

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: J0524-2974
Lot 10 Magnolia Hills

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

Pages or sheets covered by this seal: I68612293 thru I68612314

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844



October 3, 2024

Gilbert, Eric

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

Job J0524-2974	Truss A1-GE	Truss Type GABLE	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612293
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:05 2024 Page 1

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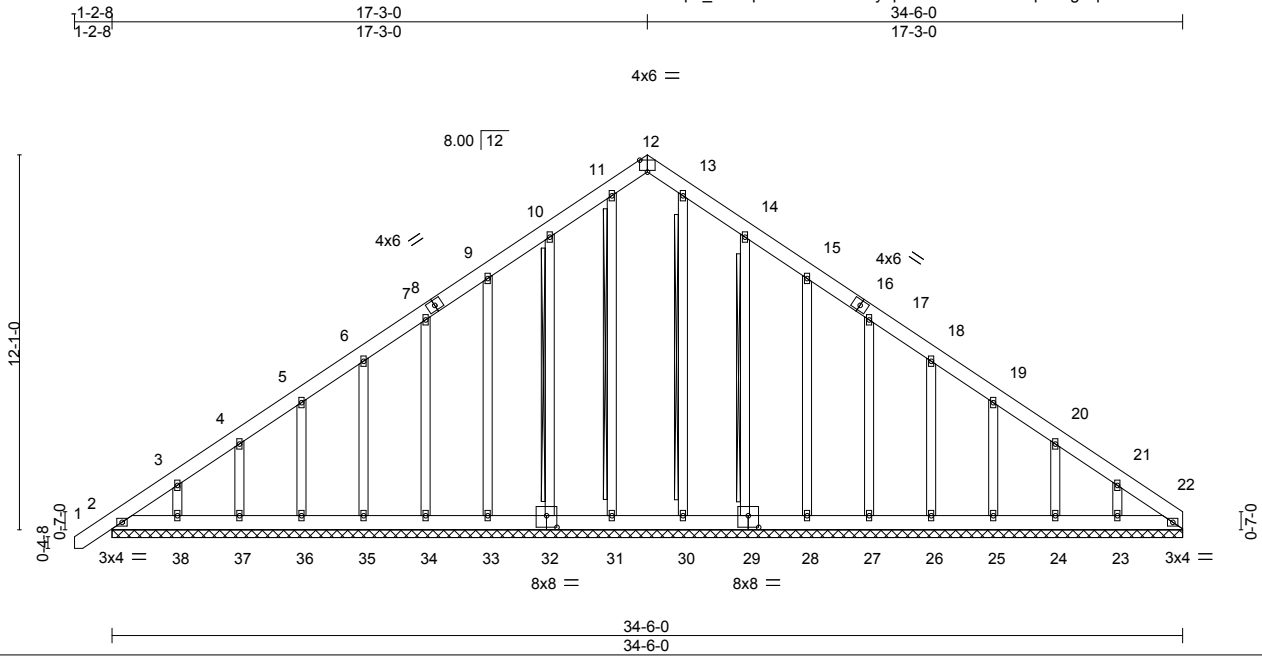


Plate Offsets (X,Y)--	[12:0-3-0,Edge], [29:0-4-0,0-4-8], [32:0-4-0,0-4-8]
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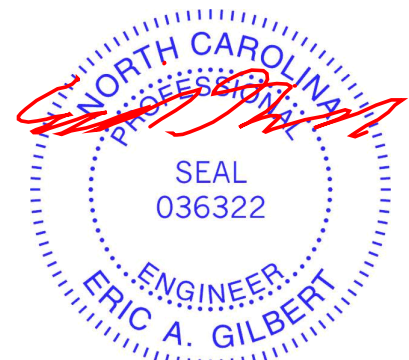
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.01	22	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 319 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 11-31, 10-32, 13-30, 14-29
	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 34-6-0.
 (lb) - Max Horz 2=360(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 33, 34, 35, 36, 37, 38, 28, 27, 26, 25, 24, 22 except 32=103(LC 12), 29=108(LC 13), 23=113(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 2, 31, 32, 33, 34, 35, 36, 37, 38, 30, 29, 28, 27, 26, 25, 24, 23, 22

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-402/260, 3-4=-319/228, 10-11=-233/259, 20-21=-251/154, 21-22=-340/228
 BOT CHORD 2-38=-199/304, 37-38=-199/304, 36-37=-199/304, 35-36=-199/304, 34-35=-199/304, 33-34=-199/304, 32-33=-199/304, 31-32=-197/303, 30-31=-197/303, 29-30=-197/303, 28-29=-199/304, 27-28=-199/304, 26-27=-199/304, 25-26=-199/304, 24-25=-199/304, 23-24=-199/304, 22-23=-199/304

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) All plates are 2x4 MT20 unless otherwise indicated.
 - 5) Gable requires continuous bottom chord bearing.
 - 6) Gable studs spaced at 2-0-0 oc.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 33, 34, 35, 36, 37, 38, 28, 27, 26, 25, 24, 22 except (jt=lb) 32=103, 29=108, 23=113.
 - 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



October 3, 2024

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY TRENCO <small>A MiTek Affiliate</small></p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J0524-2974	Truss A2	Truss Type COMMON	Qty 11	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612294
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:06 2024 Page 1

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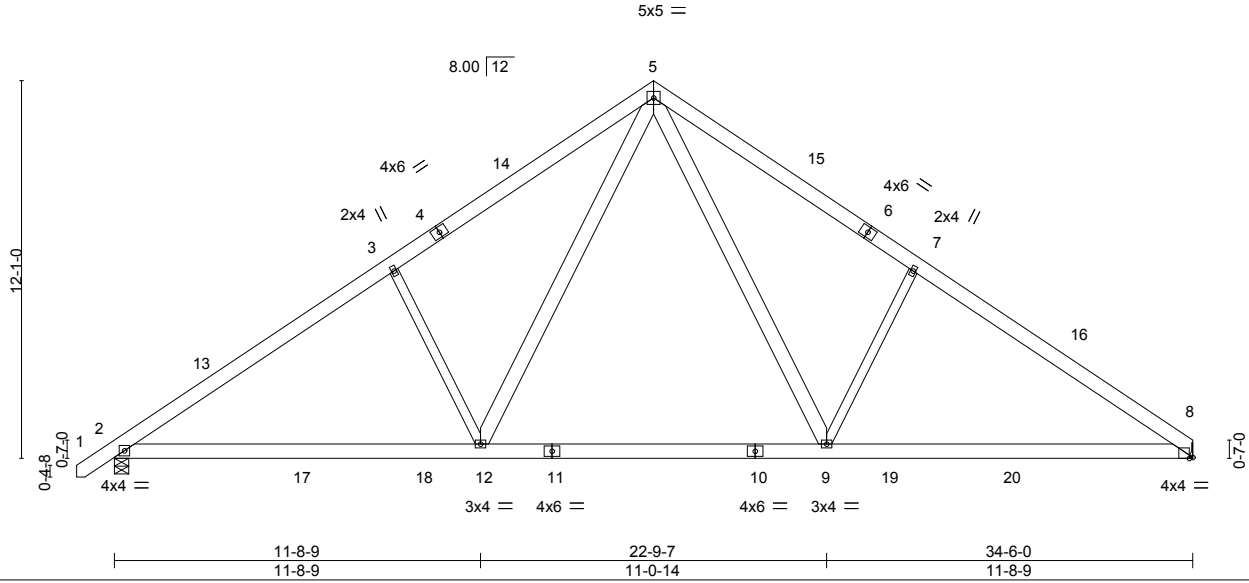


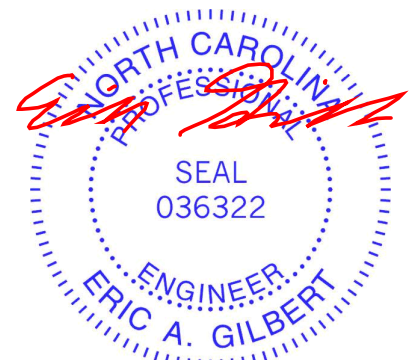
Plate Offsets (X,Y)-- [8:0-1-6,Edge]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	-0.16 9-12	>999 360
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.28 8-9	>999 240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.05 8	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.05 2-12	>999 240
						PLATES MT20
						GRIP 244/190
						Weight: 258 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-8-15 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except* 7-9,3-12: 2x4 SP No.2	

REACTIONS. (size) 2=0-5-8, 8=Mechanical
 Max Horz 2=288(LC 9)
 Max Uplift 2=-90(LC 12), 8=-73(LC 13)
 Max Grav 2=1670(LC 19), 8=1593(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2288/405, 3-5=-2144/509, 5-7=-2167/526, 7-8=-2311/420
 BOT CHORD 2-12=-201/2001, 9-12=0/1300, 8-9=-208/1831
 WEBS 5-9=-191/1148, 7-9=-600/347, 5-12=-185/1109, 3-12=-578/336

- 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 17-3-0, Exterior(2) 17-3-0 to 21-7-13, Interior(1) 21-7-13 to 34-5-4 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 live load of 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, 8.



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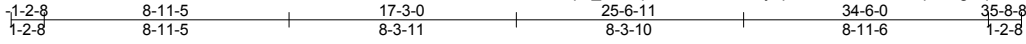
<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY TRENCO A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Lot 10 Magnolia Hills
J0524-2974	A4	COMMON	6	1	168612295

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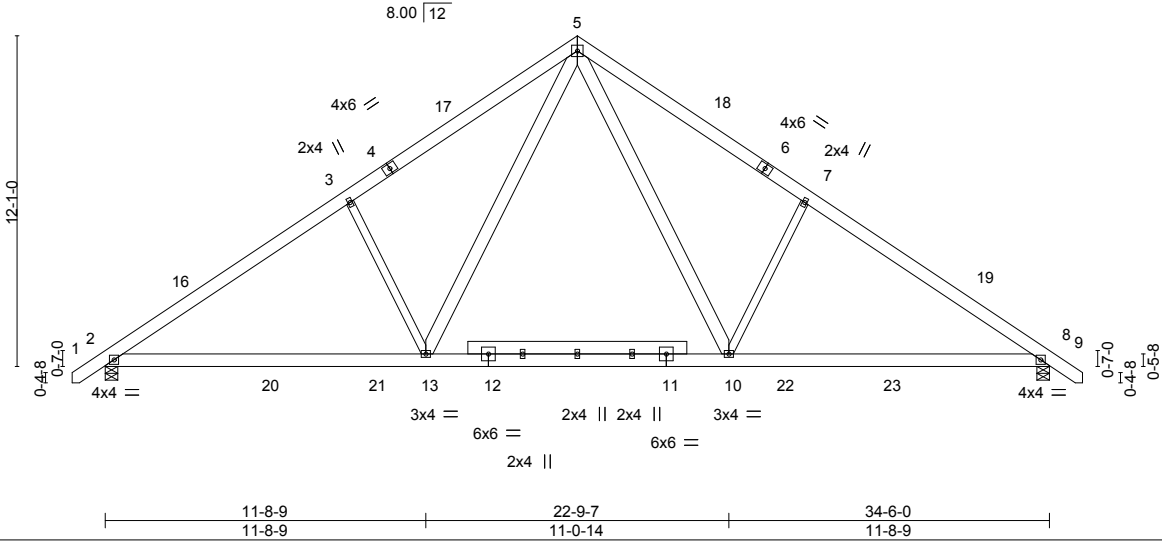
8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:06 2024 Page 1

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5x5 =

Scale = 1:84.2



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	10-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(CT) -0.26	2-13	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.42	Horz(CT) 0.05	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL) 0.05	2-13	>999		
							Weight: 280 lb	FT = 20%

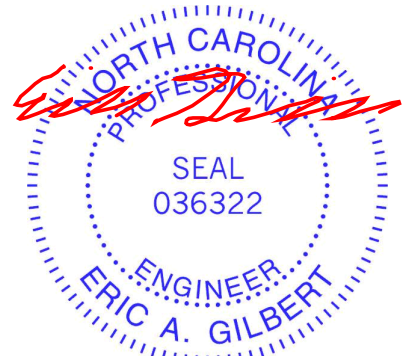
LUMBER-
 TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x6 SP No.1 *Except*
 7-10,3-13: 2x4 SP No.2

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

REACTIONS. (size) 2=0-5-8, 8=0-5-8
 Max Horz 2=-293(LC 10)
 Max Uplift 2=-90(LC 12), 8=-90(LC 13)
 Max Grav 2=1662(LC 19), 8=1662(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2274/402, 3-5=-2130/506, 5-7=-2130/506, 7-8=-2274/402
 BOT CHORD 2-13=-164/1998, 10-13=0/1296, 8-10=-176/1802
 WEBS 5-10=-184/1111, 7-10=-578/335, 5-13=-184/1111, 3-13=-578/336

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 17-3-0, Exterior(2) 17-3-0 to 21-7-13, Interior(1) 21-7-13 to 35-6-15 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.



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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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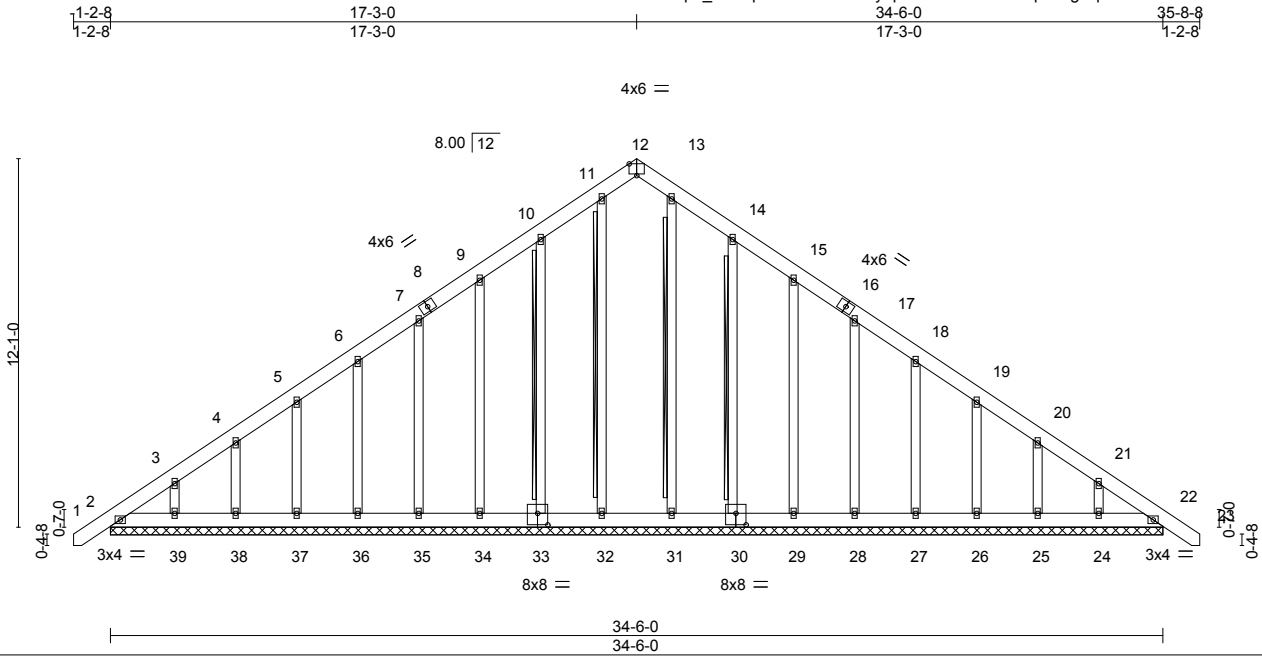
818 Soundside Road
 Edenton, NC 27932

Job J0524-2974	Truss A5-GE	Truss Type GABLE	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612296
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Comtech, Inc. Fayetteville, NC - 28314,

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Scale = 1:75.5

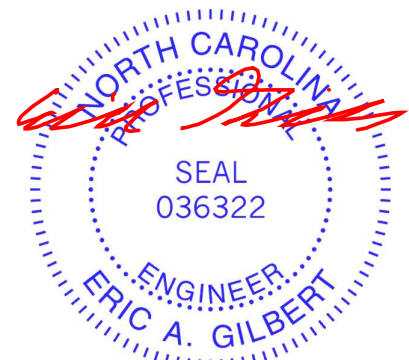
Plate Offsets (X,Y)--	[12:0-3-0,Edge], [16:0-0-0,0-0-0], [30:0-4-0,0-4-8], [33:0-4-0,0-4-8]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.08	Vert(LL) -0.00 22 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00 22 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.17	Horz(CT) 0.01 22 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 322 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 11-32, 10-33, 13-31, 14-30
	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 34-6-0.
 (lb) - Max Horz 2=-366(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 34, 35, 36, 37, 38, 39, 29, 28, 27, 26, 25, 24 except 33=-103(LC 12), 30=-108(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 2, 22, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25, 24 except 32=253(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-399/264, 3-4=-316/231, 10-11=-239/266, 13-14=-239/263, 21-22=-327/235
 BOT CHORD 2-39=-214/323, 38-39=-214/323, 37-38=-214/323, 36-37=-214/323, 35-36=-214/323, 34-35=-214/323, 33-34=-214/323, 32-33=-212/323, 31-32=-212/323, 30-31=-212/323, 29-30=-214/324, 28-29=-214/324, 27-28=-214/324, 26-27=-214/324, 25-26=-214/324, 24-25=-214/324, 22-24=-214/324

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) All plates are 2x4 MT20 unless otherwise indicated.
 - 5) Gable requires continuous bottom chord bearing.
 - 6) Gable studs spaced at 2-0-0 oc.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 34, 35, 36, 37, 38, 39, 29, 28, 27, 26, 25, 24 except (jt=lb) 33=103, 30=108.
 - 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



