ENGINEERING BY TRENCO
A MiTek Affiliate

RE: J0822-3984
Lot 53 Liberty Meadows

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: J0822-3984
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 8.4
Wind Code: ASCE 7-10 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: 55.0 psf

This package includes 33 individual, dated Truss Design Drawings and 0 Additional Drawings.

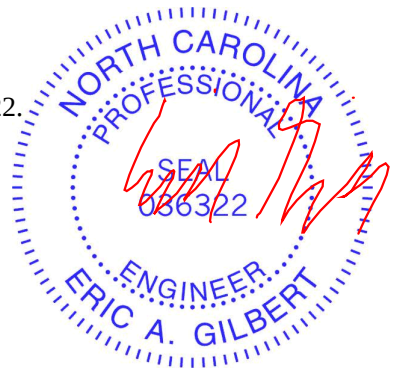
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I52321626	A1	6/6/2022	21	I52321646	F9	6/6/2022
2	I52321627	A2	6/6/2022	22	I52321647	G1	6/6/2022
3	I52321628	A3	6/6/2022	23	I52321648	G2	6/6/2022
4	I52321629	A4	6/6/2022	24	I52321649	M01	6/6/2022
5	I52321630	A5	6/6/2022	25	I52321650	M02	6/6/2022
6	I52321631	B1	6/6/2022	26	I52321651	M03	6/6/2022
7	I52321632	B2	6/6/2022	27	I52321652	P1	6/6/2022
8	I52321633	B3	6/6/2022	28	I52321653	P2	6/6/2022
9	I52321634	C1	6/6/2022	29	I52321654	V1	6/6/2022
10	I52321635	C2	6/6/2022	30	I52321655	V2	6/6/2022
11	I52321636	C3	6/6/2022	31	I52321656	V3	6/6/2022
12	I52321637	ET-1	6/6/2022	32	I52321657	V4	6/6/2022
13	I52321638	ET-2	6/6/2022	33	I52321658	V5	6/6/2022
14	I52321639	F1	6/6/2022				
15	I52321640	F2	6/6/2022				
16	I52321641	F3	6/6/2022				
17	I52321642	F4	6/6/2022				
18	I52321643	F5	6/6/2022				
19	I52321644	F6	6/6/2022				
20	I52321645	F8	6/6/2022				

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, 2022.

North Carolina COA: C-0844



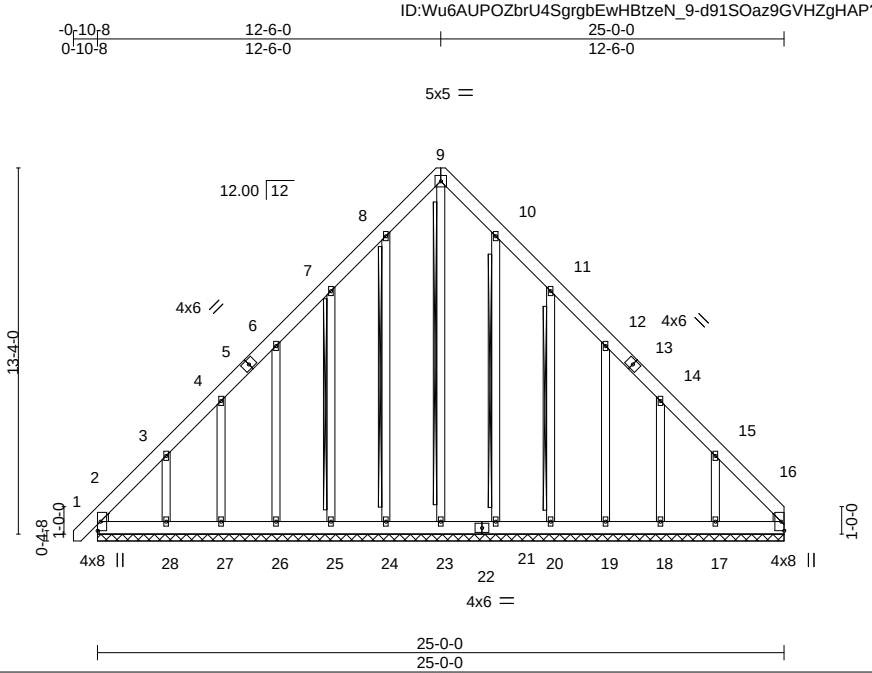
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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.

June 06, 2022

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	A1	GABLE	1	1	I52321626
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:14 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-d91SOaz9GVHZgHAP?ZP0O_Ssh7lbuib1IwAUSzzA3cB



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	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	16	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 262 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.
WEBS T-Brace: 2x4 SPF No.2 - 9-23, 8-24, 7-25, 10-21, 11-20
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 25-0-0.
(lb) - Max Horz 2=394(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 24, 21 except 2=-154(LC 10), 16=-115(LC 11), 25=-156(LC 12), 26=-141(LC 12), 27=-127(LC 12), 28=-250(LC 12), 20=-160(LC 13), 19=-141(LC 13), 18=-126(LC 13), 17=-249(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 24, 25, 26, 27, 21, 20, 19, 18 except 2=375(LC 12), 16=356(LC 13), 23=268(LC 13), 28=264(LC 19), 17=268(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-550/329, 3-4=-337/235, 8-9=-246/265, 9-10=-246/265, 14-15=-282/160, 15-16=-498/332
BOT CHORD 2-28=-251/382, 27-28=-253/382, 26-27=-253/383, 25-26=-254/383, 24-25=-254/383, 23-24=-254/383, 21-23=-254/383, 20-21=-254/383, 19-20=-254/382, 18-19=-253/382, 17-18=-253/382, 16-17=-251/380
WEBS 9-23=-255/181, 3-28=-268/258, 15-17=-272/262

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) -0-8-14 to 3-7-15, Exterior(2) 3-7-15 to 12-6-0, Corner(3) 12-6-0 to 16-10-13, Exterior(2) 16-10-13 to 25-0-0 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) 24, 21 except (jt=lb) 2=154, 16=115, 25=156, 26=141, 27=127, 28=250, 20=160, 19=141, 18=126, 17=249.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	A2	COMMON	12	1	I52321627
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:16 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-aX8CpG_Pn6XHvaJn6_SUTPY7twHxMX4JlEfbXrzA3c9

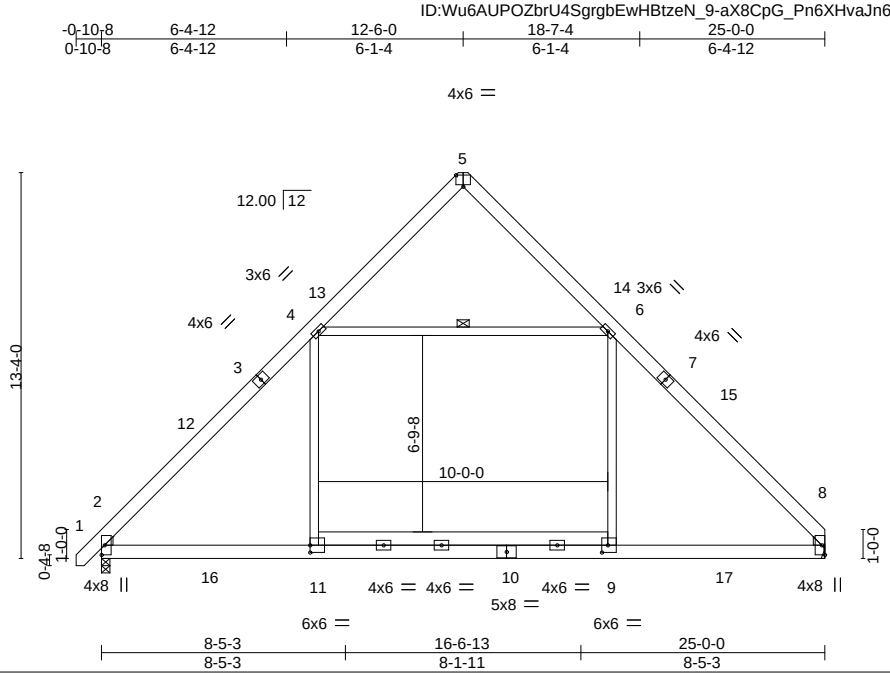


Plate Offsets (X,Y)-- [5:0-3-0,Edge], [9:0-2-8,0-3-0], [11:0-0-0,0-3-0]

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	0.33	Vert(LL)	-0.16	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.19	8-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.21	8-9	>999	240	Weight: 206 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
9-11: 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2 , Right: 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.
WEBS 1 Row at midpt 4-6

REACTIONS. (size) 2=0-3-8, 8=Mechanical
Max Horz 2=313(LC 9)
Max Uplift 2=-42(LC 12), 8=-35(LC 12)
Max Grav 2=1473(LC 19), 8=1427(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1868/273, 4-5=-307/103, 5-6=-307/104, 6-8=-1832/266
BOT CHORD 2-11=-13/1218, 9-11=-16/1220, 8-9=-12/1218
WEBS 4-11=-21/890, 6-9=-21/881, 4-6=-1008/383

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) -0-8-14 to 3-7-15, Interior(1) 3-7-15 to 12-6-0, Exterior(2) 12-6-0 to 16-10-13, Interior(1) 16-10-13 to 24-11-4 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 40.0psf 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) 2, 8.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	A3	COMMON	5	1	I52321628
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:17 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-2jia0b?1YQf8Xku_gizj0c4J4Kdz5?DT_uO83HzA3c8

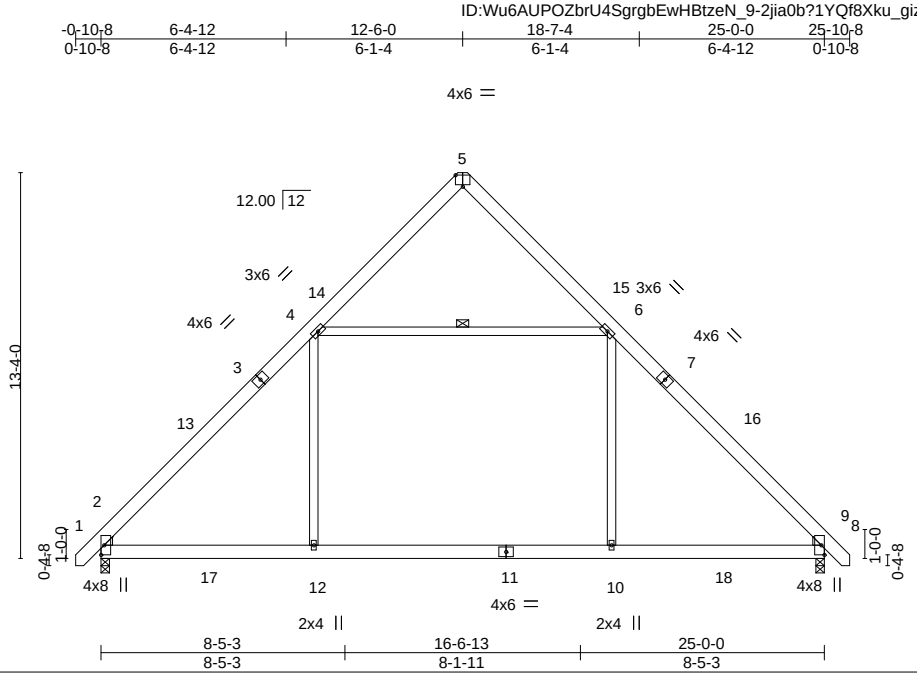


Plate Offsets (X,Y)-- [5:0-3-0,Edge]

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	0.30	Vert(LL)	-0.19	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.25	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.25	2-12	>999	240	Weight: 185 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.
WEBS 1 Row at midpt 4-6

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=315(LC 11)
Max Uplift 2=-41(LC 12), 8=-41(LC 13)
Max Grav 2=1334(LC 19), 8=1334(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1689/262, 4-5=-315/106, 5-6=-315/106, 6-8=-1688/262
BOT CHORD 2-12=-4/1102, 10-12=-4/1103, 8-10=-4/1102
WEBS 4-12=0/731, 6-10=0/731, 4-6=-886/367

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) -0-8-14 to 3-7-15, Interior(1) 3-7-15 to 12-6-0, Exterior(2) 12-6-0 to 16-10-13, Interior(1) 16-10-13 to 25-8-14 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) 2, 8.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	A4	COMMON	6	1	I52321629
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:18 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-WwGyEx0fJjn?8uTAEPUyYqdUgkxIqS_cDY8ibkzA3c7

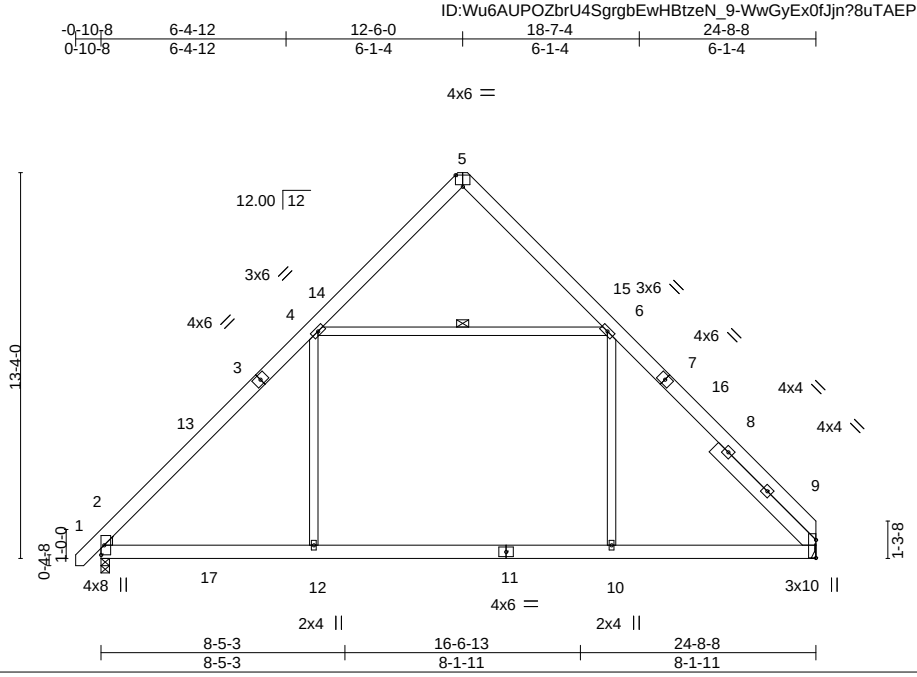


Plate Offsets (X,Y)-- [5:0-3-0,Edge], [9:Edge,0-0-0]

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	0.31	Vert(LL)	-0.26	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.30	10-12	>972	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.02	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.25	2-12	>999	240	Weight: 192 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
SLIDER Right 2x6 SP No.1 4-10-11

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-6

REACTIONS. (size) 2=0-3-8, 9=Mechanical
Max Horz 2=313(LC 9)
Max Uplift 2=-41(LC 12), 9=-36(LC 12)
Max Grav 2=1292(LC 19), 9=1159(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1591/259, 4-5=-313/109, 5-6=-332/107, 6-9=-1559/256
BOT CHORD 2-12=-8/1024, 10-12=-7/1025, 9-10=-7/1024
WEBS 4-12=0/678, 6-10=-1/615, 4-6=-818/368

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) -0-8-14 to 3-7-15, Interior(1) 3-7-15 to 12-6-0, Exterior(2) 12-6-0 to 16-10-13, Interior(1) 16-10-13 to 24-8-8 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) 2, 9.

