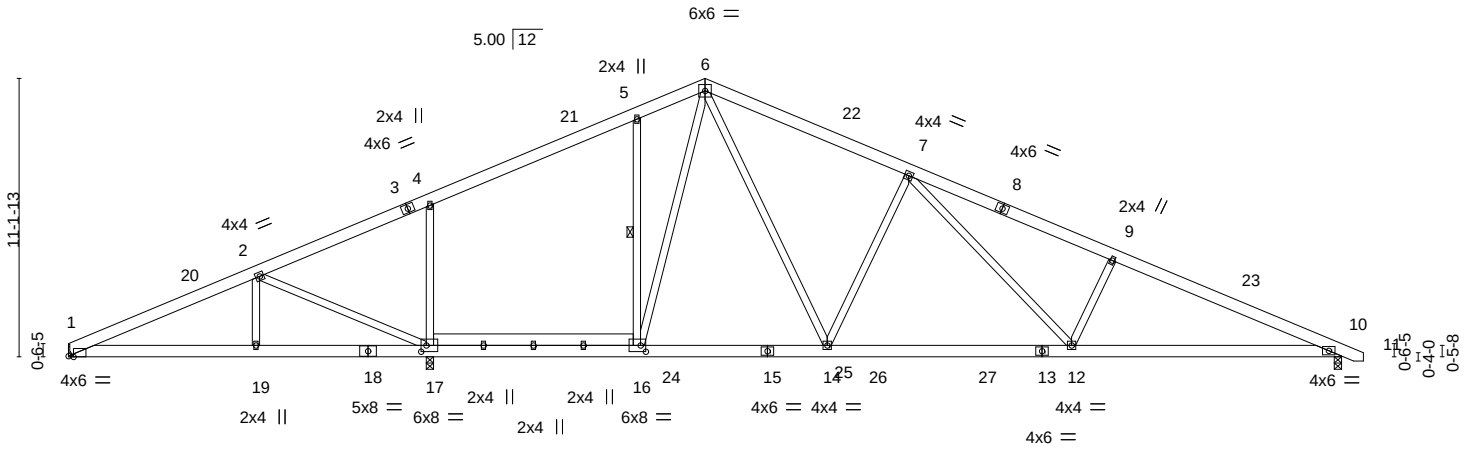
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett	E16163110
J0921-5307	A4	COMMON	5	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:30 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-XsCOibn1kG0KS29qBuOVTvm_hQzYcXgzbyR_JGye0oB

7-6-2	14-5-12	22-9-4	25-6-0	33-7-14	41-9-13	51-0-0	51-10-8
7-6-2	6-11-10	8-3-8	2-8-12	8-1-14	8-1-14	9-2-3	0-10-8

Scale = 1:92.3



7-6-2	14-4-0	22-9-4	30-4-12	40-2-4	51-0-0
7-6-2	6-9-14	8-5-4	7-7-8	9-9-8	10-9-12

Plate Offsets (X,Y)-- [1:0-2-6,Edge], [16:0-2-8,0-3-0], [17:0-2-8,0-3-0]

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	0.48	Vert(LL)	-0.27	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.46	12-14	>958	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.12	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.11	14-16	>999	240	Weight: 370 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 3-5-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-16

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

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-4 to 5-2-7, Interior(1) 5-2-7 to 25-6-0, Exterior(2) 25-6-0 to 30-7-3, Interior(1) 30-7-3 to 51-8-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, 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 except (jt=lb) 10=138, 17=171.

September 14,2021

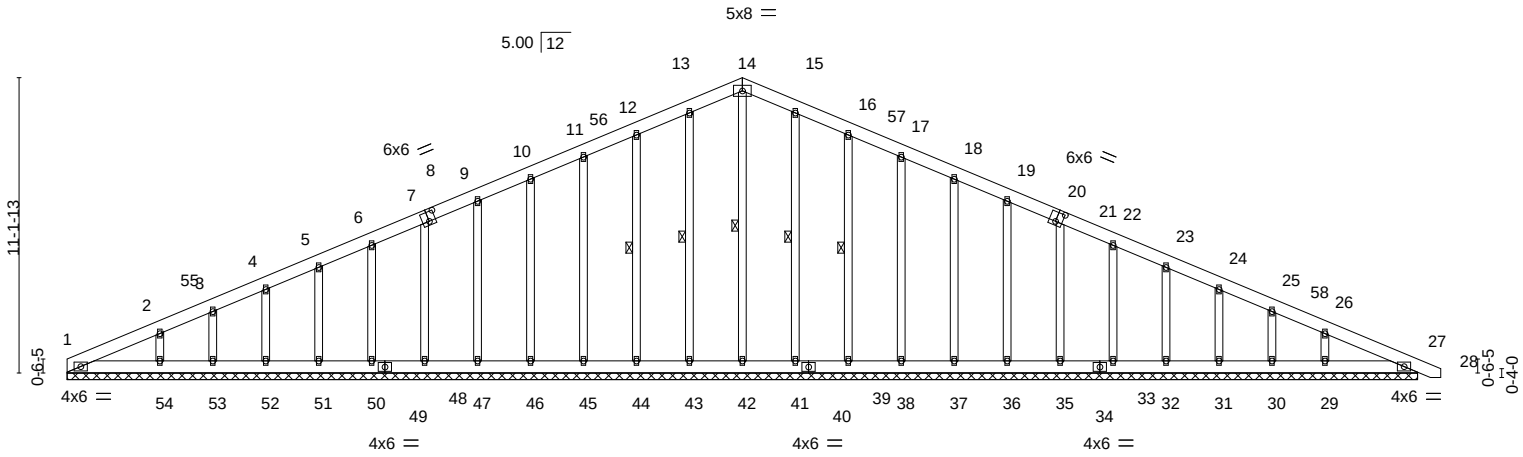
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	A4GE	GABLE	1	1	E16163111
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:32 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-TFK87HpIGtH2hMJDJJRzZKrRkEon4cYG3Gw5O9ye0o9