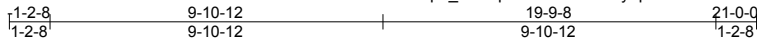
October 3, 2024

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Job J0524-2974	Truss B1-GE	Truss Type GABLE	Qty 1	Ply 1	Lot 10 Magnolia Hills 168612297
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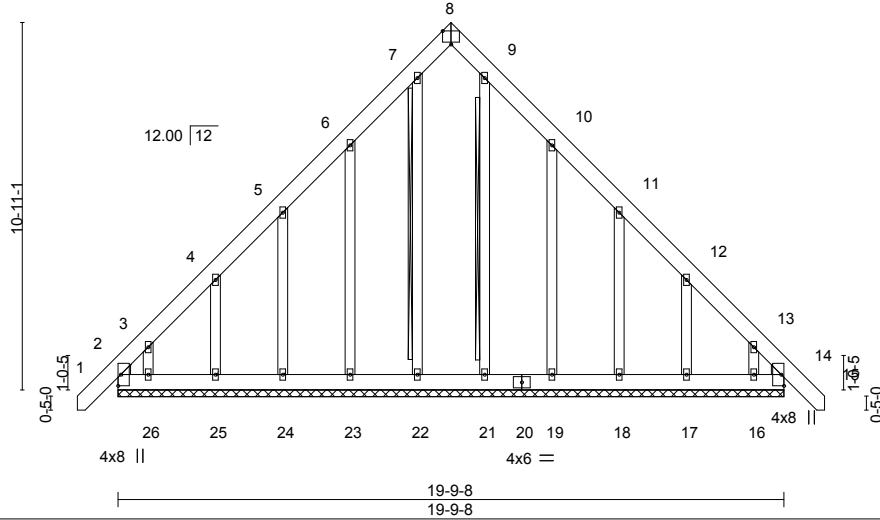
Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:07 2024 Page 1



4x6 =

Scale = 1:68.5



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	14	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	14	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.01	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 196 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 - 7-22, 9-21
 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 19-9-8.
 (lb) - Max Horz 2=-329(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 22 except 2=-180(LC 10), 23=-159(LC 12), 24=-140(LC 12), 25=-152(LC 12), 26=-242(LC 12), 19=-162(LC 13), 18=-141(LC 13), 14=-125(LC 11), 17=-151(LC 13), 16=-231(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 22, 23, 24, 25, 26, 21, 19, 18, 17, 16 except 2=422(LC 12), 14=385(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-547/353, 3-4=-358/214, 12-13=-322/213, 13-14=-505/360
 BOT CHORD 2-26=-234/351, 25-26=-236/352, 24-25=-237/352, 23-24=-238/353, 22-23=-238/353, 21-22=-238/353, 19-21=-238/353, 18-19=-238/352, 17-18=-237/352, 16-17=-236/351, 14-16=-234/348

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 22 except (jt=lb) 2=180, 23=159, 24=140, 25=152, 26=242, 19=162, 18=141, 14=125, 17=151, 16=231.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



October 3, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
 Edenton, NC 27932

Job J0524-2974	Truss B2	Truss Type COMMON GIRDER	Qty 1	Ply 2	Lot 10 Magnolia Hills 168612298
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:08 2024 Page 1

ID:Jp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



5x8 ||

Scale = 1:67.6

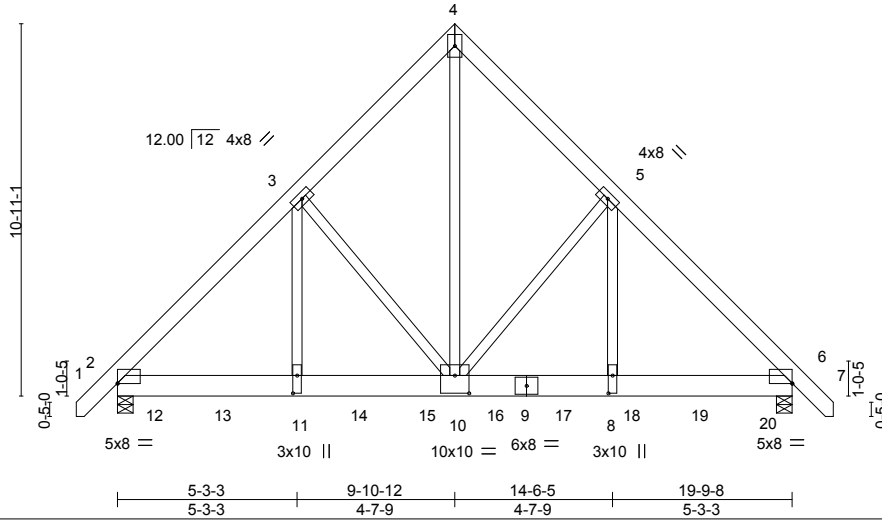


Plate Offsets (X,Y)-- [2:0-0-0,0-0-2], [6:Edge,0-0-2], [8:0-6-4,0-1-8], [10:0-5-0,0-6-4], [11:0-6-4,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.08 10-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.14 10-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.91	Horz(CT)	0.03 6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.05 10-11	>999	240		
								Weight: 371 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 6=0-5-8
Max Horz 2=-263(LC 6)
Max Uplift 2=-456(LC 8), 6=-466(LC 9)
Max Grav 2=8127(LC 2), 6=8332(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-8203/504, 3-4=-5530/448, 4-5=-5530/449, 5-6=-8191/503
BOT CHORD 2-11=-348/5421, 10-11=-348/5432, 8-10=-253/5425, 6-8=-253/5414
WEBS 4-10=-527/7447, 5-10=-2432/303, 5-8=-171/3836, 3-10=-2442/302, 3-11=-171/3855

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=456, 6=466.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1499 lb down and 90 lb up at 1-0-0, 1497 lb down and 93 lb up at 3-0-0, 1497 lb down and 93 lb up at 5-0-0, 1497 lb down and 93 lb up at 7-0-0, 1497 lb down and 93 lb up at 9-0-0, 1497 lb down and 93 lb up at 11-0-0, 1497 lb down and 93 lb up at 13-0-0, 1497 lb down and 93 lb up at 15-0-0, and 1497 lb down and 93 lb up at 17-0-0, and 1501 lb down and 88 lb up at 19-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-7=-60, 2-6=-20



October 3, 2024

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job J0524-2974	Truss B2	Truss Type COMMON GIRDER	Qty 1	Ply 2	Lot 10 Magnolia Hills Job Reference (optional)	168612298
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:08 2024 Page 2
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LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 11=-1347(B) 12=-1349(B) 13=-1347(B) 14=-1347(B) 15=-1347(B) 16=-1347(B) 17=-1347(B) 18=-1347(B) 19=-1347(B) 20=-1351(B)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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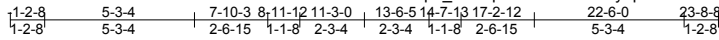
818 Soundside Road
Edenton, NC 27932

Job J0524-2974	Truss C1-GE	Truss Type ATTIC	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612299
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:09 2024 Page 1

ID:JjP3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



4x6 =

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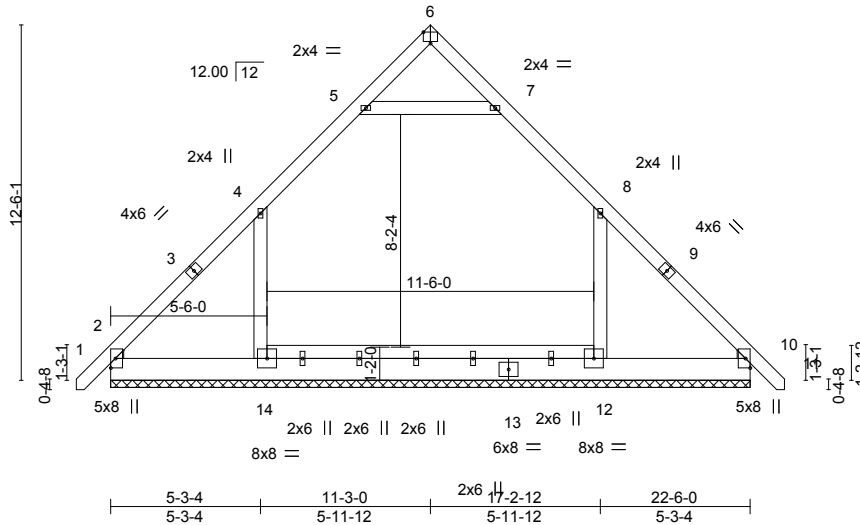


Plate Offsets (X,Y)--	{6:0-3-0,Edge}
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	-0.00	11	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.00	11	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.00	10	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-S					Weight: 236 lb	FT = 20%

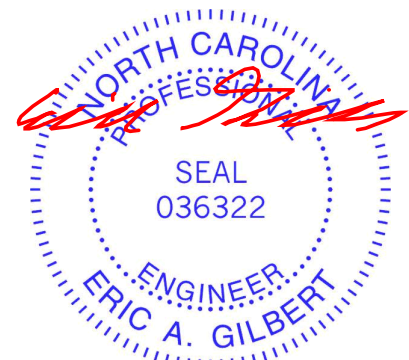
LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1 *Except*
12-14: 2x6 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

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

REACTIONS. All bearings 22-6-0.
(lb) - Max Horz 2=295(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) except 14=117(LC 12), 12=116(LC 13)
Max Grav All reactions 250 lb or less at joint(s) except 2=576(LC 1), 14=1026(LC 20), 12=1023(LC 21), 10=576(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-647/29, 4-5=-566/133, 7-8=-565/133, 8-10=-644/24
BOT CHORD 2-14=0/388, 12-14=0/388, 10-12=0/388
WEBS 4-14=-524/292, 8-12=-524/293, 5-7=-350/163

- 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 Corner(3) -1-0-14 to 3-3-15, Exterior(2) 3-3-15 to 11-3-0, Corner(3) 11-3-0 to 15-7-13, Exterior(2) 15-7-13 to 23-6-14 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) 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
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 14 and 116 lb uplift at joint 12.
 - 8) Attic room checked for L/360 deflection.



October 3, 2024

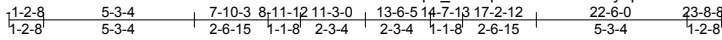
<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p>TRENCO</p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J0524-2974	Truss C2	Truss Type ATTIC	Qty 6	Ply 1	Lot 10 Magnolia Hills 168612300
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:09 2024 Page 1

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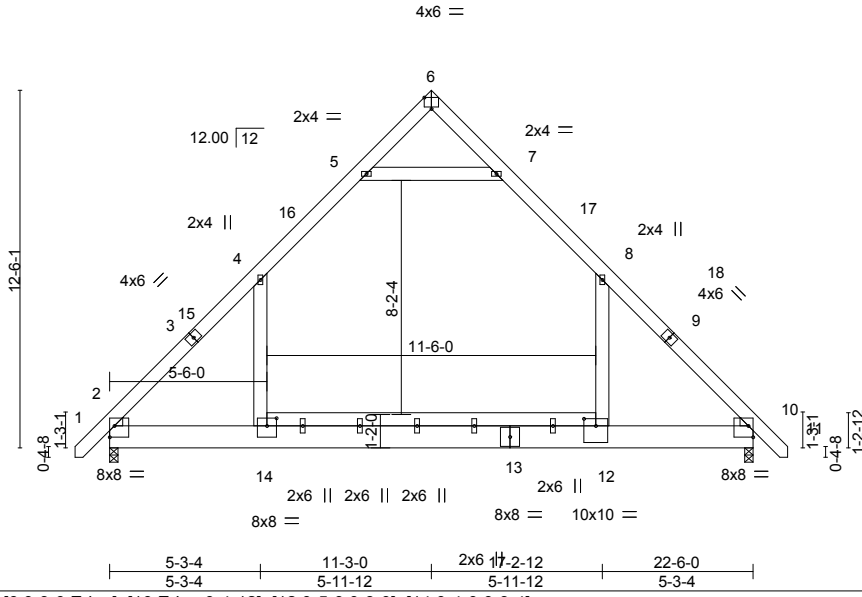


Plate Offsets (X,Y)--	[2:Edge,0-4-12], [6:0-3-0,Edge], [10:Edge,0-4-12], [12:0-5-0,0-3-0], [14:0-4-0,0-3-4]
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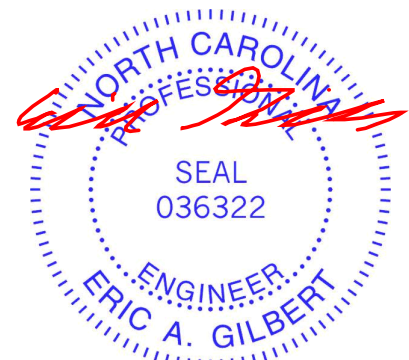
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	-0.29	12-14	>911	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.51	12-14	>522		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.01	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.10	12-14	>999		
								Weight: 236 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP 2400F 2.0E *Except* 1-3,9-11: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-4-10 oc purlins.
BOT CHORD 2x10 SP No.1 *Except* 12-14: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 8-4-3 oc bracing.
WEBS 2x6 SP No.1	
WEDGE Left: 2x4 SP No.2 , Right: 2x4 SP No.2	

REACTIONS. (size) 2=0-3-8, 10=0-3-8
 Max Horz 2=295(LC 11)
 Max Grav 2=1518(LC 20), 10=1518(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-1928/0, 4-5=-1039/146, 5-6=0/385, 6-7=0/386, 7-8=-1038/146, 8-10=-1927/0
 BOT CHORD 2-14=0/1088, 12-14=0/1088, 10-12=0/1088
 WEBS 4-14=0/939, 8-12=0/939, 5-7=-1492/196

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-14 to 3-3-15, Interior(1) 3-3-15 to 11-3-0, Exterior(2) 11-3-0 to 15-7-13, Interior(1) 15-7-13 to 23-6-14 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.
 - 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.



October 3, 2024

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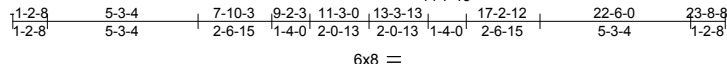
818 Soundside Road
 Edenton, NC 27932

Job J0524-2974	Truss C3	Truss Type ATTIC	Qty 2	Ply 2	Lot 10 Magnolia Hills Job Reference (optional)	168612301
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Comtech, Inc. Fayetteville, NC - 28314,

8,630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:10 2024 Page 1

ID:JJP3_bNirdpeLXA5mDh75?y7p3U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?f14-7-13



6x8 =

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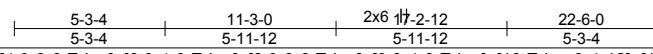
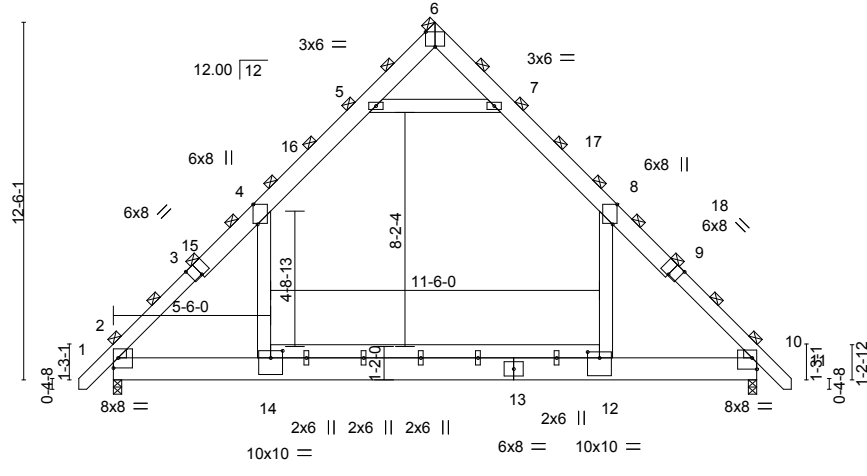


Plate Offsets (X,Y)-- [2:Edge,0-4-4], [3:0-4-0,Edge], [4:0-8-6,Edge], [6:0-4-0,Edge], [8:0-8-6,Edge], [9:0-4-0,Edge], [10:Edge,0-4-12], [12:0-5-0,0-2-8], [14:0-5-0,0-3-0]

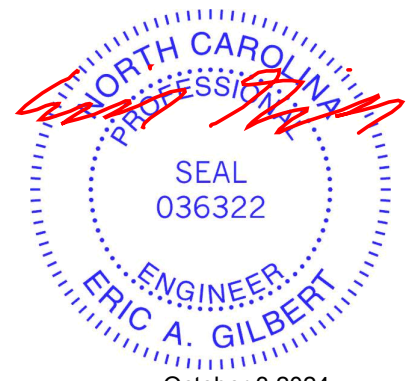
LOADING (psf)	SPACING-	4-9-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.84	Vert(LL)	-0.26 12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.47 12-14	>572	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.24	Horz(CT)	0.01 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-S	Wind(LL)	0.13 12-14	>999	240	Weight: 505 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x8 SP 2400F 2.0E *Except* 1-3,9-11: 2x6 SP No.1	TOP CHORD 2-0-0 oc purlins (5-2-3 max.) (Switched from sheeted: Spacing > 2-8-0).
BOT CHORD 2x10 SP 2400F 2.0E *Except* 12-14: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1	
WEDGE Left: 2x4 SP No.2, Right: 2x4 SP No.2	

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-696(LC 10)
Max Grav 2=5052(LC 20), 10=4038(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-5857/98, 4-5=-2882/441, 5-6=-136/1482, 6-7=-98/1334, 7-8=-3030/478, 8-10=-5634/60
BOT CHORD 2-14=0/3262, 12-14=0/3262, 10-12=0/3262
WEBS 4-14=0/3443, 8-12=0/2956, 5-7=-4911/789

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-14 to 3-3-15, Interior(1) 3-3-15 to 11-3-0, Exterior(2) 11-3-0 to 15-7-13, Interior(1) 15-7-13 to 23-6-14 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 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
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
 - Magnitude of user added load(s) on this truss have been applied uniformly across all gravity load cases with no adjustments.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1882 lb down and 470 lb up at 5-6-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - Attic room checked for L/360 deflection.



LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job J0524-2974	Truss C3	Truss Type ATTIC	Qty 2	Ply 2	Lot 10 Magnolia Hills I68612301
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Comtech, Inc. Fayetteville, NC - 28314,

8,630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:10 2024 Page 2
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Job Reference (optional)

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-143, 4-5=-190, 5-6=-142, 6-7=-142, 7-8=-190, 8-11=-142, 2-14=-47, 12-14=-95, 10-12=-47, 5-7=-47

Drag: 4-14=-24, 8-12=-24

Concentrated Loads (lb)

Vert: 14=-1860(F)

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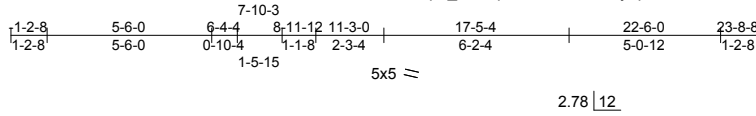
818 Soundside Road
Edenton, NC 27932

Job J0524-2974	Truss C4	Truss Type ATTIC	Qty 3	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612302
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8,630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:11 2024 Page 1

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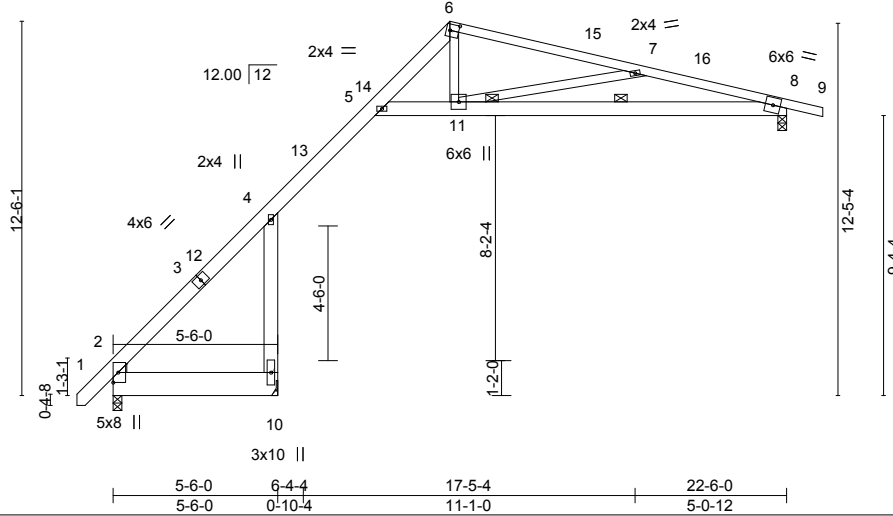


Plate Offsets (X,Y)-- [6:0-3-9,0-2-8]

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 0.78	Vert(LL)	0.00	2-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.00	2-10	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.60	Horz(CT)	0.31	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	-0.00	2	>999		
								Weight: 141 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except*
6-9: 2x4 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1 *Except*
6-11,7-11: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-11-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-11
JOINTS 1 Brace at Jt(s): 11

WEDGE
Left: 2x4 SP No.2

REACTIONS. (size) 2=0-3-8, 10=Mechanical, 8=0-3-8
Max Horz 2=345(LC 12)
Max Uplift 2=94(LC 10), 10=-500(LC 12), 8=-196(LC 9)
Max Grav 2=297(LC 12), 10=1050(LC 20), 8=552(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-526/615, 4-5=-444/193, 5-6=-676/471, 6-7=-688/496, 7-8=-1535/988
WEBS 5-11=-381/624, 8-11=-930/1471, 7-11=-868/555, 4-10=-1244/884

- 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) -1-0-14 to 3-3-15, Interior(1) 3-3-15 to 11-3-0, Exterior(2) 11-3-0 to 15-7-13, Interior(1) 15-7-13 to 23-8-8 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.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 2, 500 lb uplift at joint 10 and 196 lb uplift at joint 8.
 - 7) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-14=-80, 6-14=-60, 6-9=-60, 2-10=-20



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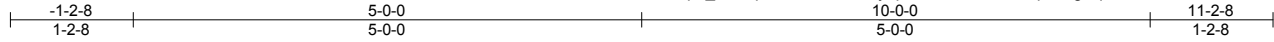


Job J0524-2974	Truss D1-SG	Truss Type GABLE	Qty 1	Ply 1	Lot 10 Magnolia Hills 168612303
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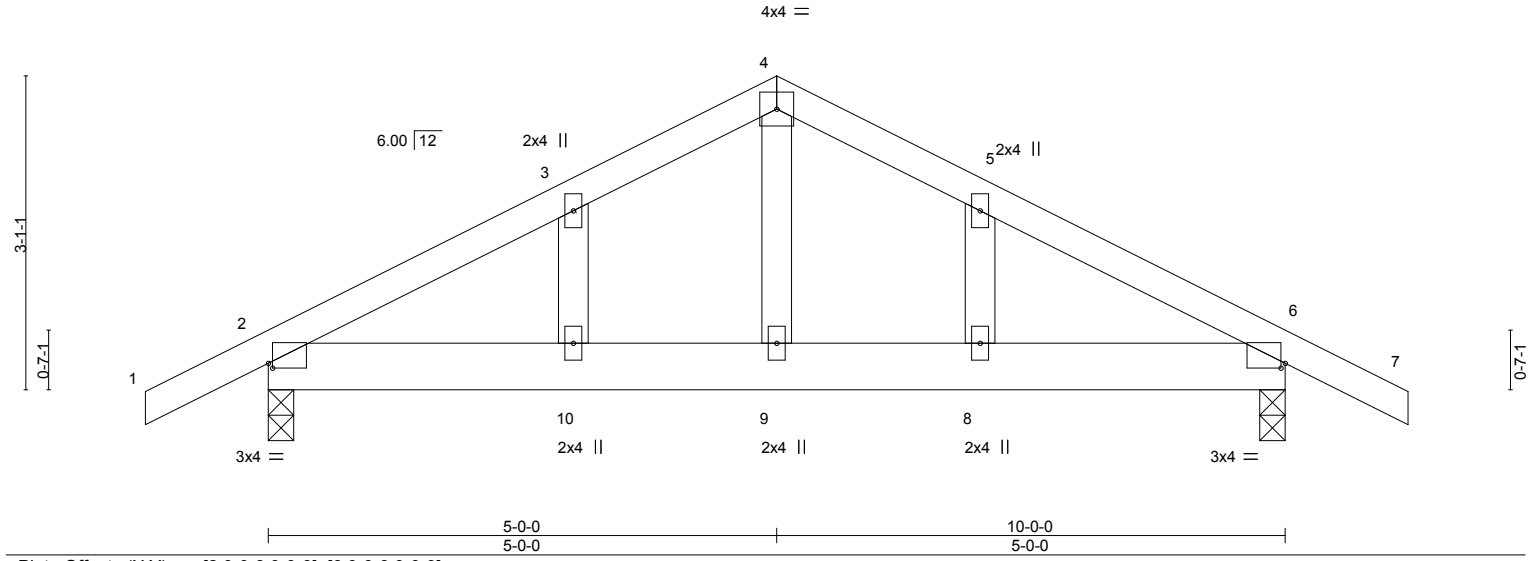
Comtech, Inc. Fayetteville, NC - 28314,

8,630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:11 2024 Page 1

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Scale = 1:22.7



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.12	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(LL) -0.01 10 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Vert(CT) -0.02 10 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.02 8 >999 240	Weight: 52 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
OTHERS 2x4 SP No.2	

REACTIONS. (size) 2=0-3-0, 6=0-3-0
 Max Horz 2=-63(LC 17)
 Max Uplift 2=-120(LC 9), 6=-120(LC 8)
 Max Grav 2=470(LC 1), 6=470(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-498/559, 3-4=-455/613, 4-5=-455/613, 5-6=-498/559
 BOT CHORD 2-10=-395/386, 9-10=-395/386, 8-9=-395/386, 6-8=-395/386
 WEBS 4-9=-420/250

- 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 Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) Gable studs spaced at 2-0-0 oc.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 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 120 lb uplift at joint 2 and 120 lb uplift at joint 6.

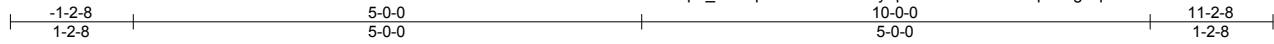


Job	Truss	Truss Type	Qty	Ply	Lot 10 Magnolia Hills	168612304
J0524-2974	D2	COMMON	4	1	Job Reference (optional)	

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8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:11 2024 Page 1

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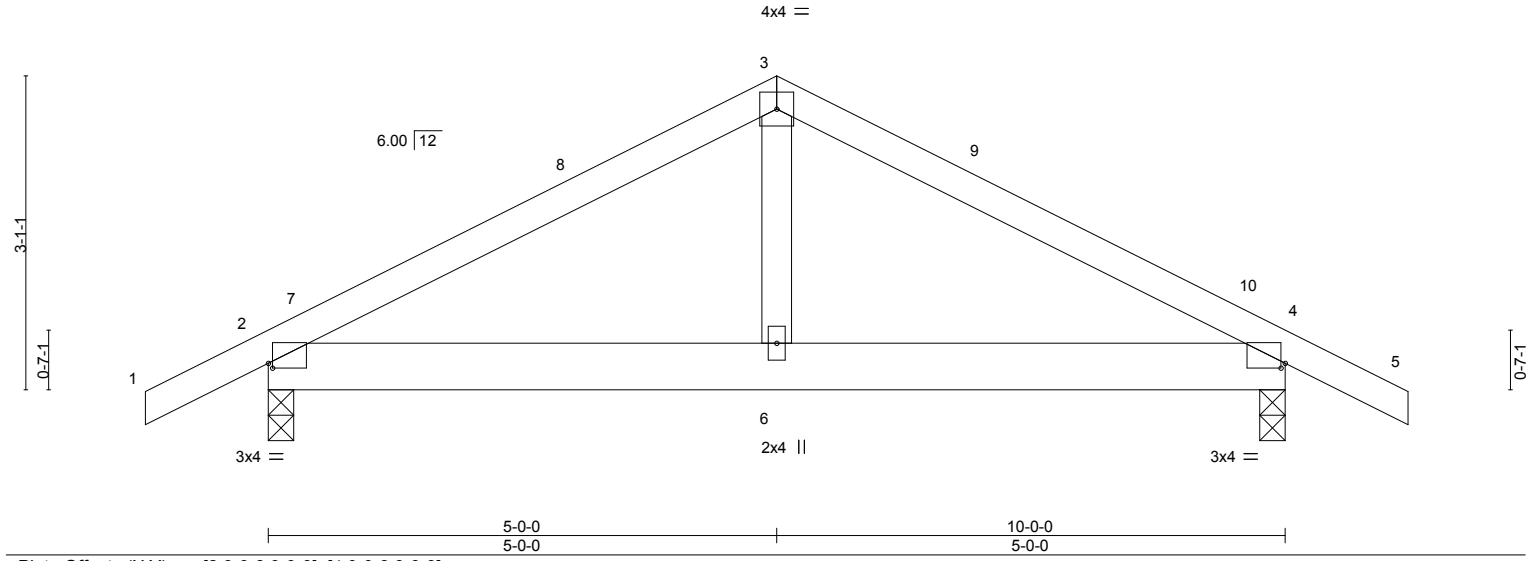


Plate Offsets (X,Y)--	[2:0-0-8,0-0-9], [4:0-0-8,0-0-9]
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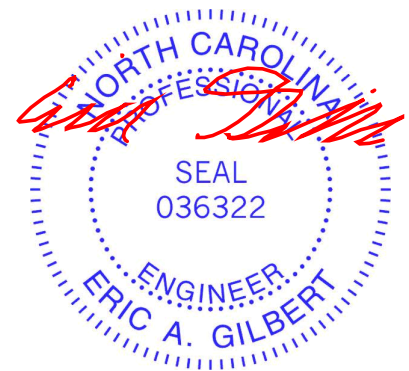
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.01	6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.01	2-6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.02	4-6	>999		
								Weight: 48 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

REACTIONS. (size) 2=0-3-0, 4=0-3-0
 Max Horz 2=40(LC 10)
 Max Uplift 2=91(LC 9), 4=91(LC 8)
 Max Grav 2=470(LC 1), 4=470(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-511/563, 3-4=-511/563
 BOT CHORD 2-6=-370/381, 4-6=-370/381
 WEBS 3-6=-329/240

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-0-0, Exterior(2) 5-0-0 to 9-4-13, Interior(1) 9-4-13 to 11-2-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 2 and 91 lb uplift at joint 4.



October 3, 2024

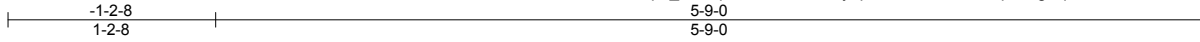
<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p>TRENCO</p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Lot 10 Magnolia Hills	168612305
J0524-2974	P1-GE	GABLE	1	1	Job Reference (optional)	

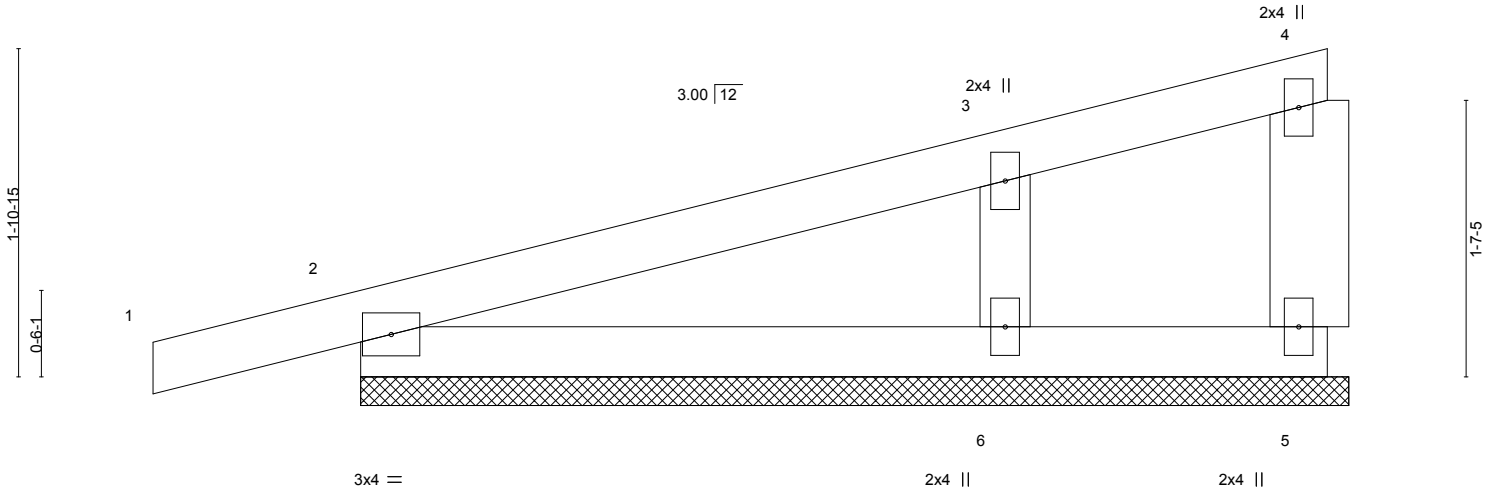
Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:12 2024 Page 1

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Scale = 1:13.4



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.10	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00		n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2015/TPI2014						Weight: 23 lb	FT = 20%

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

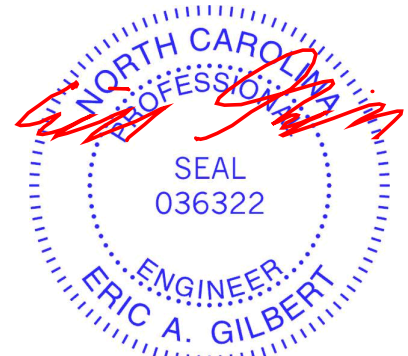
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=5-9-0, 2=5-9-0, 6=5-9-0
 Max Horz 2=80(LC 8)
 Max Uplift 5=-10(LC 8), 2=-93(LC 8), 6=-93(LC 12)
 Max Grav 5=20(LC 1), 2=210(LC 1), 6=284(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) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 10 lb uplift at joint 5, 93 lb uplift at joint 2 and 93 lb uplift at joint 6.



October 3, 2024

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818 Soundside Road
 Edenton, NC 27932

Job J0524-2974	Truss P2	Truss Type MONOPICH	Qty 6	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612306
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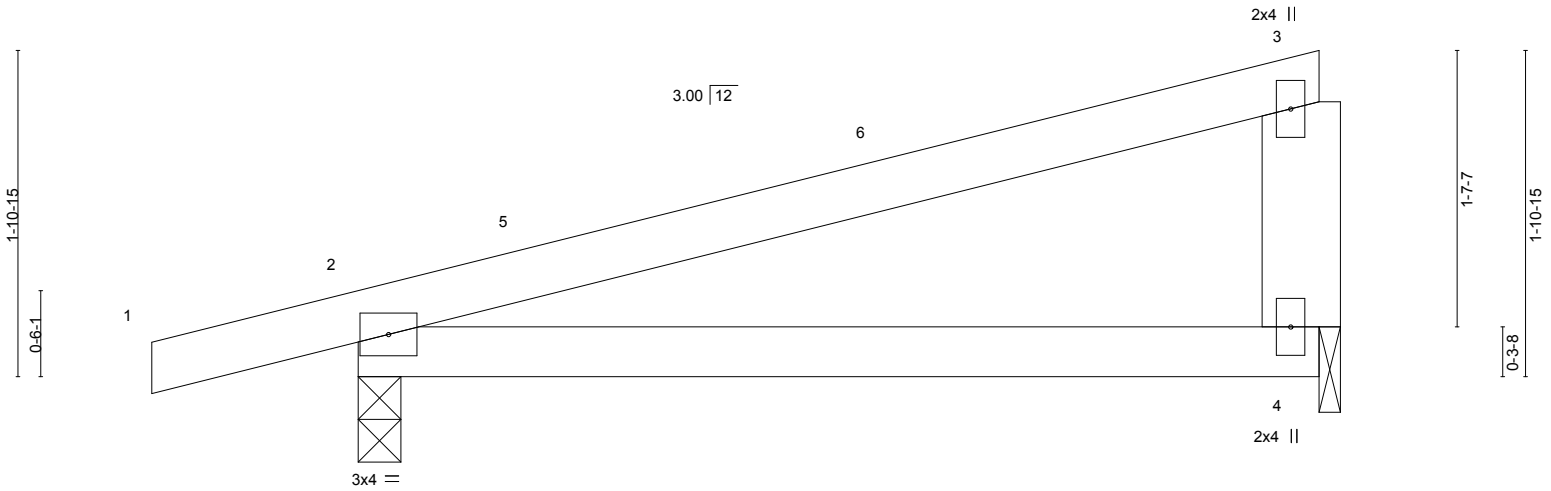
Comtech, Inc. Fayetteville, NC - 28314,

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Scale = 1:13.5



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)	-0.04 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.09 2-4	>728	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.10 2-4	>655	240	Weight: 22 lb	FT = 20%

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

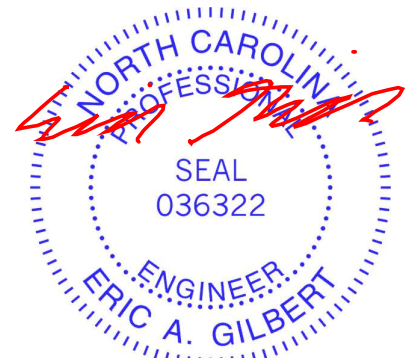
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-1-8
 Max Horz 2=56(LC 8)
 Max Uplift 2=-130(LC 8), 4=-85(LC 8)
 Max Grav 2=306(LC 1), 4=206(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; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-6-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 130 lb uplift at joint 2 and 85 lb uplift at joint 4.