June 6,2022

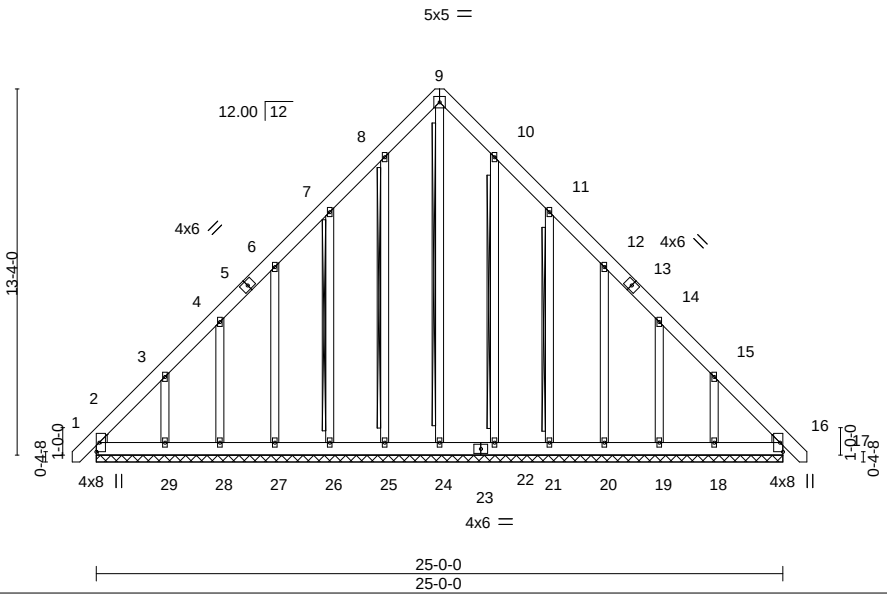
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	A5	GABLE	1	1	I52321630
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:19 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-_6qLRH1I41vsm22Mo7?B51AjQ8SiZymmRCtF7AzA3c6

-0-10-8 12-6-0 25-0-0 25-10-8
0-10-8 12-6-0 12-6-0 0-10-8

Scale = 1:83.9



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	0.06	Vert(LL)	0.00	16	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	16	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	16	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 264 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.
WEBS T-Brace: 2x4 SPF No.2 - 9-24, 8-25, 7-26, 10-22, 11-21
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 25-0-0.
(lb) - Max Horz 2=397(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 16, 25, 22 except 2=-155(LC 10), 26=-156(LC 12), 27=-141(LC 12), 28=-127(LC 12), 29=-250(LC 12), 21=-160(LC 13), 20=-141(LC 13), 19=-127(LC 13), 18=-243(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 25, 26, 27, 28, 22, 21, 20, 19 except 2=374(LC 12), 16=329(LC 13), 24=271(LC 13), 29=264(LC 19), 18=257(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-549/328, 3-4=-336/236, 8-9=-247/268, 9-10=-247/268, 14-15=-282/163, 15-16=-490/332
BOT CHORD 2-29=-259/392, 28-29=-260/393, 27-28=-261/393, 26-27=-261/393, 25-26=-262/393, 24-25=-262/393, 22-24=-262/393, 21-22=-262/393, 20-21=-261/393, 19-20=-261/392, 18-19=-260/392, 16-18=-259/390
WEBS 9-24=-259/183, 3-29=-268/258, 15-18=-268/252

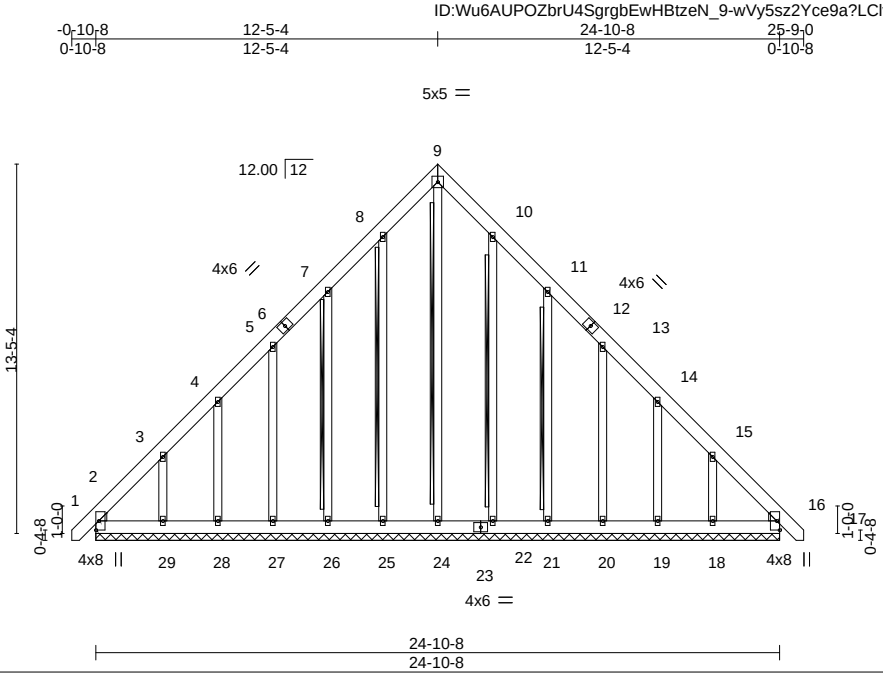
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-14 to 3-7-15, Exterior(2) 3-7-15 to 12-6-0, Corner(3) 12-6-0 to 16-10-13, Exterior(2) 16-10-13 to 25-8-14 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) 16, 25, 22 except (jt=lb) 2=155, 26=156, 27=141, 28=127, 29=250, 21=160, 20=141, 19=127, 18=243.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	B1	GABLE	1	1	I52321631
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:21 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-wVy5sz2Yce9a?LClvX1fASF3wx8B1sJ2vWMMC3zA3c4



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	16	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	16	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	16	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 263 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.
WEBS T-Brace: 2x4 SPF No.2 - 9-24, 8-25, 7-26, 10-22, 11-21
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 24-10-8.
(lb) - Max Horz 2=395(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 16, 25, 22 except 2=-156(LC 10), 26=-156(LC 12), 27=-140(LC 12), 28=-129(LC 12), 29=-248(LC 12), 21=-159(LC 13), 20=-141(LC 13), 19=-128(LC 13), 18=-241(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 25, 26, 27, 28, 22, 21, 20, 19 except 2=375(LC 12), 16=330(LC 13), 24=269(LC 13), 29=260(LC 19), 18=252(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-548/327, 3-4=-338/236, 8-9=-246/267, 9-10=-246/267, 14-15=-284/165, 15-16=-489/331
BOT CHORD 2-29=-257/390, 28-29=-259/391, 27-28=-259/391, 26-27=-260/391, 25-26=-260/391, 24-25=-260/391, 22-24=-260/391, 21-22=-260/391, 20-21=-260/391, 19-20=-259/390, 18-19=-259/390, 16-18=-257/388
WEBS 9-24=-258/182, 3-29=-264/255, 15-18=-265/249

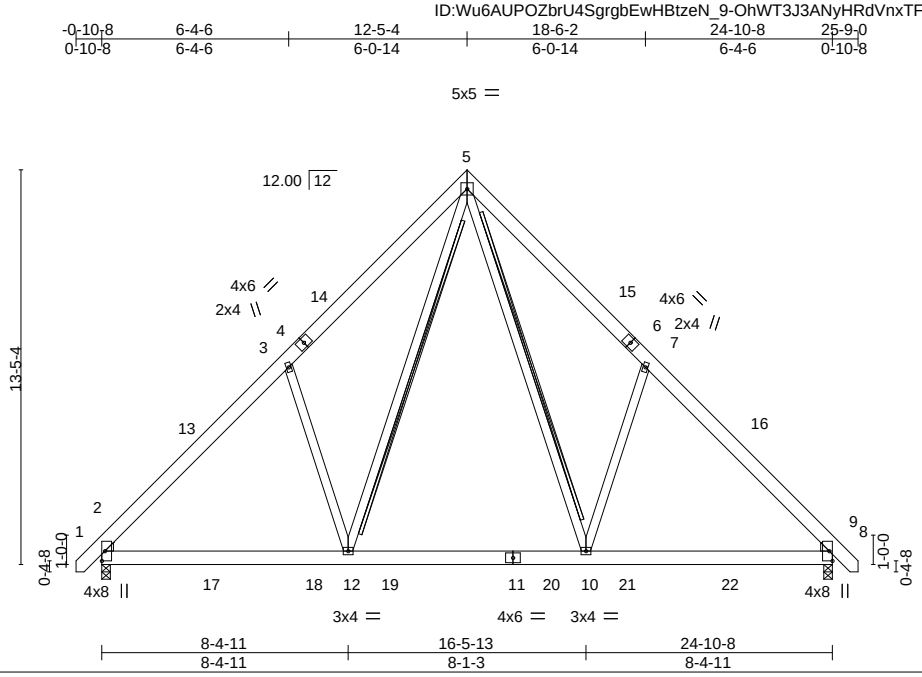
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-14 to 3-7-15, Exterior(2) 3-7-15 to 12-5-4, Corner(3) 12-5-4 to 16-10-1, Exterior(2) 16-10-1 to 25-7-6 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) 16, 25, 22 except (jt=lb) 2=156, 26=156, 27=140, 28=129, 29=248, 21=159, 20=141, 19=128, 18=241.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	B2	COMMON	2	1	I52321632
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:22 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-OhWT3J3ANyHRdVnxTFZujgoBuLO0mG?C7A6vkVzA3c3



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	0.23	Vert(LL)	-0.05	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.09	8-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.02	2-12	>999	240	Weight: 207 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.
WEBS T-Brace: 2x4 SPF No.2 - 5-10, 5-12
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. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=316(LC 11)
Max Uplift 2=-41(LC 12), 8=-41(LC 13)
Max Grav 2=1210(LC 19), 8=1210(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1369/267, 3-5=-1264/485, 5-7=-1264/486, 7-8=-1369/267
BOT CHORD 2-12=-100/1034, 10-12=-6/690, 8-10=-22/901
WEBS 5-10=-259/798, 7-10=-481/359, 5-12=-259/797, 3-12=-481/359

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) -0-8-14 to 3-7-15, Interior(1) 3-7-15 to 12-5-4, Exterior(2) 12-5-4 to 16-10-1, Interior(1) 16-10-1 to 25-7-6 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) 2, 8.
6) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	B3	Common Girder	1	2	I52321633
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:24 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-L4dEU?5QvZX8spxKagbMo5tUJ93iE59VbTb0pNzA3c1

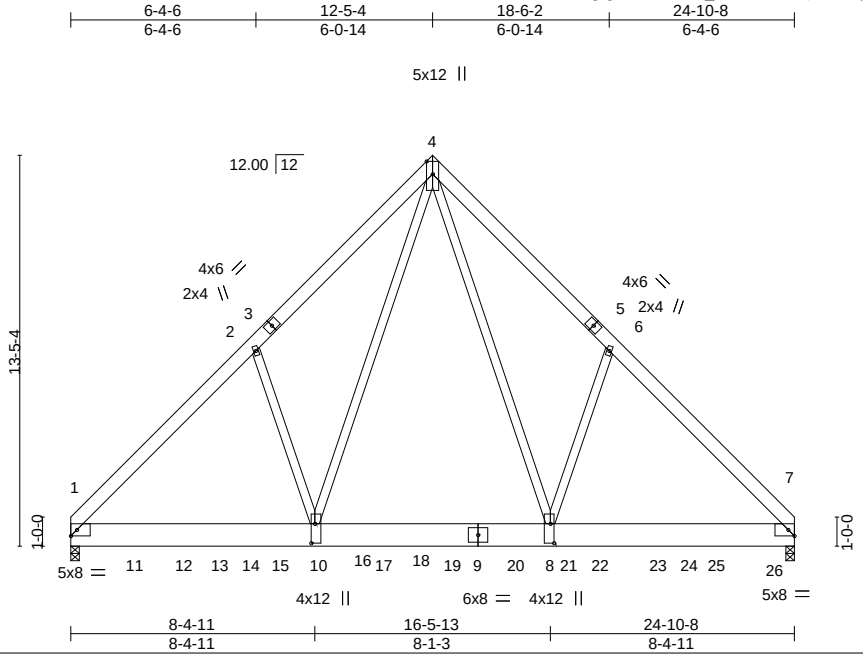


Plate Offsets (X,Y)-- [7:0-2-8,Edge], [8:0-8-0,0-1-8], [10:0-8-0,0-1-8]

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	0.37	Vert(LL)	-0.12	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.20	8-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.06	8-10	>999	240	Weight: 477 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-4-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 7=0-3-8 (req. 0-3-11)
Max Horz 1=305(LC 26)
Max Uplift 1=-300(LC 9), 7=-326(LC 8)
Max Grav 1=8090(LC 2), 7=8844(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-8642/390, 2-4=-8404/530, 4-6=-8414/531, 6-7=-8650/390
BOT CHORD 1-10=-291/5855, 8-10=-142/4067, 7-8=-185/5862
WEBS 4-8=-398/5999, 6-8=-344/429, 4-10=-397/5980, 2-10=-343/431

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: 2x10 - 2 rows staggered at 0-6-0 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, with BCDL = 10.0psf.
7) WARNING: Required bearing size at joint(s) 7 greater than input bearing size.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=300, 7=326.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1246 lb down and 55 lb up at 2-0-12, 1216 lb down and 55 lb up at 4-0-12, 1201 lb down and 55 lb up at 6-0-12, 1245 lb down and 55 lb up at 8-0-12, 1215 lb down and 55 lb up at 10-0-12, 1201 lb down and 55 lb up at 12-0-12, 1201 lb down and 55 lb up at 14-0-12, 1243 lb down and 55 lb up at 16-0-12, 1217 lb down and 55 lb up at 18-0-12, 1201 lb down and 55 lb up at 20-0-12, and 1244 lb down and 55 lb up at 22-0-12, and 1249 lb down and 51 lb up at 24-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

June 6,2022

Continued on page 2

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

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-60, 4-7=-60, 1-7=-20
   Concentrated Loads (lb)
   Vert: 9=-971(B) 11=-971(B) 13=-971(B) 14=-971(B) 16=-971(B) 18=-971(B) 19=-971(B) 21=-971(B) 22=-971(B) 23=-971(B) 25=-971(B) 26=-974(B)

