

RE: J0724-4089
 Lot 7 Magnolia Hills

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Customer: Project Name: J0724-4089
 Lot/Block: Model:
 Address: Subdivision:
 City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.6
 Wind Code: ASCE 7-10 Wind Speed: 130 mph
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 36 individual, dated Truss Design Drawings and 5 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I67767572	A1	8/23/2024	21	I67767592	P3	8/23/2024
2	I67767573	A2	8/23/2024	22	I67767593	XA1	8/23/2024
3	I67767574	A3	8/23/2024	23	I67767594	XB1	8/23/2024
4	I67767575	A4	8/23/2024	24	I67767595	XB2	8/23/2024
5	I67767576	A5	8/23/2024	25	I67767596	YA1	8/23/2024
6	I67767577	A6	8/23/2024	26	I67767597	YA2	8/23/2024
7	I67767578	A7	8/23/2024	27	I67767598	YA3	8/23/2024
8	I67767579	A8	8/23/2024	28	I67767599	YB1	8/23/2024
9	I67767580	B1	8/23/2024	29	I67767600	YB2	8/23/2024
10	I67767581	B2	8/23/2024	30	I67767601	YP1	8/23/2024
11	I67767582	B3	8/23/2024	31	I67767602	YP2	8/23/2024
12	I67767583	B4	8/23/2024	32	I67767603	ZA1	8/23/2024
13	I67767584	B5	8/23/2024	33	I67767604	ZB1	8/23/2024
14	I67767585	B6	8/23/2024	34	I67767605	ZB2	8/23/2024
15	I67767586	B7	8/23/2024	35	I67767606	ZP1	8/23/2024
16	I67767587	B8	8/23/2024	36	I67767607	ZP2	8/23/2024
17	I67767588	C1SG	8/23/2024				
18	I67767589	C2	8/23/2024				
19	I67767590	P1	8/23/2024				
20	I67767591	P2	8/23/2024				

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

Truss Design Engineer's Name: Tony Miller

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

North Carolina COA: C-0844

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



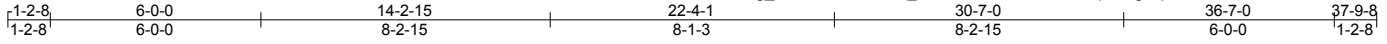
August 23, 2024

Job J0724-4089	Truss A1	Truss Type HIP GIRDER	Qty 1	Ply 2	Lot 7 Magnolia Hills 167767572
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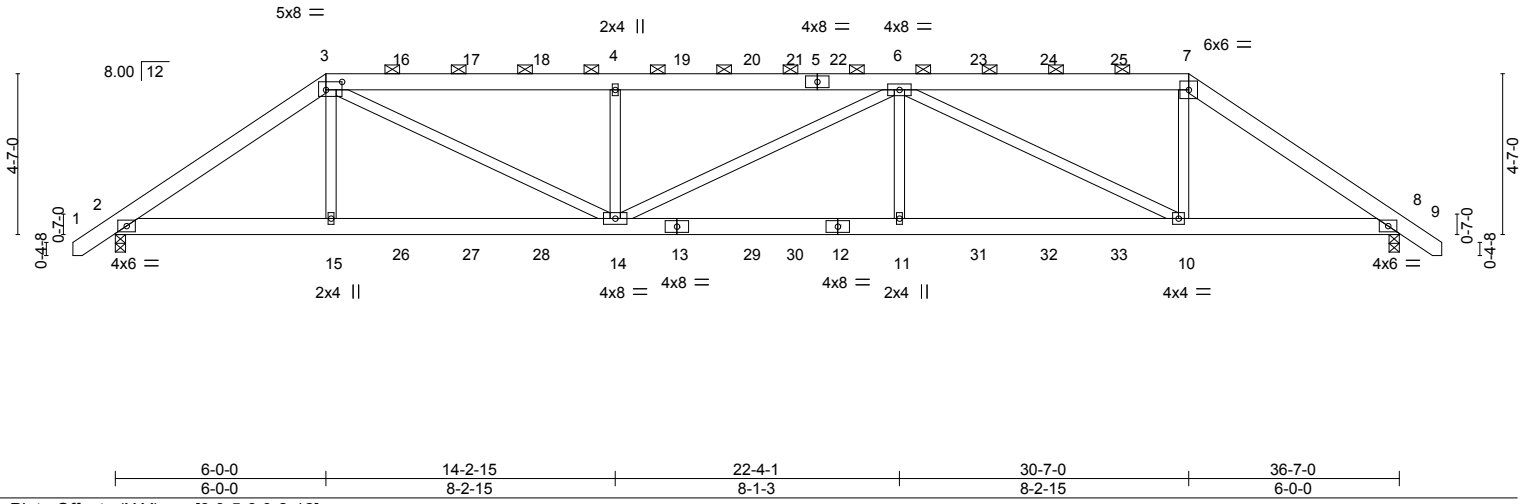
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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:18 2024 Page 1

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Scale = 1:65.6



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.36	Vert(LL) -0.15 11-14 >999 360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.50	Vert(CT) -0.31 11-14 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.90	Horz(CT) 0.08 8 n/a n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Wind(LL) 0.17 11-14 >999 240	Weight: 489 lb	FT = 20%
	Code IRC2015/TPI2014				

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 3-7.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
 Max Horz 2=-114(LC 25)
 Max Uplift 2=-653(LC 8), 8=-653(LC 9)
 Max Grav 2=2833(LC 1), 8=2833(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-4582/1150, 3-4=-6352/1681, 4-6=-6351/1681, 6-7=-3751/991, 7-8=-4580/1148
 BOT CHORD 2-15=-975/3684, 14-15=-974/3704, 11-14=-1652/6353, 10-11=-1652/6353,
 8-10=-874/3682
 WEBS 3-15=0/728, 3-14=-865/3006, 4-14=-993/579, 6-11=0/674, 6-10=-2969/860,
 7-10=-359/1914

- 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: 2x6 - 2 rows staggered at 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=653, 8=653.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Continued on page 2

<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.sbccomponents.com)</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job J0724-4089	Truss A1	Truss Type HIP GIRDER	Qty 1	Ply 2	Lot 7 Magnolia Hills Job Reference (optional)	I67767572
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NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 137 lb down and 121 lb up at 6-0-0, 142 lb down and 118 lb up at 8-0-12, 142 lb down and 118 lb up at 10-0-12, 142 lb down and 118 lb up at 12-0-12, 142 lb down and 118 lb up at 14-0-12, 142 lb down and 118 lb up at 16-0-12, 142 lb down and 118 lb up at 18-0-12, 142 lb down and 118 lb up at 18-6-4, 142 lb down and 118 lb up at 20-6-4, 142 lb down and 118 lb up at 22-6-4, 142 lb down and 118 lb up at 24-6-4, 142 lb down and 118 lb up at 26-6-4, and 142 lb down and 118 lb up at 28-6-4, and 137 lb down and 121 lb up at 30-7-0 on top chord, and 351 lb down and 123 lb up at 6-0-0, 76 lb down at 8-0-12, 76 lb down at 10-0-12, 76 lb down at 12-0-12, 76 lb down at 14-0-12, 76 lb down at 16-0-12, 76 lb down at 18-0-12, 76 lb down at 18-6-4, 76 lb down at 20-6-4, 76 lb down at 22-6-4, 76 lb down at 24-6-4, 76 lb down at 26-6-4, and 76 lb down at 28-6-4, and 351 lb down and 123 lb up at 30-6-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-7=-60, 7-9=-60, 2-8=-20

Concentrated Loads (lb)

Vert: 3=-104(B) 7=-104(B) 13=-38(B) 15=-351(B) 14=-38(B) 4=-104(B) 11=-38(B) 10=-351(B) 6=-104(B) 12=-38(B) 16=-104(B) 17=-104(B) 18=-104(B) 19=-104(B) 20=-104(B) 21=-104(B) 22=-104(B) 23=-104(B) 24=-104(B) 25=-104(B) 26=-38(B) 27=-38(B) 28=-38(B) 29=-38(B) 30=-38(B) 31=-38(B) 32=-38(B) 33=-38(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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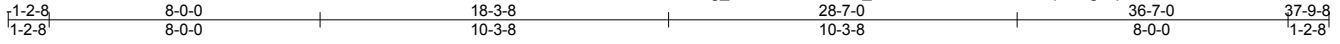
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767573
J0724-4089	A2	HIP	1	1	Job Reference (optional)	

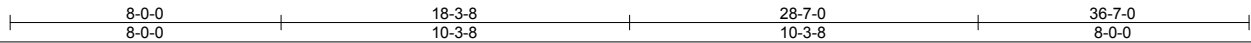
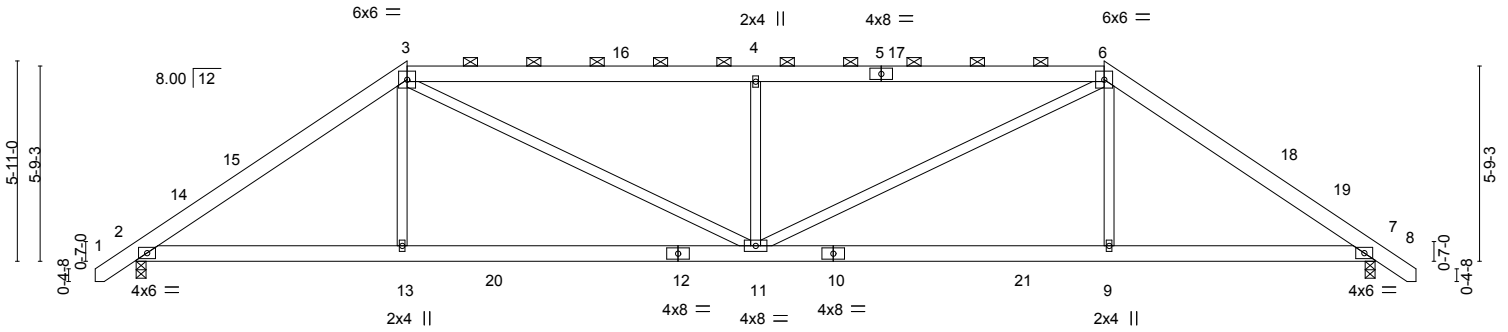
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Scale = 1:68.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.50	Vert(LL)	-0.10	11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.22	9-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.54	Horz(CT)	0.06	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.08	11	>999	240		
									Weight: 241 lb	FT = 20%

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

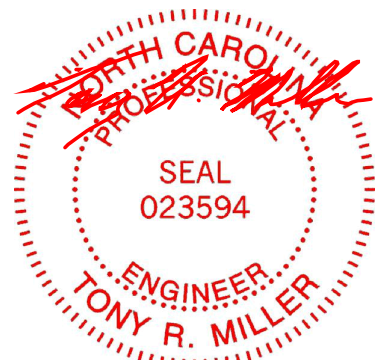
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-11-1 oc purlins, except
 2-0-0 oc purlins (4-2-15 max.): 3-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
 Max Horz 2=-144(LC 10)
 Max Uplift 2=-55(LC 9), 7=-55(LC 8)
 Max Grav 2=1525(LC 1), 7=1525(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2234/504, 3-4=-2621/698, 4-6=-2620/697, 6-7=-2235/504
 BOT CHORD 2-13=-247/1741, 11-13=-250/1735, 9-11=-256/1737, 7-9=-253/1743
 WEBS 3-13=0/400, 3-11=-226/1090, 4-11=-729/346, 6-11=-226/1088, 6-9=0/400

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 8-0-0, Exterior(2) 8-0-0 to 14-2-11, Interior(1) 14-2-11 to 28-7-0, Exterior(2) 28-7-0 to 34-9-11, Interior(1) 34-9-11 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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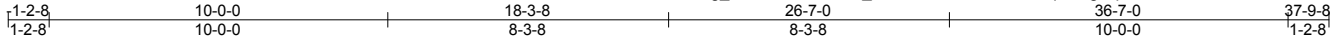


Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767574
J0724-4089	A3	HIP	1	1		

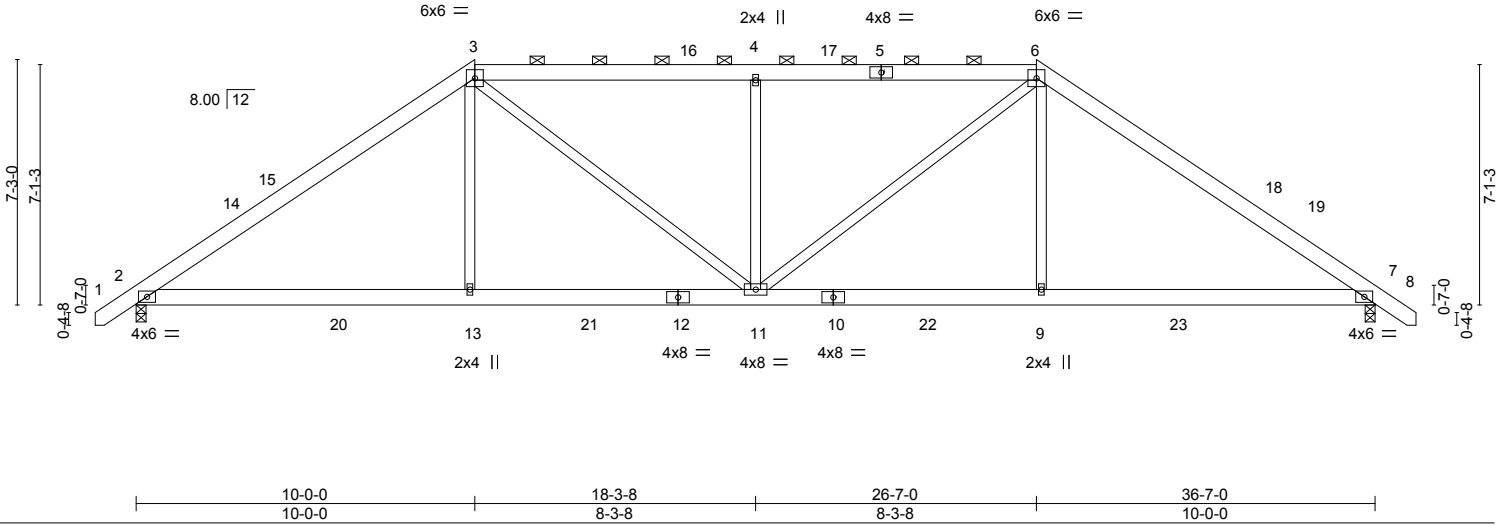
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Scale = 1:68.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.10 2-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.19 2-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.42	Horz(CT)	0.06 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.06 2-13	>999	240	Weight: 246 lb	FT = 20%