14-5-12	22-9-4	25-6-0	51-0-0	51-10-8
14-5-12	8-3-8	2-8-12	25-6-0	0-10-8

Scale = 1:87.0



22-9-4	51-0-0
22-9-4	28-2-12

Plate Offsets (X,Y)-- [8:0-3-0,0-4-4], [20:0-3-0,0-4-4]

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	0.06	Vert(LL)	0.00	27	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	28	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	27	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 438 lb	FT = 20%

LUMBER-
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 1 Row at midpt 14-42, 13-43, 12-44, 15-41, 16-39

REACTIONS. All bearings 51-0-0.
(lb) - Max Horz 1=-225(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 27, 1, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 41, 39, 38, 37, 36, 35, 33, 32, 31, 30 except 54=-112(LC 12), 29=-107(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 27, 1, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 41, 39, 38, 37, 36, 35, 33, 32, 31, 30 except 54=282(LC 23), 29=274(LC 24)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-0-0 to 5-1-3, Exterior(2) 5-1-3 to 25-6-0, Corner(3) 25-6-0 to 30-7-3, Exterior(2) 30-7-3 to 51-8-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 27, 1, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 41, 39, 38, 37, 36, 35, 33, 32, 31, 30 except (jt=lb) 54=112, 29=107.

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

September 14,2021

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

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	B1	COMMON SUPPORTED GAB	1	1	E16163112
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:33 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-xRtWKcqw1BPvJWuPs1yC5YOcte8Jp4XQHwfewbye0o8

0-10-8 9-3-12 18-7-8 19-6-0
0-10-8 9-3-12 9-3-12 0-10-8

Scale = 1:44.7

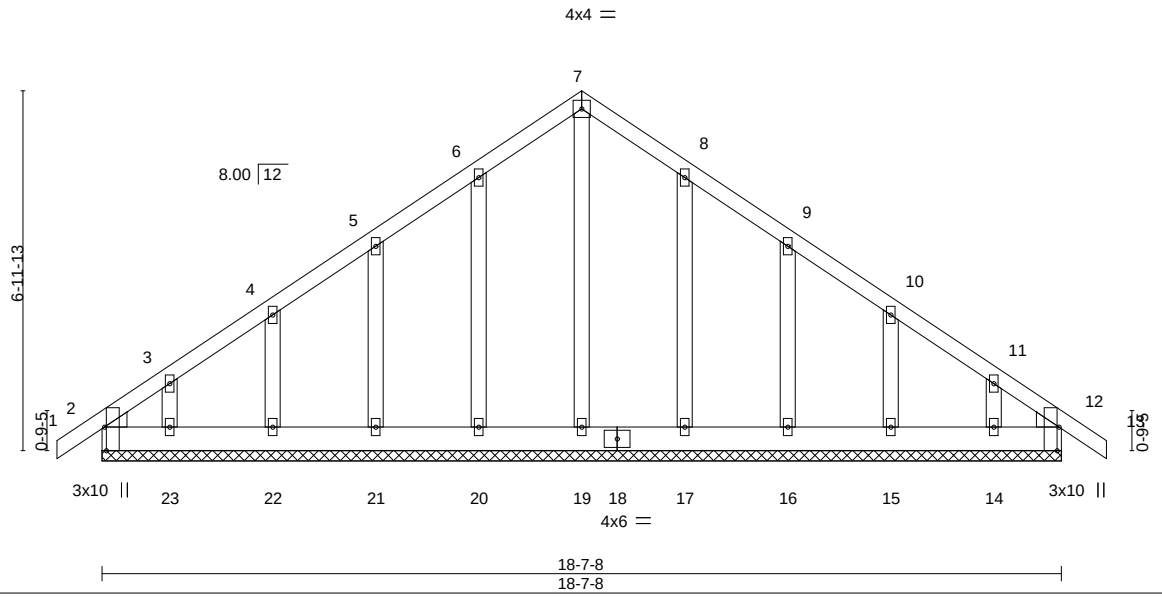


Plate Offsets (X,Y)-- [2:0-5-8,Edge], [12:0-5-8,Edge]

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	0.04	Vert(LL)	-0.00	12	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	13	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 126 lb	FT = 20%

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

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

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

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-3-12, Exterior(2) 3-3-12 to 9-3-12, Corner(3) 9-3-12 to 13-8-9, Exterior(2) 13-8-9 to 19-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 17, 16, 15, 12 except (jt=lb) 23=120, 14=112.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12.