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	C1	ATTIC	1	1	I52321634
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:25 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-pGBciL52gtf?UzVW8N6bLIQbKYKJzhpeq7KZLqzA3c0

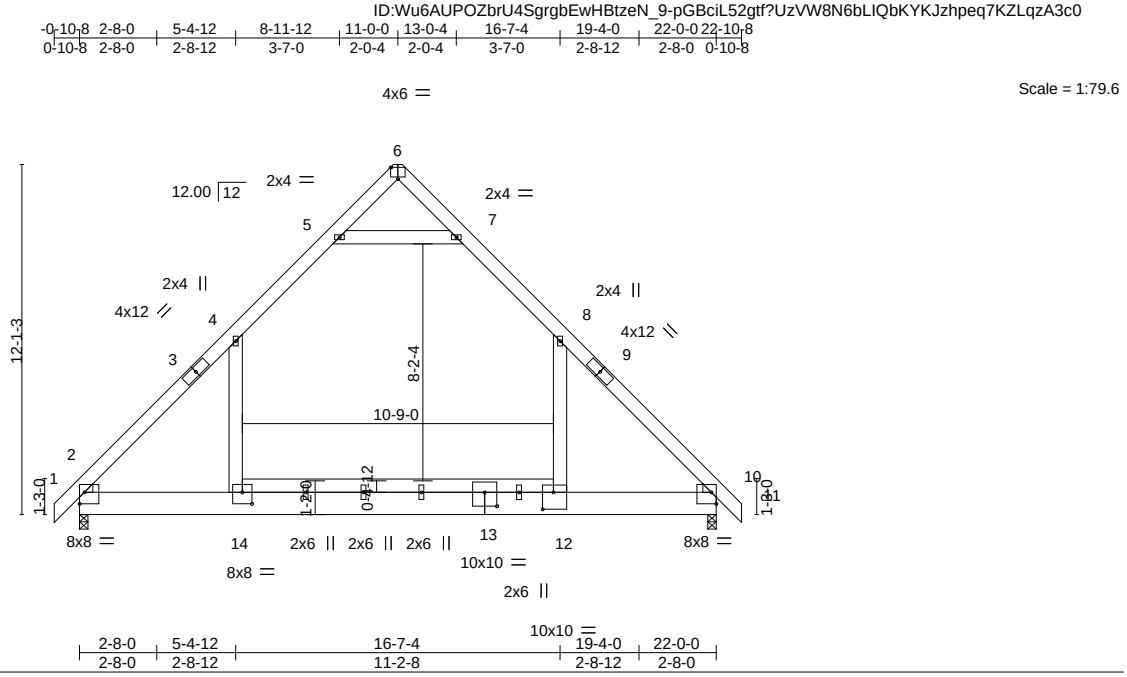


Plate Offsets (X,Y)-- [2:Edge,0-4-12], [6:0-3-0,Edge], [10:Edge,0-4-12], [12:0-4-8,0-7-0], [13:0-5-0,0-5-12], [14:0-4-0,0-4-12]

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	0.60	Vert(LL)	-0.25	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.44	12-14	>588	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.14	12-14	>999	240	Weight: 229 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP 2400F 2.0E *Except* 9-11,1-3: 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-8-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=354(LC 11)
Max Grav 2=1447(LC 20), 10=1447(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1867/8, 4-5=-992/180, 5-6=-39/454, 6-7=-40/454, 7-8=-992/180, 8-10=-1866/0
BOT CHORD 2-14=0/1069, 12-14=0/1069, 10-12=0/1069
WEBS 5-7=-1526/314, 4-14=0/880, 8-12=0/880

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 3-6-5, Exterior(2) 3-6-5 to 11-0-0, Corner(3) 11-0-0 to 15-4-13, Exterior(2) 15-4-13 to 22-10-8 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.
5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-14, 8-12
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
7) Attic room checked for L/360 deflection.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	C2	ATTIC	3	1	I52321635
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:26 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-HSl_vg6hRBns674ii5dqtWymwygKi82o2n47tGzA3c?

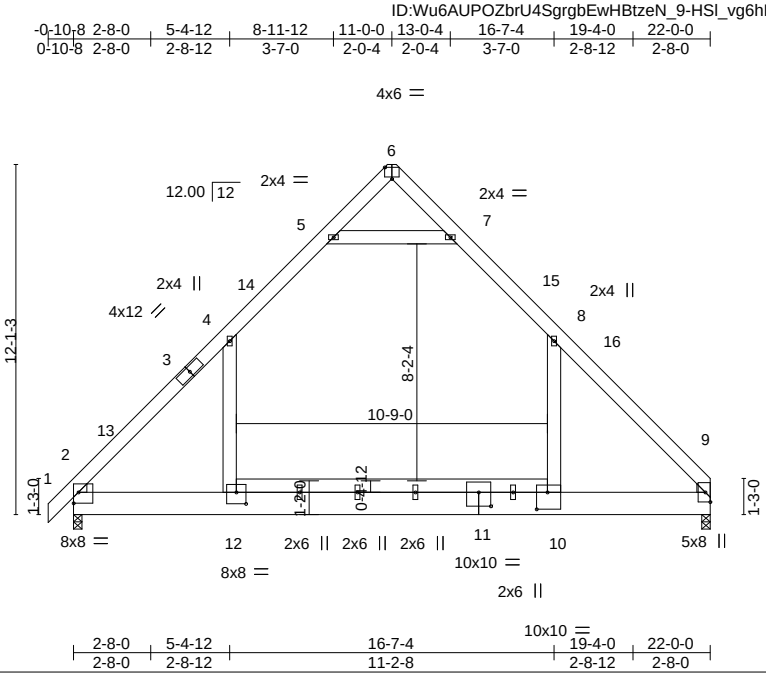


Plate Offsets (X,Y)-- [2:Edge,0-4-8], [6:0-3-0,Edge], [10:0-4-8,0-7-0], [11:0-5-0,0-5-12], [12:0-4-0,0-4-12]

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	0.61	Vert(LL)	-0.26	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.46	10-12	>566	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.11	10-12	>999	240	Weight: 226 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP 2400F 2.0E *Except*
1-3: 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-7-6 oc bracing.

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=280(LC 11)
Max Grav 2=1454(LC 20), 9=1405(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1848/0, 4-5=-984/145, 5-6=-21/461, 6-7=-15/450, 7-8=-994/150, 8-9=-1814/0
BOT CHORD 2-12=0/1039, 10-12=0/1039, 9-10=0/1039
WEBS 5-7=-1547/228, 4-12=0/889, 8-10=0/840

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 11-0-0, Exterior(2) 11-0-0 to 15-4-13, Interior(1) 15-4-13 to 21-10-4 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.
5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-12, 8-10
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.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	C3	ATTIC	3	1	I52321636
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:27 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-lfJM607JCUvjjGfvGo83QjVw7M0PRcRxHRpgQizA3c_

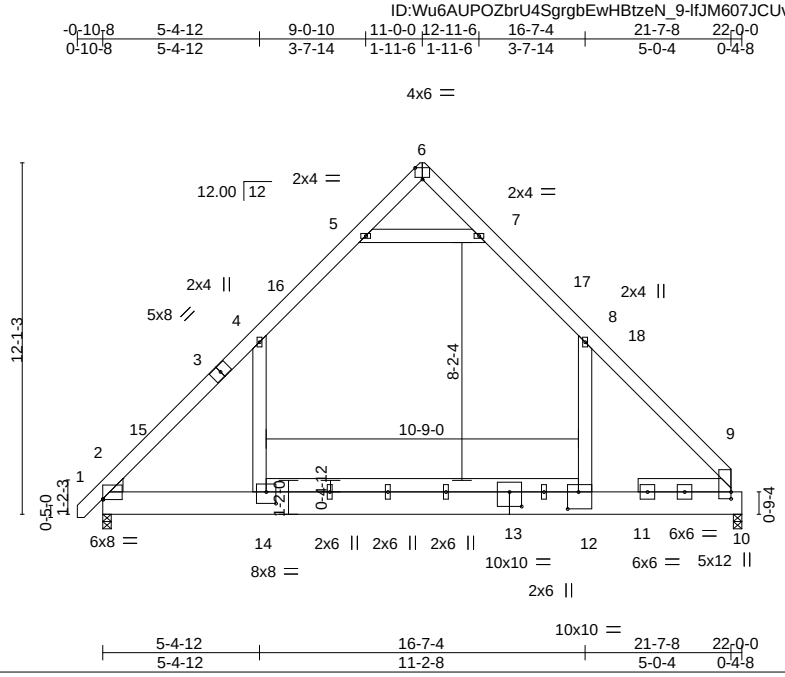


Plate Offsets (X,Y)-- [2:0-0-0,0-0-5], [6:0-3-0,Edge], [9:0-2-13,0-0-0], [12:0-4-8,0-7-0], [13:0-5-0,0-6-0], [14:0-4-0,0-4-12]

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	0.65	Vert(LL)	-0.26	12-14	>987	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.48	12-14	>547	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.11	12-14	>999	240	Weight: 231 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP 2400F 2.0E *Except*
1-3: 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x6 SP No.2
SLIDER Right 2x6 SP No.1 3-2-5

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-5-1 oc bracing.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=279(LC 11)
Max Grav 2=1447(LC 20), 10=1395(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1841/0, 4-5=-987/145, 5-6=-22/477, 6-7=-17/468, 7-8=-994/149, 8-9=-1865/0
BOT CHORD 2-14=0/1041, 12-14=0/1041, 9-12=0/1041
WEBS 5-7=-1578/230, 4-14=0/884, 8-12=0/902

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) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 11-0-0, Exterior(2) 11-0-0 to 15-4-13, Interior(1) 15-4-13 to 21-7-8 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.
5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-14, 8-12
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
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.

June 6,2022

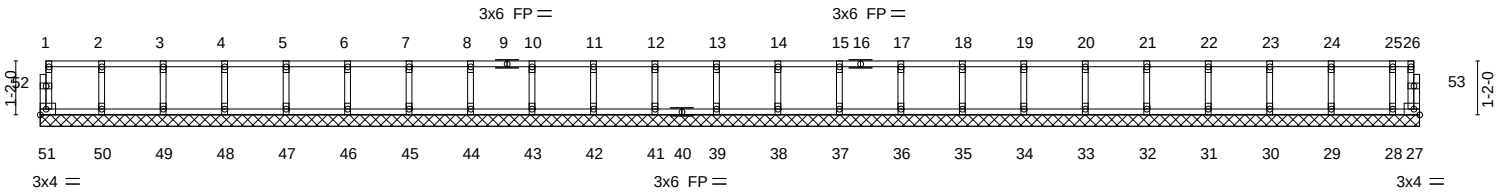
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

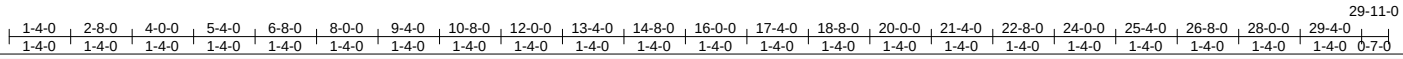
Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	ET-1	GABLE	1	1	I52321637
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:30 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-9E?Vl29BUPIIbkOUxwim2M7bbZCpe_fNzP2K?1zA3bx

0-1-8 0-1-8

Scale = 1:50.0





LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	27	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 124 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

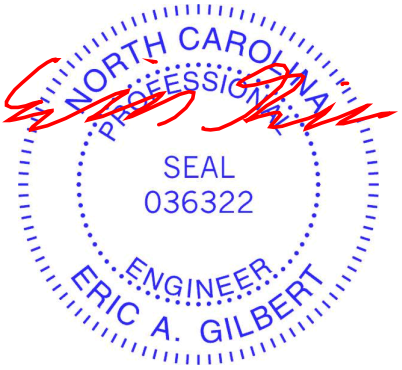
BRACING-

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

REACTIONS. All bearings 29-11-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 51, 27, 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28

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

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



June 6,2022

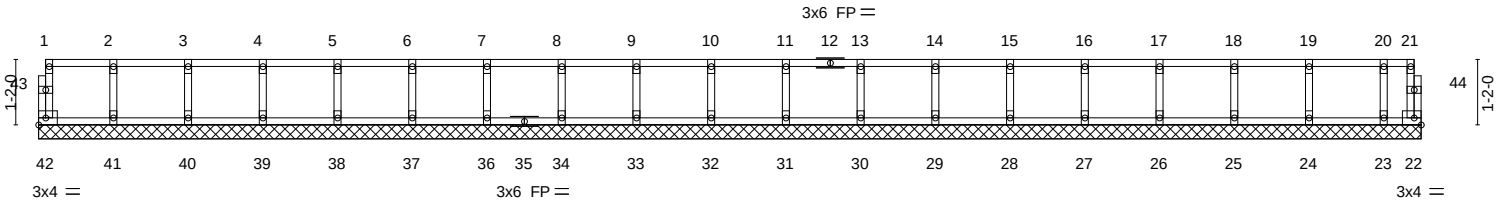
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	ET-2	GABLE	1	1	I52321638
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:31 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-dQYtyOApFjQ9CuzgVeD?aZfmLzY1NRvXC3nuYTzA3bw

0-1-8 0-1-8

Scale = 1:41.1



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	20-0-0	21-4-0	22-8-0	24-0-0	24-8-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-8-0

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	22	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 102 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING-

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

REACTIONS. All bearings 24-8-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 42, 22, 41, 40, 39, 38, 37, 36, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23

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

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	F1	Floor	9	1	I52321639
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:32 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-6c6FAkBR01Y0q2Ys2LkE7nCkbNh_6lWgRjXR4wzA3bv