October 3, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Magnolia Hills	168612307
J0524-2974	P3	MONOPICH	10	1		

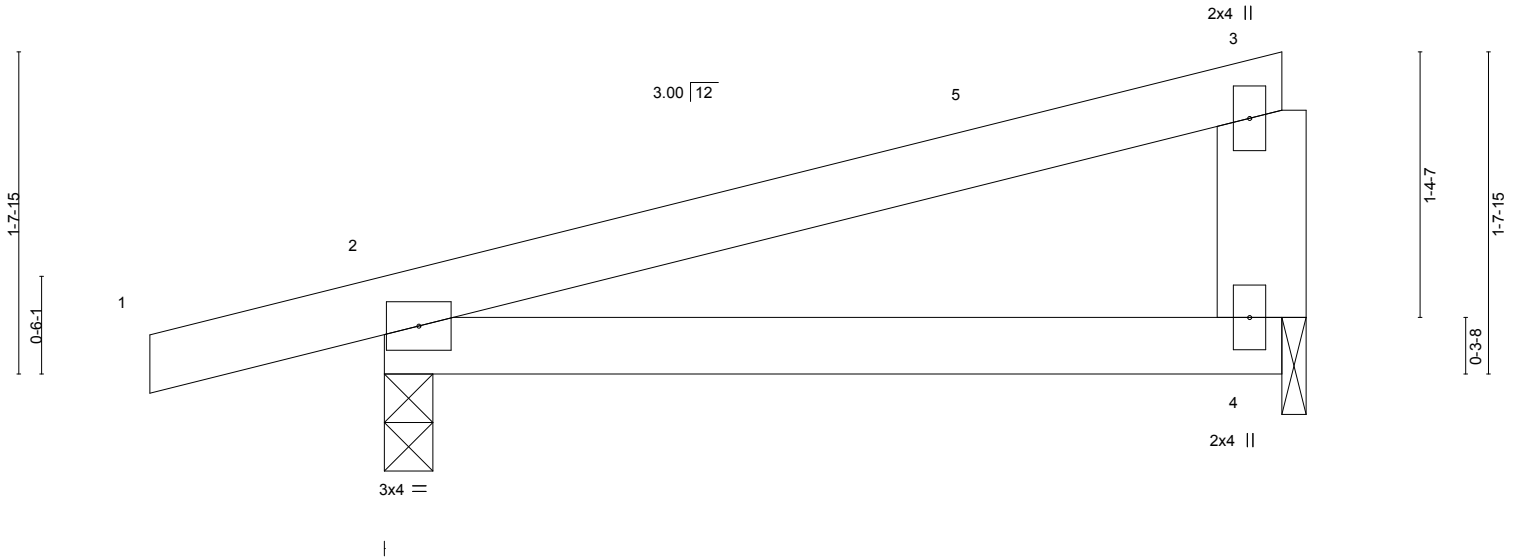
Comtech, Inc. Fayetteville, NC - 28314,

8,630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:12 2024 Page 1

ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:11.9



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 0.22	Vert(LL)	-0.02 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.04 2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.04 2-4	>999	240	Weight: 18 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-0, 4=0-1-8
 Max Horz 2=48(LC 8)
 Max Uplift 2=-117(LC 8), 4=-67(LC 8)
 Max Grav 2=268(LC 1), 4=164(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; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-6-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 117 lb uplift at joint 2 and 67 lb uplift at joint 4.



October 3, 2024

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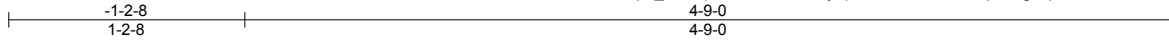
818 Soundside Road
 Edenton, NC 27932

Job J0524-2974	Truss P4-GE	Truss Type GABLE	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612308
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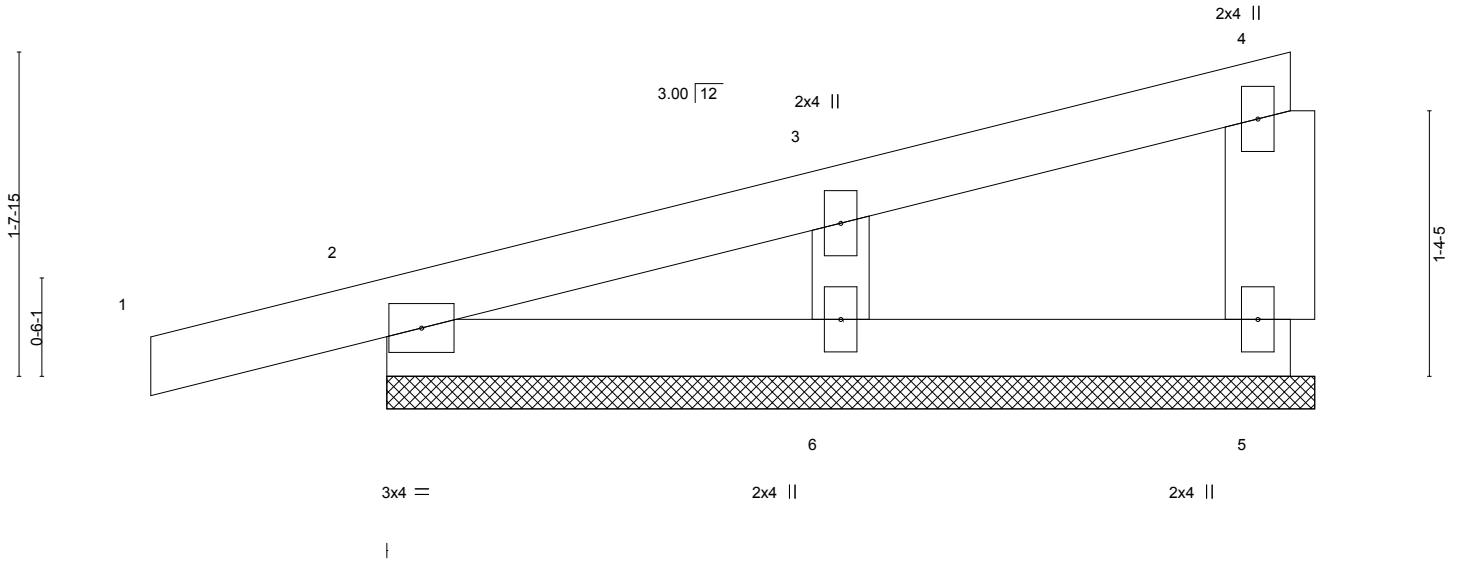
Comtech, Inc. Fayetteville, NC - 28314,

8,630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:13 2024 Page 1

ID:Jjp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:11.8



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 0.07	Vert(LL)	0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00		n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 19 lb	FT = 20%

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

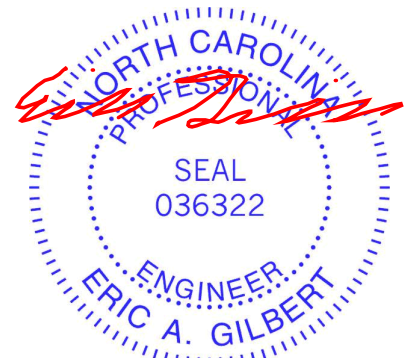
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=4-9-0, 2=4-9-0, 6=4-9-0
 Max Horz 2=69(LC 8)
 Max Uplift 5=-25(LC 8), 2=-85(LC 8), 6=-65(LC 12)
 Max Grav 5=70(LC 1), 2=167(LC 1), 6=197(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; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 25 lb uplift at joint 5, 85 lb uplift at joint 2 and 65 lb uplift at joint 6.



October 3, 2024

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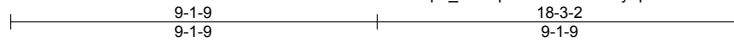
818 Soundside Road
 Edenton, NC 27932

Job J0524-2974	Truss VB1	Truss Type Valley	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612309
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Comtech, Inc. Fayetteville, NC - 28314,

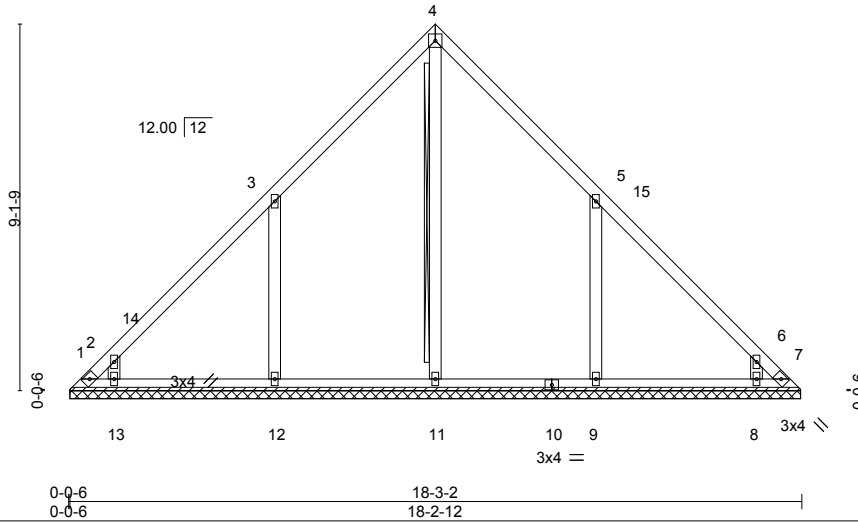
8,630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:13 2024 Page 1

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4x4 =

Scale = 1:57.4



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 0.16	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 92 lb	FT = 20%

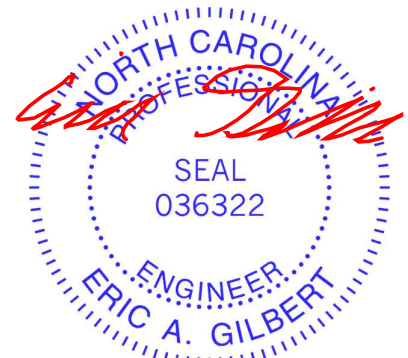
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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 18-2-6.
(lb) - Max Horz 1=210(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-184(LC 10), 7=-149(LC 11), 12=-184(LC 12), 13=-145(LC 12), 9=-184(LC 13), 8=-145(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=429(LC 22), 12=488(LC 19), 13=304(LC 19), 9=488(LC 20), 8=304(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-302/265, 6-7=-302/265
WEBS 3-12=-404/308, 2-13=-348/302, 5-9=-404/308, 6-8=-348/302

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=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 9-1-9, Exterior(2) 9-1-9 to 13-6-6, Interior(1) 13-6-6 to 17-10-14 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 184 lb uplift at joint 1, 149 lb uplift at joint 7, 184 lb uplift at joint 12, 145 lb uplift at joint 13, 184 lb uplift at joint 9 and 145 lb uplift at joint 8.
 - 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



October 3, 2024

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818 Soundside Road
Edenton, NC 27932

Job J0524-2974	Truss VB2	Truss Type Valley	Qty 1	Ply 1	Lot 10 Magnolia Hills 168612310
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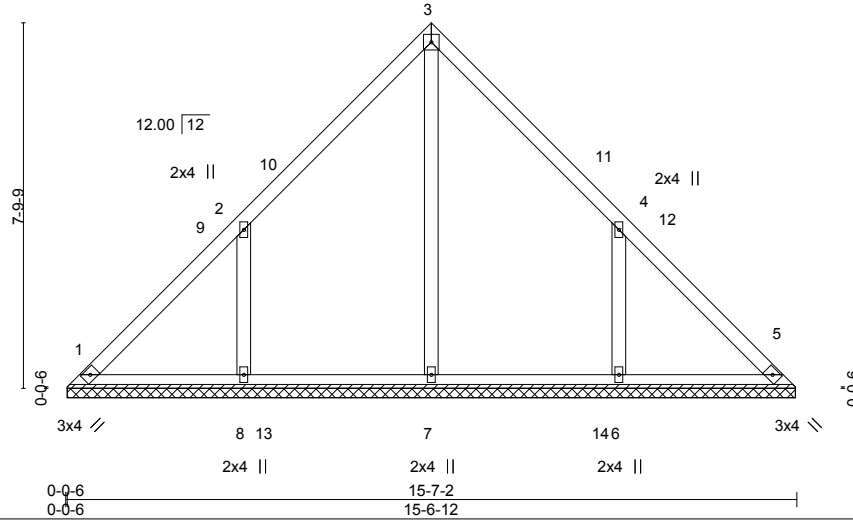
8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:14 2024 Page 1

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4x4 =

Scale = 1:49.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	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 0.13	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 75 lb	FT = 20%

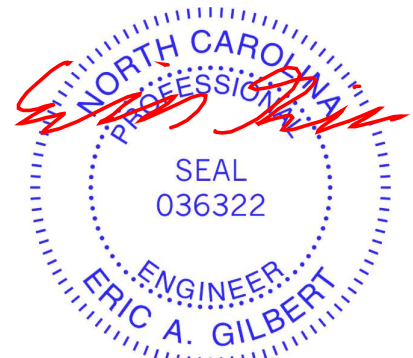
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 15-6-6.
(lb) - Max Horz 1=-178(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-186(LC 12), 6=-186(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=416(LC 22), 8=472(LC 19), 6=472(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-403/309, 4-6=-403/309

- 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 7-9-9, Exterior(2) 7-9-9 to 12-2-6, Interior(1) 12-2-6 to 15-2-14 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) 8=186, 6=186.



October 3, 2024

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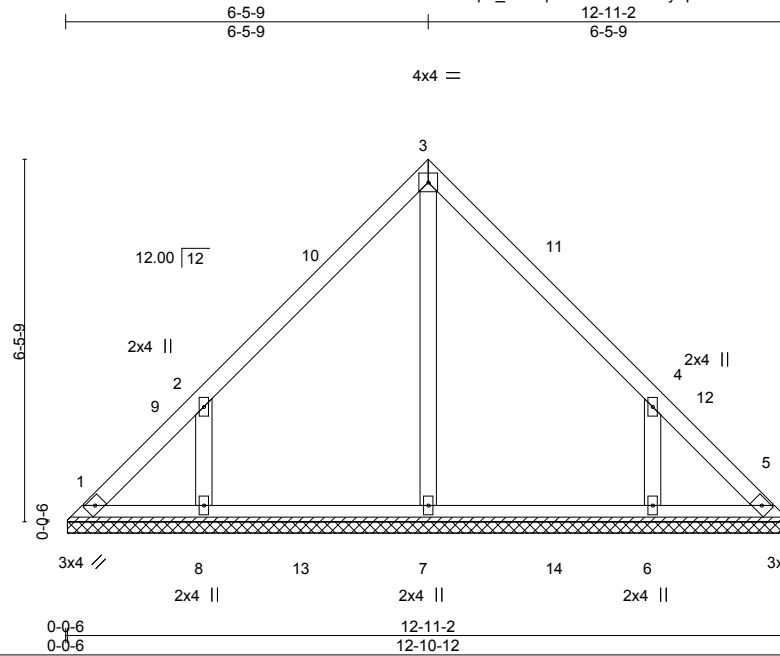
818 Soundside Road
Edenton, NC 27932

Job J0524-2974	Truss VB3	Truss Type Valley	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612311
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8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:14 2024 Page 1

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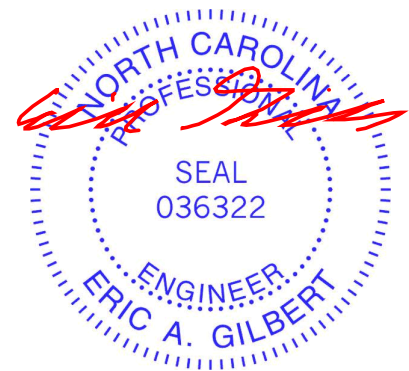
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 59 lb	FT = 20%

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

REACTIONS. All bearings 12-10-6.
 (lb) - Max Horz 1=147(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=162(LC 12), 6=162(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=382(LC 19), 8=371(LC 19), 6=371(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=357/290, 4-6=357/290

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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 6-5-9, Exterior(2) 6-5-9 to 10-10-6, Interior(1) 10-10-6 to 12-6-14 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=162, 6=162.