September 14,2021

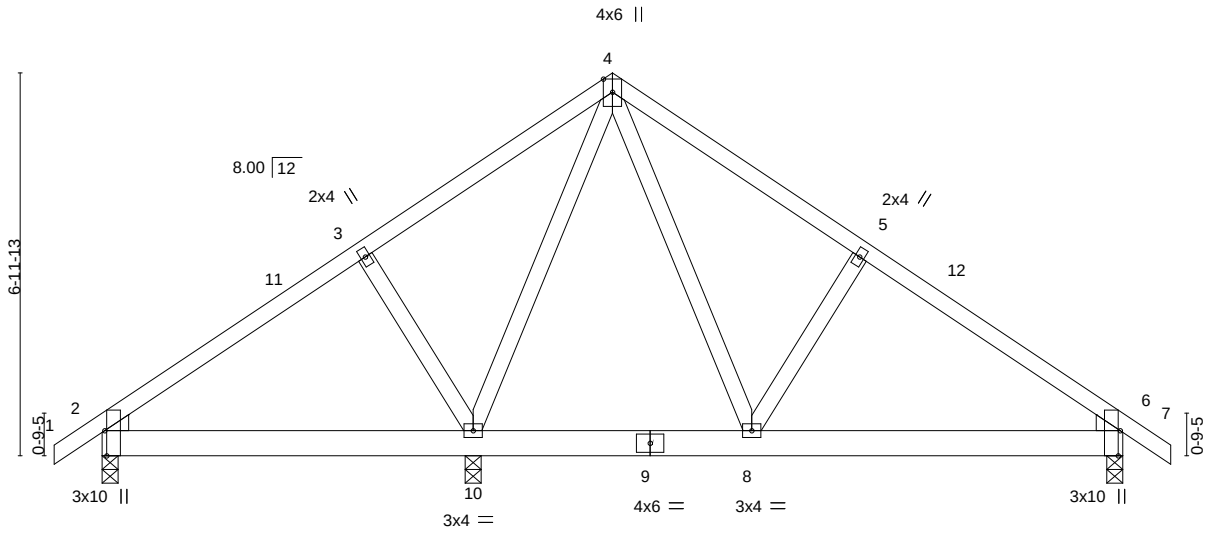
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	B2	COMMON	2	1	E16163113
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:36 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-M0ZfzesoK6nUAzc_Y9VvjA03Pr7?0MXs_uuIXwye0o5

0-10-8	4-9-10	9-3-12	13-9-14	18-7-8	19-6-0
0-10-8	4-9-10	4-6-2	4-6-2	4-9-10	0-10-8

Scale = 1:42.0



6-9-4	11-10-4	18-7-8
6-9-4	5-1-0	6-9-4

Plate Offsets (X,Y)-- [2:0-5-8,Edge], [6:0-5-8,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	0.21	Vert(LL)	-0.02	6-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.04	6-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	2-10	>999	240	Weight: 113 lb	FT = 20%

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

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

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

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-413/133, 5-6=-521/84
BOT CHORD 6-8=0/354
WEBS 3-10=-314/214, 4-10=-458/65, 4-8=-65/415, 5-8=-290/198

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 9-3-12, Exterior(2) 9-3-12 to 13-10-13, Interior(1) 13-10-13 to 19-6-0 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 6.

September 14,2021

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

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	B2GR	Common Girder	1	2	E16163114
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:37 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-qC71A_tQ5PvKn7BA5t08GOYA_FGUlhv?CYds3Mye0o4