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

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-1-5 oc purlins, except 2-0-0 oc purlins (5-0-0 max.); 3-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
 Max Horz 2=-176(LC 10)
 Max Uplift 2=-50(LC 12), 7=-50(LC 13)
 Max Grav 2=1664(LC 2), 7=1664(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2419/486, 3-4=-2262/594, 4-6=-2261/593, 6-7=-2420/487
 BOT CHORD 2-13=-206/1891, 11-13=-208/1879, 9-11=-216/1880, 7-9=-214/1892
 WEBS 3-13=0/613, 3-11=-176/655, 4-11=-564/255, 6-11=-176/653, 6-9=0/613

- 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 10-0-0, Exterior(2) 10-0-0 to 16-2-11, Interior(1) 16-2-11 to 26-7-0, Exterior(2) 26-7-0 to 32-9-11, Interior(1) 32-9-11 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
 - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 23, 2024

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818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767575
J0724-4089	A4	ROOF SPECIAL	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

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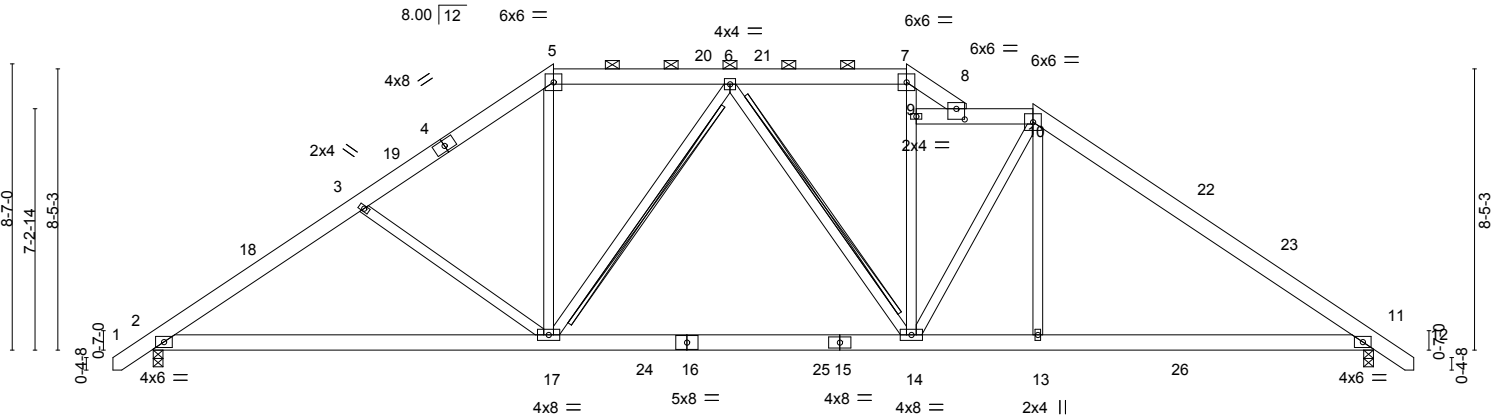


Plate Offsets (X,Y)--	[8:0-3-0,0-3-13]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.22 14-17	>999	360
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.34 14-17	>999	240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.34	Horz(CT)	0.06 11	n/a	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.06 11-13	>999	240
							Weight: 274 lb FT = 20%

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

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-3-12 oc purlins, except 2-0-0 oc purlins (4-5-0 max.); 5-7, 9-10.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS T-Brace: 2x4 SPF No.2 - 6-17, 6-14
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
 Brace must cover 90% of web length.

REACTIONS. (size) 2=0-3-8, 11=0-3-8
 Max Horz 2=210(LC 11)
 Max Uplift 2=64(LC 12), 11=-79(LC 13)
 Max Grav 2=1525(LC 1), 11=1591(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2201/526, 3-5=-1970/485, 5-6=-1560/463, 6-7=-1722/497, 7-8=-1999/548, 8-10=-1713/447, 10-11=-2269/479
 BOT CHORD 2-17=305/1849, 14-17=-191/1732, 13-14=-213/1765, 11-13=-212/1772
 WEBS 3-17=-408/238, 5-17=-105/777, 6-17=-389/173, 9-14=-71/371, 7-9=-162/732, 10-13=0/334

- 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 12-0-0, Exterior(2) 12-0-0 to 16-4-13, Interior(1) 16-4-13 to 22-7-0, Exterior(2) 22-7-0 to 24-4-8, Interior(1) 24-4-8 to 26-4-8, Exterior(2) 26-4-8 to 30-9-5, Interior(1) 30-9-5 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.
 - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



August 23, 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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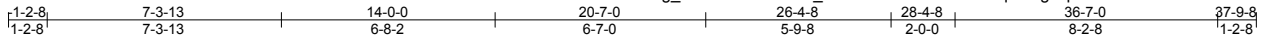
ENGINEERING BY
TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767576
J0724-4089	A5	ROOF SPECIAL	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:20 2024 Page 1

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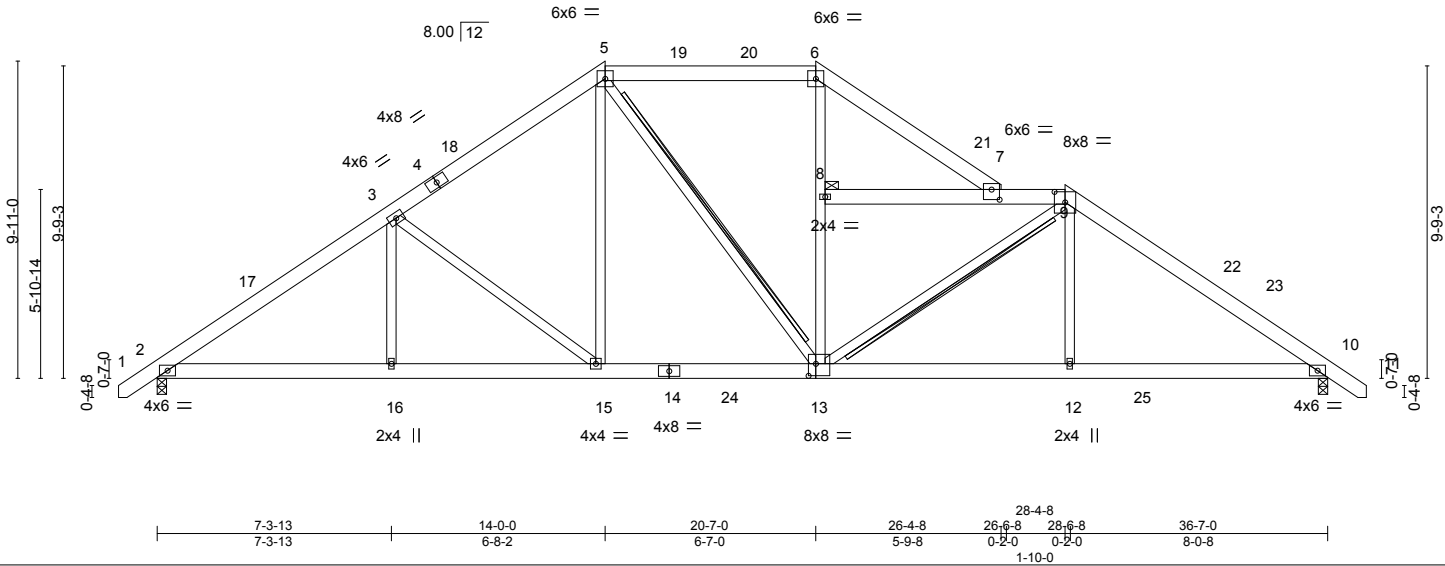


Plate Offsets (X,Y)--	[7:0-3-0,0-3-13], [9:0-4-0,0-3-15], [13:0-2-12,0-4-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.99	Vert(LL)	-0.14	13-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.25	13-15	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.06	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.09	13	>999	240	Weight: 287 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-2 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 5-6, 8-9.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 9-13, 5-13 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.
	JOINTS 1 Brace at Jt(s): 8

REACTIONS. (size) 2=0-3-8, 10=0-3-8
 Max Horz 2=241(LC 11)
 Max Uplift 2=-76(LC 12), 10=-90(LC 13)
 Max Grav 2=1525(LC 1), 10=1525(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2229/479, 3-5=-1740/503, 5-6=-1410/499, 6-7=-1721/497, 7-9=-1390/334, 9-10=-2246/490
 BOT CHORD 2-16=-246/1844, 15-16=-246/1844, 13-15=-73/1411, 12-13=-265/1764, 10-12=-263/1769
 WEBS 3-16=0/295, 3-15=-619/215, 5-15=-59/606, 8-13=0/398, 6-8=-49/557, 9-13=-520/208, 9-12=0/349, 5-13=-113/250

- 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) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-0-0, Exterior(2) 14-0-0 to 18-4-13, Interior(1) 18-4-13 to 20-7-0, Exterior(2) 20-7-0 to 24-11-13, Interior(1) 24-11-13 to 28-4-8, Exterior(2) 28-4-8 to 32-9-5, Interior(1) 32-9-5 to 37-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

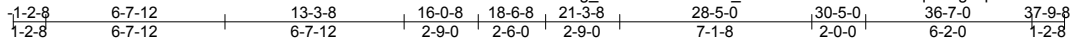


Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767577
J0724-4089	A6	ROOF SPECIAL	1	1	Job Reference (optional)	

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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:21 2024 Page 1

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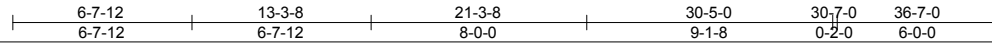
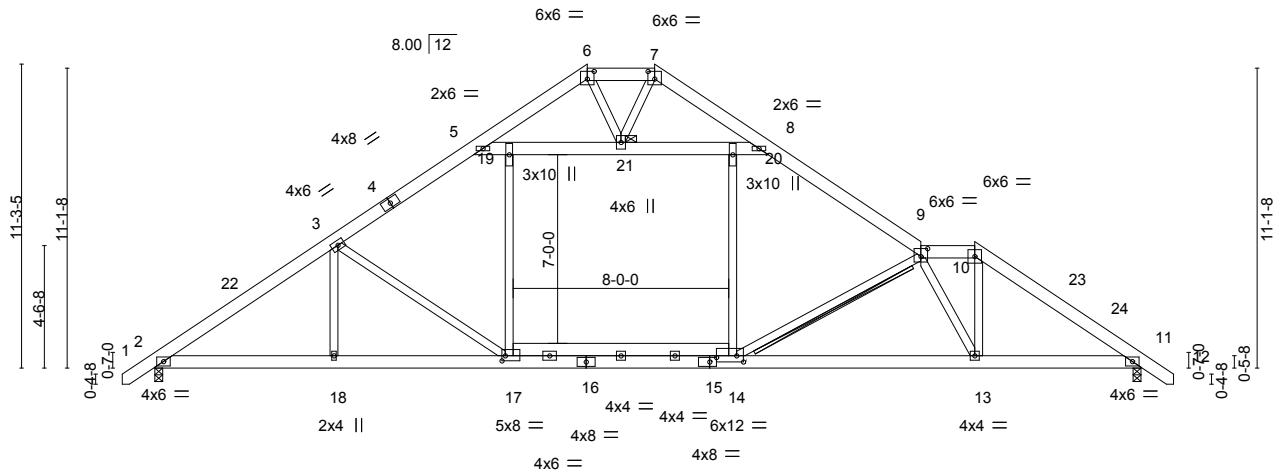


Plate Offsets (X,Y)--	[6:0-3-0,0-3-6], [7:0-3-0,0-3-6], [9:0-3-0,0-3-8], [14:0-3-0,0-2-12], [15:0-3-0,0-2-0], [17:0-1-8,0-2-4]
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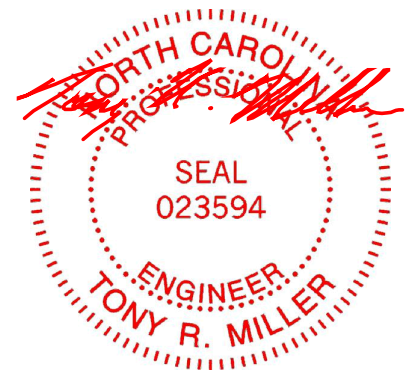
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.24	13-14	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.39	13-14	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.61	Horz(CT)	0.06	11	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.18	13-14	>999		
								Weight: 309 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (5-9-6 max.): 6-7, 9-10.
WEBS 2x4 SP No.2 *Except*	Rigid ceiling directly applied or 10-0-0 oc bracing.
5-8: 2x6 SP No.1	T-Brace: 2x4 SPF No.2 - 9-14
	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.
	JOINTS 1 Brace at Jt(s): 21

REACTIONS. (size) 2=0-3-8, 11=0-3-8
 Max Horz 2=272(LC 11)
 Max Uplift 2=-85(LC 12), 11=-98(LC 13)
 Max Grav 2=1594(LC 19), 11=1552(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2339/435, 3-5=-1982/477, 5-6=-752/192, 6-7=-673/201, 7-8=-759/195,
 8-9=-2017/464, 9-10=-1846/441, 10-11=-2342/452
 BOT CHORD 2-18=-215/2027, 17-18=-215/2027, 14-17=-111/1688, 13-14=-340/2238, 11-13=-251/1836
 WEBS 3-17=-492/195, 17-19=-21/593, 14-20=-12/707, 9-13=-952/222, 10-13=-112/1045,
 9-14=-877/285, 5-19=-1122/365, 19-21=-1122/365, 20-21=-1061/355, 8-20=-1061/355,
 6-21=-56/391, 7-21=-79/302

- 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 16-0-8, Exterior(2) 16-0-8 to 22-9-14, Interior(1) 22-9-14 to 30-5-0, Exterior(2) 30-5-0 to 34-9-13, Interior(1) 34-9-13 to 37-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.
 - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



Job J0724-4089	Truss B1	Truss Type HIP GIRDER	Qty 1	Ply 2	Lot 7 Magnolia Hills 167767580
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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:24 2024 Page 1

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Job Reference (optional)