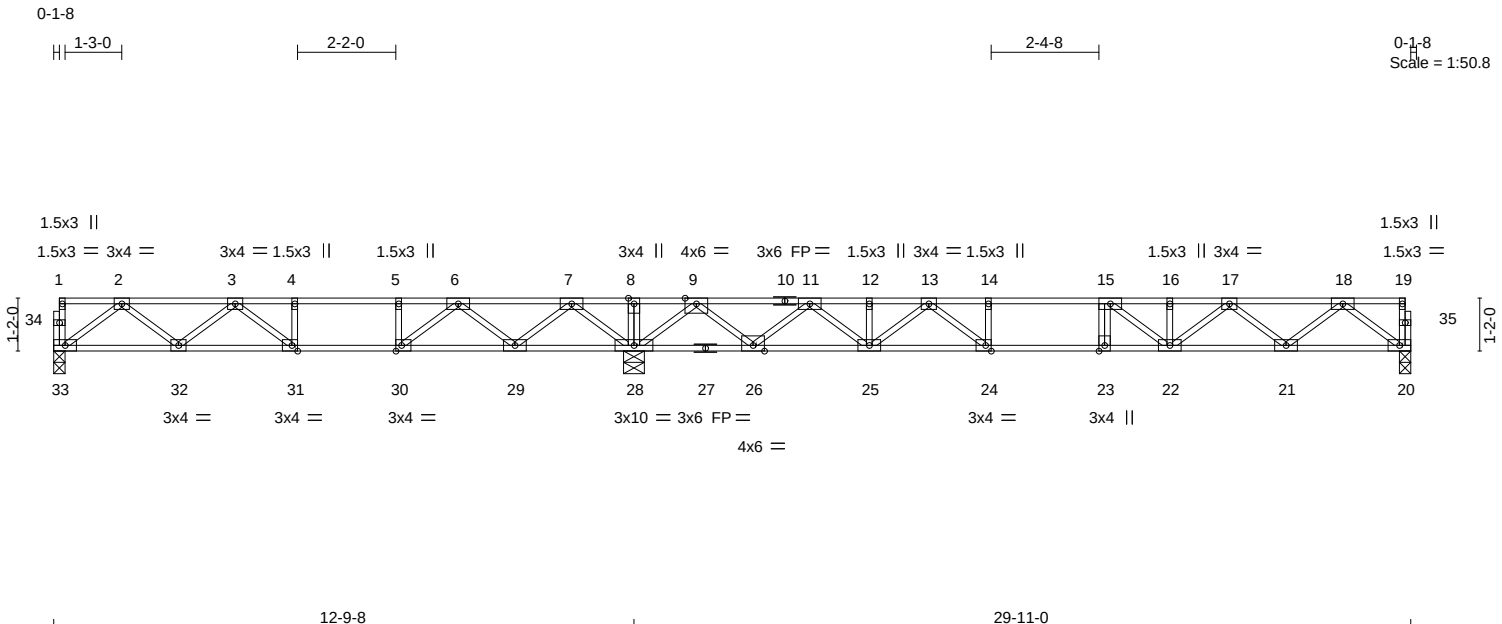


Plate Offsets (X,Y)-- [24:0-1-8,Edge], [30:0-1-8,Edge], [31:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.86	Vert(LL)	-0.20	22-23	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.27	22-23	>745	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.05	20	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 150 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 33=0-3-0, 28=0-5-8, 20=0-3-0
Max Grav 33=609(LC 3), 28=1934(LC 1), 20=825(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1163/0, 3-4=-1579/274, 4-5=-1579/274, 5-6=-1579/274, 6-7=-558/979, 7-8=0/2151, 8-9=0/2151, 9-11=-531/296, 11-12=-2061/0, 12-13=-2061/0, 13-14=-2956/0, 14-15=-2956/0, 15-16=-2721/0, 16-17=-2721/0, 17-18=-1695/0
BOT CHORD 32-33=0/748, 31-32=-27/1518, 30-31=-274/1579, 29-30=-668/1141, 28-29=-1271/0, 26-28=-858/0, 25-26=-30/1410, 24-25=0/2554, 23-24=0/2956, 22-23=0/2956, 21-22=0/2328, 20-21=0/1029
WEBS 2-33=-936/0, 2-32=0/541, 3-32=-461/100, 3-31=-347/78, 7-28=-1321/0, 7-29=0/882, 6-29=-926/0, 6-30=0/944, 5-30=-418/0, 9-28=-1655/0, 9-26=0/1228, 11-26=-1189/0, 11-25=0/879, 13-25=-682/0, 13-24=0/810, 14-24=-366/0, 18-20=-1288/0, 18-21=0/867, 17-21=-825/0, 17-22=0/501, 15-22=-489/136

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x6 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	F2	Floor	1	1	I52321640
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:33 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-aogdN4C4nKgtSB72c3FTf_lvUn23rDvpfNG_cMzA3bu

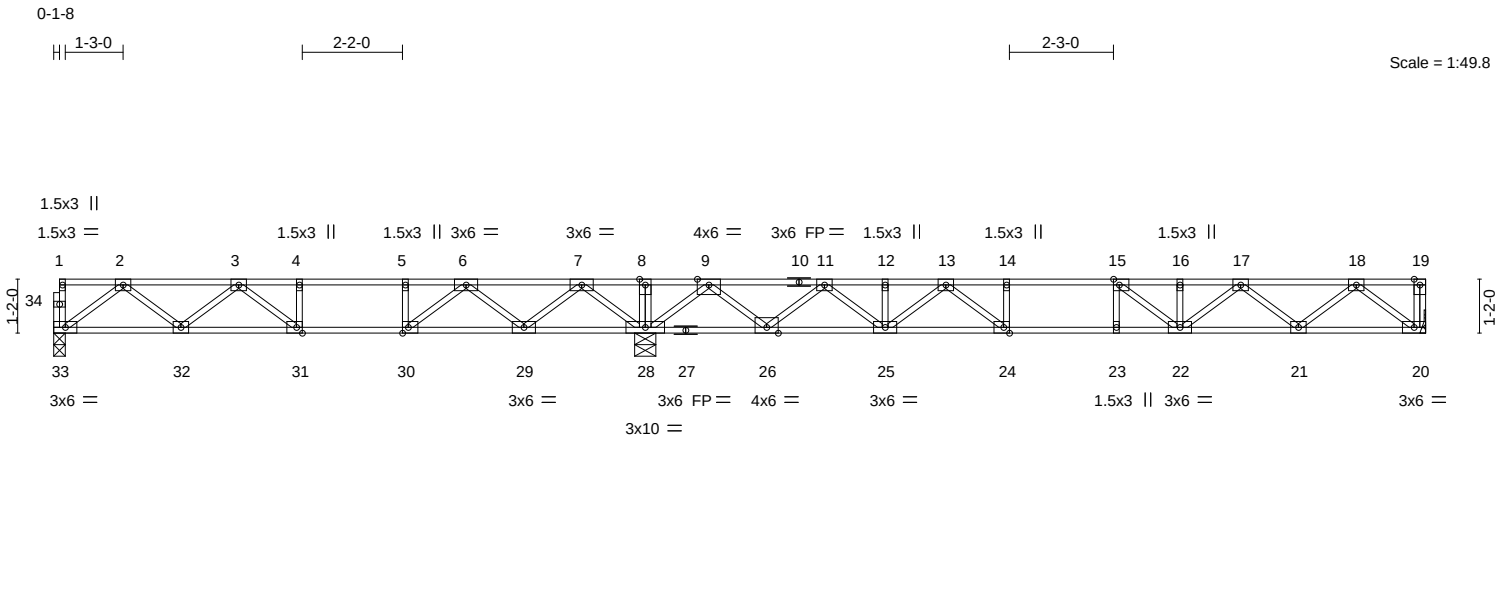


Plate Offsets (X,Y)-- [15:0-1-8,Edge], [24:0-1-8,Edge], [30:0-1-8,Edge], [31:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.85	Vert(LL)	-0.19	23-24	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.81	Vert(CT)	-0.25	23	>797	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.04	20	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 148 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 33=0-3-0, 28=0-5-8, 20=Mechanical
Max Grav 33=608(LC 3), 28=1919(LC 1), 20=818(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1162/0, 3-4=-1576/257, 4-5=-1576/257, 5-6=-1576/257, 6-7=-554/952, 7-8=0/2131, 8-9=0/2131, 9-11=-529/308, 11-12=-2025/0, 12-13=-2025/0, 13-14=-2868/0, 14-15=-2868/0, 15-16=-2654/0, 16-17=-2654/0, 17-18=-1662/0
BOT CHORD 32-33=0/747, 31-32=-17/1516, 30-31=-257/1576, 29-30=-645/1137, 28-29=-1241/0, 26-28=-829/0, 25-26=-45/1391, 24-25=0/2500, 23-24=0/2868, 22-23=0/2868, 21-22=0/2279, 20-21=0/1013
WEBS 2-33=-935/0, 2-32=0/540, 3-32=-461/95, 3-31=-339/77, 7-28=-1318/0, 7-29=0/879, 6-29=-923/0, 6-30=0/936, 5-30=-414/0, 18-20=-1270/0, 18-21=0/846, 17-21=-803/0, 17-22=0/479, 9-28=-1633/0, 9-26=0/1208, 11-26=-1170/0, 11-25=0/858, 13-25=-662/0, 13-24=0/768, 14-24=-344/0, 15-22=-463/156

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	F3	Floor	1	1	I52321641
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:35 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-WBoOolDKJywbhVGRkUHxlPqHPajkJ3x67hl5hFzA3bs

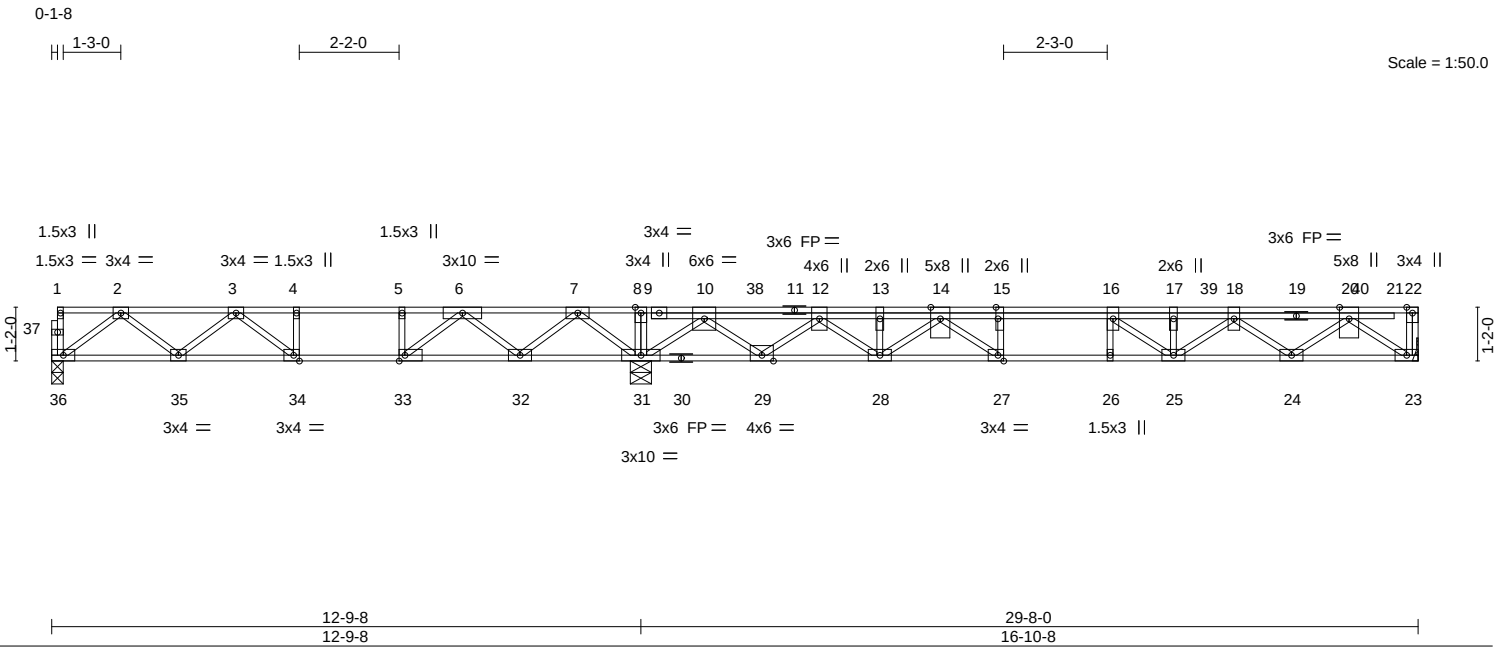


Plate Offsets (X,Y)-- [15:0-3-0,Edge], [27:0-1-8,Edge], [33:0-1-8,Edge], [34:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.76	Vert(LL)	-0.19	26-27	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.80	Vert(CT)	-0.27	26-27	>758	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.73	Horz(CT)	0.05	23	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 170 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat) *Except* 1-11: 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

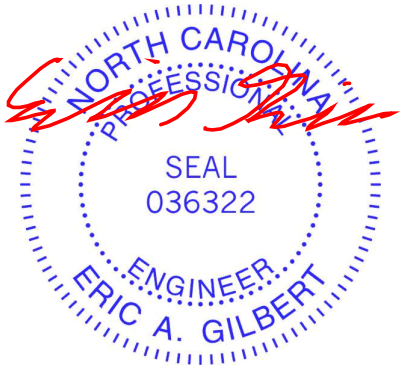
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 36=0-3-0, 31=0-5-8, 23=Mechanical
Max Grav 36=550(LC 3), 31=2395(LC 1), 23=1054(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1022/42, 3-4=-1222/506, 4-5=-1222/506, 5-6=-1222/506, 6-7=0/1352, 7-8=0/2683, 8-10=0/2684, 10-12=-946/0, 12-13=-2731/0, 13-14=-2731/0, 14-15=-3712/0, 15-16=-3712/0, 16-17=-3582/0, 17-18=-3582/0, 18-20=-2289/0
BOT CHORD 35-36=-5/670, 34-35=-166/1301, 33-34=-506/1222, 32-33=-994/643, 31-32=-1684/0, 29-31=-771/0, 28-29=0/2092, 27-28=0/3239, 26-27=0/3712, 25-26=0/3712, 24-25=0/3138, 23-24=0/1405
WEBS 2-36=-838/7, 2-35=-49/459, 3-35=-362/160, 3-34=-472/0, 7-31=-1390/0, 7-32=0/943, 6-32=-994/0, 6-33=0/1069, 5-33=-492/0, 20-23=-1725/0, 20-24=0/1122, 18-24=-1078/0, 18-25=0/554, 17-25=-337/0, 10-31=-2351/0, 10-29=0/1540, 12-29=-1509/0, 12-28=0/855, 14-28=-690/0, 14-27=0/929, 15-27=-489/0, 16-25=-179/328

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x6 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 483 lb down at 15-3-0, 167 lb down at 25-1-4, and 167 lb down at 25-11-8, and 167 lb down at 27-9-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 23-36=-10, 1-22=-100
Concentrated Loads (lb)
Vert: 18=-87(B) 38=-403(B) 39=-87(B) 40=-87(B)



June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	F4	Floor	1	1	I52321642
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:36 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-_NMm?5Ey4F2RJfrdHBpAHdNSd_2x2bMGLLVeDhzA3br