Job J0524-2974	Truss VB4	Truss Type Valley	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612312
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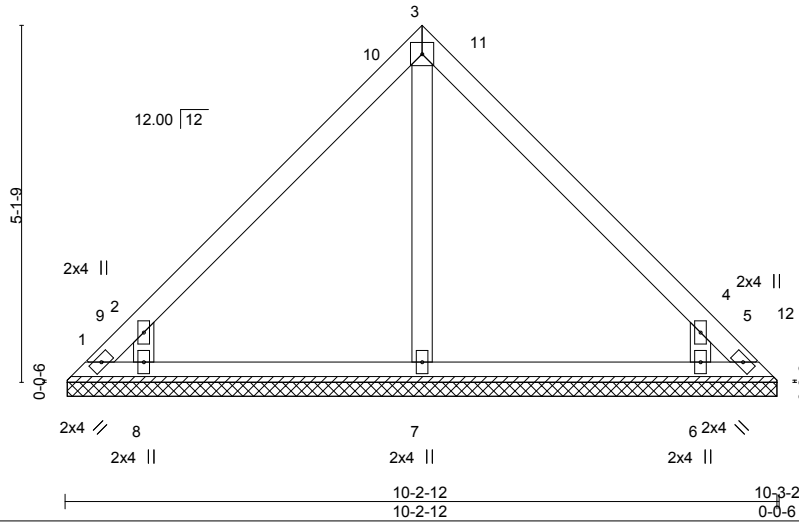
8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:15 2024 Page 1

ID:JJp3_bNirdpLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



4x4 =

Scale = 1:33.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 44 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 10-2-6.
 (lb) - Max Horz 1=-115(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) except 1=-152(LC 10), 5=-132(LC 11), 8=-190(LC 12), 6=-190(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=393(LC 19), 6=393(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 2-8=-432/374, 4-6=-432/374

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-1-9, Exterior(2) 5-1-9 to 9-6-6, Interior(1) 9-6-6 to 9-10-14 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 152 lb uplift at joint 1, 132 lb uplift at joint 5, 190 lb uplift at joint 8 and 190 lb uplift at joint 6.



October 3, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



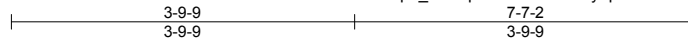
818 Soundside Road
 Edenton, NC 27932

Job J0524-2974	Truss VB5	Truss Type Valley	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612313
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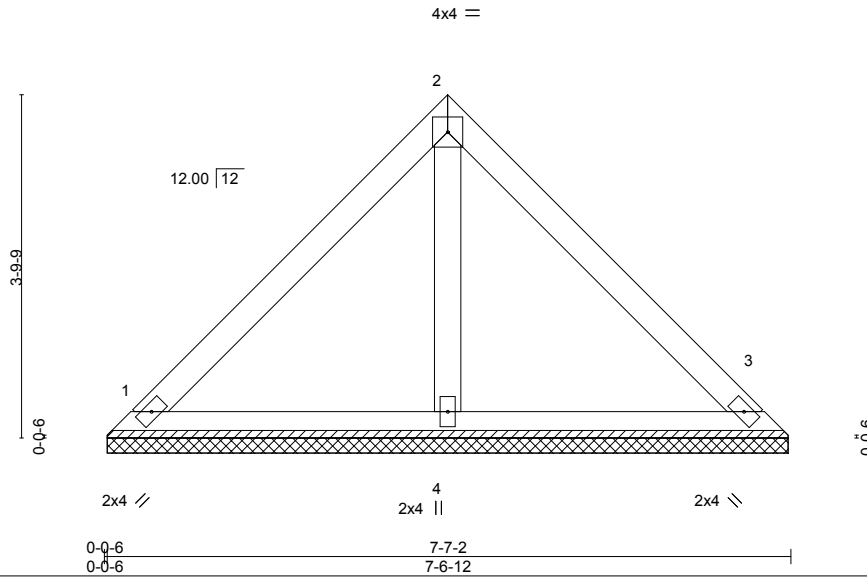
Comtech, Inc. Fayetteville, NC - 28314,

8,630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:15 2024 Page 1

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Scale = 1:25.5



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	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 30 lb	FT = 20%

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

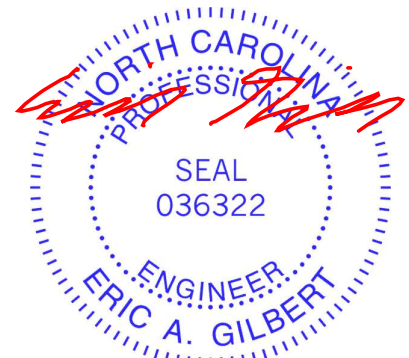
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=7-6-6, 3=7-6-6, 4=7-6-6
Max Horz 1=83(LC 8)
Max Uplift 1=30(LC 13), 3=30(LC 13)
Max Grav 1=168(LC 1), 3=168(LC 1), 4=216(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 30 lb uplift at joint 1 and 30 lb uplift at joint 3.



October 3, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



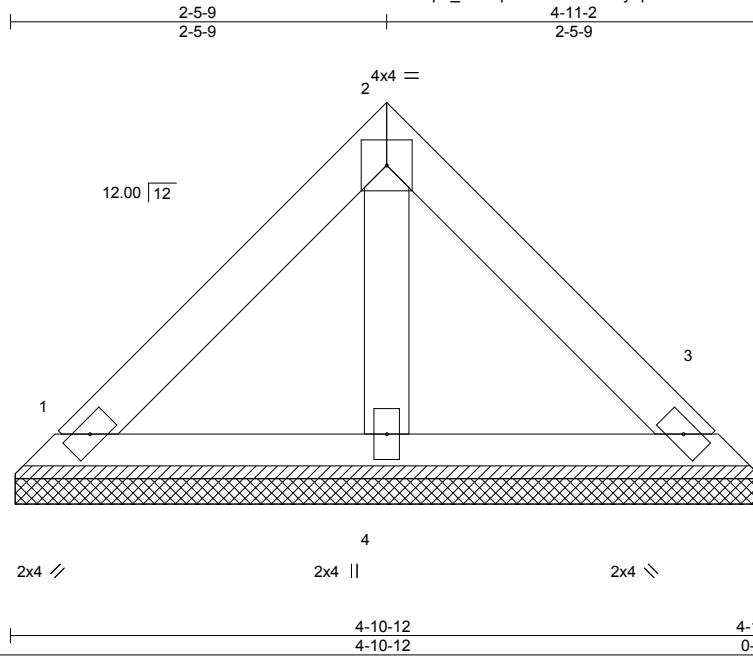
818 Soundside Road
Edenton, NC 27932

Job J0524-2974	Truss VB6	Truss Type Valley	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612314
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:15 2024 Page 1

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Scale = 1:15.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 19 lb	FT = 20%

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

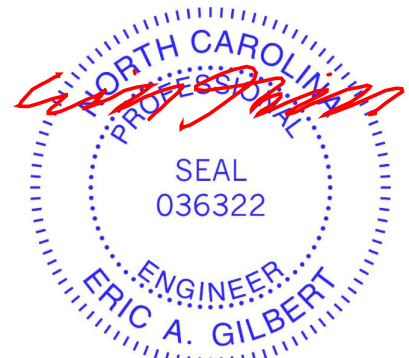
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-11-2 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-10-6, 3=4-10-6, 4=4-10-6
 Max Horz 1=-51(LC 8)
 Max Uplift 1=-18(LC 13), 3=-18(LC 13)
 Max Grav 1=103(LC 1), 3=103(LC 1), 4=132(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; TC DL=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 18 lb uplift at joint 1 and 18 lb uplift at joint 3.



October 3, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

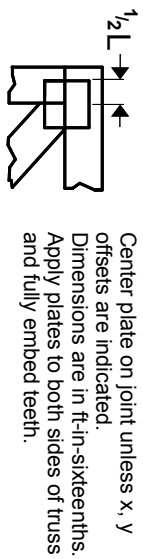
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



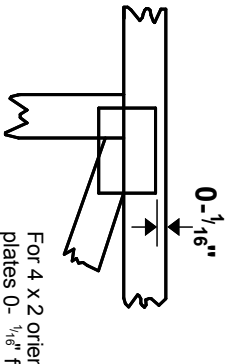
818 Soundside Road
 Edenton, NC 27932

Symbols

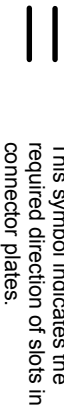
PLATE LOCATION AND ORIENTATION



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 software or upon request.

PLATE SIZE

4 X 4

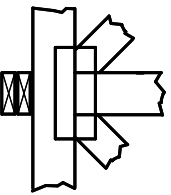
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

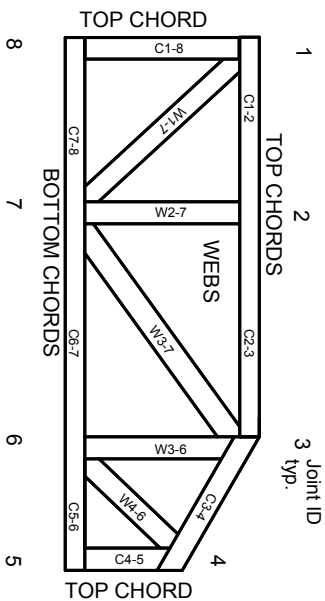


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TFP 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

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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/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

MITek

ENGINEERING BY
TRENGO
A MITek Affiliate

MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: J0524-2975
Lot 10 Magnolia Hills

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

Pages or sheets covered by this seal: I68612315 thru I68612326

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844



October 3, 2024

Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	Lot 10 Magnolia Hills	168612315
J0524-2975	ET1	GABLE	1	1	Job Reference (optional)	

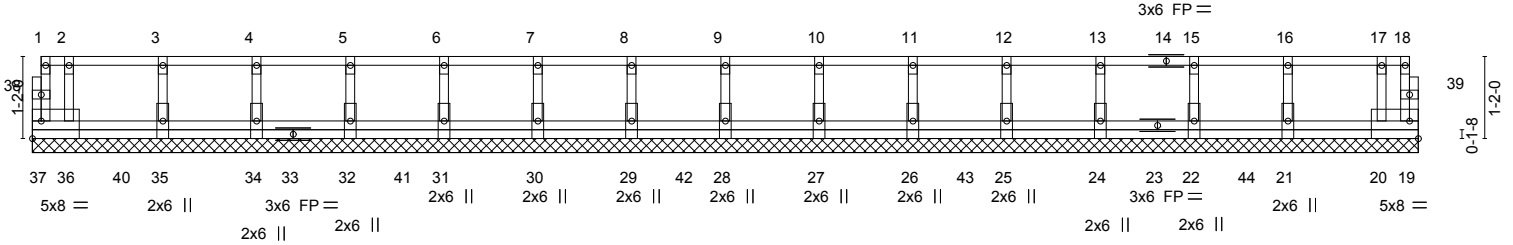
Comtech, Inc. Fayetteville, NC - 28314,

8,630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:05 2024 Page 1
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0-1-8

0-1-8

Scale = 1:32.8



0-6-4	1-10-4	3-2-4	4-6-4	5-10-4	7-2-4	8-6-4	9-10-4	11-2-4	12-6-4	13-10-4	15-2-4	16-6-4	17-10-4	19-2-4	19-8-8
0-6-4	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	0-6-4

Plate Offsets (X,Y)-- [20:Edge,0-3-0], [37:Edge,0-3-0]					
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 0.07	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.03	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr NO	WB 0.03	Horz(CT) -0.00 19 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-R			
				Weight: 109 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 10-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 19-8-8.
 (lb) - Max Uplift All uplift 100 lb or less at joint(s) 37
 Max Grav All reactions 250 lb or less at joint(s) 28, 29, 30, 31, 32, 34, 35, 36, 27, 26, 25, 24, 22, 21, 20, 19

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 37.
 7) 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.

LOAD CASE(S) Standard
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (plf)
 Vert: 19-37=-10, 1-18=-100
 Concentrated Loads (lb)
 Vert: 30=-74 34=-74 27=-74 24=-74 19=-78 40=-74 41=-74 42=-74 43=-74 44=-74



October 3, 2024

Job J0524-2975	Truss ET2	Truss Type GABLE	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612316
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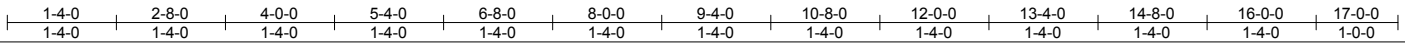
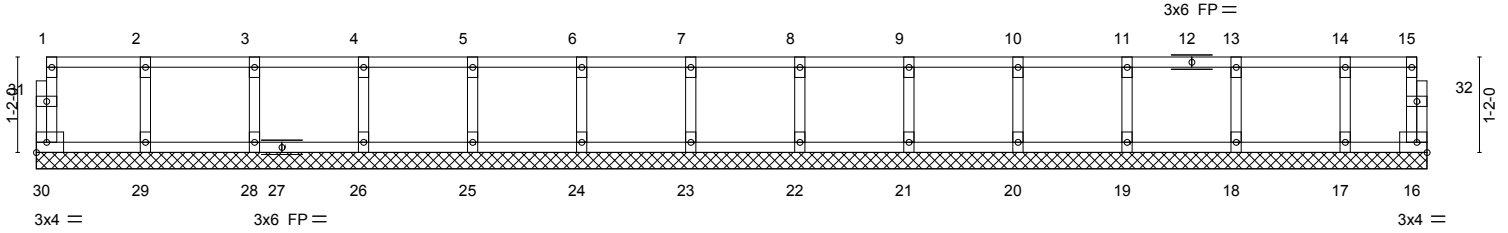
Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:05 2024 Page 1
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0-1/8

0-1/8

Scale = 1:28.2



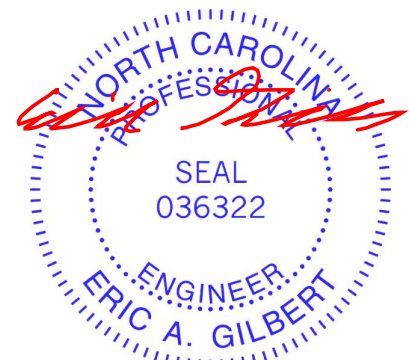
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	16	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R						Weight: 71 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

REACTIONS. All bearings 17-0-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 30, 16, 29, 28, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17

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.



October 3, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job J0524-2975	Truss ET3	Truss Type GABLE	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612317
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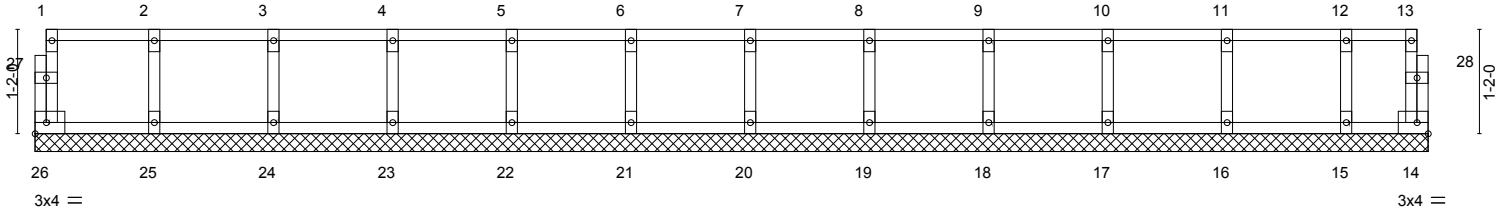
Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:06 2024 Page 1
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0-1/8

0-1/8

Scale = 1:25.8



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 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	14	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R					Weight: 66 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 15-7-0.
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 26, 14, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15

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.



October 3, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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ENGINEERING BY
TRENCO
 A MITek Affiliate
 818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Magnolia Hills	168612318
J0524-2975	F1	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:07 2024 Page 1
 ID:JJP3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

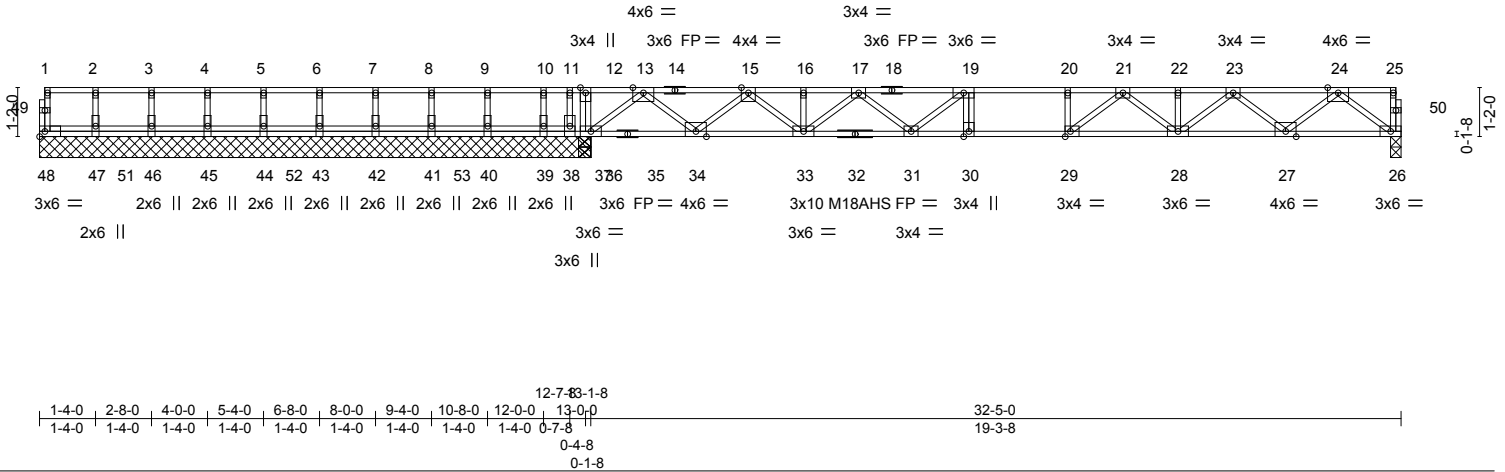
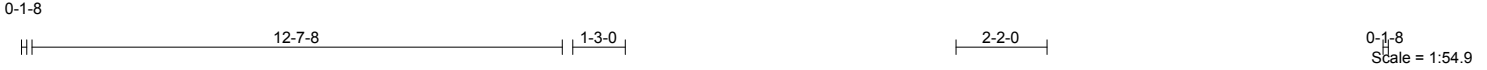


Plate Offsets (X,Y)--	[29:0-1-8,Edge]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 40.0	Plate Grip DOL	1.00	TC 0.42	Vert(LL)	-0.34	30	>672
TCDL 10.0	Lumber DOL	1.00	BC 0.59	Vert(CT)	-0.47	30	>491
BCLL 0.0	Rep Stress Incr	YES	WB 0.57	Horz(CT)	0.07	26	n/a
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S				
							PLATES
							MT20
							M18AHS
							Weight: 171 lb
							FT = 20%F, 11%E

LUMBER-
 TOP CHORD 2x4 SP 2400F 2.0E(flat)
 BOT CHORD 2x4 SP 2400F 2.0E(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, Except: 6-0-0 oc bracing: 36-38.