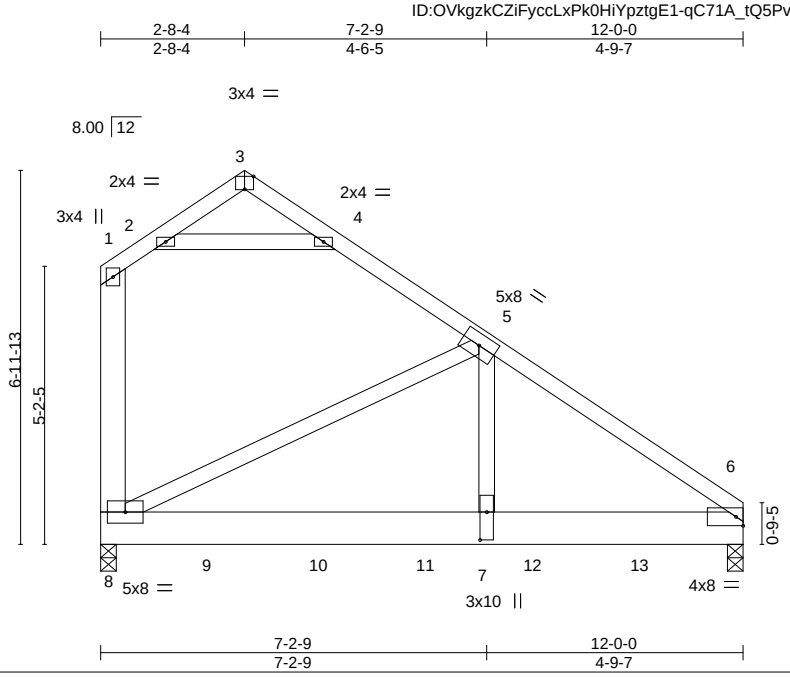


Plate Offsets (X,Y)-- [3:0-2-0,Edge], [7:0-6-4,0-1-8]

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	0.48	Vert(LL)	-0.09	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.16	7-8	>846	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.96	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.05	7-8	>999	240	Weight: 180 lb	FT = 20%

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

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

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

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-269/38, 5-6=-5119/58
BOT CHORD 7-8=0/4048, 6-7=0/4048
WEBS 5-7=0/4674, 5-8=-4339/166

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
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 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 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=111.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1320 lb down and 26 lb up at 2-0-12, 1320 lb down and 26 lb up at 4-0-12, 1320 lb down and 26 lb up at 6-0-12, and 1320 lb down and 26 lb up at 8-0-12, and 1320 lb down and 26 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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

September 14,2021

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=-1238(B) 10=-1238(B) 11=-1238(B) 12=-1238(B) 13=-1238(B)

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	VB1	VALLEY	1	1	E16163115
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:38 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-IPhPNKt3sj1BPHmMfaXNob5P2fpFULn9RCNPbpye0o3

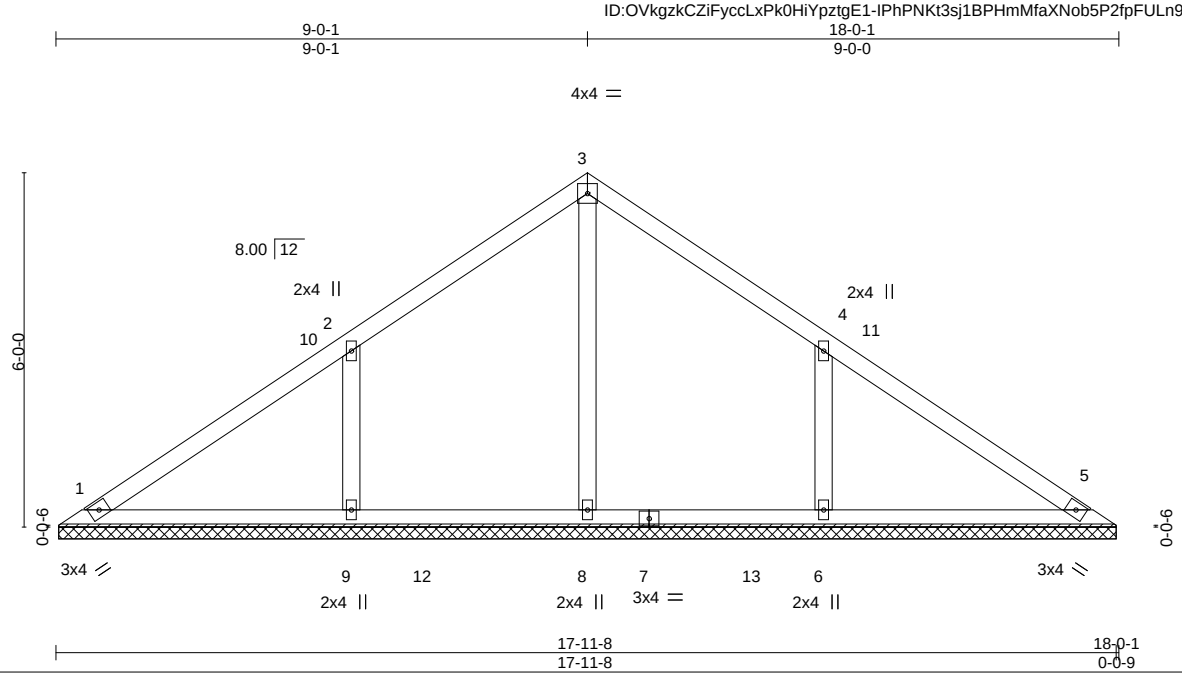


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

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	0.20	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	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 73 lb	FT = 20%