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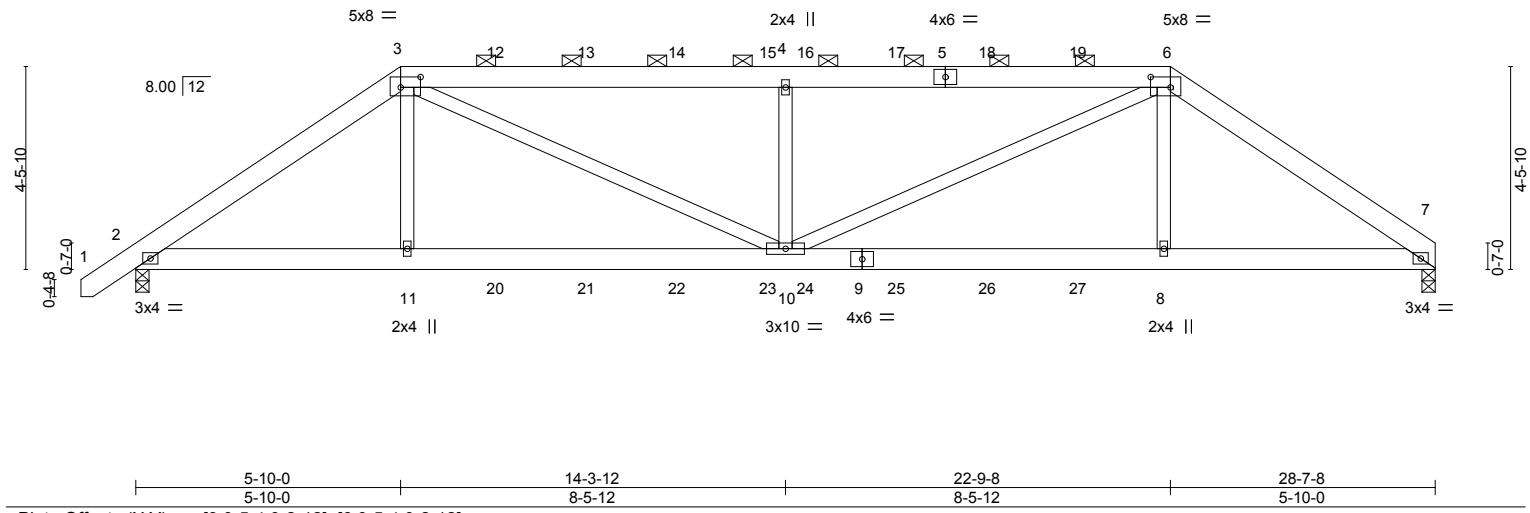


Plate Offsets (X,Y)--	[3:0-5-4,0-2-12], [6:0-5-4,0-2-12]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.32	Vert(LL) -0.07 10 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.28	Vert(CT) -0.13 10-11 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.21	Horz(CT) 0.04 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.07 10 >999 240	Weight: 372 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 3-6.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-3-8, 2=0-3-8
 Max Horz 2=106(LC 24)
 Max Uplift 7=-483(LC 9), 2=-501(LC 8)
 Max Grav 7=2100(LC 1), 2=2177(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-3447/843, 3-4=-4284/1127, 4-6=-4285/1127, 6-7=-3431/844
 BOT CHORD 2-11=-732/2755, 10-11=-731/2776, 8-10=-646/2782, 7-8=-647/2761
 WEBS 3-11=0/714, 3-10=-536/1723, 4-10=-1085/640, 6-10=-536/1720, 6-8=0/716

- 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: 2x6 - 2 rows staggered at 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; 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
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=483, 2=501.
 - 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) 134 lb down and 118 lb up at 5-10-0, 139 lb down and 115 lb up at 7-10-12, 139 lb down and 115 lb up at 9-10-12, 139 lb down and 115 lb up at 11-10-12, 139 lb down and 115 lb up at 13-10-12, 139 lb down and 115 lb up at 14-8-12, 139 lb down and 115 lb up at 16-8-12, 139 lb down and 115 lb up at 18-8-12, and 139 lb down and 115 lb up at 20-8-12, and 134 lb down and 118 lb up at 22-9-8 on top chord, and 329 lb down and 119 lb up at 5-10-0, 73 lb down at 7-10-12, 73 lb down at 9-10-12, 73 lb down at 11-10-12, 73 lb down at 13-10-12, 73 lb down at 14-8-12, 73 lb down at 16-8-12, 73 lb down at 18-8-12, and 73 lb down at 20-8-12, and 329 lb down and 119 lb up at 22-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



August 23, 2024

LOAD CASE(S) Standard
 Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	I67767580
J0724-4089	B1	HIP GIRDER	1	2	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:24 2024 Page 2
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LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-6=-60, 6-7=-60, 2-7=-20

Concentrated Loads (lb)

Vert: 3=-99(F) 6=-99(F) 11=-329(F) 8=-329(F) 12=-99(F) 13=-99(F) 14=-99(F) 15=-99(F) 16=-99(F) 17=-99(F) 18=-99(F) 19=-99(F) 20=-36(F) 21=-36(F) 22=-36(F) 23=-36(F) 24=-36(F) 25=-36(F) 26=-36(F) 27=-36(F)

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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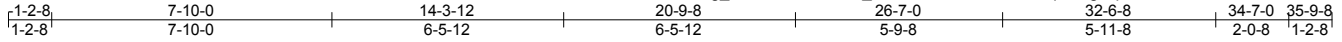
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767581
J0724-4089	B2	ROOF SPECIAL GIRDER	1	1		

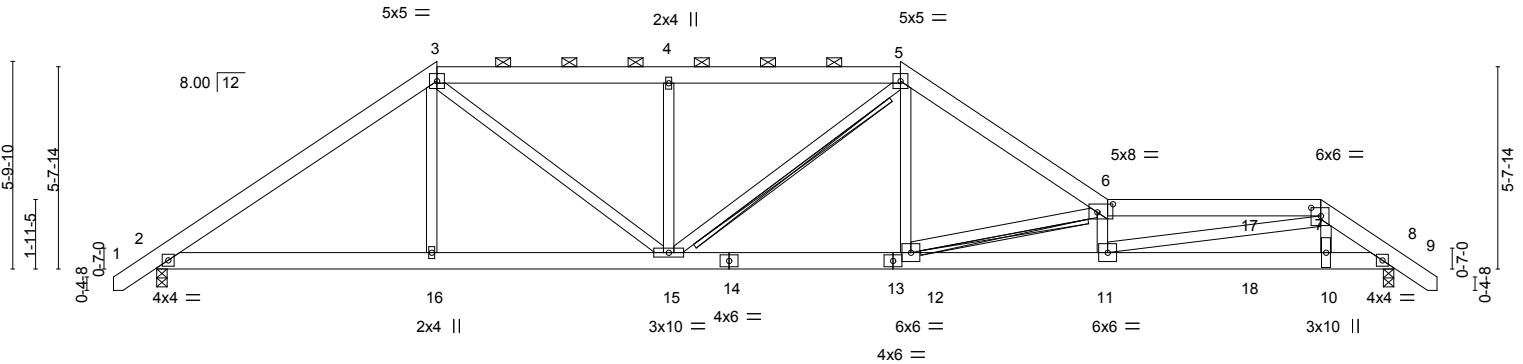
Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:24 2024 Page 1

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Scale: 3/16"=1'



	7-10-0	14-3-12	20-9-8	26-7-0	32-6-8	34-7-0
	7-10-0	6-5-12	6-5-12	5-9-8	5-11-8	2-0-8
Plate Offsets (X,Y)--	[6:0-5-4,0-2-12], [7:0-3-4,0-2-12]					

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.51	Vert(LL)	-0.26	11-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.53	11-12	>776		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.83	Horz(CT)	0.07	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.18	11-12	>999	Weight: 242 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-5-1 oc purlins, except 2-0-0 oc purlins (3-1-1 max.): 3-5, 6-7.
BOT CHORD 2x6 SP No.1 *Except* 8-13: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 5-15, 6-12 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
 Max Horz 2=142(LC 26)
 Max Uplift 2=-39(LC 8), 8=-93(LC 9)
 Max Grav 2=1445(LC 1), 8=1445(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2078/53, 3-4=-2225/85, 4-5=-2225/85, 5-6=-2717/82, 6-7=-5290/211,
 7-8=-2543/104
 BOT CHORD 2-16=-78/1610, 15-16=-80/1605, 12-15=0/2203, 11-12=-136/5193, 10-11=-48/1988,
 8-10=-42/2029
 WEBS 3-16=0/325, 3-15=-138/880, 4-15=-451/161, 5-12=0/1051, 6-12=-3058/216,
 6-11=-971/107, 7-11=-102/3398, 7-10=0/463

- 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); Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
 - 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) 64 lb down and 27 lb up at 30-5-12, and 132 lb down and 62 lb up at 32-6-8 on top chord, and 6 lb down at 30-5-12, and 15 lb down at 32-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
 - 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



August 23, 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/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)



Job J0724-4089	Truss B2	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	I67767581
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:24 2024 Page 2
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LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 5-6=-60, 6-7=-60, 7-9=-60, 2-8=-20

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)



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Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767582
J0724-4089	B3	ROOF SPECIAL	1	1		

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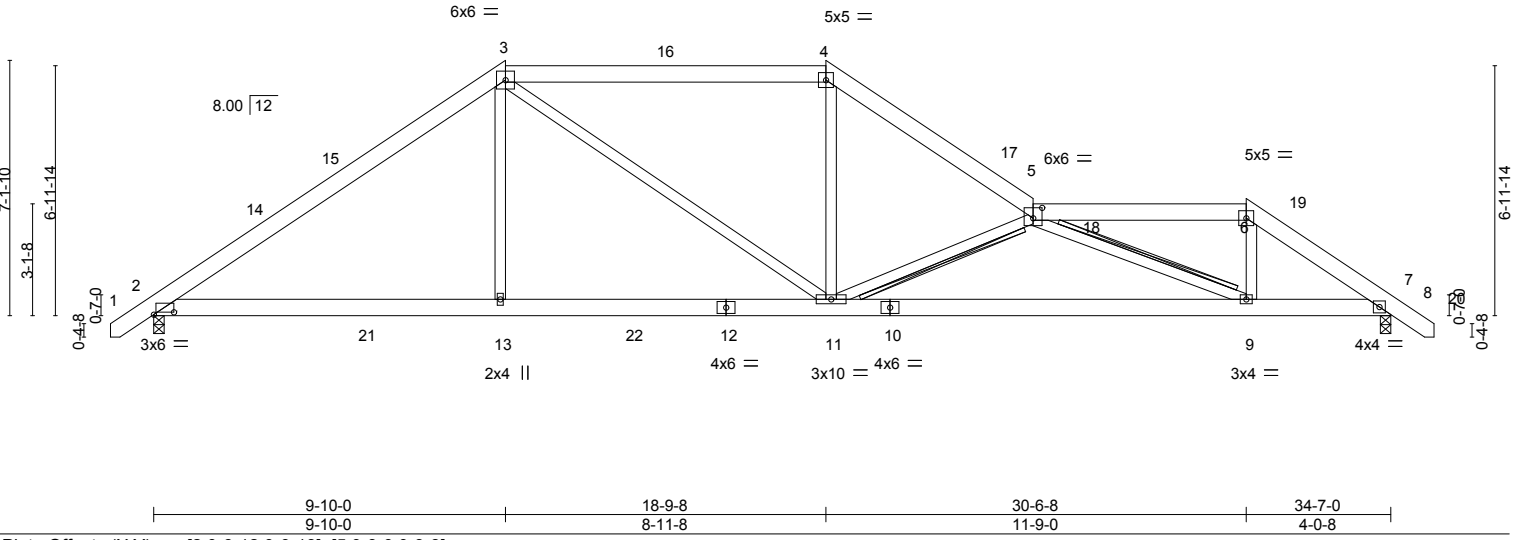
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Job Reference (optional)



Scale: 3/16"=1'

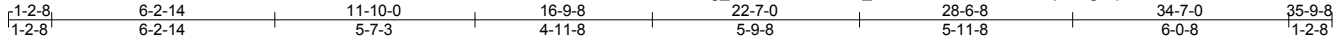


Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767583
J0724-4089	B4	ROOF SPECIAL	1	1	Job Reference (optional)	

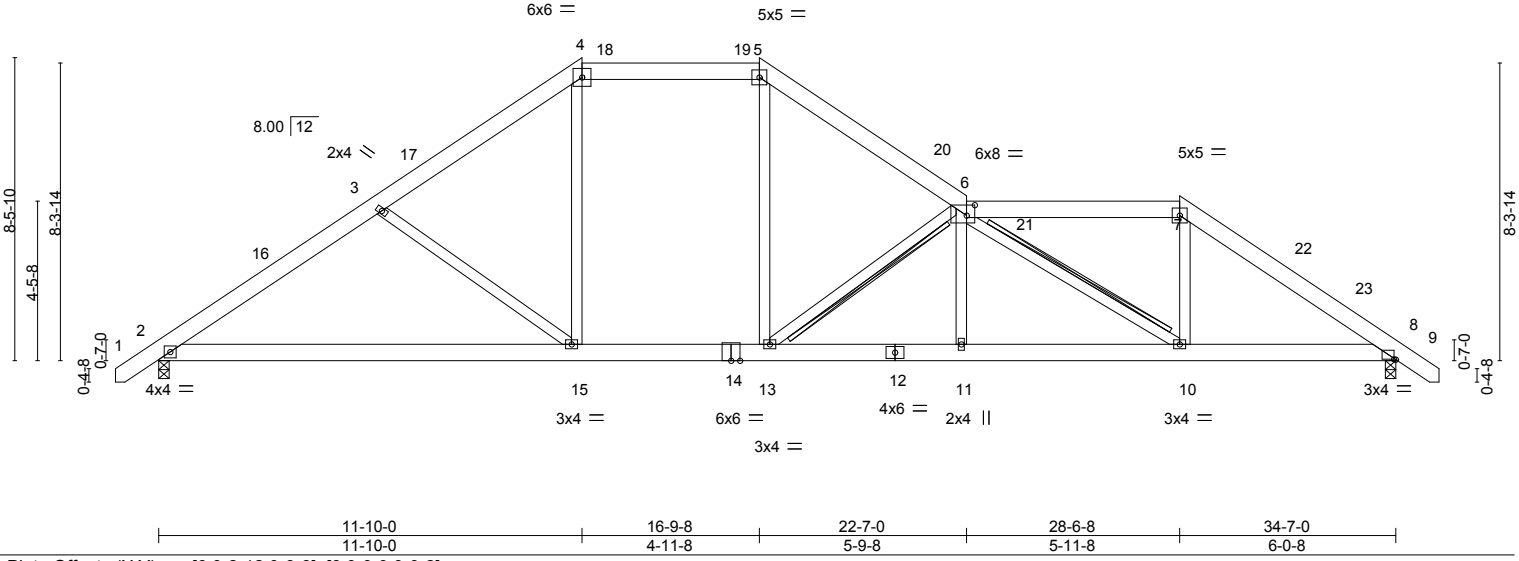
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Scale: 3/16"=1'