REACTIONS. All bearings 13-1-8 except (jt=length) 26=0-3-0.
 (lb) - Max Uplift All uplift 100 lb or less at joint(s) except 38=-970(LC 4)
 Max Grav All reactions 250 lb or less at joint(s) 48, 47, 46, 45, 44, 43, 42, 41, 40 except 36=1962(LC 1), 36=1962(LC 1), 26=1041(LC 1), 39=328(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 13-15=-2023/0, 15-16=-3667/0, 16-17=-3667/0, 17-19=-4518/0, 19-20=-4724/0, 20-21=-4724/0, 21-22=-3782/0, 22-23=-3782/0, 23-24=-2239/0
 BOT CHORD 34-36=0/1108, 33-34=0/2981, 31-33=0/4262, 30-31=0/4724, 29-30=0/4724, 28-29=0/4296, 27-28=0/3124, 26-27=0/1314
 WEBS 12-36=-636/0, 13-36=-1387/0, 13-34=0/1192, 15-34=-1246/0, 15-33=0/876, 24-26=-1646/0, 24-27=0/1204, 23-27=-1152/0, 23-28=0/841, 21-28=-655/0, 21-29=0/547, 11-38=0/455, 17-33=-760/0, 17-31=0/333, 19-31=-259/0, 20-29=-263/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are MT20 plates unless otherwise indicated.
 - 3) All plates are 1.5x3 MT20 unless otherwise indicated.
 - 4) Plates checked for a plus or minus 1 degree rotation about its center.
 - 5) Gable studs spaced at 1-4-0 oc.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 970 lb uplift at joint 38.
 - 7) 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.
 - 8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (plf)
 Vert: 26-48=-10, 1-25=-100
 Concentrated Loads (lb)
 Vert: 45=-95 42=-95 39=-95 51=-95 52=-95 53=-95



Job	Truss	Truss Type	Qty	Ply	Lot 10 Magnolia Hills	168612319
J0524-2975	F2	Floor	1	1		
					Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:07 2024 Page 1

ID:JJP3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

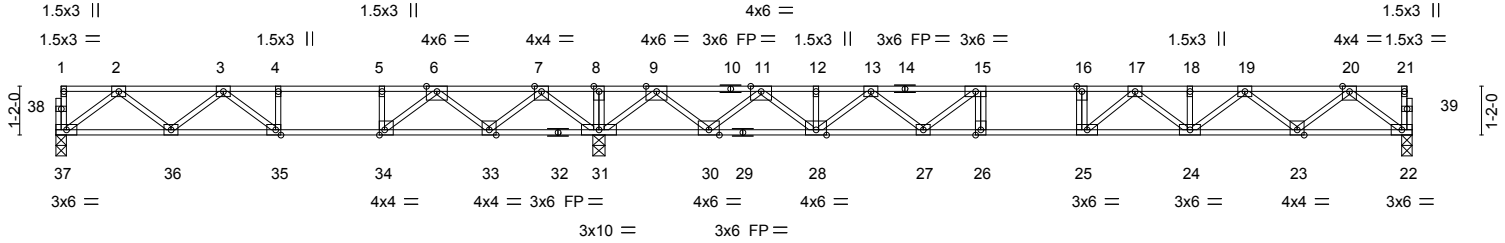


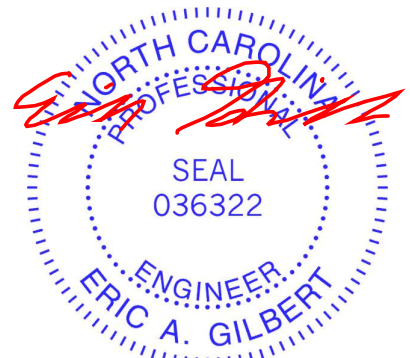
Plate Offsets (X,Y)-- [34:0-1-8,Edge], [35:0-1-8,Edge]		12-11-12 12-11-12		32-5-0 19-5-4	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 40.0	Plate Grip DOL	1.00	TC 0.74	Vert(LL) -0.28	25 >824 480
TCDL 10.0	Lumber DOL	1.00	BC 0.73	Vert(CT) -0.38	25 >604 360
BCLL 0.0	Rep Stress Incr	YES	WB 0.69	Horz(CT) 0.05	22 n/a n/a
BCDL 5.0	Code IRC2015/TP12014		Matrix-S		
			PLATES		GRIP
			MT20		244/190
			Weight: 163 lb		FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat) *Except* 1-10: 2x4 SP 2400F 2.0E(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat) *Except* 22-29: 2x4 SP 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 37=0-3-0, 31=0-3-8, 22=0-3-0
Max Grav 37=608(LC 3), 31=2131(LC 1), 22=934(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1162/48, 3-4=-1560/543, 4-5=-1560/543, 5-6=-1560/543, 6-7=-456/1438,
7-8=0/2740, 8-9=0/2740, 9-11=-325/363, 11-12=-2211/0, 12-13=-2211/0, 13-15=-3332/0,
15-16=-3800/0, 16-17=-3800/0, 17-18=-3259/0, 18-19=-3259/0, 19-20=-1967/0
BOT CHORD 36-37=-9/746, 35-36=-178/1515, 34-35=-543/1560, 33-34=-1066/1064, 31-33=-1777/0,
30-31=-1239/0, 28-30=-50/1381, 27-28=0/2915, 26-27=0/3800, 25-26=0/3800,
24-25=0/3625, 23-24=0/2733, 22-23=0/1171
WEBS 2-37=-933/12, 2-36=-50/541, 3-36=-459/170, 7-31=-1407/0, 7-33=0/953, 6-33=-1014/0,
6-34=0/1132, 5-34=-523/0, 3-35=-484/57, 9-31=-1884/0, 9-30=0/1447, 11-30=-1420/0,
11-28=0/1108, 13-28=-933/0, 13-27=0/647, 15-27=-867/0, 20-22=-1466/0, 20-23=0/1036,
19-23=-997/0, 19-24=0/672, 17-24=-467/0, 17-25=-186/499

- 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) 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.



October 3, 2024

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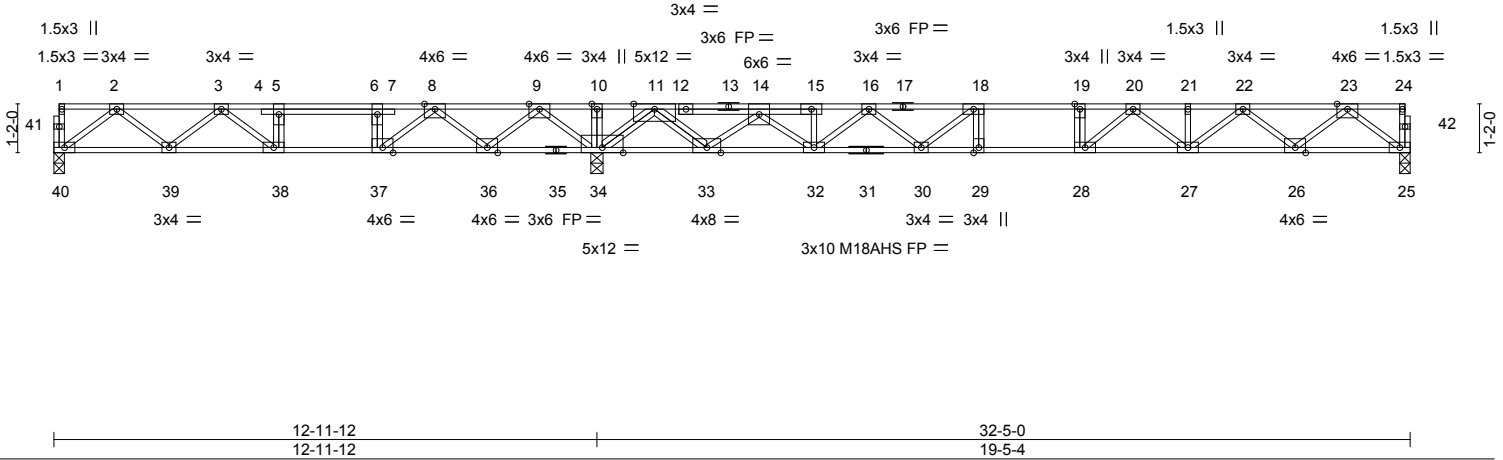
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Magnolia Hills	168612320
J0524-2975	F3	Floor	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:08 2024 Page 1

ID:JJP3_bNirdpeLXA5mDh75?y7p3U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



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)	-0.32 29	>732	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.67	Vert(CT)	-0.42 29	>548	360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr	NO	WB 0.75	Horz(CT)	0.04 25	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 179 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(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) 40=0-3-0, 34=0-3-8, 25=0-3-0
Max Uplift 40=-128(LC 4)
Max Grav 40=473(LC 3), 34=3045(LC 1), 25=1014(LC 4)

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

TOP CHORD 2-3=-833/382, 3-5=-747/1454, 5-6=-747/1427, 6-8=-777/1427, 8-9=0/2770, 9-10=0/4362, 10-11=0/4362, 11-14=-503/47, 14-15=-3294/0, 15-16=-3287/0, 16-18=-4214/0, 18-19=-4487/0, 19-20=-4487/0, 20-21=-3649/0, 21-22=-3649/0, 22-23=-2170/0

BOT CHORD 39-40=-198/564, 38-39=-650/1032, 37-38=-1427/747, 36-37=-2250/0, 34-36=-3265/0, 33-34=-1862/0, 32-33=0/2683, 30-32=0/3911, 29-30=0/4487, 28-29=0/4487, 27-28=0/4124, 26-27=0/3024, 25-26=0/1278

WEBS 2-40=-704/250, 2-39=-239/350, 3-39=-259/349, 9-34=-1644/0, 9-36=0/1161, 8-36=-1206/0, 8-37=0/1567, 6-37=-796/0, 3-38=-1010/0, 11-34=-3136/0, 11-33=0/2566, 14-33=-2761/0, 14-32=0/823, 16-32=-827/0, 16-30=0/482, 18-30=-572/55, 5-38=0/517, 19-28=-327/0, 23-25=-1600/0, 23-26=0/1161, 22-26=-1112/0, 22-27=0/799, 20-27=-606/0, 20-28=0/740

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are MT20 plates unless otherwise indicated.
 - 3) All plates are 3x6 MT20 unless otherwise indicated.
 - 4) Plates checked for a plus or minus 1 degree rotation about its center.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 128 lb uplift at joint 40.
 - 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.
 - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 930 lb down at 16-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 9) 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: 25-40=-10, 1-24=-100

Concentrated Loads (lb)
Vert: 14=-850(B)



October 3, 2024

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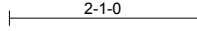
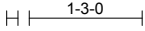
818 Soundside Road
Edenton, NC 27932

Job J0524-2975	Truss F4	Truss Type Floor	Qty 6	Ply 1	Lot 10 Magnolia Hills 168612321
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:09 2024 Page 1
ID:JJp3_bNirdpeLXA5mDh?5?y7p3U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

0-1-8



0-1-8
Scale = 1:25.5

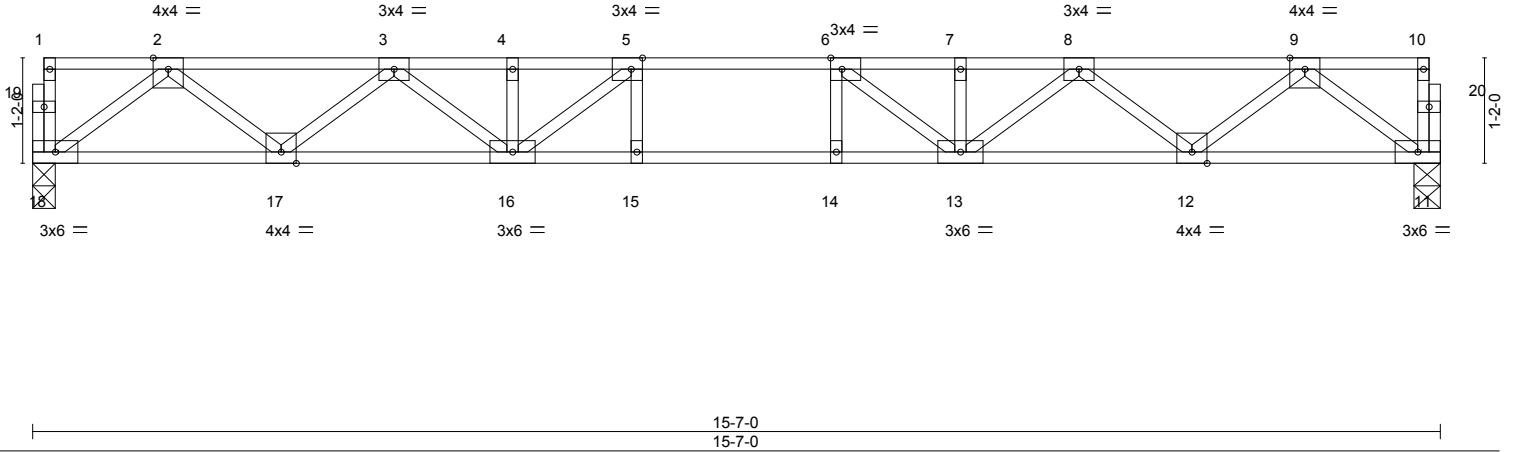


Plate Offsets (X,Y)-- [5:0-1-8,Edge], [6:0-1-8,Edge]

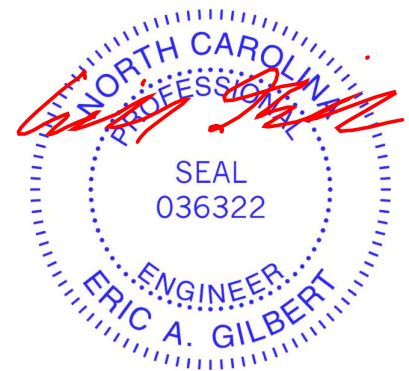
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.41	Vert(LL)	-0.17 14-15	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.71	Vert(CT)	-0.23 14-15	>799	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.42	Horz(CT)	0.05 11	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 79 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 18=0-3-0, 11=0-3-8
Max Grav 18=837(LC 1), 11=837(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1726/0, 3-4=-2770/0, 4-5=-2770/0, 5-6=-3060/0, 6-7=-2770/0, 7-8=-2770/0, 8-9=-1726/0
BOT CHORD 17-18=0/1045, 16-17=0/2371, 15-16=0/3060, 14-15=0/3060, 13-14=0/3060, 12-13=0/2371, 11-12=0/1045
WEBS 2-18=-1308/0, 2-17=0/886, 3-17=-840/0, 3-16=0/510, 9-11=-1308/0, 9-12=0/886, 8-12=-840/0, 8-13=0/510, 6-13=-645/6, 5-16=-645/6

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) 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.

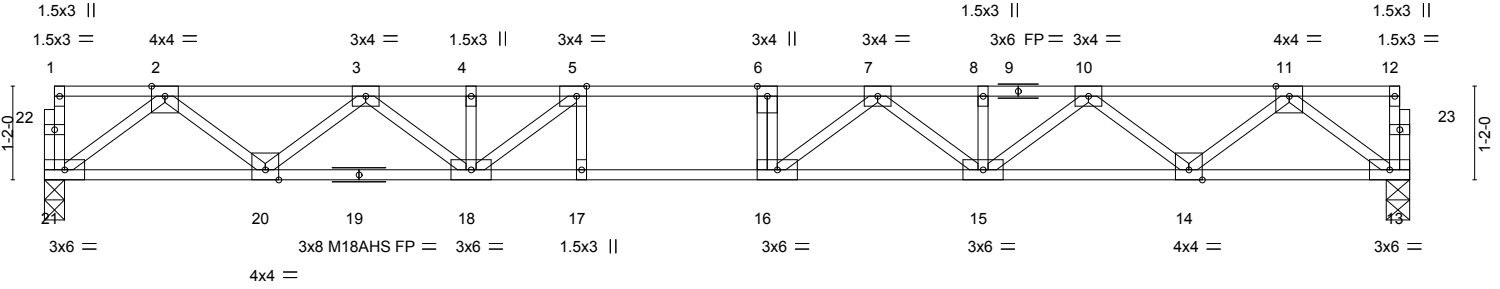


Job	Truss	Truss Type	Qty	Ply	Lot 10 Magnolia Hills
J0524-2975	F5	Floor	10	1	168612322

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8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:09 2024 Page 1

ID:JJp3_bNirdpeLXA5mDh75?y7p3U-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



17-0-0
17-0-0

Plate Offsets (X,Y)--	[5:0-1-8,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 0.70	Vert(LL) -0.27 15-16 >748 480	MT20	244/190		
TCDL 10.0	Lumber DOL 1.00	BC 0.95	Vert(CT) -0.37 15-16 >543 360	M18AHS	186/179		
BCLL 0.0	Rep Stress Incr YES	WB 0.48	Horz(CT) 0.06 13 n/a n/a			Weight: 87 lb	FT = 20%F, 11%E
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S					

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: 2-2-0 oc bracing: 16-17,15-16.

REACTIONS.