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

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

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

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

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

September 14,2021

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

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	VB2	VALLEY	1	1	E16163116
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:39 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-mbFnbguhd1921RLZDH3cLpebf3AiDoHIgs6z8Fye0o2

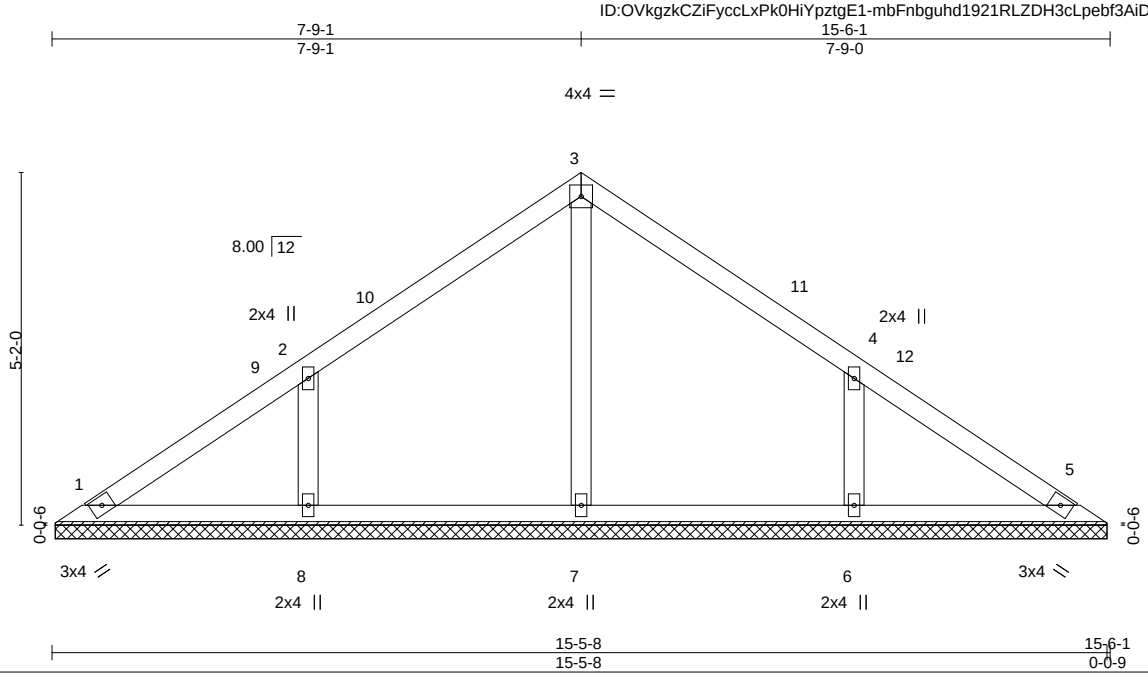


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

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	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 61 lb	FT = 20%

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

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 7-9-1, Exterior(2) 7-9-1 to 12-1-13, Interior(1) 12-1-13 to 15-0-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=104, 6=104.

September 14,2021

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

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	VB3	VALLEY	1	1	E16163117
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:40 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-EnoAo0vJOKHvebwln?art0AnhSWoyGqRuWsWghye0o1