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.72	Vert(LL) -0.24 11-13 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.41	Vert(CT) -0.40 11-13 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.06 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.17 11-13 >999 240	Weight: 244 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-2-13 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (5-10-12 max.): 4-5, 6-7.
WEBS 2x4 SP No.2	Rigid ceiling directly applied or 10-0-0 oc bracing.
	T-Brace: 2x4 SPF No.2 - 6-13, 6-10
	Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
	Brace must cover 90% of web length.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
 Max Horz 2=205(LC 11)
 Max Uplift 2=64(LC 12), 8=-105(LC 13)
 Max Grav 2=1445(LC 1), 8=1445(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2081/517, 3-4=-1826/490, 4-5=-1461/471, 5-6=-1871/506, 6-7=-1658/453, 7-8=-2144/481
 BOT CHORD 2-15=-294/1741, 13-15=-120/1480, 11-13=-476/2661, 10-11=-478/2654, 8-10=-263/1687
 WEBS 3-15=-366/214, 4-15=-60/610, 5-13=-146/818, 6-13=-1508/446, 6-11=0/290, 6-10=-1216/271, 7-10=-80/807

- 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 11-10-0, Exterior(2) 11-10-0 to 16-2-13, Interior(1) 16-2-13 to 16-9-8, Exterior(2) 16-9-8 to 21-2-5, Interior(1) 21-2-5 to 28-6-8, Exterior(2) 28-6-8 to 32-11-5, Interior(1) 32-11-5 to 35-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=1b) 8=105.
 - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



August 23, 2024

Job J0724-4089	Truss B6	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767585
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1-2-8	7-5-11	14-3-12	18-7-0	24-6-8	34-7-0	35-9-8
1-2-8	7-5-11	6-10-1	4-3-4	5-11-8	10-0-8	1-2-8

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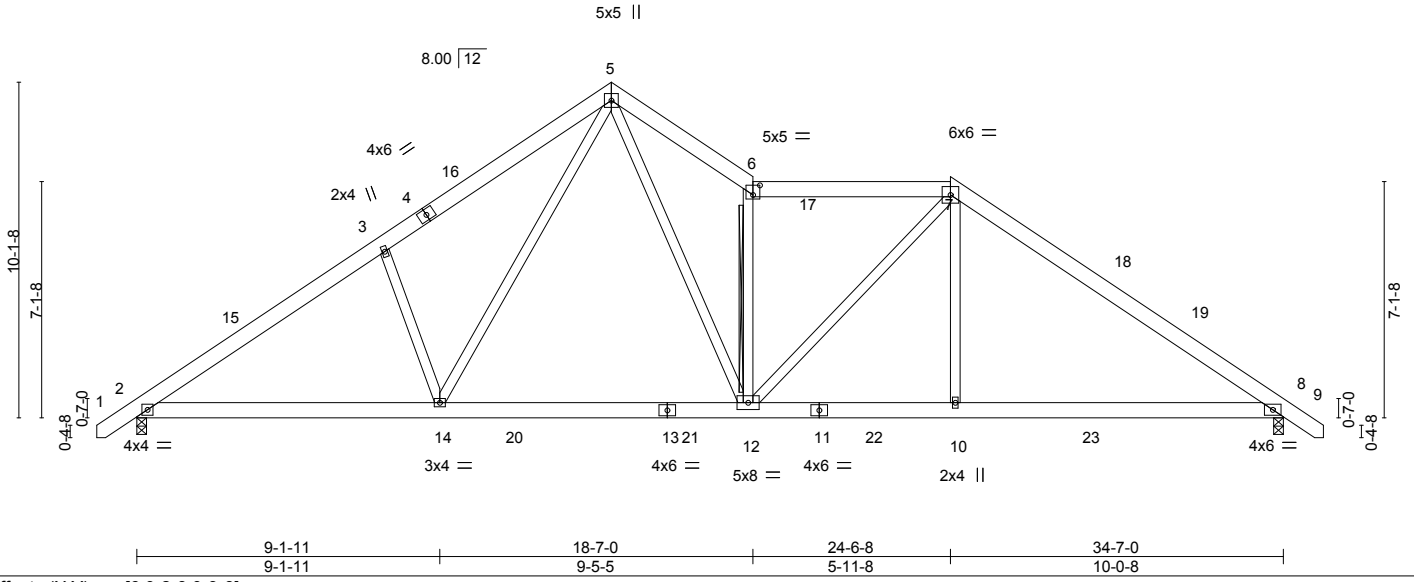


Plate Offsets (X,Y)--	[6:0-2-8,0-3-8]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15		TC 0.60	Vert(LL) -0.18	12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.48	Vert(CT) -0.28	12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.69	Horz(CT) 0.05	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-S	Wind(LL) 0.06	8-10	>999	240	Weight: 253 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-3-8 oc purlins, except 2-0-0 oc purlins (5-5-7 max.): 6-7.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 6-12 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
 Max Horz 2=246(LC 11)
 Max Uplift 2=-78(LC 12), 8=-113(LC 13)
 Max Grav 2=1551(LC 19), 8=1599(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2273/436, 3-5=-2172/553, 5-6=-2397/642, 6-7=-2005/485, 7-8=-2243/428
 BOT CHORD 2-14=-211/1950, 12-14=-30/1420, 10-12=-161/1757, 8-10=-160/1766
 WEBS 3-14=-477/288, 5-14=-181/837, 5-12=-371/1629, 6-12=-1501/461, 7-12=-56/452, 7-10=0/507

- 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-3-12, Exterior(2) 14-3-12 to 18-7-0, Interior(1) 18-7-0 to 24-6-8, Exterior(2) 24-6-8 to 28-11-5, Interior(1) 28-11-5 to 35-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 8=113.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



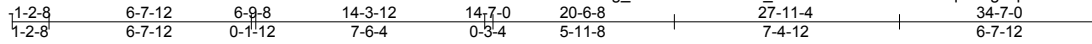
August 23, 2024

Job J0724-4089	Truss B8	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767587
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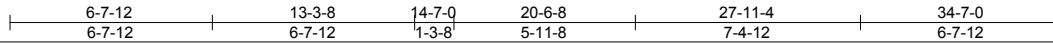
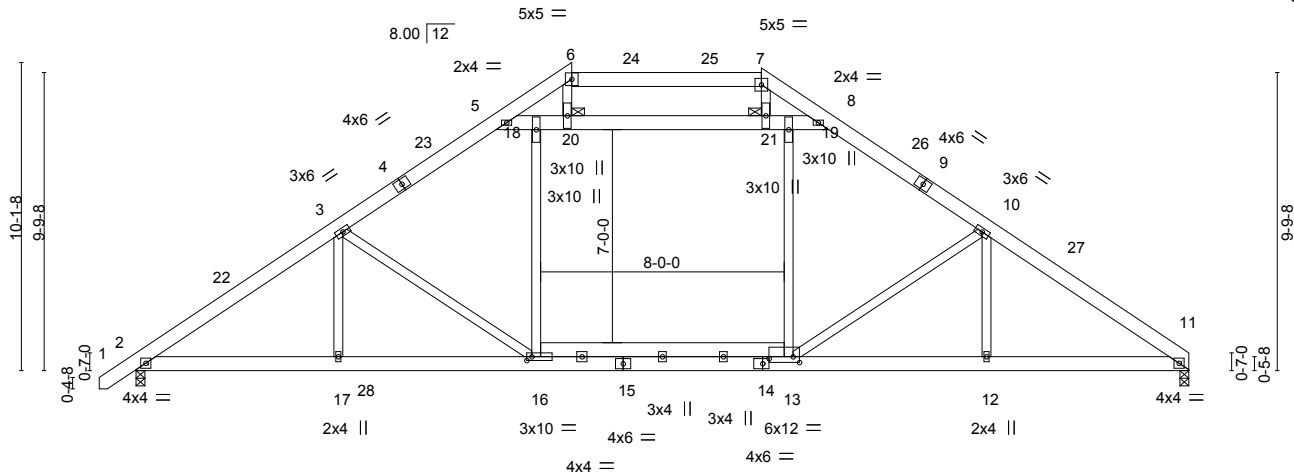


Plate Offsets (X,Y)--	[13:0-2-8,0-2-4], [14:0-2-8,0-2-0], [16:0-2-0,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	-0.24	16-17	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.28	16-17	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.06	11	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-S	Wind(LL)	0.12	12-13	>999	Weight: 284 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-9-15 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 6-7.
WEBS 2x4 SP No.2 *Except* 5-8: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
	JOINTS 1 Brace at Jt(s): 20, 21

REACTIONS. (size) 2=0-3-8, 11=0-3-8
 Max Horz 2=234(LC 9)
 Max Uplift 2=-78(LC 12), 11=-59(LC 13)
 Max Grav 2=1673(LC 19), 11=1495(LC 20)

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

TOP CHORD	2-3=-2540/436, 3-5=-1997/454, 5-6=-1189/292, 6-7=-974/272, 7-8=-1265/300, 8-10=-1962/462, 10-11=-2279/447
BOT CHORD	2-17=-259/2169, 16-17=-259/2169, 13-16=-119/1620, 12-13=-263/1798, 11-12=-263/1798
WEBS	3-17=0/314, 16-18=-14/763, 13-19=-25/607, 3-16=-668/190, 10-12=0/261, 10-13=-547/195, 5-18=-620/210, 18-20=-620/210, 20-21=-652/212, 19-21=-608/213, 8-19=-608/213, 6-20=-16/444, 7-21=-20/528

- 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) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-3-12, Exterior(2) 14-3-12 to 18-8-9, Interior(1) 18-8-9 to 20-6-8, Exterior(2) 20-6-8 to 24-11-5, Interior(1) 24-11-5 to 34-5-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 23, 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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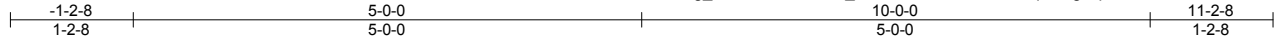
818 Soundside Road
 Edenton, NC 27932

Job J0724-4089	Truss C1SG	Truss Type GABLE	Qty 1	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767588
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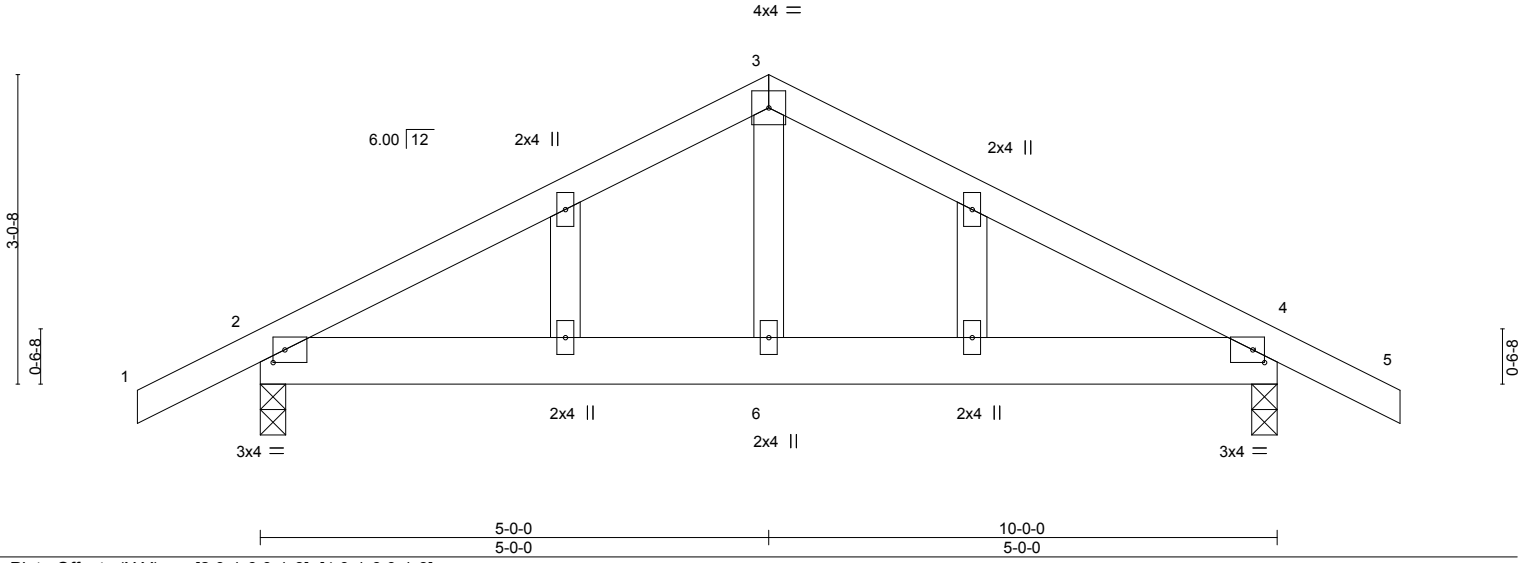
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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:29 2024 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(LL) 0.02 4-6 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Vert(CT) -0.01 4-6 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 4 n/a n/a		
	Code IRC2015/TPI2014			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, 4=0-3-0
 Max Horz 2=63(LC 16)
 Max Uplift 2=-121(LC 9), 4=-121(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=-515/590, 3-4=-515/590
 BOT CHORD 2-6=-397/387, 4-6=-397/387
 WEBS 3-6=-326/240

- 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 100 lb uplift at joint(s) except (jt=lb) 2=121, 4=121.



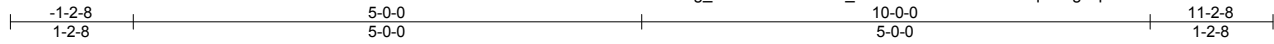
August 23, 2024

Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills
J0724-4089	C2	COMMON	4	1	167767589

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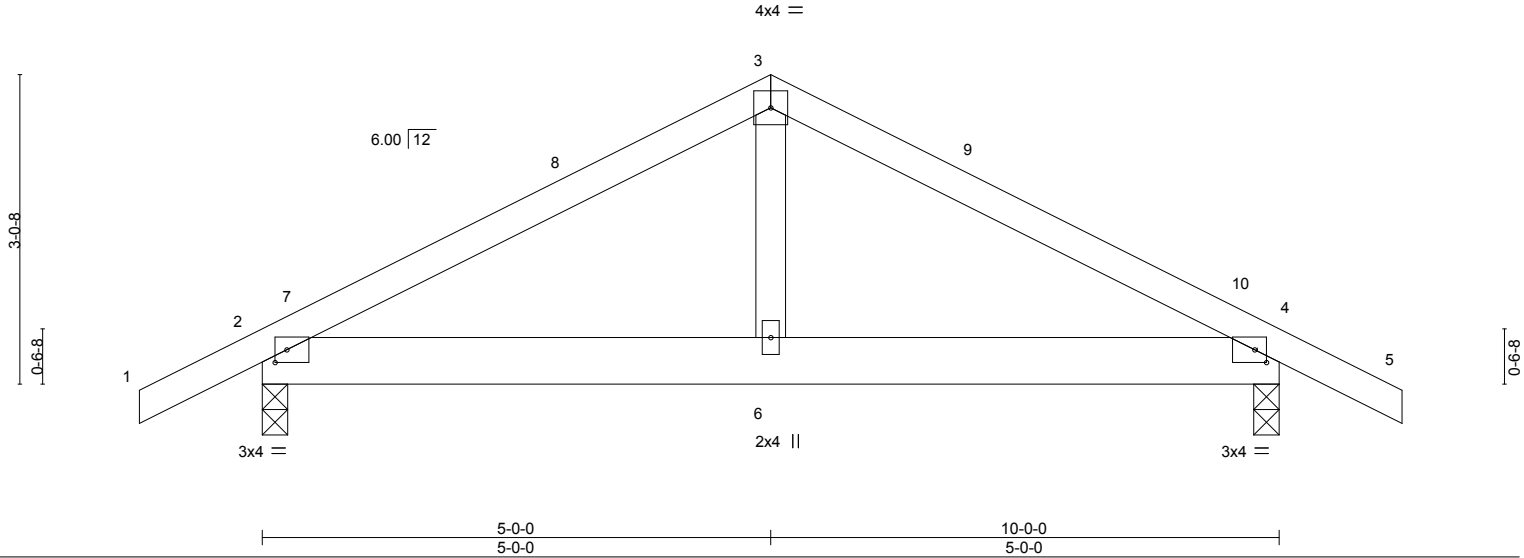


Plate Offsets (X,Y)--	[2:0-1-6,0-1-8], [4:0-1-6,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.21	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(LL) -0.01 6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Vert(CT) -0.01 4-6 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 4 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.02 4-6 >999 240	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 11)
 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=-515/568, 3-4=-515/568
 BOT CHORD 2-6=-376/387, 4-6=-376/387
 WEBS 3-6=-327/240

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 100 lb uplift at joint(s) 2, 4.