(size) 21=0-3-0, 13=0-3-8
Max Grav 21=915(LC 1), 13=915(LC 1)

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

TOP CHORD 2-3=-1923/0, 3-4=-3138/0, 4-5=-3138/0, 5-6=-3635/0, 6-7=-3635/0, 7-8=-3168/0, 8-10=-3168/0, 10-11=-1918/0
BOT CHORD 20-21=0/1147, 18-20=0/2659, 17-18=0/3635, 16-17=0/3635, 15-16=0/3508, 14-15=0/2663, 13-14=0/1146
WEBS 2-21=-1436/0, 2-20=0/1010, 3-20=-958/0, 3-18=0/611, 5-18=-890/0, 11-13=-1435/0, 11-14=0/1006, 10-14=-970/0, 10-15=0/645, 7-15=-434/0, 7-16=-149/525

NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates 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.



October 3, 2024

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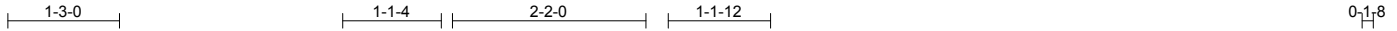
818 Soundside Road
Edenton, NC 27932

Job J0524-2975	Truss F6	Truss Type Floor	Qty 2	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612323
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:10 2024 Page 1

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Scale = 1:25.8

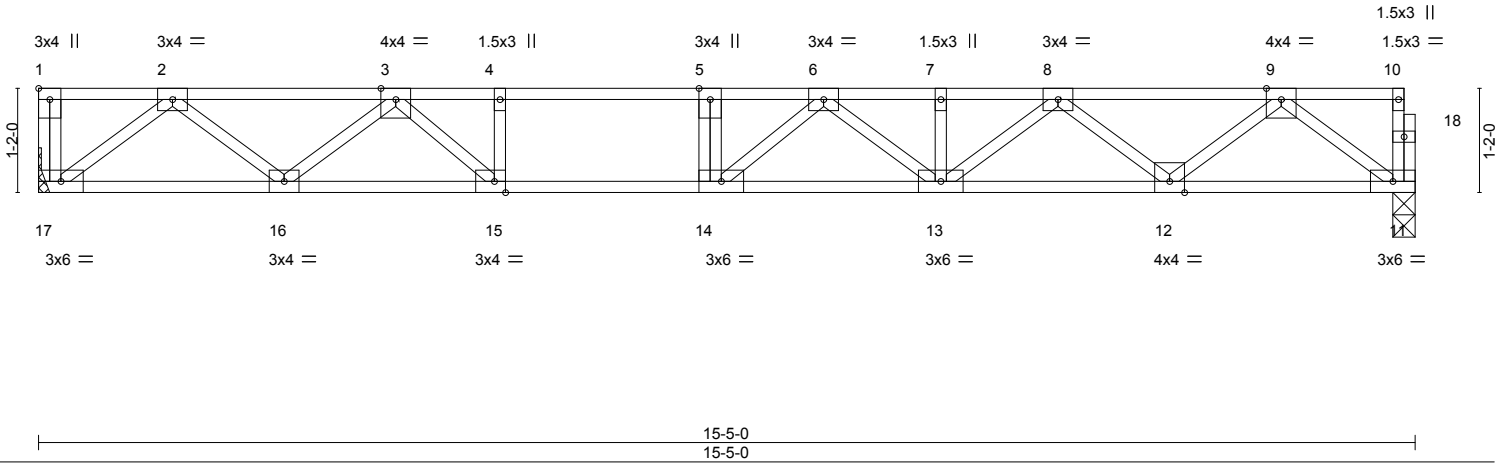


Plate Offsets (X,Y)--	[1:Edge,0-1-8], [15:0-1-8,Edge]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.97	Vert(LL) -0.26 13-14 >691 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.97	Vert(CT) -0.36 13-14 >509 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.43	Horz(CT) 0.05 11 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 79 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, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (size) 17=Mechanical, 11=0-3-0
Max Grav 17=834(LC 1), 11=828(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1678/0, 3-4=-2890/0, 4-5=-2890/0, 5-6=-2890/0, 6-7=-2743/0, 7-8=-2743/0, 8-9=-1698/0
BOT CHORD 16-17=0/1032, 15-16=0/2343, 14-15=0/2890, 13-14=0/2965, 12-13=0/2345, 11-12=0/1030
WEBS 9-11=-1290/0, 9-12=0/869, 8-12=-842/0, 8-13=0/508, 6-13=-295/0, 6-14=-298/319, 4-15=-437/0, 2-17=-1295/0, 2-16=0/841, 3-16=-866/0, 3-15=0/903

- 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.



Job J0524-2975	Truss F7	Truss Type Floor	Qty 4	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612324
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Comtech, Inc. Fayetteville, NC - 28314,

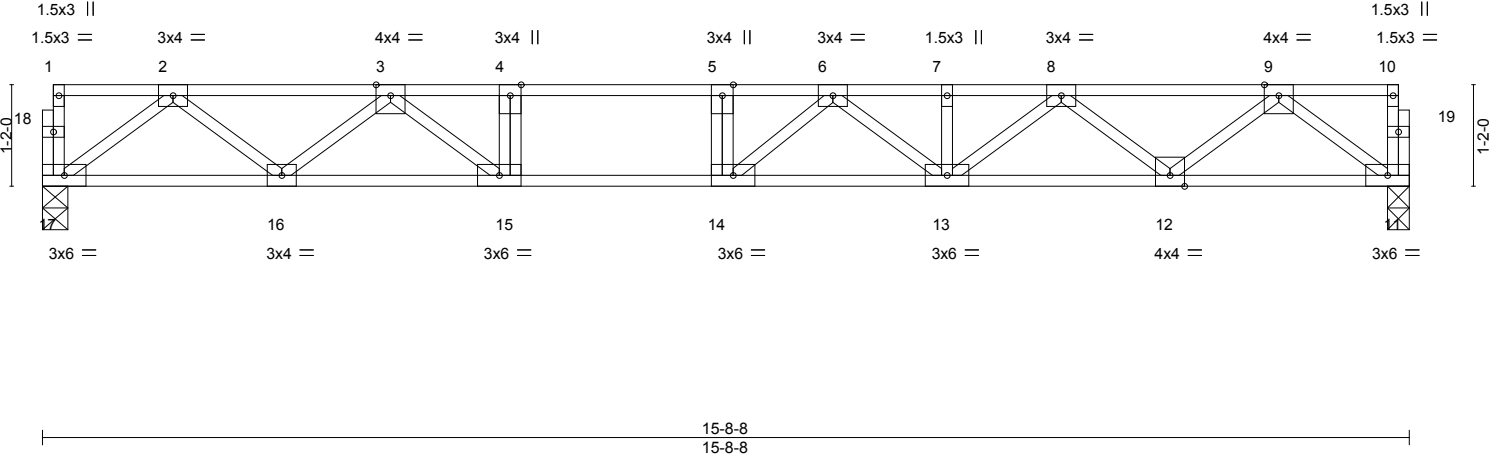
8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:10 2024 Page 1

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0-1-8



0-1-8
Scale = 1:26.5



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.61	Vert(LL)	-0.25 13-14	>742	480	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.92	Vert(CT)	-0.34 13-14	>548	360		
BCLL 0.0	Lumber DOL 1.00	WB 0.46	Horz(CT)	0.05 11	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	Matrix-S					Weight: 81 lb	FT = 20%F, 11%E
	Code IRC2015/TPI2014							

LUMBER-
 TOP CHORD 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 10-0-0 oc bracing. Except: 2-2-0 oc bracing: 13-14.

REACTIONS. (size) 17=0-3-8, 11=0-3-0
 Max Grav 17=844(LC 1), 11=844(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1719/0, 3-4=-3017/0, 4-5=-3017/0, 5-6=-3017/0, 6-7=-2821/0, 7-8=-2821/0, 8-9=-1738/0
 BOT CHORD 16-17=0/1054, 15-16=0/2391, 14-15=0/3017, 13-14=0/3067, 12-13=0/2402, 11-12=0/1051
 WEBS 9-11=-1316/0, 9-12=0/894, 8-12=-865/0, 8-13=0/535, 6-13=-313/0, 6-14=-289/360, 4-15=-434/0, 2-17=-1320/0, 2-16=0/866, 3-16=-874/0, 3-15=0/956

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) 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.



October 3, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



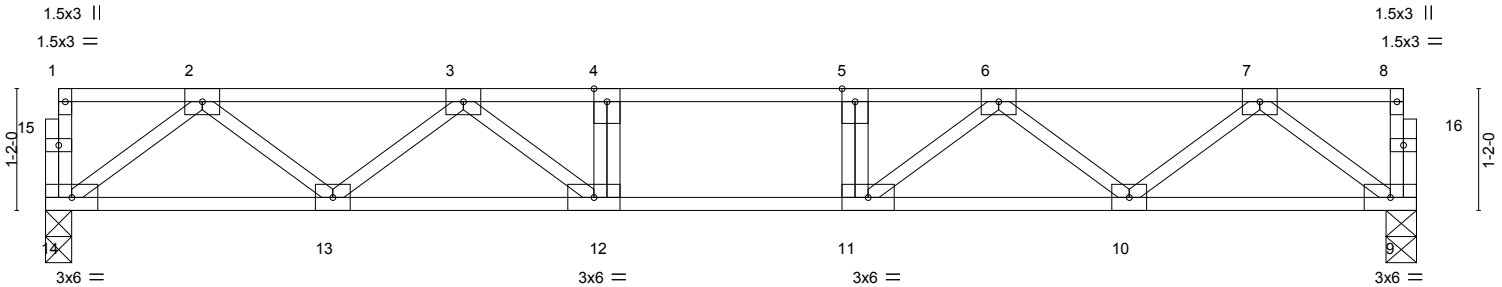
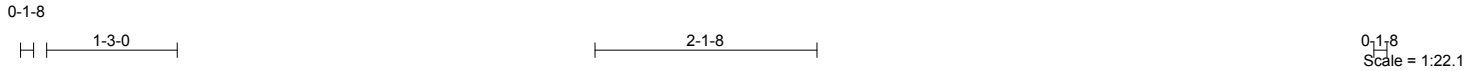
818 Soundside Road
 Edenton, NC 27932

Job J0524-2975	Truss F8	Truss Type FLOOR	Qty 7	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612325
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Comtech, Inc. Fayetteville, NC - 28314,

8,630 s Jul 12 2024 MiTek Industries, Inc. Tue Oct 1 14:28:10 2024 Page 1

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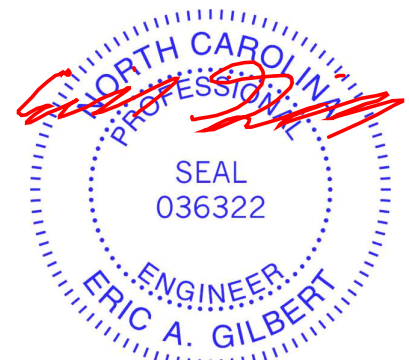
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.41	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.49	Vert(LL) -0.11 12-13 >999 480		
BCLL 0.0	Lumber DOL 1.00	WB 0.32	Vert(CT) -0.14 12-13 >999 360		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 9 n/a n/a		
	Code IRC2015/TPI2014			Weight: 68 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 14=0-3-0, 9=0-3-8
Max Grav 14=702(LC 1), 9=702(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1385/0, 3-4=-2140/0, 4-5=-2140/0, 5-6=-2140/0, 6-7=-1385/0
BOT CHORD 13-14=0/869, 12-13=0/1865, 11-12=0/2140, 10-11=0/1865, 9-10=0/869
WEBS 2-14=-1088/0, 2-13=0/671, 3-13=-626/0, 3-12=0/555, 4-12=-257/0, 5-11=-257/0, 7-9=-1088/0, 7-10=0/671, 6-10=-626/0, 6-11=0/555

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) 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.



October 3, 2024

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY TRENCO A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J0524-2975	Truss F9-GR	Truss Type FLOOR GIRDER	Qty 1	Ply 1	Lot 10 Magnolia Hills Job Reference (optional)	168612326
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Comtech, Inc. Fayetteville, NC - 28314,

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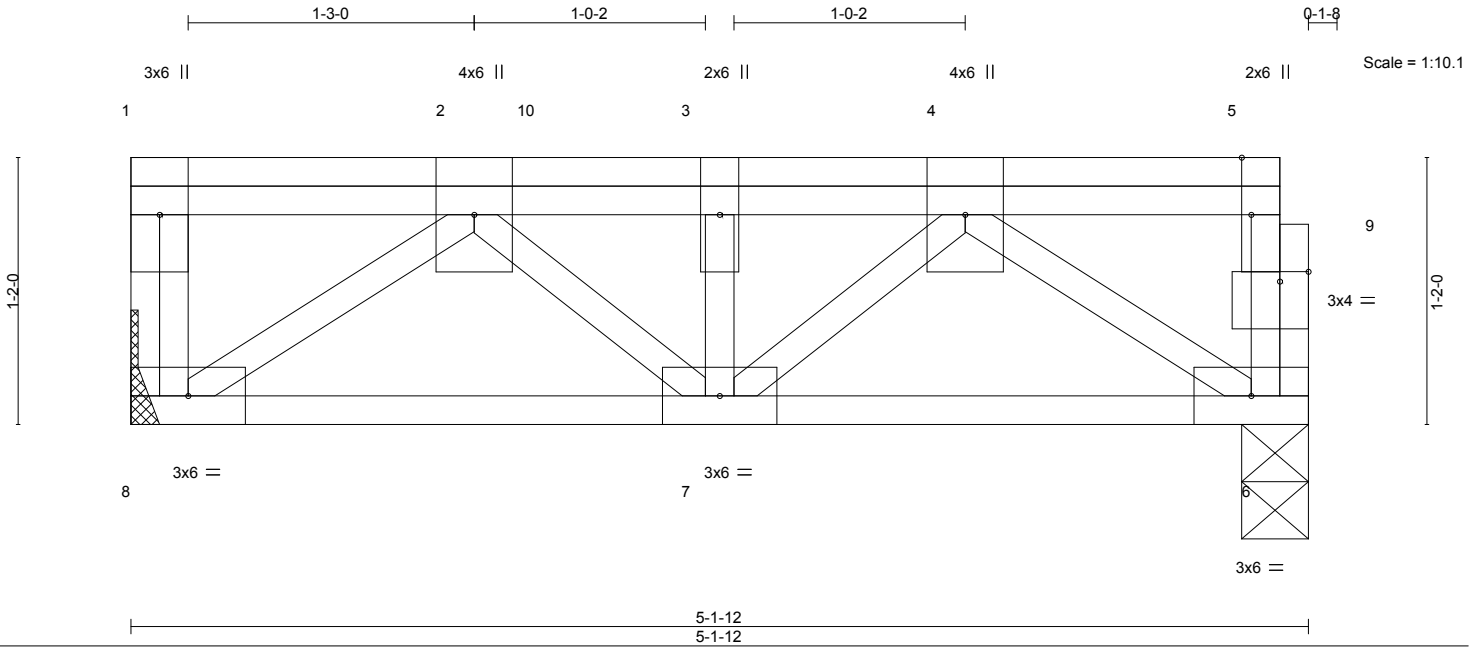


Plate Offsets (X, Y)--	[5:0-3-0,Edge], [9:0-1-8,0-0-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 40.0	Plate Grip DOL	1.00	TC 0.24	Vert(LL)	-0.01	7	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.30	Vert(CT)	-0.02	7	>999	360		
BCLL 0.0	Rep Stress Incr	NO	WB 0.38	Horz(CT)	0.01	6	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-P							
									Weight: 37 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 5-1-12 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

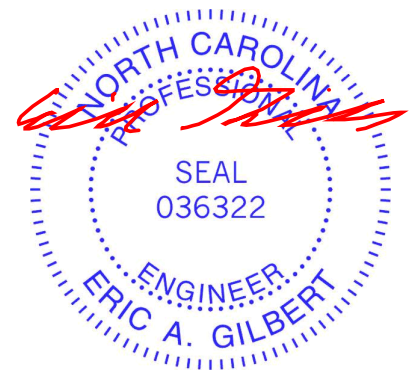
REACTIONS. (size) 8=Mechanical, 6=0-3-8
Max Grav 8=950(LC 1), 6=1050(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1537/0, 3-4=-1537/0
BOT CHORD 7-8=0/1252, 6-7=0/1327
WEBS 2-8=-1538/0, 4-6=-1622/0, 4-7=0/284, 3-7=-428/0, 2-7=0/385

- NOTES-**
- Plates checked for a plus or minus 1 degree rotation about its center.
 - Refer to girder(s) for truss to truss connections.
 - 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.
 - CAUTION, Do not erect truss backwards.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 734 lb down at 1-10-4, and 734 lb down at 3-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 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

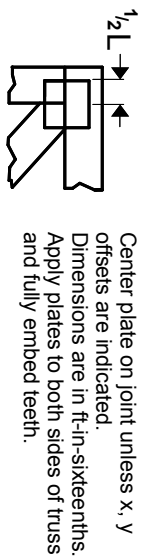
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-8=-10, 1-5=-100
Concentrated Loads (lb)
Vert: 4=-734(F) 10=-734(F)



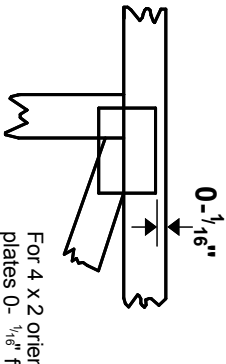
October 3, 2024

Symbols

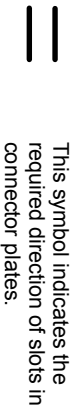
PLATE LOCATION AND ORIENTATION



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- $\frac{1}{16}$ \"/>



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

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

PLATE SIZE

4 X 4

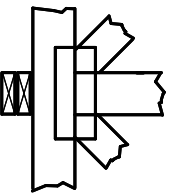
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

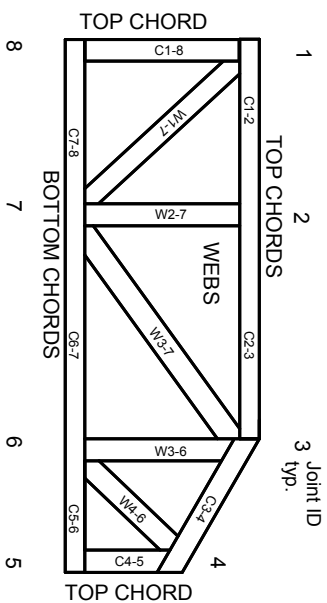


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on Lumber values established by others.