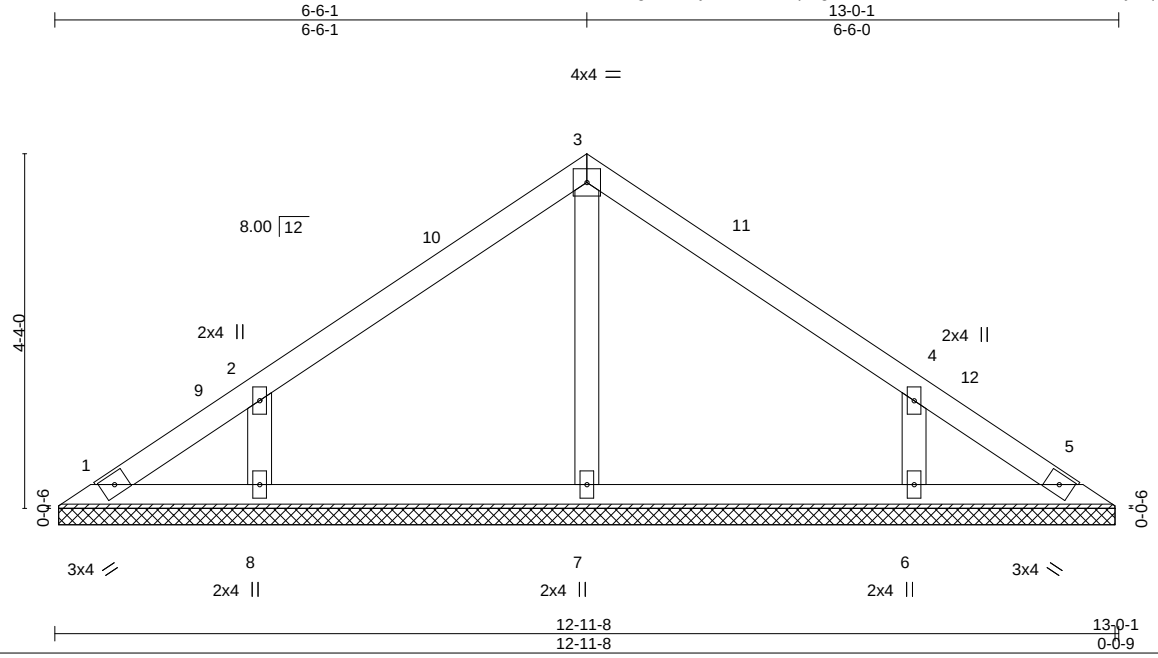


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

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	0.13	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	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 50 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 12-10-15.
(lb) - Max Horz 1=-96(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=264(LC 1), 8=318(LC 19), 6=318(LC 20)

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

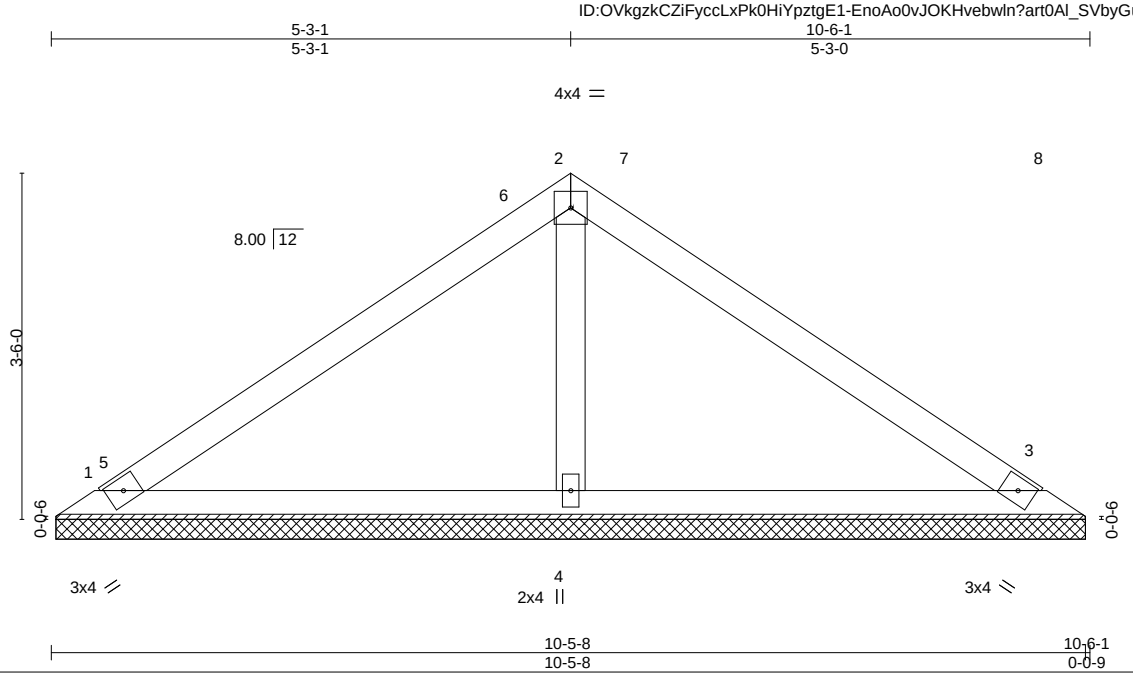
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 6-6-1, Exterior(2) 6-6-1 to 10-10-13, Interior(1) 10-10-13 to 12-6-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 6.

September 14,2021

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

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	VB4	VALLEY	1	1	E16163118
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:40 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-EnoAo0vJOKHvebwln?art0Al_SVbyGuRuWsWghye0o1



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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 37 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=10-4-15, 3=10-4-15, 4=10-4-15
Max Horz 1=-76(LC 8)
Max Uplift 1=-24(LC 12), 3=-31(LC 13)
Max Grav 1=189(LC 1), 3=189(LC 1), 4=383(LC 1)