August 23, 2024

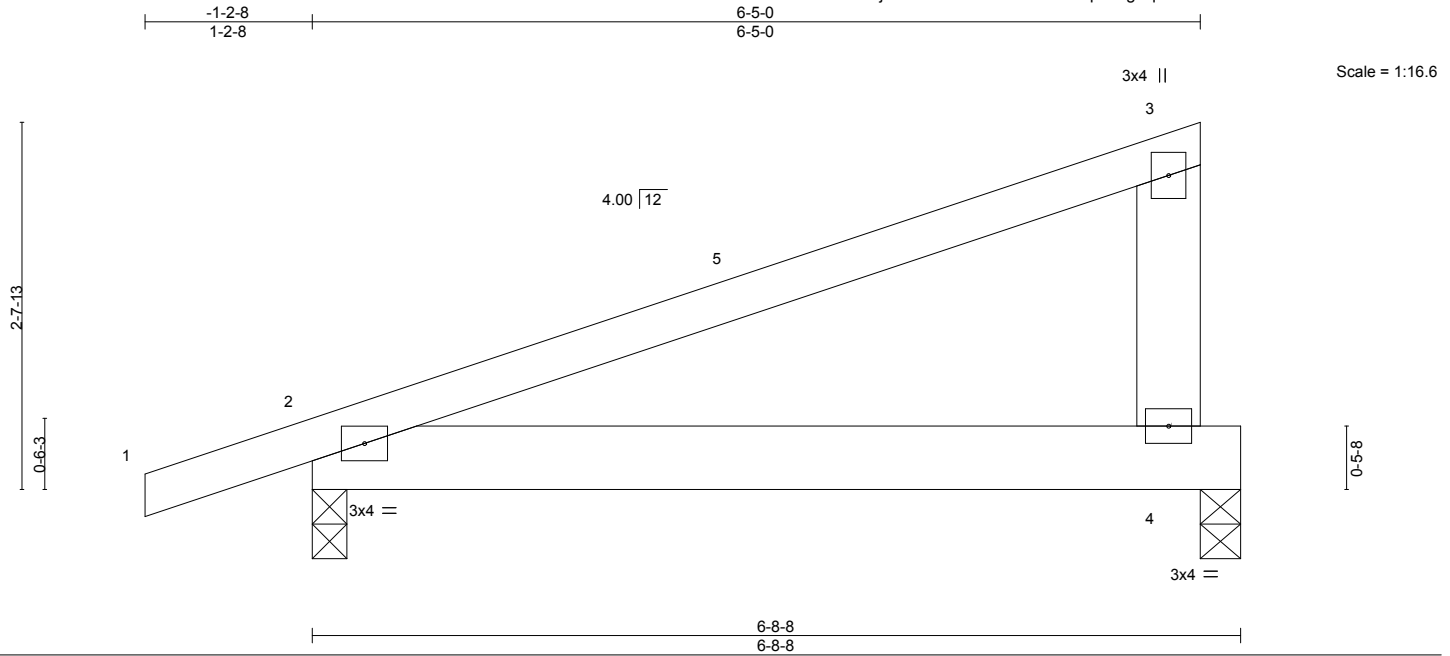
<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J0724-4089	Truss P1	Truss Type ROOF SPECIAL	Qty 7	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767590
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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:30 2024 Page 1

ID:F7e3nXrh6oAXz?Vjil5mfhz3PFB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f
6-5-0
6-5-0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.57	Vert(LL)	-0.02	2-4	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT)	-0.04	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-P	Wind(LL)	0.04	2-4	>999	Weight: 32 lb	FT = 20%
	Code IRC2015/TPI2014							

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

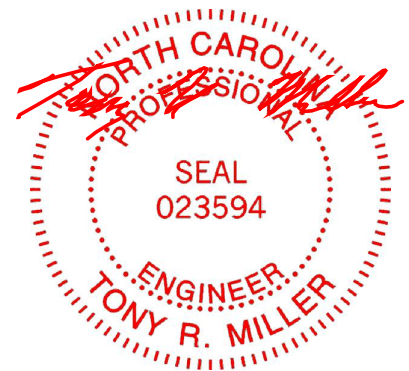
REACTIONS. (size) 4=0-3-8, 2=0-3-0
 Max Horz 2=85(LC 8)
 Max Uplift 4=294(LC 8), 2=134(LC 8)
 Max Grav 4=734(LC 1), 2=331(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 6-2-4 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=294, 2=134.
 - 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 500 lb down and 669 lb up at 6-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-3=-60, 2-4=-20
 Concentrated Loads (lb)
 Vert: 4=500(F)



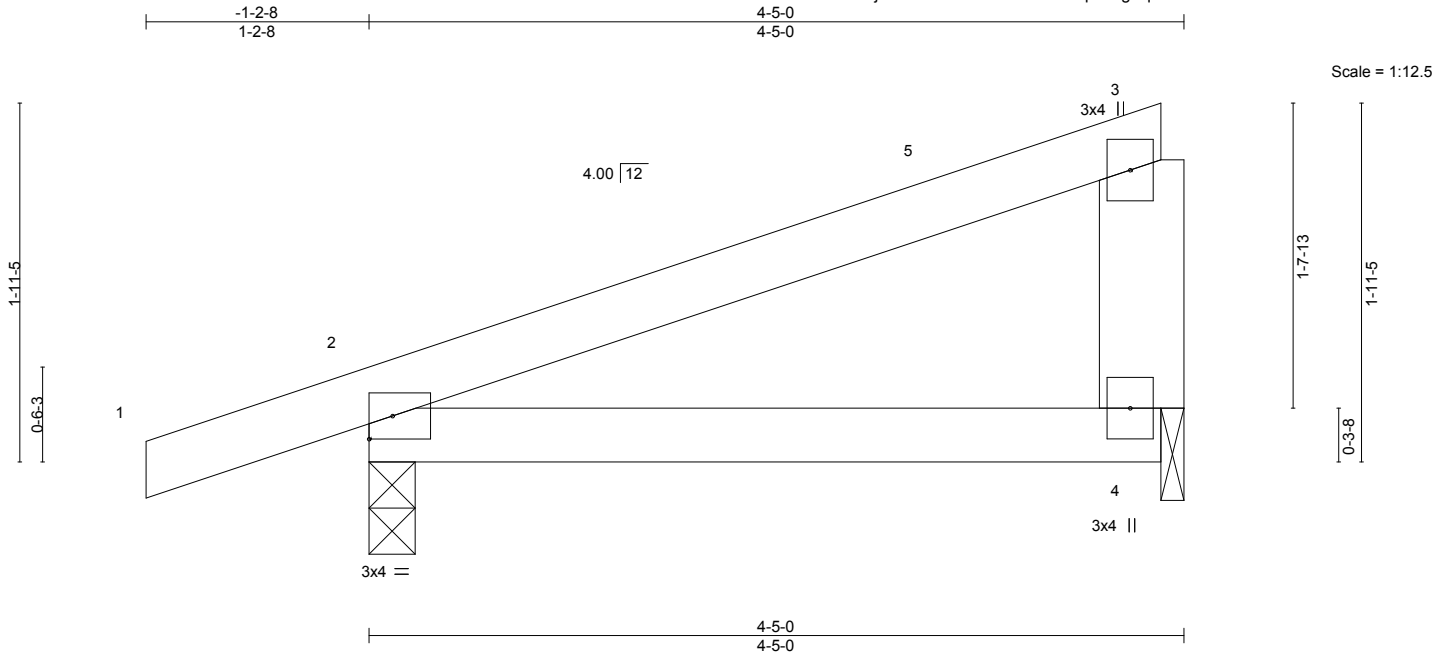
Job J0724-4089	Truss P2	Truss Type MONOPICH	Qty 10	Ply 1	Lot 7 Magnolia Hills	167767591
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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:31 2024 Page 1

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Job Reference (optional)



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 0.18	Vert(LL)	-0.01 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.03 2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.03 2-4	>999	240	Weight: 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 4-5-0 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=62(LC 8)
 Max Uplift 2=-109(LC 8), 4=-65(LC 8)
 Max Grav 2=256(LC 1), 4=149(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-2-4 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 100 lb uplift at joint(s) 4 except (jt=6) 2=109.



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Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767592
J0724-4089	P3	MONOPICH	3	1		

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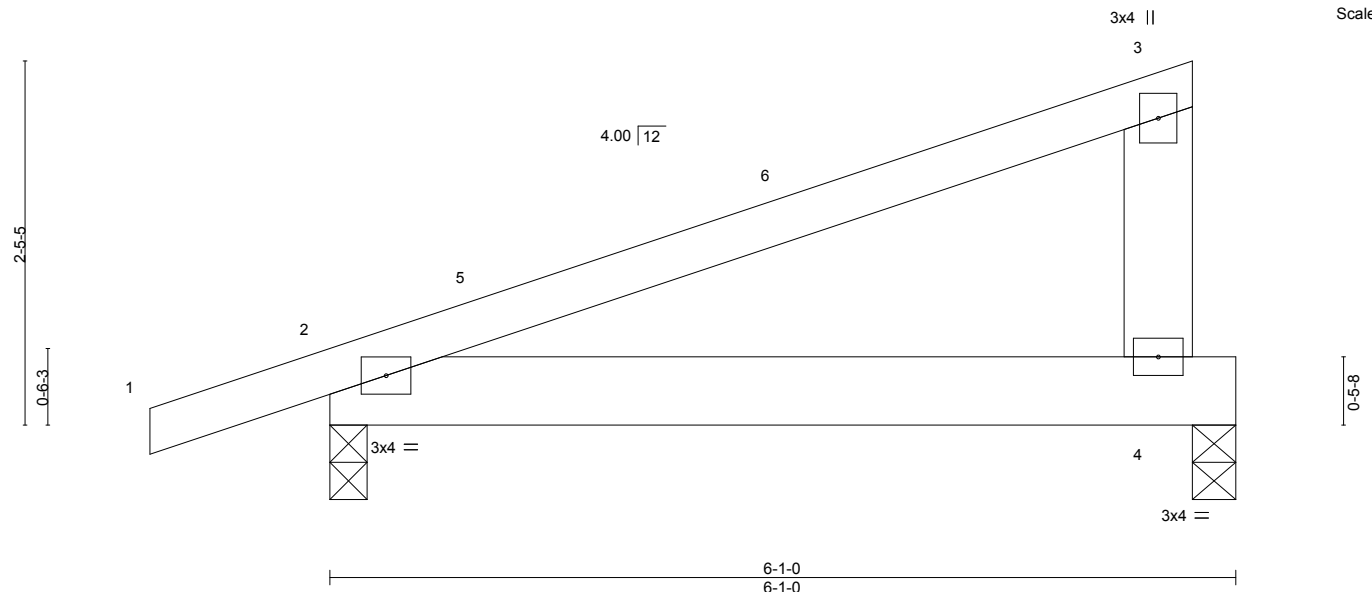
8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:32 2024 Page 1

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Job Reference (optional)



Scale = 1:15.5



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 0.38	Vert(LL)	-0.01 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	-0.02 2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.03 2-4	>999	240	Weight: 29 lb	FT = 20%

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

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 5-9-8 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=0-3-8, 2=0-3-0
 Max Horz 2=78(LC 8)
 Max Uplift 4=90(LC 8), 2=127(LC 8)
 Max Grav 4=208(LC 1), 2=307(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-6-12 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=127.



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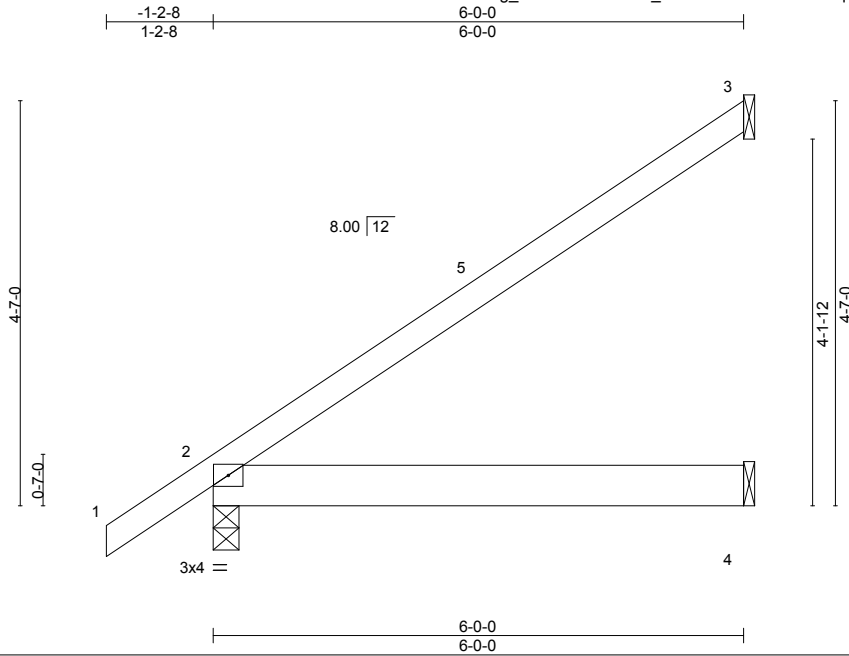
ENGINEERING BY
TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767593
J0724-4089	XA1	JACK-OPEN	14	1		

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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:32 2024 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.51	Vert(LL)	-0.02	2-4	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(CT)	-0.03	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	2	****		
	Code IRC2015/TPI2014						Weight: 27 lb	FT = 20%

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

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) 3=Mechanical, 2=0-3-8, 4=Mechanical
 Max Horz 2=151(LC 12)
 Max Uplift 3=-105(LC 12)
 Max Grav 3=184(LC 19), 2=322(LC 1), 4=116(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 3=105.