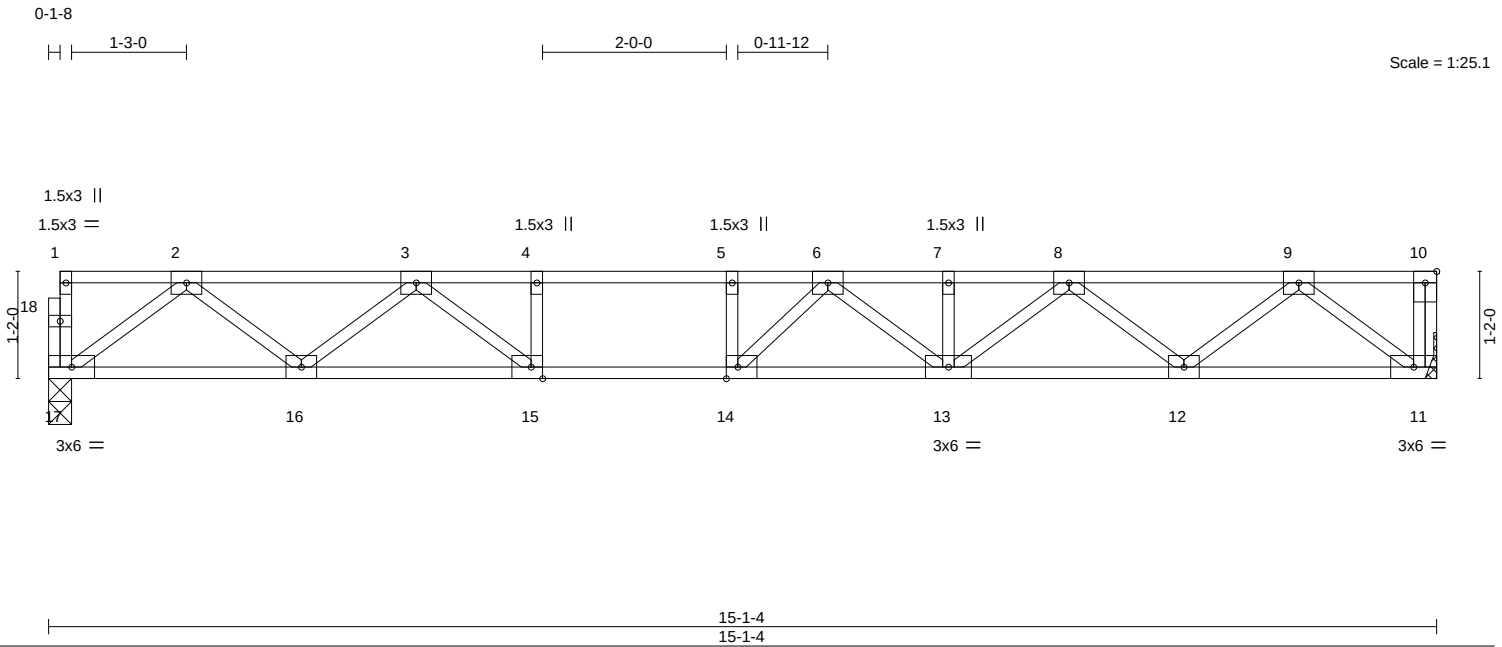


Plate Offsets (X,Y)-- [14:0-1-8,Edge], [15:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	-0.21	13-14	>839	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.29	13-14	>614	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 77 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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. (size) 17=0-3-0, 11=Mechanical
Max Grav 17=811(LC 1), 11=817(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1640/0, 3-4=-2793/0, 4-5=-2793/0, 5-6=-2793/0, 6-7=-2655/0, 7-8=-2655/0, 8-9=-1656/0
BOT CHORD 16-17=0/1009, 15-16=0/2275, 14-15=0/2793, 13-14=0/2853, 12-13=0/2279, 11-12=0/1009
WEBS 2-17=-1264/0, 2-16=0/821, 3-16=-826/0, 3-15=0/824, 4-15=-368/0, 9-11=-1266/0, 9-12=0/842, 8-12=-811/0, 8-13=0/480, 6-13=-293/0, 6-14=-289/304

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	F5	Floor Girder	1	1	I52321643
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:37 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-Saw8DRFarZAlwpQqruKPqqvbDOQynz7Pa?ECl7zA3bq

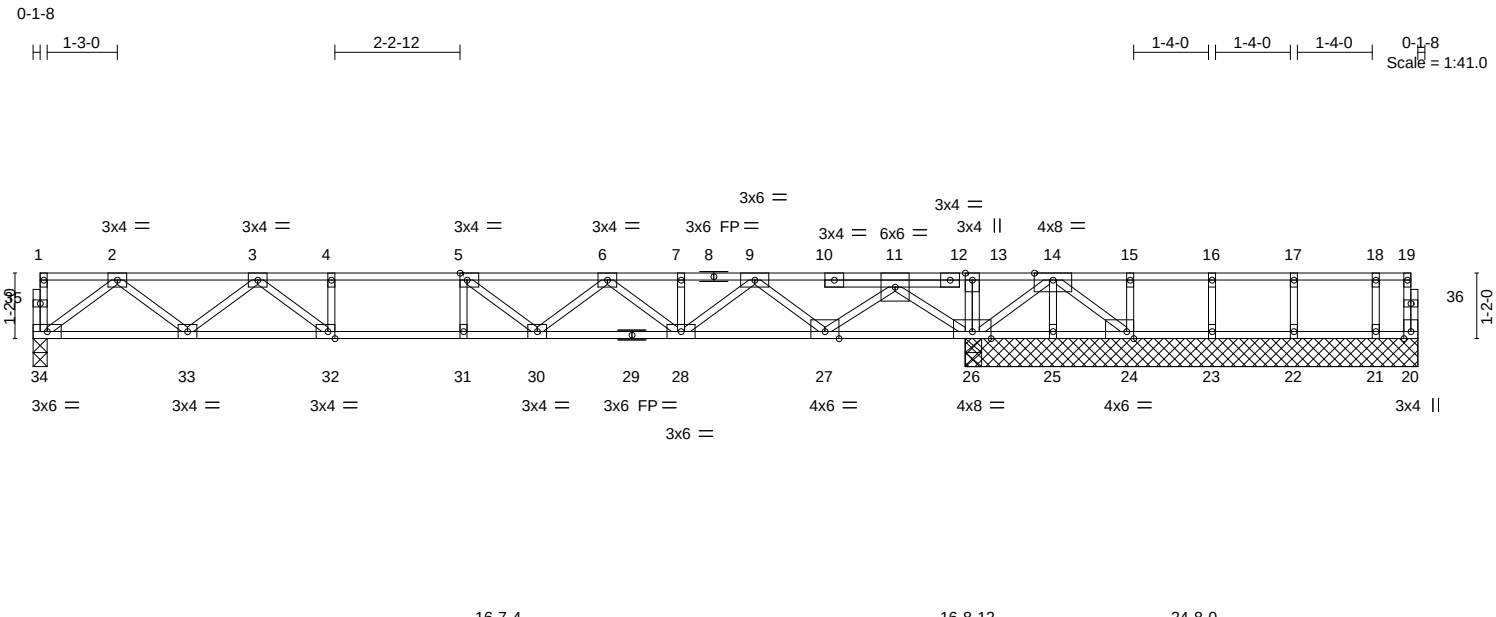


Plate Offsets (X,Y)-- [5:0-1-8,Edge], [24:0-1-8,Edge], [32:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.87	Vert(LL)	-0.17	30-31	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.23	30-31	>869	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.03	26	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 125 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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, Except: 6-0-0 oc bracing: 26-27,25-26,24-25.

REACTIONS. All bearings 8-0-12 except (jt=length) 34=0-3-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) except 25=-457(LC 1), 24=-783(LC 1)
Max Grav All reactions 250 lb or less at joint(s) 20, 23, 22, 21 except 34=730(LC 1), 26=3177(LC 1), 26=3177(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1448/0, 3-4=-2319/0, 4-5=-2319/0, 5-6=-2079/0, 6-7=-1186/0, 7-9=-1186/0, 9-11=0/571, 11-13=0/3336, 13-14=0/3334
BOT CHORD 33-34=0/904, 32-33=0/1975, 31-32=0/2319, 30-31=0/2319, 28-30=0/1791, 27-28=0/472, 26-27=-1507/0, 25-26=-1259/0, 24-25=-1259/0
WEBS 13-26=-304/0, 2-34=-1132/0, 2-33=0/708, 3-33=-687/0, 3-32=0/601, 4-32=-261/0, 11-26=-2274/0, 11-27=0/1295, 9-27=-1221/0, 9-28=0/911, 6-28=-772/0, 6-30=0/397, 5-30=-431/0, 14-26=-2560/0, 14-25=0/443, 14-24=0/1580

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 457 lb uplift at joint 25 and 783 lb uplift at joint 24.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 536 lb down at 15-3-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-34=-10, 1-19=-100
Concentrated Loads (lb)
Vert: 11=-456(F)

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	F6	Floor	10	1	I52321644
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:38 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-wmUWQnFCctI9Yz?0PcreM2SnGonMWTXZpf_IHazA3bp

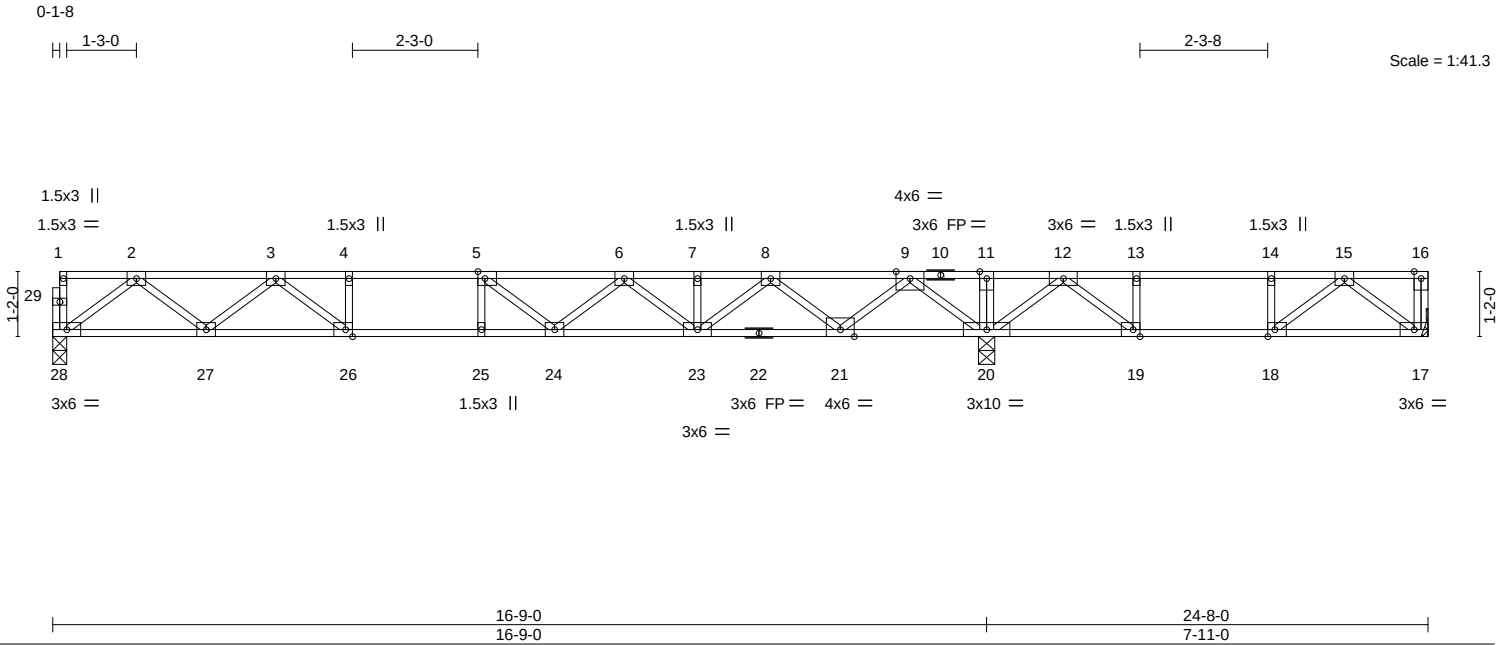


Plate Offsets (X,Y)-- [5:0-1-8,Edge], [18:0-1-8,Edge], [19:0-1-8,Edge], [26:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.78	Vert(LL)	-0.26	24-25	>780	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.67	Vert(CT)	-0.34	24-25	>578	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.04	20	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 122 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat) *Except*
17-22: 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 28=0-3-0, 20=0-3-8, 17=Mechanical
Max Uplift 17=-55(LC 3)
Max Grav 28=833(LC 10), 20=1611(LC 1), 17=369(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1688/0, 3-4=-2943/0, 4-5=-2943/0, 5-6=-2947/0, 6-7=-2288/0, 7-8=-2288/0, 8-9=-904/0, 9-11=0/1463, 11-12=0/1463, 12-13=-543/429, 13-14=-543/429, 14-15=-543/429
BOT CHORD 27-28=0/1035, 26-27=0/2369, 25-26=0/2943, 24-25=0/2943, 23-24=0/2799, 21-23=0/1724, 19-20=-932/106, 18-19=-429/543, 17-18=-113/389
WEBS 2-28=-1296/0, 2-27=0/850, 3-27=-886/0, 3-26=0/855, 4-26=-335/0, 9-20=-1547/0, 9-21=0/1155, 8-21=-1097/0, 8-23=0/752, 6-23=-674/0, 6-24=0/346, 5-24=-353/175, 12-20=-866/0, 12-19=0/940, 13-19=-451/0, 15-17=-488/141, 15-18=-404/196

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 17.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	F8	Floor	3	1	I52321645
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:39 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-Oy1ue7GqNAQ0A6aCzJMtvF?6rCHIF2ei2JjJq0zA3bo

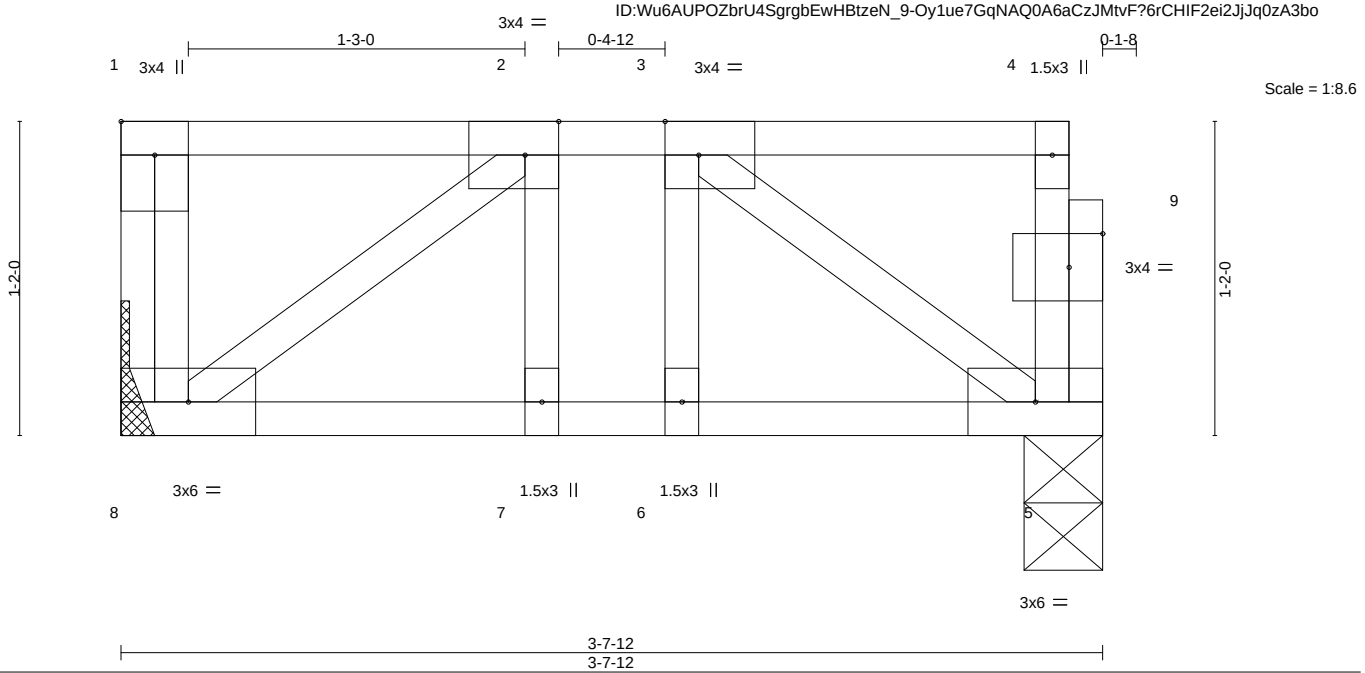


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [2:0-1-8,Edge], [3:0-1-8,Edge], [9:0-1-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	-0.00	7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.05	Vert(CT)	-0.00	7	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 23 lb	FT = 20%F, 11%E

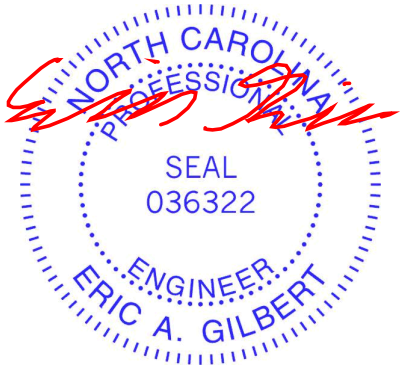
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=Mechanical, 5=0-3-8
Max Grav 8=187(LC 1), 5=181(LC 1)

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

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.