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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 Tor1 bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

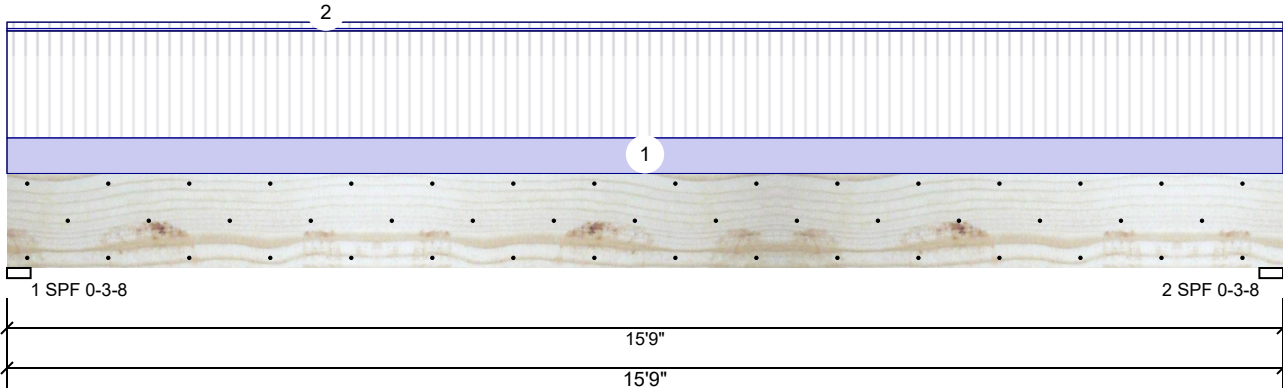
MITek

ENGINEERING BY
TRENGO
A MITek Affiliate

MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC 2012
Load Sharing:	No
Deck:	Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	3019	1103	0	0	0
2	Vertical	3019	1103	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	79%	1103 / 3019	4122	L	D+L
2 - SPF	3.500"	Vert	79%	1103 / 3019	4122	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	15300 ft-lb	7'10 1/2"	26999 ft-lb	0.567 (57%)	D+L	L
Unbraced	15300 ft-lb	7'10 1/2"	15309 ft-lb	0.999 (100%)	D+L	L
Shear	3938 lb	1'5 1/2"	10453 lb	0.377 (38%)	D+L	L
LL Defl inch	0.321 (L/572)	7'10 9/16"	0.382 (L/480)	0.840 (84%)	L	L
TL Defl inch	0.438 (L/419)	7'10 9/16"	0.510 (L/360)	0.860 (86%)	D+L	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on the bottom edge only.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at a maximum of 6'6 7/8" o.c.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Far Face	114 PLF	343 PLF	0 PLF	0 PLF	0 PLF	F4
2	Tie-In Far	0-0-0 to 15-9-0	0-6-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
2	Tie-In Near	0-0-0 to 15-9-0	0-6-2	Near Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
	Self Weight				11 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

- Dry service conditions, unless noted otherwise
- LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

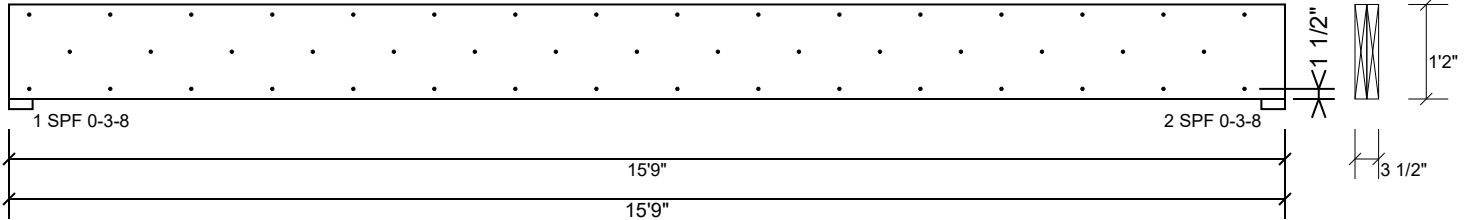
This design is valid until 6/28/2026

Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	93.1 %
Load	228.5 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

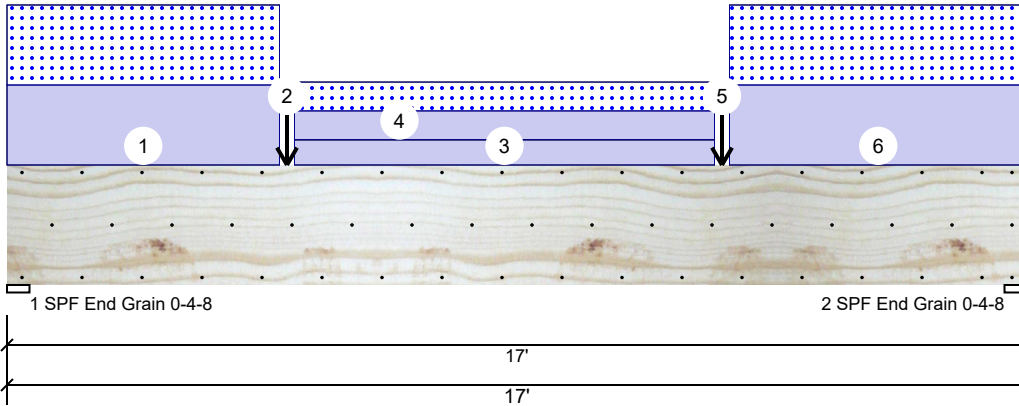
This design is valid until 6/28/2026

Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

GDH Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	6439	5849	0	0
2	Vertical	0	6288	5720	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	Vert	93%	6439 / 5849	12288	L	D+S
2 - SPF End Grain	4.500"	Vert	91%	6288 / 5720	12007	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	49112 ft-lb	9' 5/16"	84163 ft-lb	0.584 (58%)	D+S	L
Unbraced	49112 ft-lb	9' 5/16"	49247 ft-lb	0.997 (100%)	D+S	L
Shear	10476 lb	2' 4 1/2"	20608 lb	0.508 (51%)	D+S	L
LL Defl inch	0.178 (L/1107)	8' 6 1/2"	0.410 (L/480)	0.433 (43%)	S	L
TL Defl inch	0.379 (L/519)	8' 6 7/16"	0.547 (L/360)	0.693 (69%)	D+S	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on the bottom edge only.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at a maximum of 3'6 1/4" o.c.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

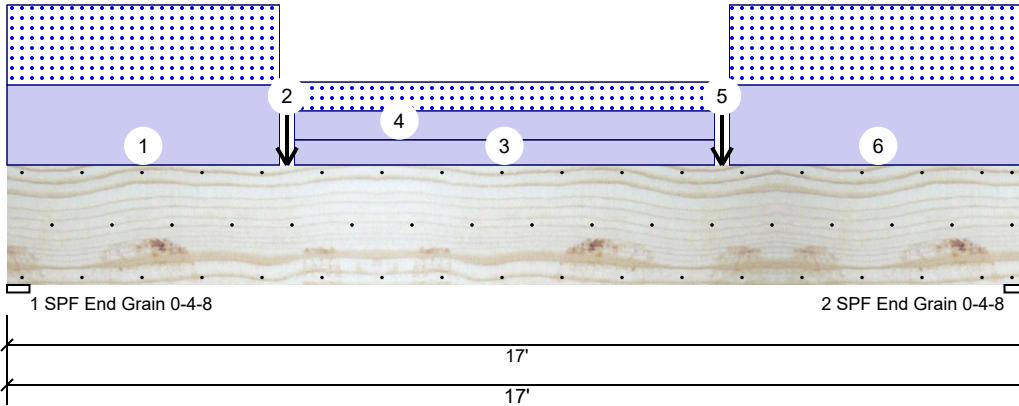
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 4-6-8		Top	380 PLF	0 PLF	380 PLF	0 PLF	0 PLF	C2
2	Point	4-8-0		Top	3500 lb	0 lb	3500 lb	0 lb	0 lb	C3
	Bearing Length	0-3-8								
3	Part. Uniform	4-9-8 to 11-9-8		Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL

Continued on page 2...

<p>Notes</p> <p>Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.</p> <p>Lumber</p> <ol style="list-style-type: none"> Dry service conditions, unless noted otherwise LVL not to be treated with fire retardant or corrosive chemicals 	<p>Handling & Installation</p> <ol style="list-style-type: none"> LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals Damaged Beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation 	<p>6. For flat roofs provide proper drainage to prevent ponding</p>	<p>Manufacturer Info</p> <p>Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us</p>
			<p>This design is valid until 6/28/2026</p>

GDH Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED

Level: Level



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
4	Part. Uniform	4-9-8 to 11-9-8		Top	137 PLF	0 PLF	137 PLF	0 PLF	0 PLF	C4
5	Point	11-11-0		Top	3500 lb	0 lb	3500 lb	0 lb	0 lb	C3
	Bearing Length	0-3-8								
6	Part. Uniform	12-0-8 to 17-0-0		Top	380 PLF	0 PLF	380 PLF	0 PLF	0 PLF	C2
	Self Weight				19 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

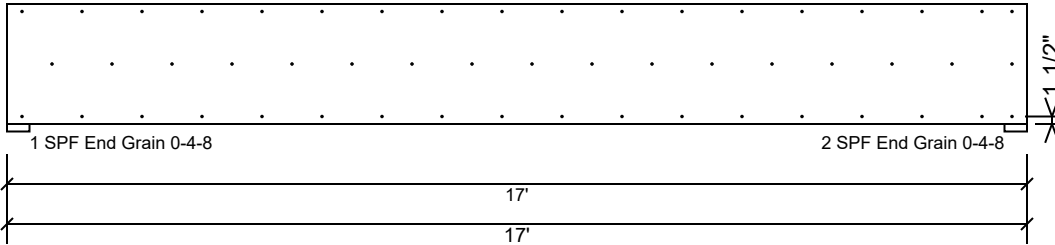
This design is valid until 6/28/2026

Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

GDH Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

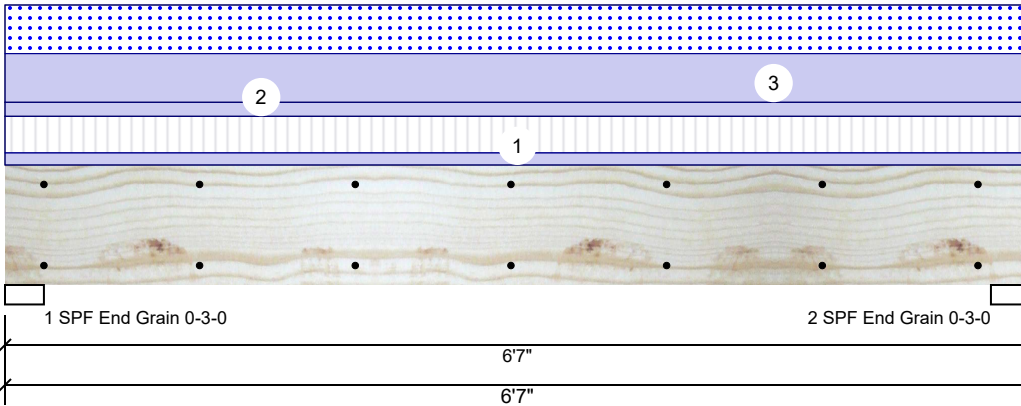
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 6/28/2026

Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1030	2130	1369	0	0
2	Vertical	1030	2130	1369	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	45%	2130 / 1800	3930	L	D+0.75(L+S)
2 - SPF End Grain	3.000"	Vert	45%	2130 / 1800	3930	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5752 ft-lb	3' 1/2"	14423 ft-lb	0.399 (40%)	D+0.75(L+S)	L
Unbraced	5752 ft-lb	3' 1/2"	10370 ft-lb	0.555 (55%)	D+0.75(L+S)	L
Shear	2717 lb	5'6 3/4"	7943 lb	0.342 (34%)	D+0.75(L+S)	L
LL Defl inch	0.049 (L/1522)	3' 1/2"	0.155 (L/480)	0.315 (32%)	0.75(L+S)	L
TL Defl inch	0.107 (L/697)	3' 1/2"	0.207 (L/360)	0.517 (52%)	D+0.75(L+S)	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at end bearings.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	104 PLF	313 PLF	0 PLF	0 PLF	0 PLF	F4
2	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
3	Uniform			Top	416 PLF	0 PLF	416 PLF	0 PLF	0 PLF	A4
	Self Weight				7 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

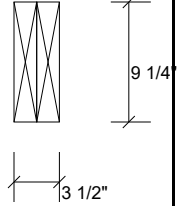
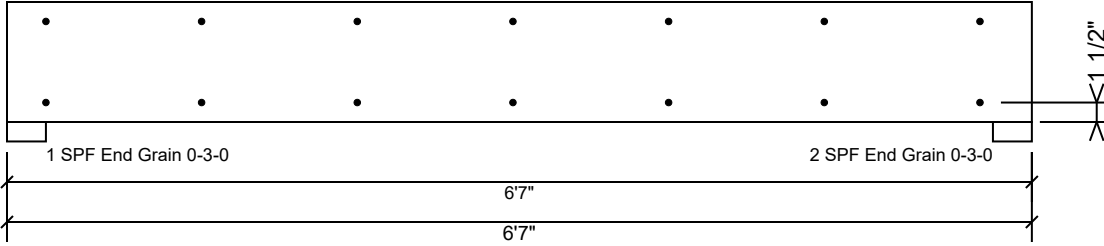
This design is valid until 6/28/2026

Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

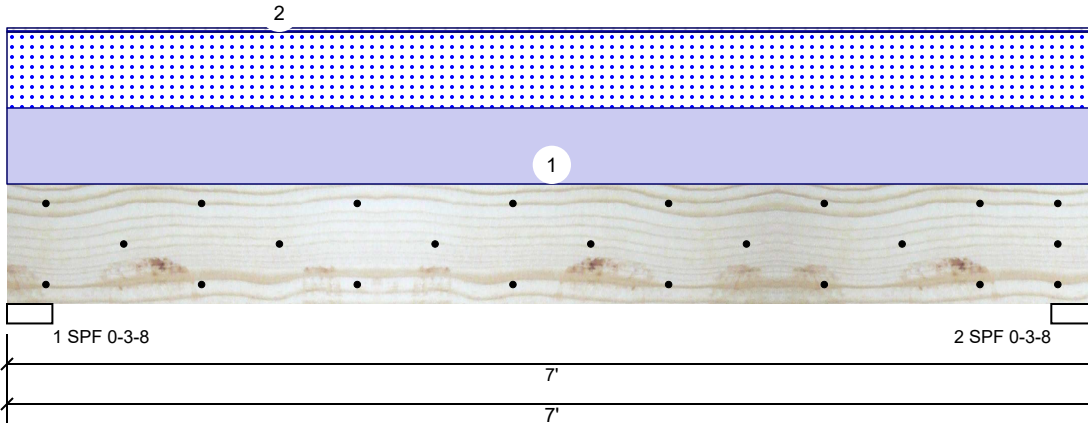
This design is valid until 6/28/2026

Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

FB1 SP #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC 2012
Load Sharing:	No
Deck:	Not Checked

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	70	943	917	0	0
2	Vertical	70	943	917	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	42%	943 / 917	1860	L	D+S
2 - SPF	3.500"	Vert	42%	943 / 917	1860	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2843 ft-lb	3'6"	3280 ft-lb	0.867 (87%)	D+S	L
Unbraced	2843 ft-lb	3'6"	3018 ft-lb	0.942 (94%)	D+S	L
Shear	1705 lb	1' 3/4"	3723 lb	0.458 (46%)	D+S	L
LL Defl inch	0.039 (L/2014)	3'6"	0.164 (L/480)	0.238 (24%)	S	L
TL Defl inch	0.079 (L/993)	3'6"	0.218 (L/360)	0.363 (36%)	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at end bearings.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

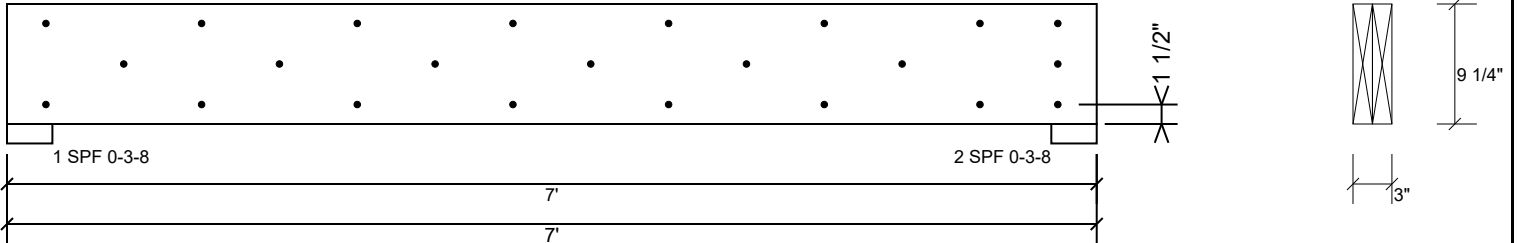
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Far Face	262 PLF	0 PLF	262 PLF	0 PLF	0 PLF	C4
2	Tie-In Far	0-0-0 to 7-0-0	0-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
2	Tie-In Near	0-0-0 to 7-0-0	0-6-0	Near Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING

Manufacturer Info

This design is valid until 6/28/2026

FB1 SP #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	75.0 %
Load	262.0 PLF
Yield Limit per Foot	349.5 PLF
Yield Limit per Fastener	116.5 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+S
Duration Factor	1.15

Manufacturer Info	

This design is valid until 6/28/2026