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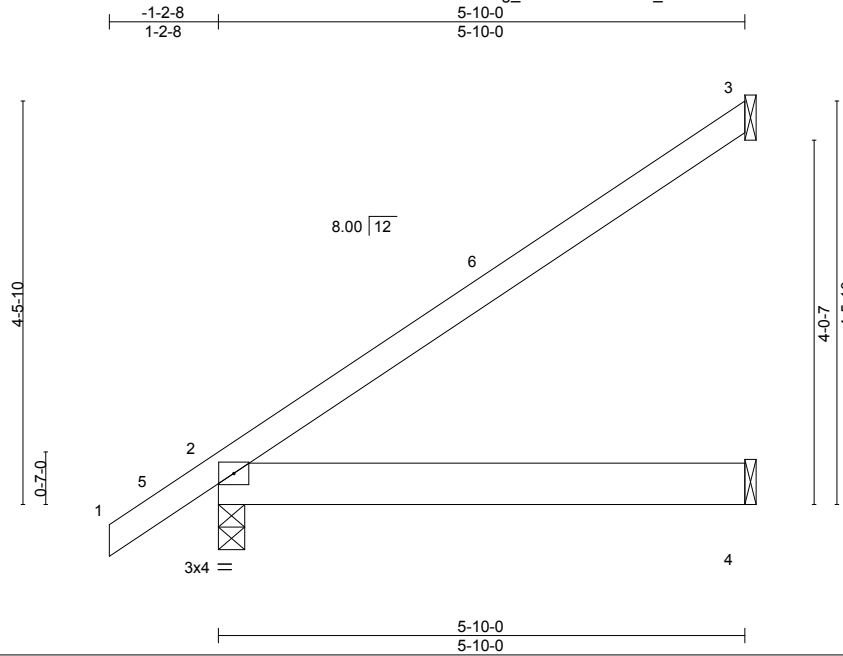
818 Soundside Road
 Edenton, NC 27932

Job J0724-4089	Truss XB1	Truss Type JACK-OPEN	Qty 10	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767594
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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:32 2024 Page 1

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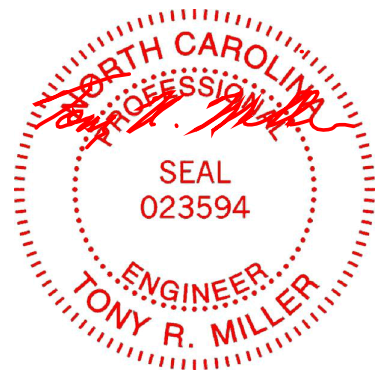
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.49	Vert(LL)	-0.01 2-4	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.12	Vert(CT)	-0.03 2-4	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00 2	****	240		
	Code IRC2015/TPI2014						Weight: 27 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-10-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.


REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
 Max Horz 2=147(LC 12)
 Max Uplift 3=-102(LC 12)
 Max Grav 3=178(LC 19), 2=316(LC 1), 4=113(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-9-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Refer to girder(s) for truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 3=102.



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Job J0724-4089	Truss XB2	Truss Type JACK-OPEN	Qty 2	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767595
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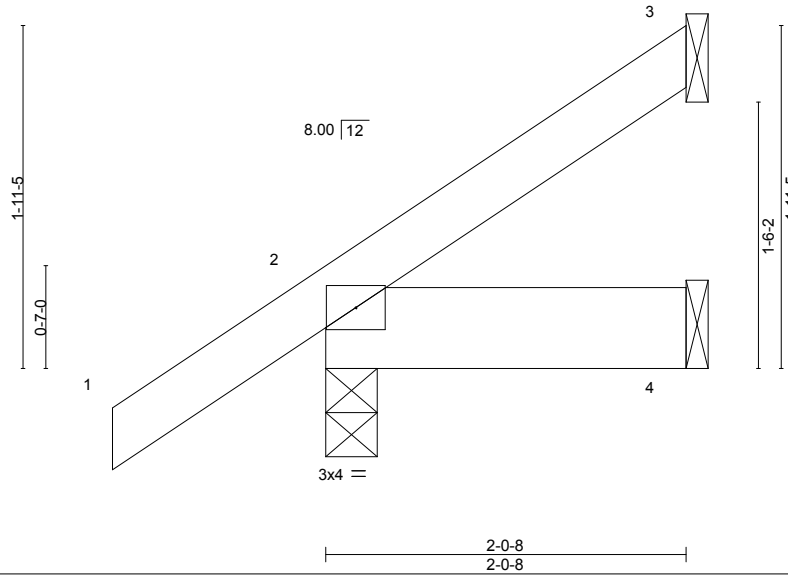
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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:33 2024 Page 1

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Scale = 1:13.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.09	Vert(LL)	-0.00	2	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.01	Vert(CT)	-0.00	2	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	2	****		
	Code IRC2015/TPI2014						Weight: 11 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-0-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=65(LC 12)
Max Uplift 3=-29(LC 12), 2=-16(LC 12)
Max Grav 3=34(LC 19), 2=185(LC 1), 4=37(LC 3)

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

NOTES-

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



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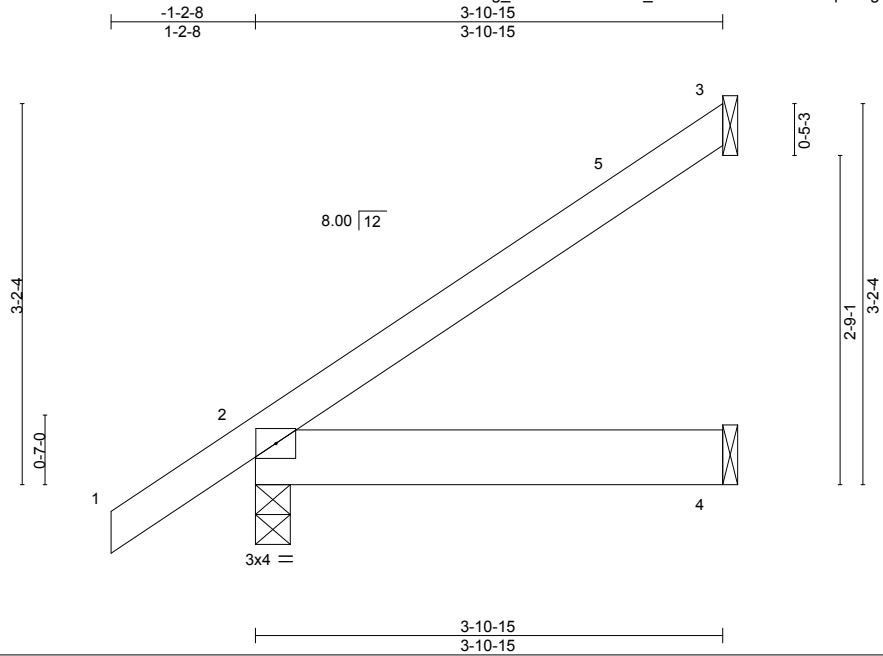
818 Soundside Road
Edenton, NC 27932

Job J0724-4089	Truss YA2	Truss Type JACK-OPEN	Qty 4	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767597
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:34 2024 Page 1

ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f



Scale = 1:19.3

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)	-0.00 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.01 2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00 2	****	240		
								Weight: 19 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=106(LC 12)
Max Uplift 3=-66(LC 12), 2=-6(LC 12)
Max Grav 3=110(LC 19), 2=244(LC 1), 4=74(LC 3)

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

NOTES-

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



August 23, 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)



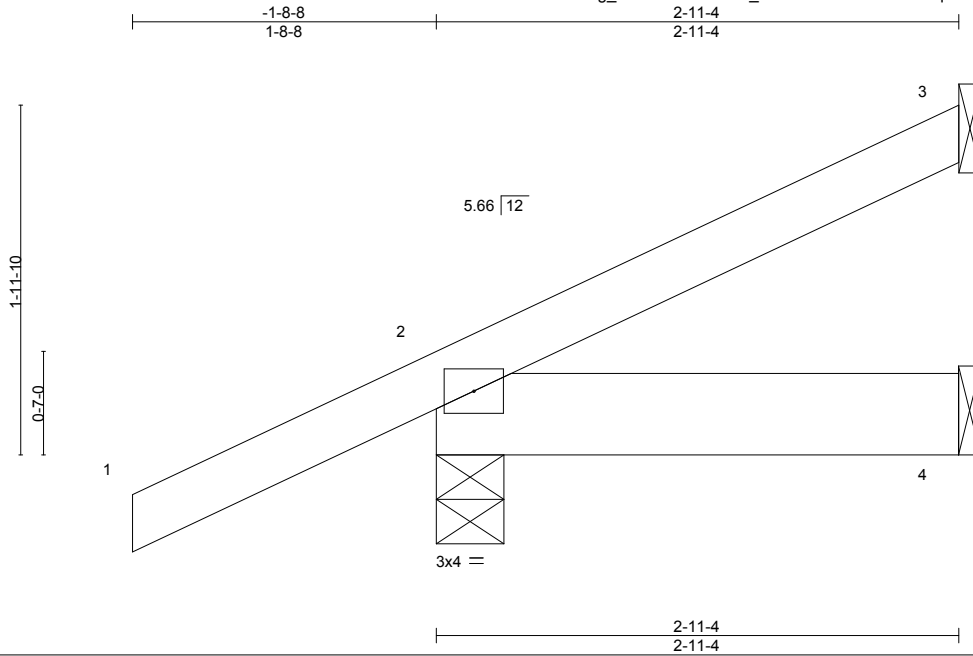
818 Soundside Road
Edenton, NC 27932

Job J0724-4089	Truss YA3	Truss Type Half Hip Girder	Qty 1	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767598
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:34 2024 Page 1

ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:13.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.18	Vert(LL)	-0.00	2	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(CT)	-0.00	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	2	****		
	Code IRC2015/TPI2014						Weight: 15 lb	FT = 20%

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

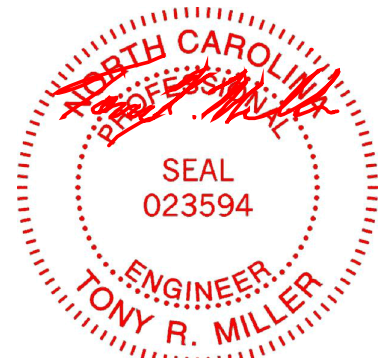
BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=66(LC 12)
Max Uplift 3=-31(LC 12), 2=-34(LC 12)
Max Grav 3=40(LC 1), 2=262(LC 1), 4=54(LC 3)

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

NOTES-

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



August 23, 2024

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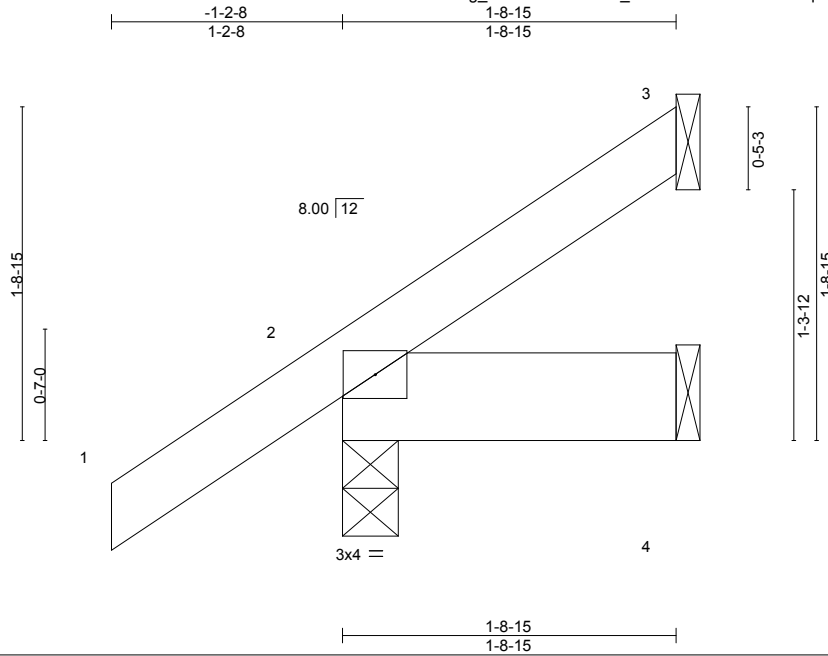
818 Soundside Road
Edenton, NC 27932

Job J0724-4089	Truss YB1	Truss Type JACK-OPEN	Qty 4	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767599
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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:35 2024 Page 1

ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale: 1"=1'

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.08	Vert(LL)	-0.00	2	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.01	Vert(CT)	-0.00	2	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	2	****		
	Code IRC2015/TPI2014						Weight: 10 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-8-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=60(LC 12)
Max Uplift 3=-25(LC 12), 2=-17(LC 12)
Max Grav 3=32(LC 19), 2=169(LC 1), 4=34(LC 3)

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

NOTES-

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



August 23, 2024

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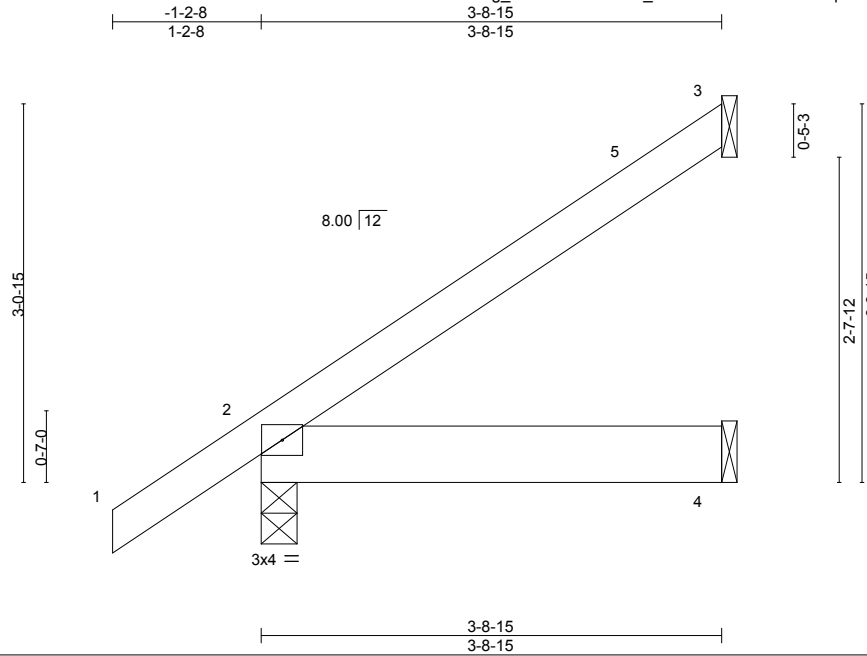
818 Soundside Road
Edenton, NC 27932