June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	F9	Floor Girder	1	1	I52321646
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:40 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-t9bHrTHT8UYtnG9PW1t6STXHVbbY_TnrGzTsMSzA3bn

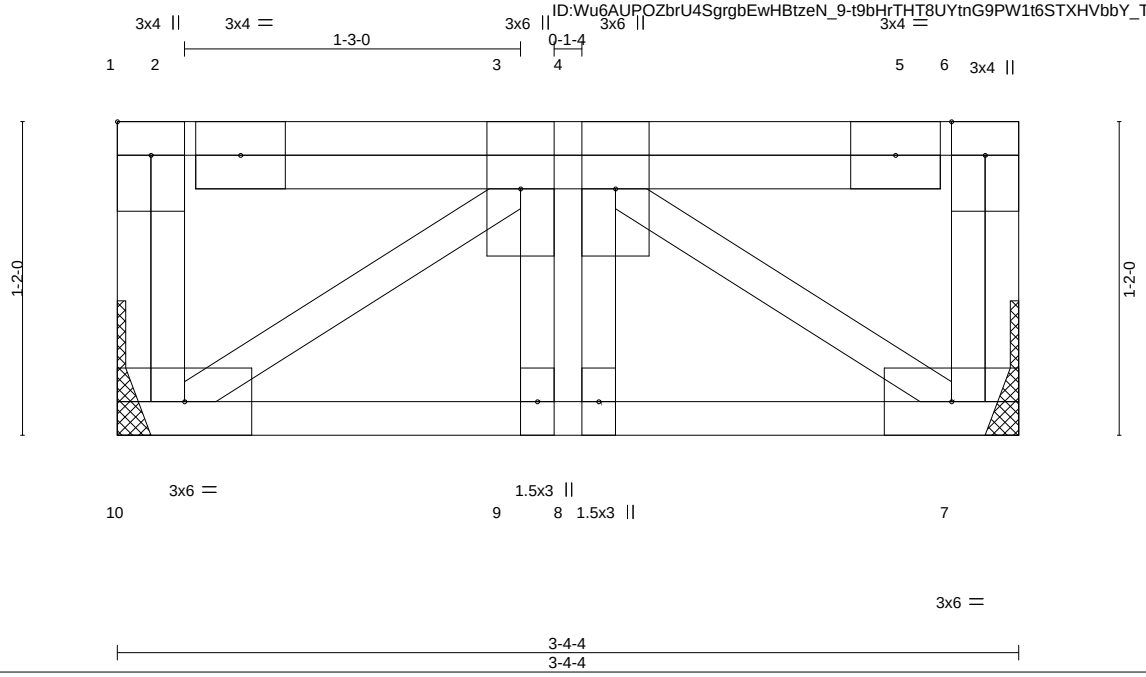


Plate Offsets (X,Y)-- [1:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	-0.01	9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.18	Vert(CT)	-0.01	9	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 26 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-4-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 10=Mechanical, 7=Mechanical
Max Grav 10=556(LC 1), 7=503(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-645/0
BOT CHORD 9-10=0/645, 8-9=0/645, 7-8=0/645
WEBS 4-7=-780/0, 3-10=-780/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 759 lb down at 1-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

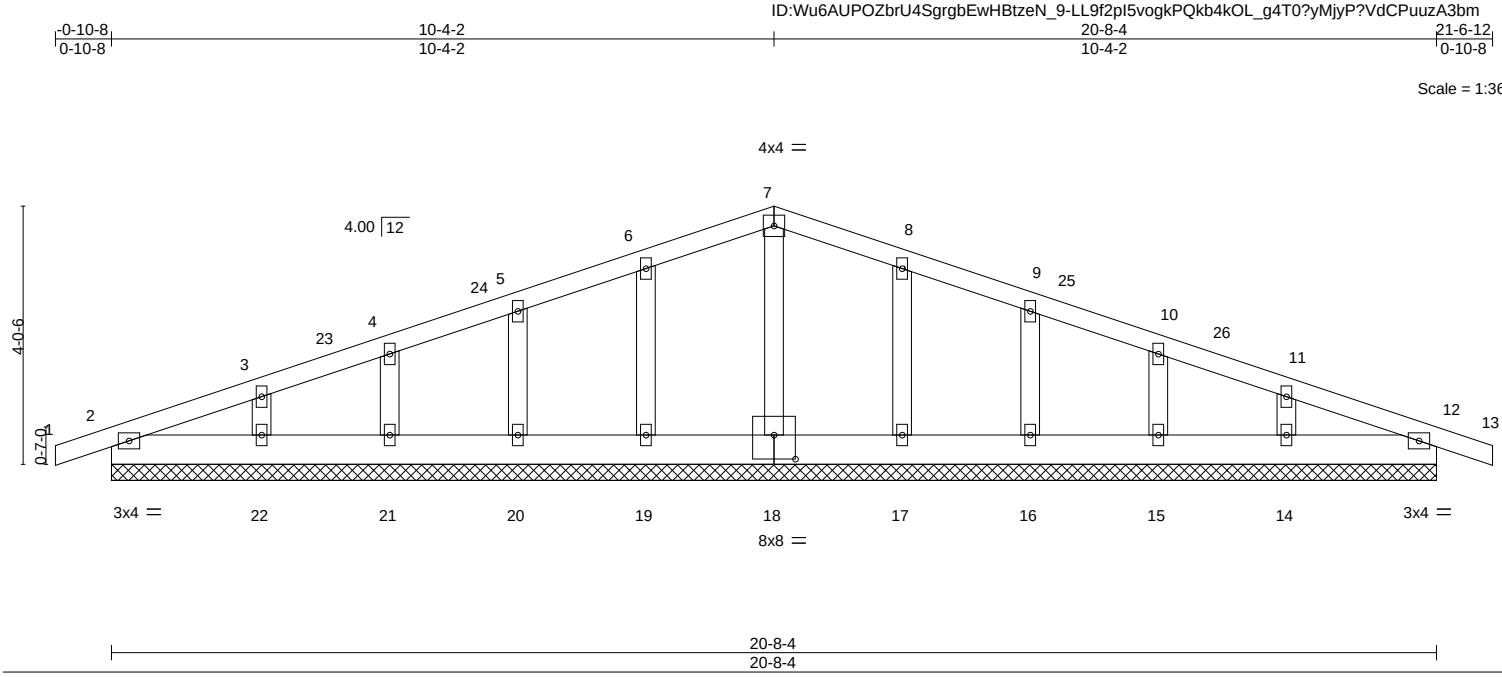
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 7-10=-10, 1-6=-100
Concentrated Loads (lb)
Vert: 3=-717(B)

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	G1	GABLE	1	1	I52321647
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:41 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-LL9f2pI5vogkPQkb4kOL_g4T0?yMjyP?VdCPuuzA3bm



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	0.05	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	0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 108 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 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 20-8-4.
(lb) - Max Horz 2=-76(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14
Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 19, 20, 21, 22, 17, 16, 15, 14

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 3-6-5, Exterior(2) 3-6-5 to 10-4-2, Corner(3) 10-4-2 to 14-8-15, Exterior(2) 14-8-15 to 21-6-12 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, 12, 19, 20, 21, 22, 17, 16, 15, 14.

June 6,2022

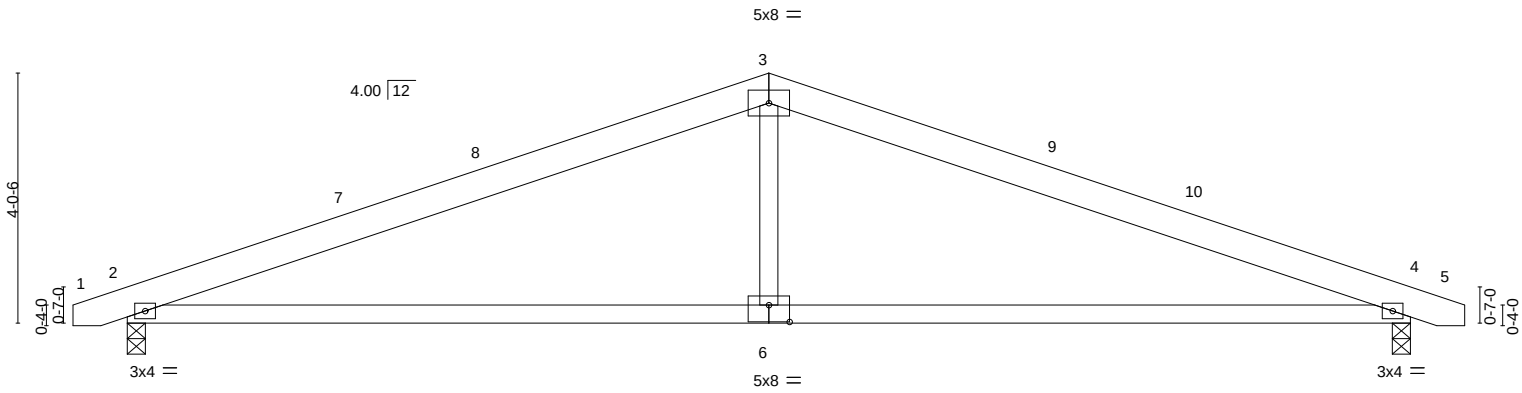
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	G2	COMMON	5	1	I52321648
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:42 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-pXj1G9Jjg5ob1aJneSvaXudUKP6qSOT8kHyzQLzA3bl

0-10-8 10-4-2 20-8-4 21-6-12
0-10-8 10-4-2 10-4-2 0-10-8

Scale = 1:37.1



10-4-2 20-8-4
10-4-2 10-4-2

Plate Offsets (X,Y)-- [6:0-4-0,0-3-4]

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	0.65	Vert(LL)	-0.20	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.43	2-6	>570	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.04	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.06	2-6	>999	240	Weight: 91 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=44(LC 16)
Max Uplift 2=-93(LC 8), 4=-93(LC 9)
Max Grav 2=864(LC 1), 4=864(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1469/338, 3-4=-1469/338
BOT CHORD 2-6=-218/1318, 4-6=-218/1318
WEBS 3-6=0/471

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) -0-7-13 to 3-9-0, Interior(1) 3-9-0 to 10-4-2, Exterior(2) 10-4-2 to 14-8-15, Interior(1) 14-8-15 to 21-4-1 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	M01	GABLE	1	1	I52321649
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:43 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-HkHPTUJLRPwSekuzC9Rp359g1peuBsZIyxhWznzA3bk

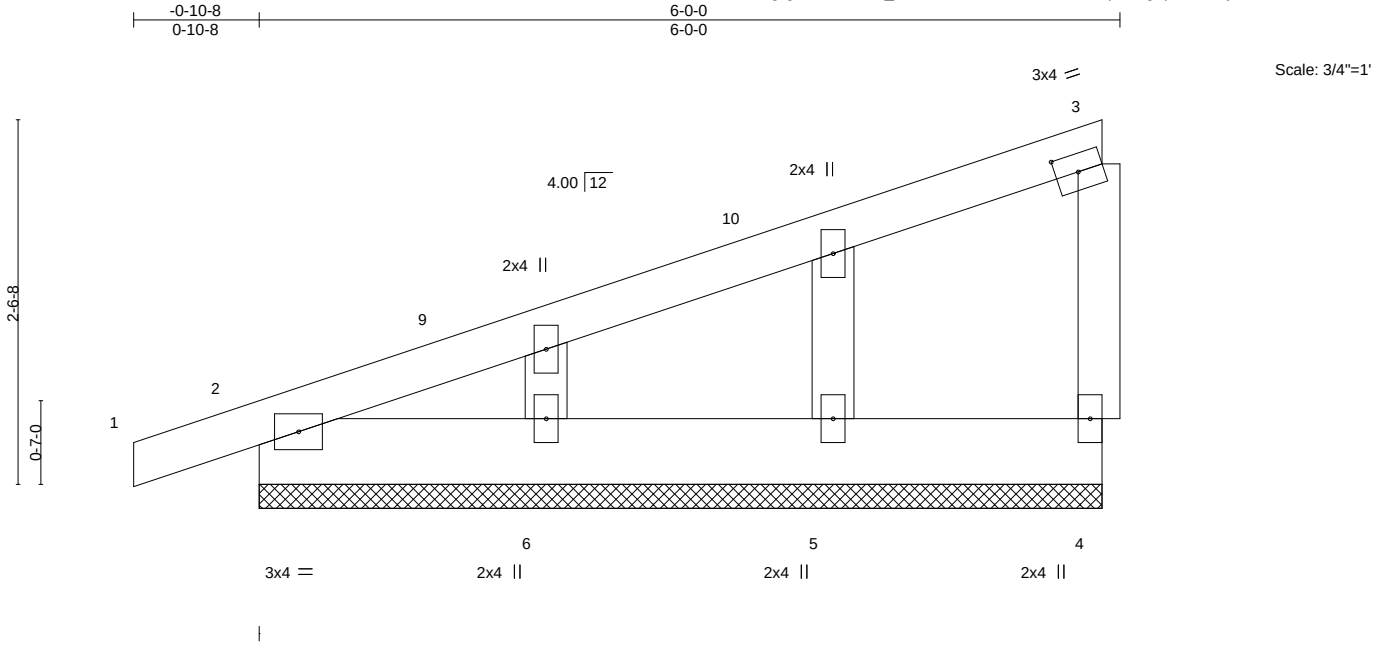


Plate Offsets (X,Y)-- [3:0-1-14,0-1-8]

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	0.59	Vert(LL)	-0.01	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.01	1	n/r	120		
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-P							Weight: 30 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 10-0-0 oc bracing.