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

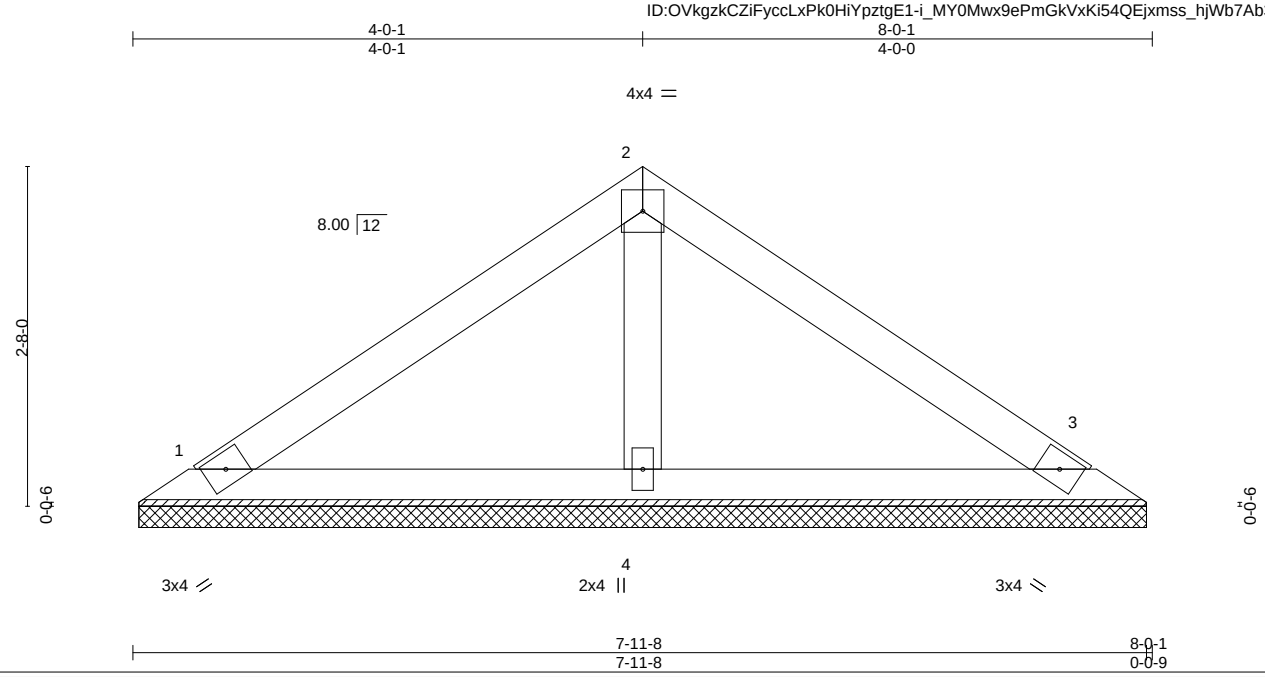
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 5-3-1, Exterior(2) 5-3-1 to 9-7-13, Interior(1) 9-7-13 to 10-0-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

September 14,2021

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

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	VB5	VALLEY	1	1	E16163119
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:41 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-i_MY0Mwx9ePmGkVxKi54QEjxmss_hjWb7Ab3C7ye0o0



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	0.17	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	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 27 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=7-10-15, 3=7-10-15, 4=7-10-15
Max Horz 1=56(LC 9)
Max Uplift 1=-24(LC 12), 3=-30(LC 13)
Max Grav 1=153(LC 1), 3=153(LC 1), 4=256(LC 1)

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

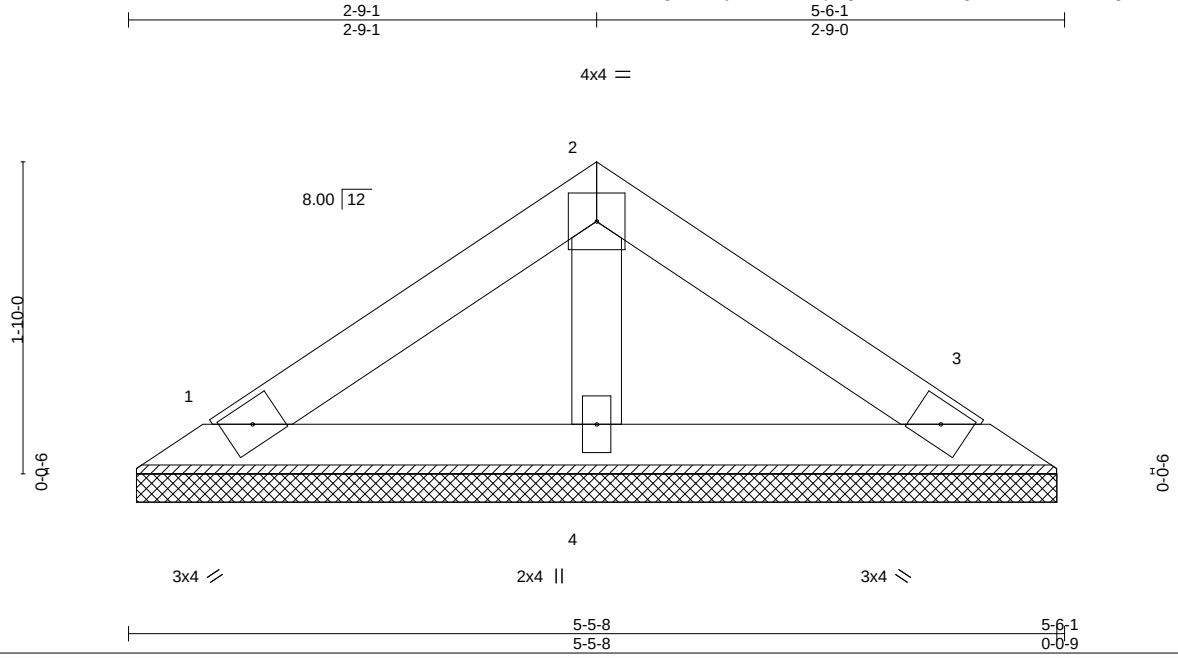
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip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