Job J0724-4089	Truss YB2	Truss Type JACK-OPEN	Qty 4	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767600
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:35 2024 Page 1

ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f



Scale = 1:18.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.19	Vert(LL)	-0.00 2-4	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	-0.00 2-4	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00 2	****	240		
	Code IRC2015/TPI2014						Weight: 18 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=102(LC 12)
Max Uplift 3=-63(LC 12), 2=-7(LC 12)
Max Grav 3=104(LC 19), 2=238(LC 1), 4=71(LC 3)

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

NOTES-

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



August 23, 2024

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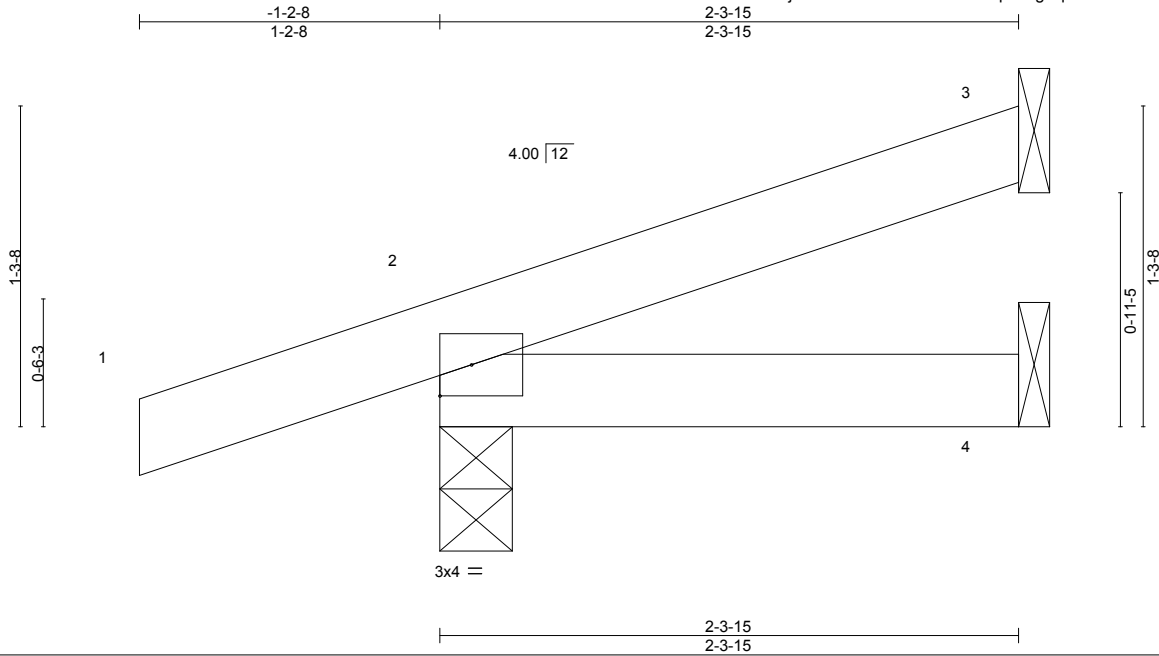
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818 Soundside Road
Edenton, NC 27932

Job J0724-4089	Truss YP1	Truss Type JACK-OPEN	Qty 4	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767601
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:35 2024 Page 1
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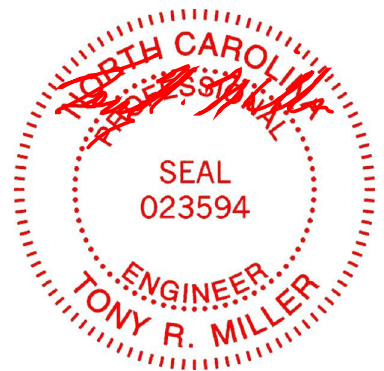
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.09	Vert(LL) -0.00	2-4	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT) -0.00	2-4	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT) -0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL) 0.00	2	****	240		
	Code IRC2015/TPI2014						Weight: 9 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-3-15 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
 Max Horz 2=41(LC 8)
 Max Uplift 3=-23(LC 12), 2=-67(LC 8)
 Max Grav 3=38(LC 1), 2=192(LC 1), 4=42(LC 3)

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

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

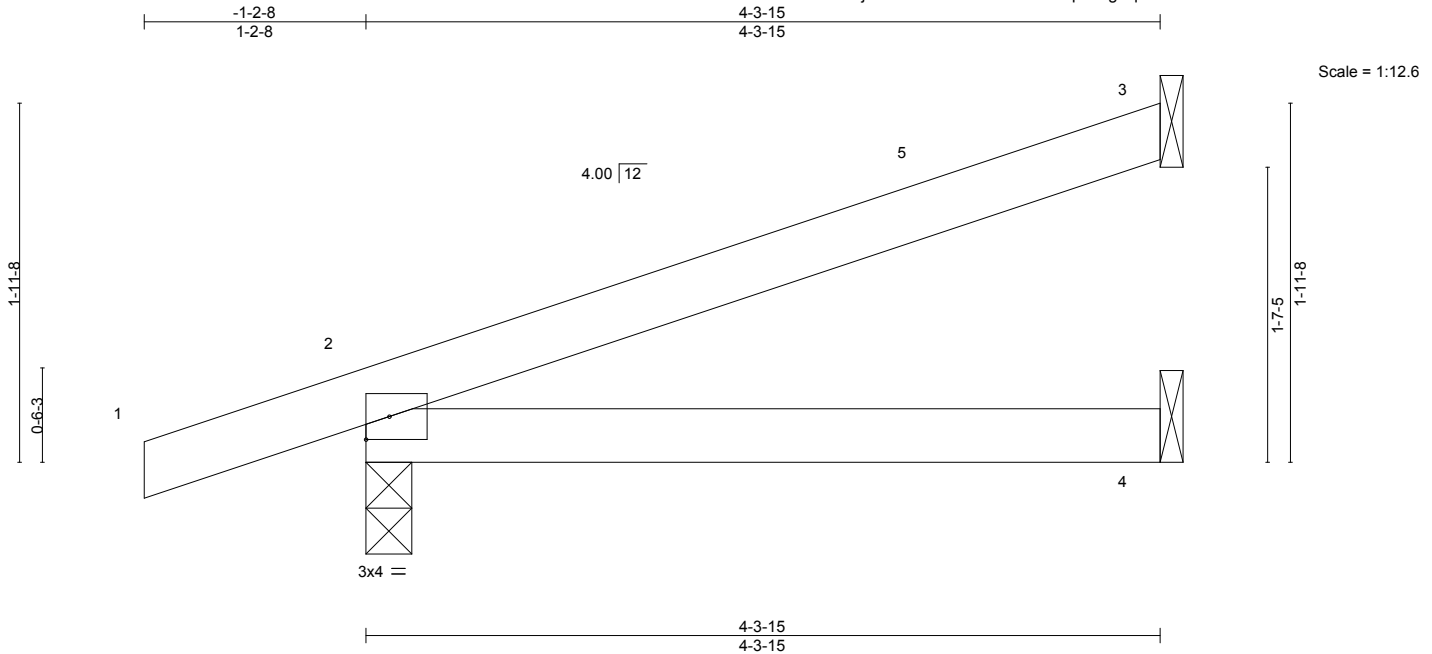


August 23, 2024

Job J0724-4089	Truss YP2	Truss Type JACK-OPEN	Qty 2	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767602
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:36 2024 Page 1
ID:F7e3nXrh6oAXz?Vjil5mfhz3PFB-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	-0.02	2-4	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.03	2-4	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	Weight: 15 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-3-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-0, 4=Mechanical
Max Horz 2=62(LC 8)
Max Uplift 3=-50(LC 12), 2=-63(LC 8)
Max Grav 3=111(LC 1), 2=259(LC 1), 4=83(LC 3)

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) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-3-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.



August 23, 2024

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A MiTek Affiliate

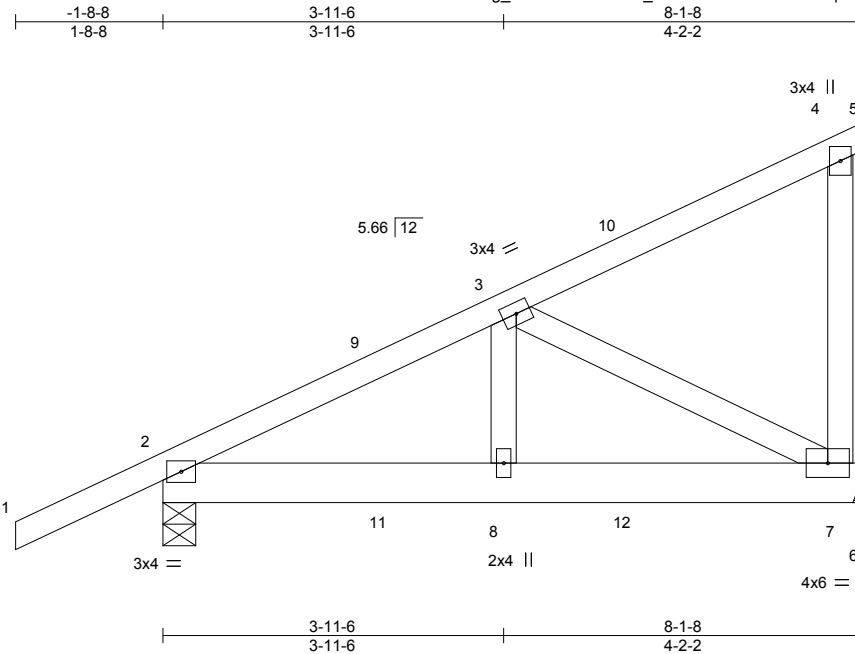
818 Soundside Road
Edenton, NC 27932

Job J0724-4089	Truss ZB1	Truss Type DIAGONAL HIP GIRDER	Qty 2	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767604
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:37 2024 Page 1

ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:26.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.00 7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01 7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.13	Horz(CT)	0.00 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00 8	>999	240		
								Weight: 49 lb	FT = 20%

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

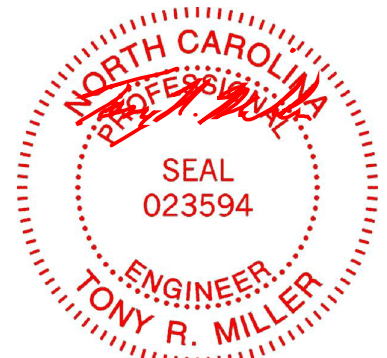
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-4-9
 Max Horz 2=146(LC 8)
 Max Uplift 7=-104(LC 8), 2=-48(LC 8)
 Max Grav 7=336(LC 29), 2=443(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-502/26
 BOT CHORD 2-8=-112/361, 7-8=-112/361
 WEBS 3-7=-408/127

- 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); Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=1b) 7=104.
 - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 28 lb up at 2-6-11, 74 lb down and 28 lb up at 2-6-11, and 104 lb down and 79 lb up at 5-4-10, and 104 lb down and 79 lb up at 5-4-10 on top chord, and 0 lb down at 2-6-11, 0 lb down at 2-6-11, and 18 lb down at 5-4-10, and 18 lb down at 5-4-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 7) 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-4=-60, 4-5=-20, 2-6=-20
 Concentrated Loads (lb)
 Vert: 10=-11(F=-6, B=-6) 12=-14(F=-7, B=-7)



August 23, 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)

ENGINEERING BY
TRENCO
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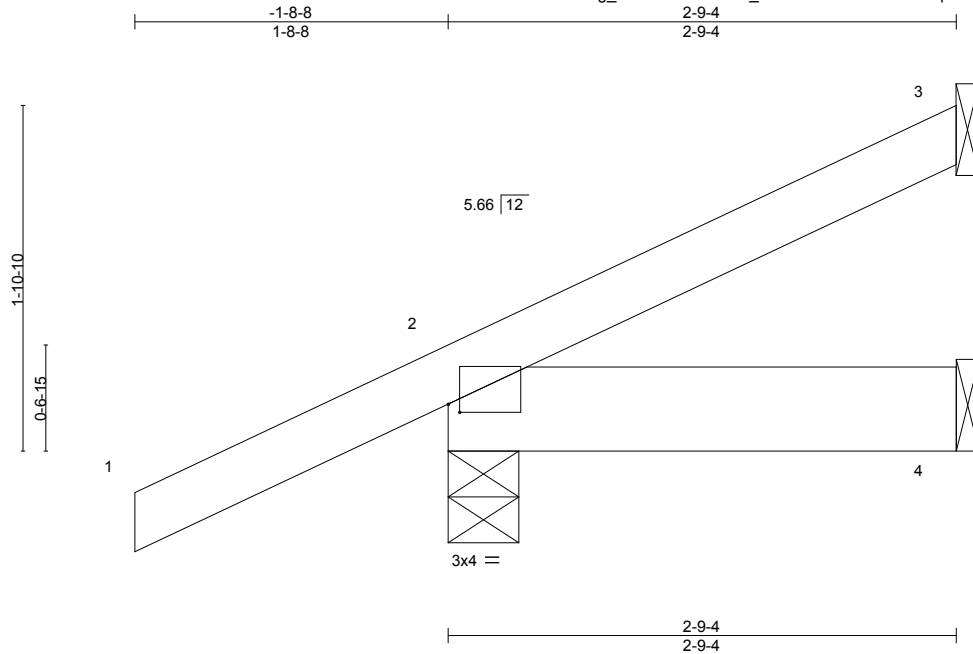
818 Soundside Road
 Edenton, NC 27932

Job J0724-4089	Truss ZB2	Truss Type JACK-OPEN	Qty 1	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767605
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:37 2024 Page 1

ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:12.6

Plate Offsets (X,Y)--	[2:0-0-12,0-0-9]				
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 0.30	Vert(LL) -0.00 2 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) -0.00 2-4 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Wind(LL) 0.00 2 **** 240	Weight: 14 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-10, 4=Mechanical
Max Horz 2=64(LC 12)
Max Uplift 3=28(LC 12), 2=35(LC 12)
Max Grav 3=32(LC 1), 2=258(LC 1), 4=50(LC 3)