REACTIONS. All bearings 5-10-8.
(lb) - Max Horz 2=106(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) except 4=-109(LC 12), 2=-121(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 4, 2, 6, 5

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-4=-170/293

NOTES-
1) 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 3-6-5, Exterior(2) 3-6-5 to 5-9-15 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 requires continuous bottom chord bearing.
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 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 109 lb uplift at joint 4 and 121 lb uplift at joint 2.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	M02	MONOPITCH	9	1	I52321650
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:44 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-lwrnhqKzBj2JGuSAlty2cJiu1DzIwJ6RBbR4VDzA3bj

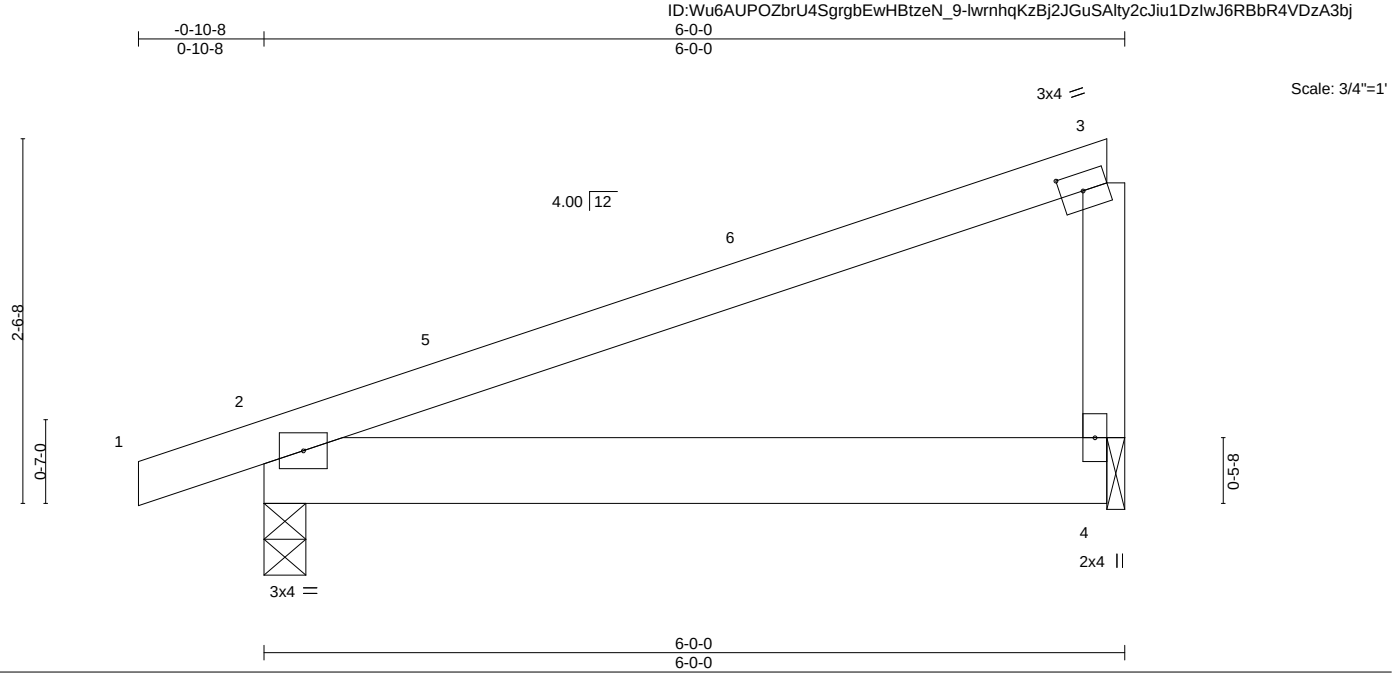


Plate Offsets (X,Y)-- [3:0-1-14,0-1-8]

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	0.45	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.03	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 27 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 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-1-8
Max Horz 2=74(LC 8)
Max Uplift 2=-52(LC 8), 4=-36(LC 12)
Max Grav 2=295(LC 1), 4=221(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph 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 5-9-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) 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 52 lb uplift at joint 2 and 36 lb uplift at joint 4.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	M03	MONOPITCH	3	1	I52321651
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:44 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-lwrnhqKzBj2JGuSAlty2cJiu1DzxwJ6RBbR4VDzA3bj

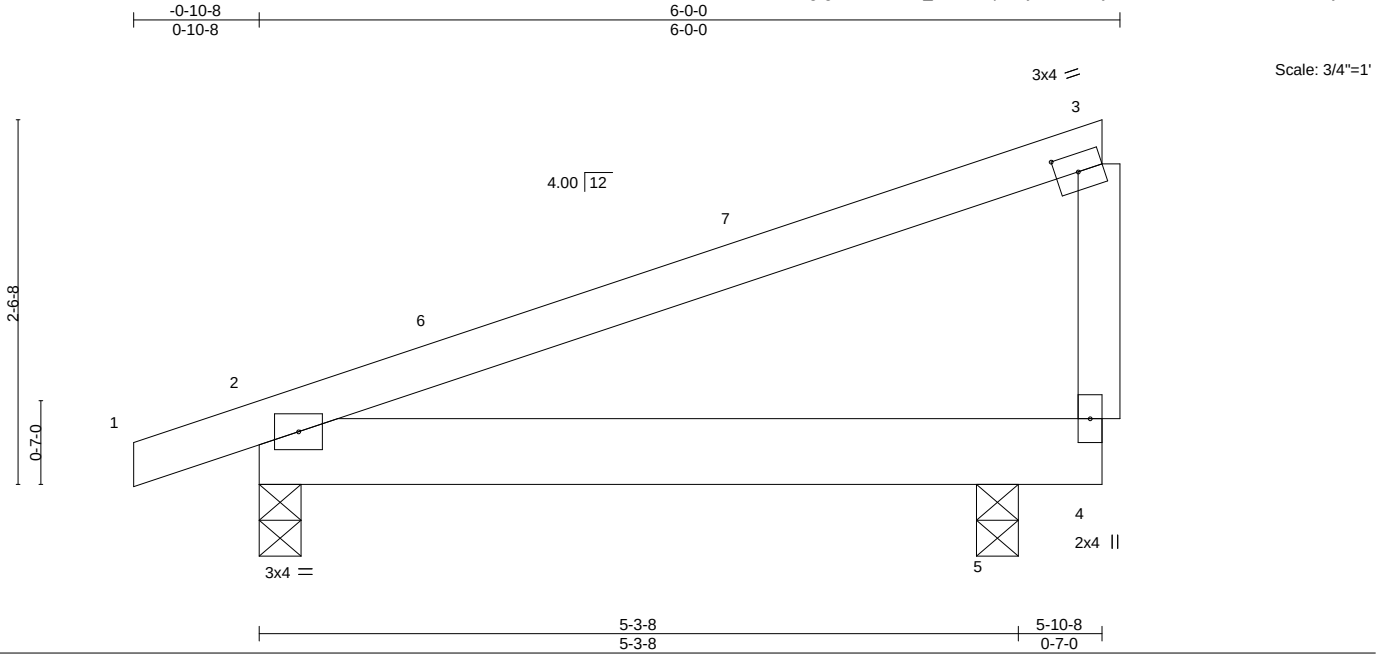


Plate Offsets (X,Y)-- [3:0-1-14,0-1-8]

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	0.45	Vert(LL)	-0.01	2-5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	2-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P		Wind(LL)	-0.01	2-5	>999	240	Weight: 27 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 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 5=0-3-8
Max Horz 2=74(LC 8)
Max Uplift 2=-47(LC 8), 5=-41(LC 12)
Max Grav 2=264(LC 1), 5=253(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph 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 5-9-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 2 and 41 lb uplift at joint 5.

June 6,2022

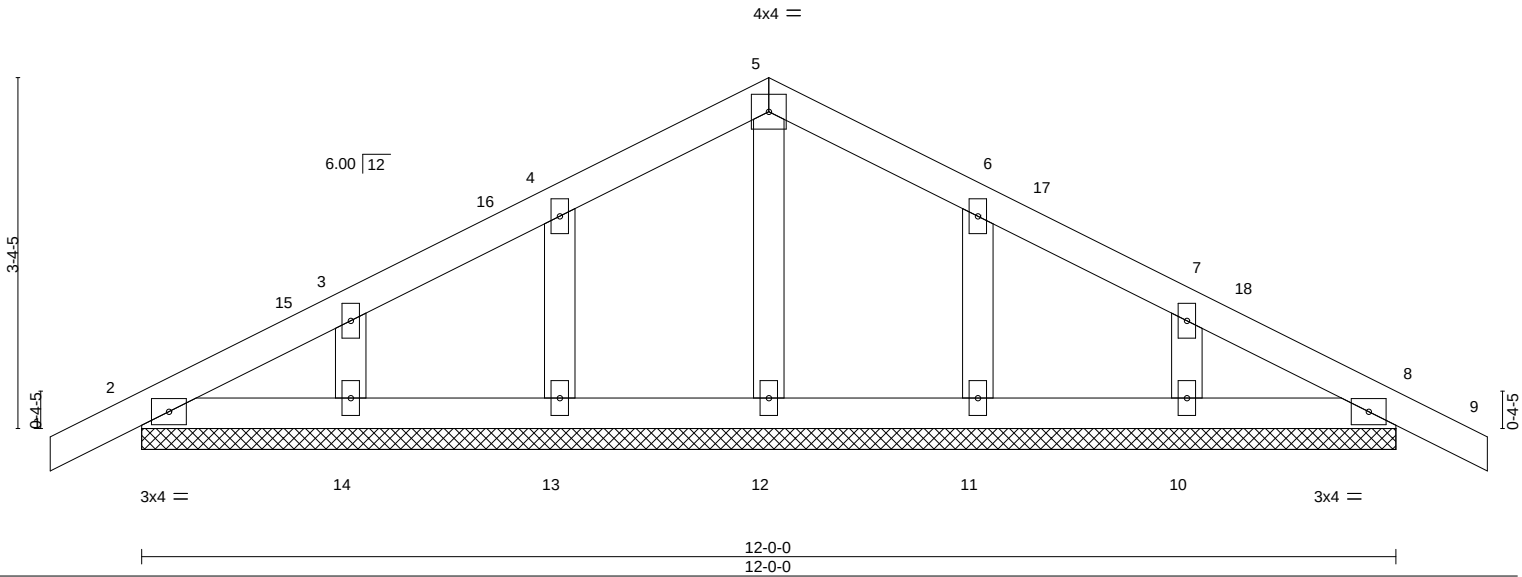
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	P1	COMMON SUPPORTED GAB	1	1	I52321652
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:45 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-D6PAuALby0BAu11MJaTH8WF9scK9fmHbQFAd1gzA3bi

-0-10-8 6-0-0 12-0-0 12-10-8
0-10-8 6-0-0 6-0-0 0-10-8

Scale = 1:22.0



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	0.06	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	0.04	Horz(CT)	0.00	8	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 12-0-0.
(lb) - Max Horz 2=-70(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

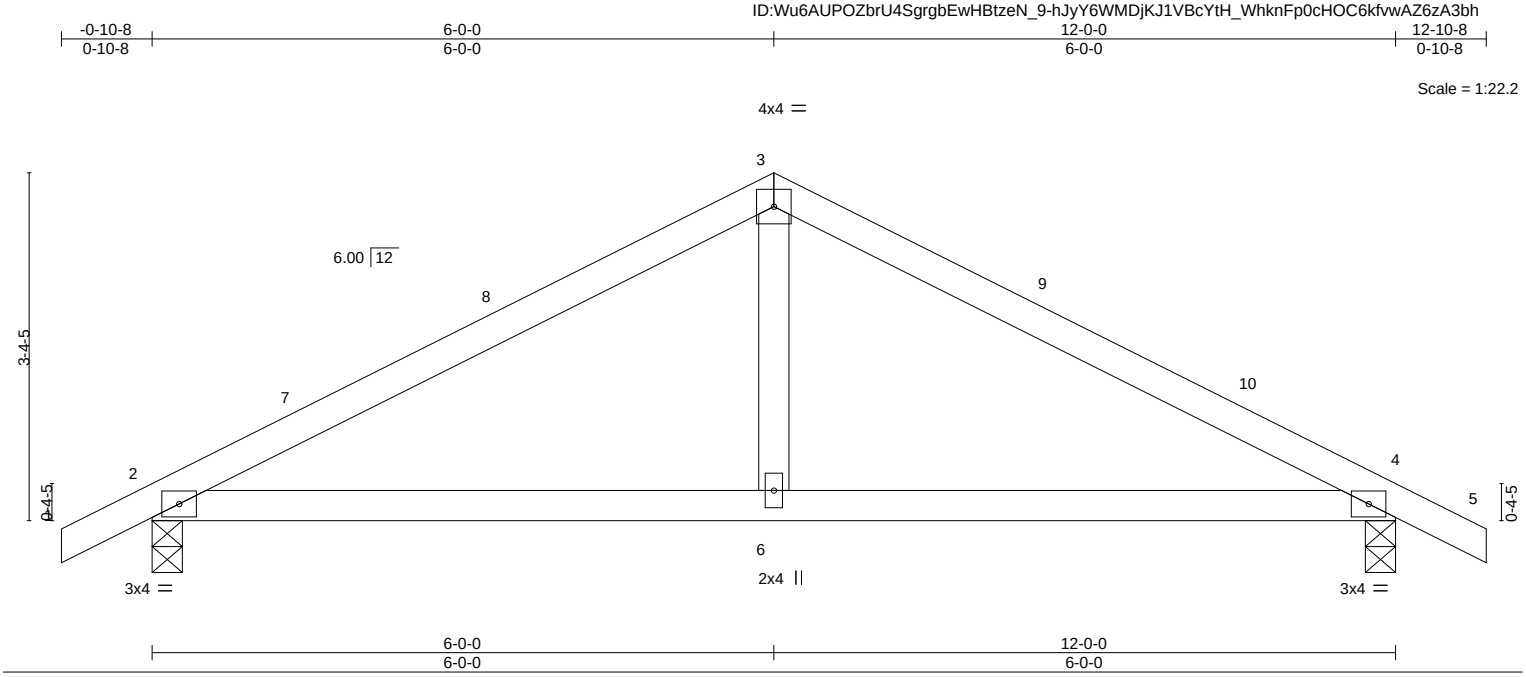
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 6-0-0, Corner(3) 6-0-0 to 10-4-13, Exterior(2) 10-4-13 to 12-10-8 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, 8, 13, 14, 11, 10.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	P2	Common	5	1	I52321653
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:46 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-hJyY6WMDjKJ1VBcYtH_WhknFp0cHOC6kfvwAZ6zA3bh