September 14,2021

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

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	VB6	VALLEY	1	1	E16163120
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:43 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-eMUIR1xBgFfUV2fKS77YVfoIvgYH9dAubU5AH0ye0o_



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	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	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 18 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 5-6-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

September 14,2021

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

Job	Truss	Truss Type	Qty	Ply	Weaver/Lot 8 West Park/Harnett
J0921-5307	VB7	VALLEY	1	1	E16163121
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Sep 13 14:07:44 2021 Page 1
ID:OVkgzkCZiFyccLxPk0HiYpztgE1-7Z2geNypRZnL7CEW0ren2sLUT4uau4d1p8qkoSye0nz

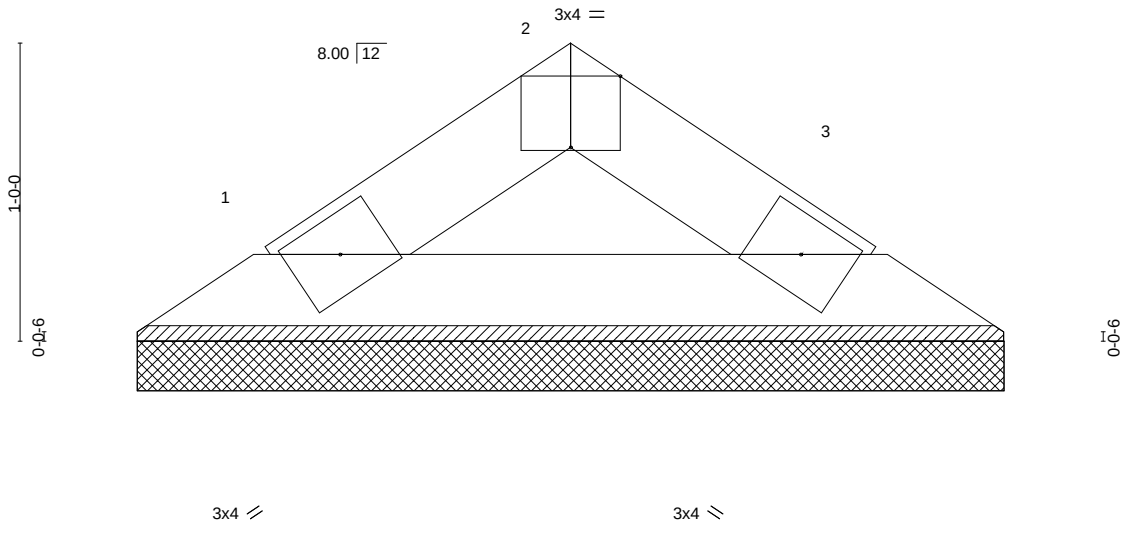


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.01	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 8 lb	FT = 20%

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

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

REACTIONS. (size) 1=2-10-15, 3=2-10-15
Max Horz 1=-16(LC 8)
Max Uplift 1=-4(LC 12), 3=-4(LC 13)
Max Grav 1=81(LC 1), 3=81(LC 1)

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

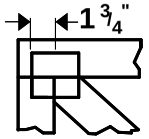
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip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

September 14,2021

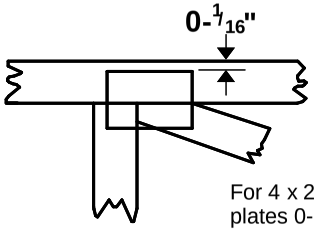
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

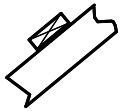
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

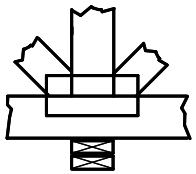
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

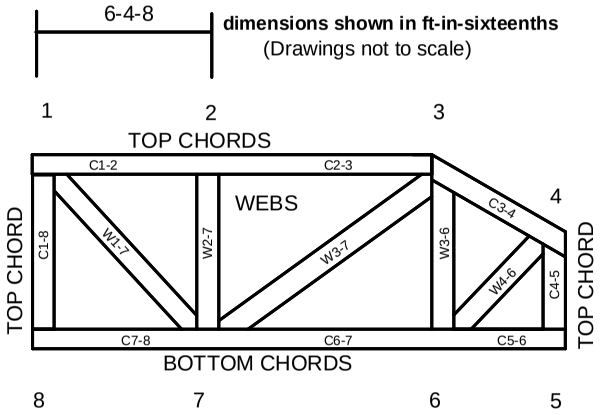


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.