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	0.36	Vert(LL)	-0.03	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.06	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.02	4-6	>999	240	Weight: 45 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=-45(LC 10)
Max Uplift 2=-43(LC 12), 4=-43(LC 13)
Max Grav 2=530(LC 1), 4=530(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-656/217, 3-4=-656/217
BOT CHORD 2-6=-72/512, 4-6=-72/512
WEBS 3-6=0/284

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 6-0-0, Exterior(2) 6-0-0 to 10-4-13, Interior(1) 10-4-13 to 12-10-8 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	V1	VALLEY	1	1	I52321654
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:47 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-9VWwJsMsUeRu7LBlR?VlExKTiQzW7c6ttYfk6YzA3bg

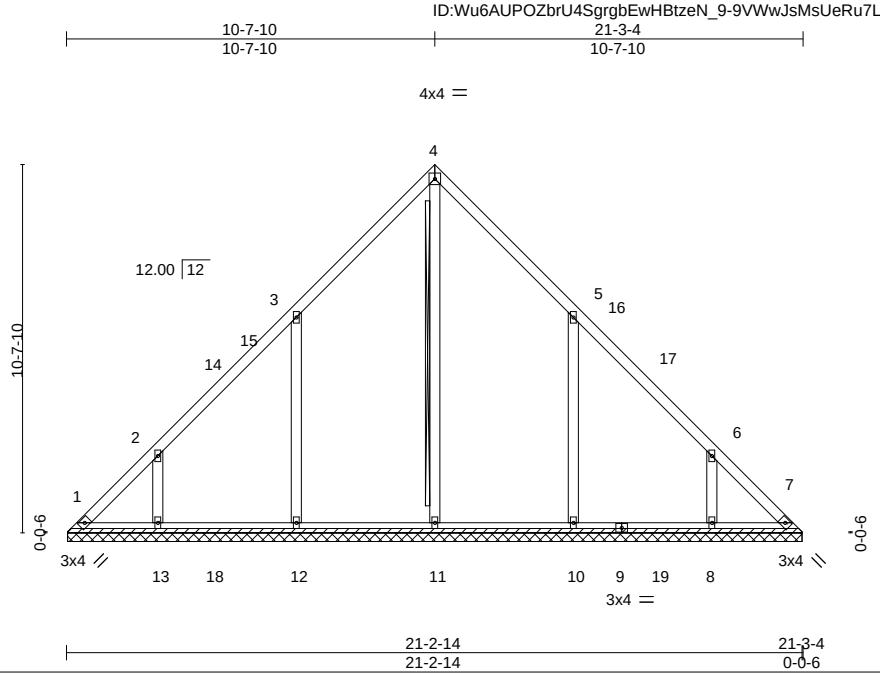


Plate Offsets (X,Y)-- [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

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	0.16	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	0.27	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 114 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.
WEBS T-Brace: 2x4 SPF No.2 - 4-11
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 21-2-8.
(lb) - Max Horz 1=-247(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 12=-184(LC 12), 13=-141(LC 12), 10=-183(LC 13), 8=-141(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=422(LC 22), 12=576(LC 19), 13=347(LC 19), 10=575(LC 20), 8=347(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-271/217, 6-7=-250/217
WEBS 3-12=-404/307, 2-13=-321/260, 5-10=-404/308, 6-8=-320/260

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) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 10-7-10, Exterior(2) 10-7-10 to 15-0-7, Interior(1) 15-0-7 to 20-11-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 12=184, 13=141, 10=183, 8=141.
8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	V2	VALLEY	1	1	I52321655
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:48 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-eh4IXCNUFxZllVmx_i0_m9sdoqJNs5S16CPHe_zA3bf

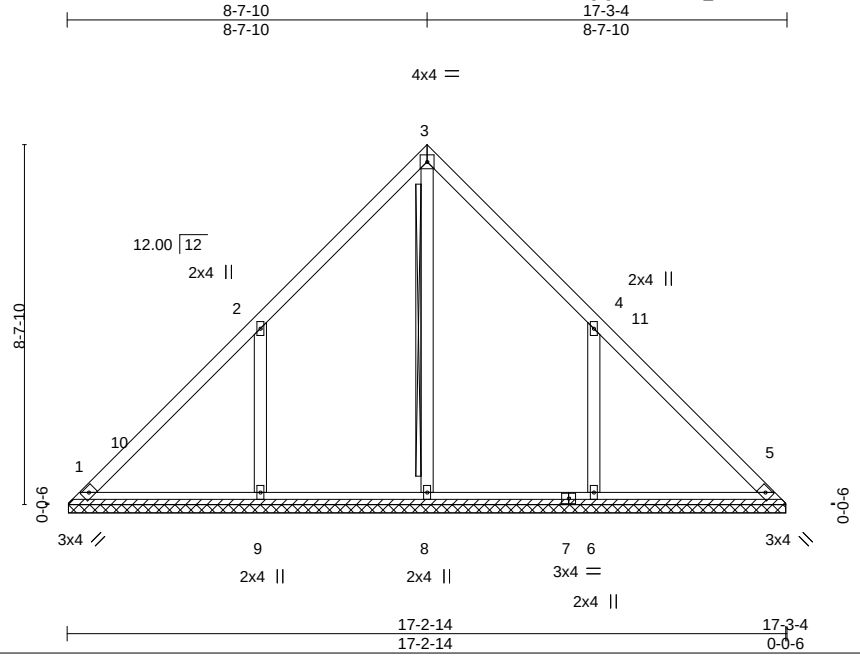


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

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	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 84 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.
WEBS T-Brace: 2x4 SPF No.2 - 3-8
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 17-2-8.
(lb) - Max Horz 1=-199(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-209(LC 12), 6=-208(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=415(LC 22), 9=540(LC 19), 6=539(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-448/333, 4-6=-448/333

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) 0-4-4 to 4-7-10, Interior(1) 4-7-10 to 8-7-10, Exterior(2) 8-7-10 to 13-0-7, Interior(1) 13-0-7 to 16-11-0 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=209, 6=208.
7) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	V3	VALLEY	1	1	I52321656
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:49 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-6tegkYO60FhbMfL7YQYDJMPpZEf2bZNALs8rARzA3be

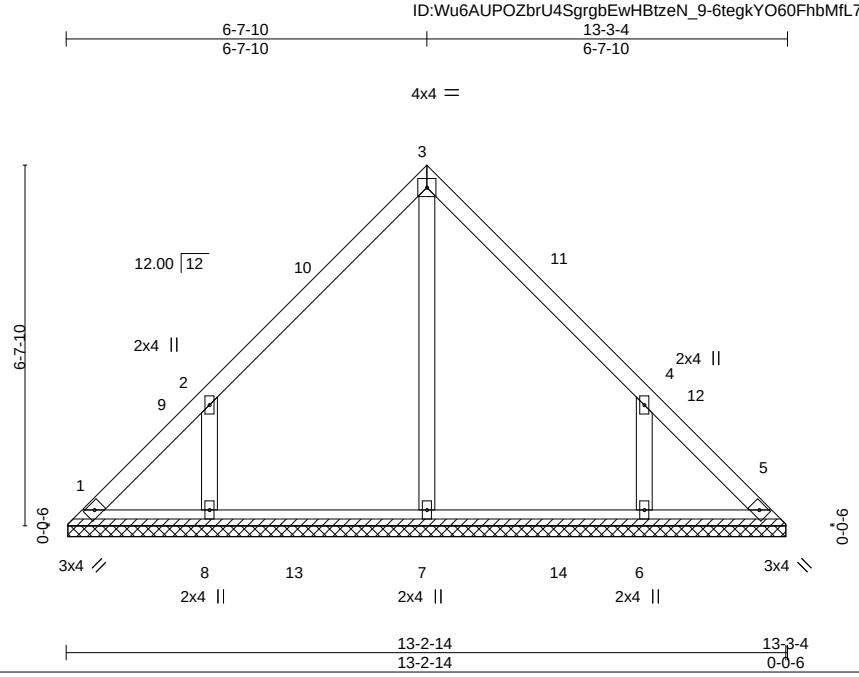


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

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	0.15	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: 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 13-2-8.
(lb) - Max Horz 1=-151(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-164(LC 12), 6=-164(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=389(LC 19), 8=381(LC 19), 6=380(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-360/291, 4-6=-360/291

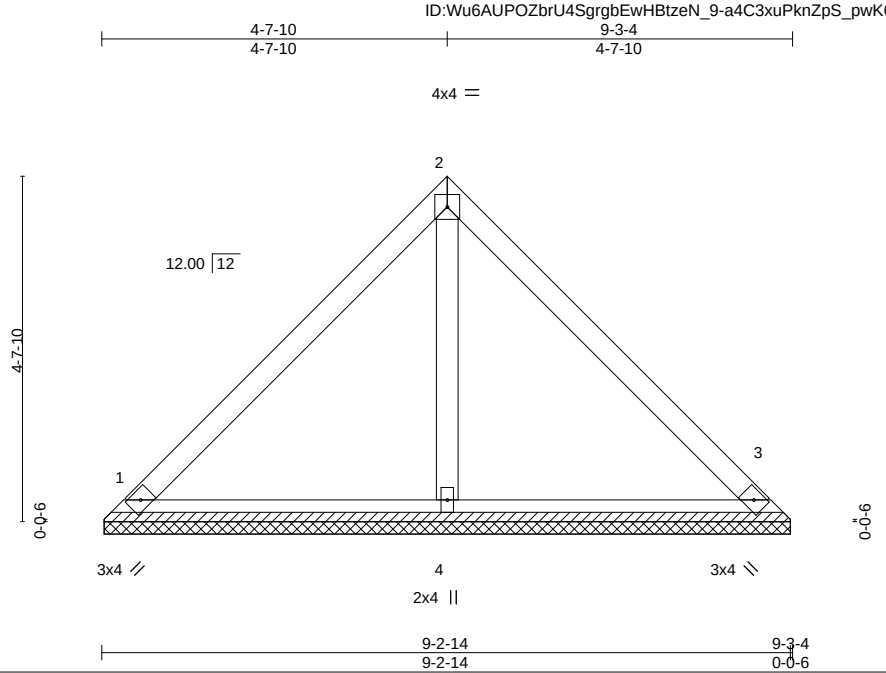
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 6-7-10, Exterior(2) 6-7-10 to 11-0-7, Interior(1) 11-0-7 to 12-11-0 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, 5 except (jt=lb) 8=164, 6=164.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	V4	VALLEY	1	1	I52321657
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:50 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-a4C3xuPknZpS_pwK673SrayzLd?ZK1GKZWuOjtzA3bd



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. (size) 1=9-2-8, 3=9-2-8, 4=9-2-8
Max Horz 1=-103(LC 10)
Max Uplift 1=-26(LC 13), 3=-26(LC 13)
Max Grav 1=194(LC 1), 3=194(LC 1), 4=297(LC 1)

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

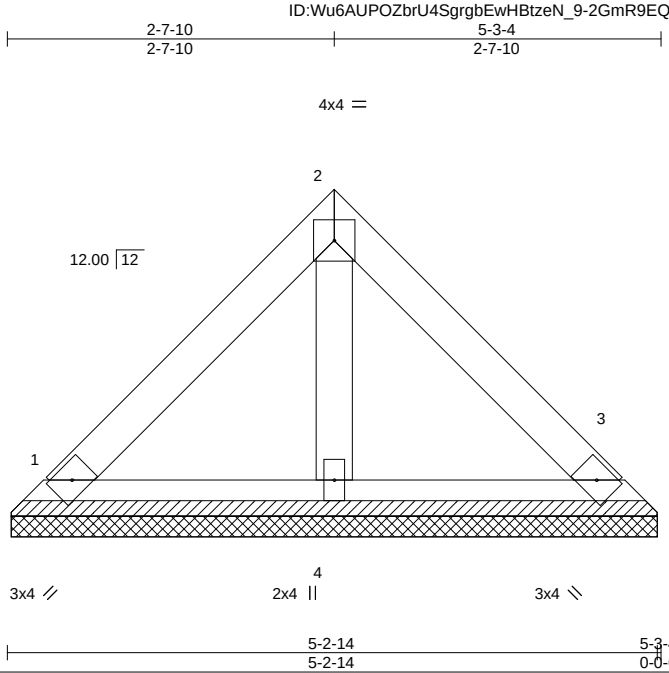
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip 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.

June 6,2022

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

Job	Truss	Truss Type	Qty	Ply	Lot 53 Liberty Meadows
J0822-3984	V5	VALLEY	1	1	I52321658
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Jun 3 07:07:51 2022 Page 1
ID:Wu6AUPOZbrU4SgrgbEwHBtzeN_9-2GmR9EQMYsxJcyVWgrahOnUAv1NJ3UAToAdxFJzA3bc



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)	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: 20 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 5-3-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-2-8, 3=5-2-8, 4=5-2-8
Max Horz 1=-55(LC 8)
Max Uplift 1=-20(LC 13), 3=-20(LC 13)
Max Grav 1=111(LC 1), 3=111(LC 1), 4=143(LC 1)

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

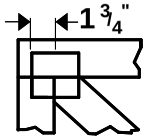
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip 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.

June 6,2022

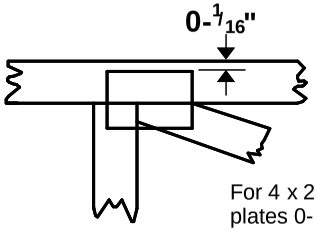
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

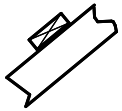
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

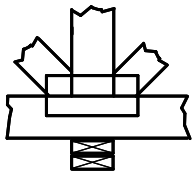
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

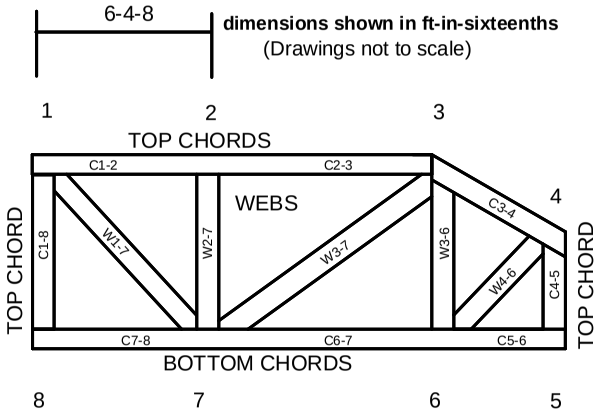


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.