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

NOTES-

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



August 23, 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
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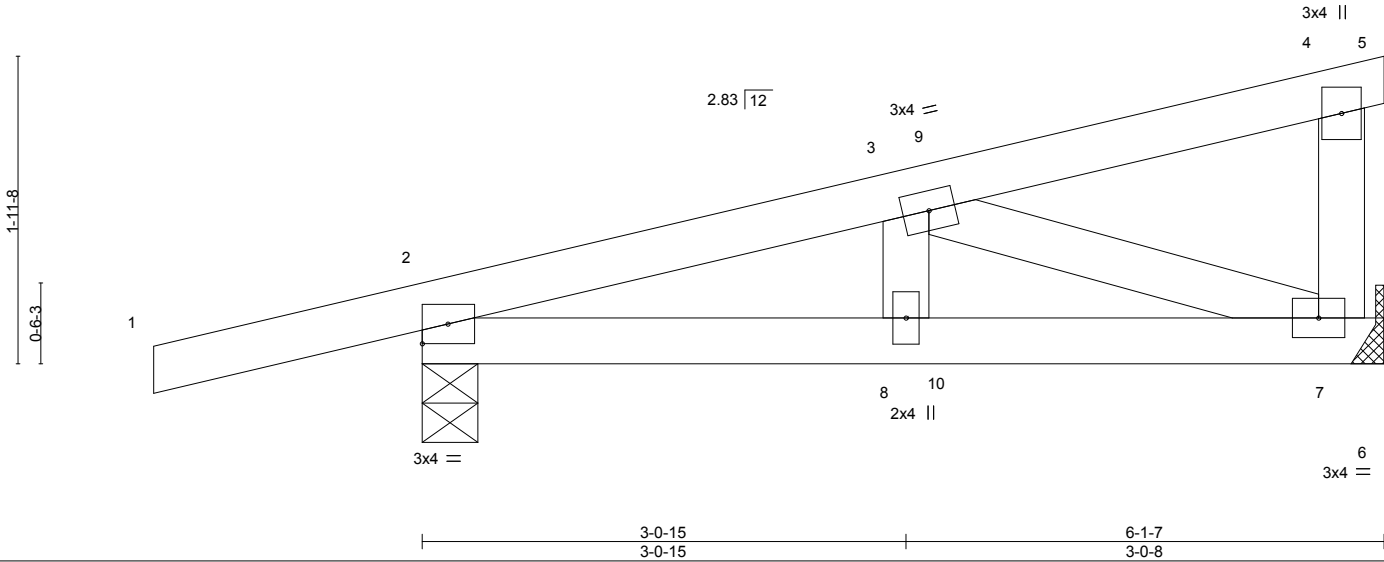
Job J0724-4089	Truss ZP1	Truss Type DIAGONAL HIP GIRDER	Qty 1	Ply 1	Lot 7 Magnolia Hills	167767606
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:38 2024 Page 1
ID:F7e3nXrh6oAXz?Vjil5mfhz3PFB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f



Scale = 1:14.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.00	8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	-0.01	8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.06	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	8	>999		
								Weight: 28 lb	FT = 20%

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

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

REACTIONS. (size) 7=Mechanical, 2=0-4-4
 Max Horz 2=63(LC 19)
 Max Uplift 7=-28(LC 8), 2=-96(LC 4)
 Max Grav 7=219(LC 1), 2=359(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-360/8
 BOT CHORD 2-8=-40/308, 7-8=-40/308
 WEBS 3-7=-325/42

- 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); Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
 - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 20 lb up at 3-4-9, and 18 lb down and 20 lb up at 3-4-9 on top chord, and 4 lb down at 3-4-9, and 4 lb down at 3-4-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 7) 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-4=-60, 4-5=-20, 2-6=-20



August 23, 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
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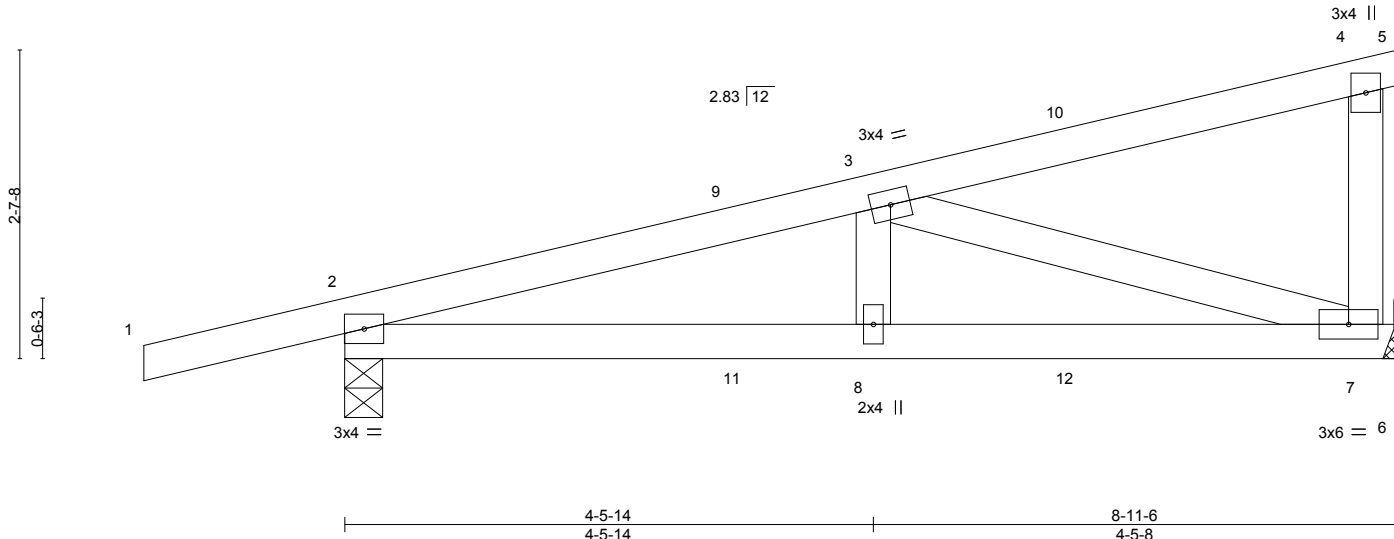
Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767607
J0724-4089	ZP2	DIAGONAL HIP GIRDER	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:52:38 2024 Page 1
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Scale = 1:19.6



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)	0.03 2-8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.04 7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.25	Horz(CT)	0.01 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 40 lb	FT = 20%

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

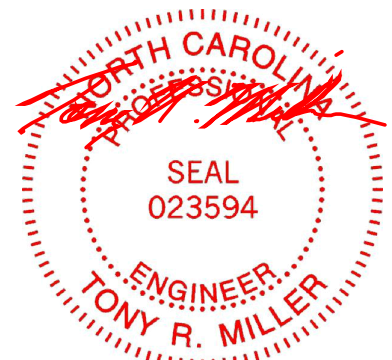
REACTIONS. (size) 7=Mechanical, 2=0-3-14
 Max Horz 2=84(LC 4)
 Max Uplift 7=-153(LC 4), 2=-204(LC 4)
 Max Grav 7=396(LC 1), 2=488(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-777/243
 BOT CHORD 2-8=-279/710, 7-8=-279/710
 WEBS 3-7=-742/292

- 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); porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=153, 2=204.
 - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 20 lb up at 3-4-9, 18 lb down and 20 lb up at 3-4-9, and 46 lb down and 62 lb up at 6-2-8, and 46 lb down and 62 lb up at 6-2-8 on top chord, and 4 lb down at 3-4-9, 4 lb down at 3-4-9, and 26 lb down at 6-2-8, and 26 lb down at 6-2-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 7) 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

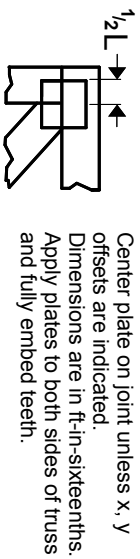
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-4=-60, 4-5=-20, 2-6=-20
 Concentrated Loads (lb)
 Vert: 10=-53(F=-26, B=-26) 12=-26(F=-13, B=-13)



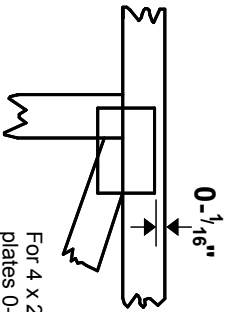
August 23, 2024

Symbols

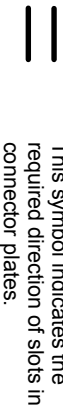
PLATE LOCATION AND ORIENTATION



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- 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

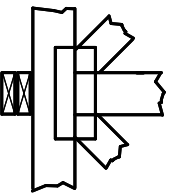
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

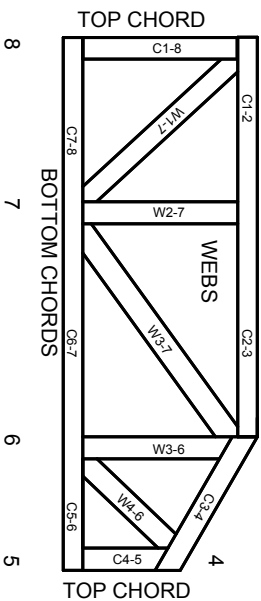
Industry Standards:

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



1 TOP CHORDS
2 JOINT ID
3 typ.



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 1 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

RE: J0724-4090
 Lot 7 Magnolia Hills

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Customer: Project Name: J0724-4090
 Lot/Block: Model:
 Address: Subdivision:
 City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.6
 Wind Code: N/A Wind Speed: N/A mph
 Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 12 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I67767608	ET1	8/23/2024
2	I67767609	ET2	8/23/2024
3	I67767610	F01	8/23/2024
4	I67767611	F02	8/23/2024
5	I67767612	F03	8/23/2024
6	I67767613	F04	8/23/2024
7	I67767614	F05	8/23/2024
8	I67767615	F06	8/23/2024
9	I67767616	F07	8/23/2024
10	I67767617	F08	8/23/2024
11	I67767618	FG1	8/23/2024
12	I67767619	FG2	8/23/2024

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

Truss Design Engineer's Name: Tony Miller

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

North Carolina COA: C-0844

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



August 23, 2024

Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767608
J0724-4090	ET1	GABLE	1	1	Job Reference (optional)	

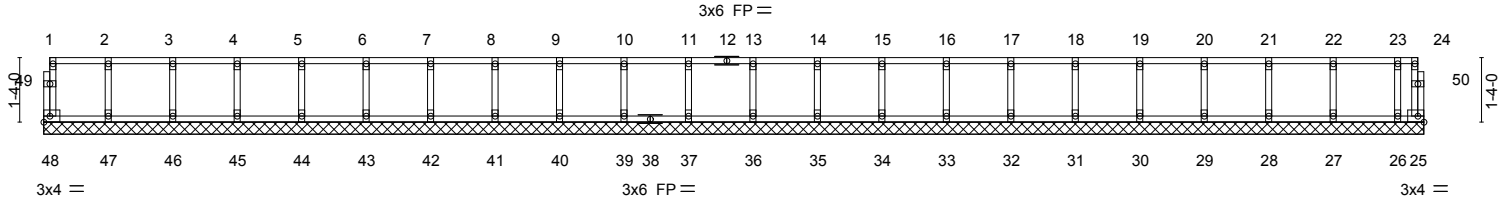
Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:51:51 2024 Page 1
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0-1/8

0-1/8

Scale: 1/4"=1'



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	20-0-0	21-4-0	22-8-0	24-0-0	25-4-0	26-8-0	28-0-0	28-6-8
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-6-8

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	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	25	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R							
									Weight: 124 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 28-6-8.
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 48, 25, 47, 46, 45, 44, 43, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26

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

- NOTES-**
- All plates are 1.5x3 MT20 unless otherwise indicated.
 - Plates checked for a plus or minus 1 degree rotation about its center.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 1-4-0 oc.
 - 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.



August 23, 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>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J0724-4090	Truss ET2	Truss Type GABLE	Qty 1	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767609
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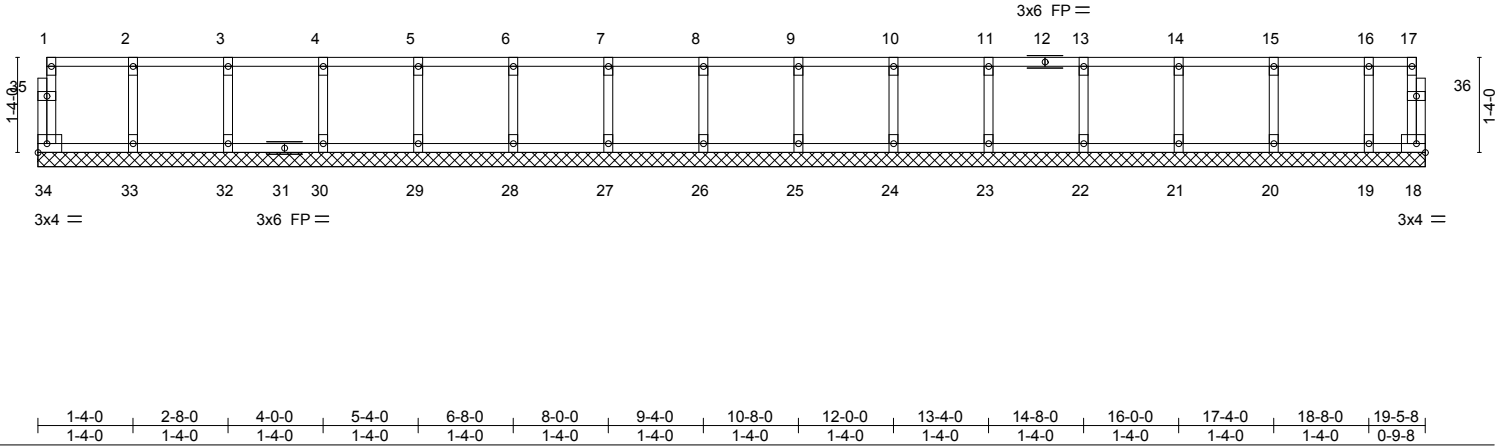
Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:51:52 2024 Page 1
ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

0-1/8

0-1/8

Scale: 3/8"=1'



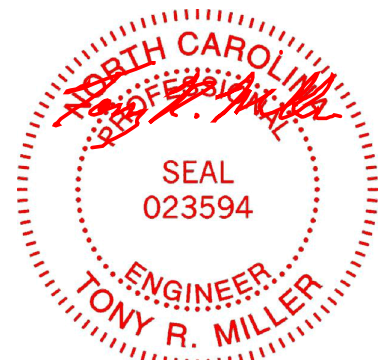
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	18	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R					Weight: 86 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 19-5-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 34, 18, 33, 32, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19

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

- NOTES-**
- All plates are 1.5x3 MT20 unless otherwise indicated.
 - Plates checked for a plus or minus 1 degree rotation about its center.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 1-4-0 oc.
 - 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.



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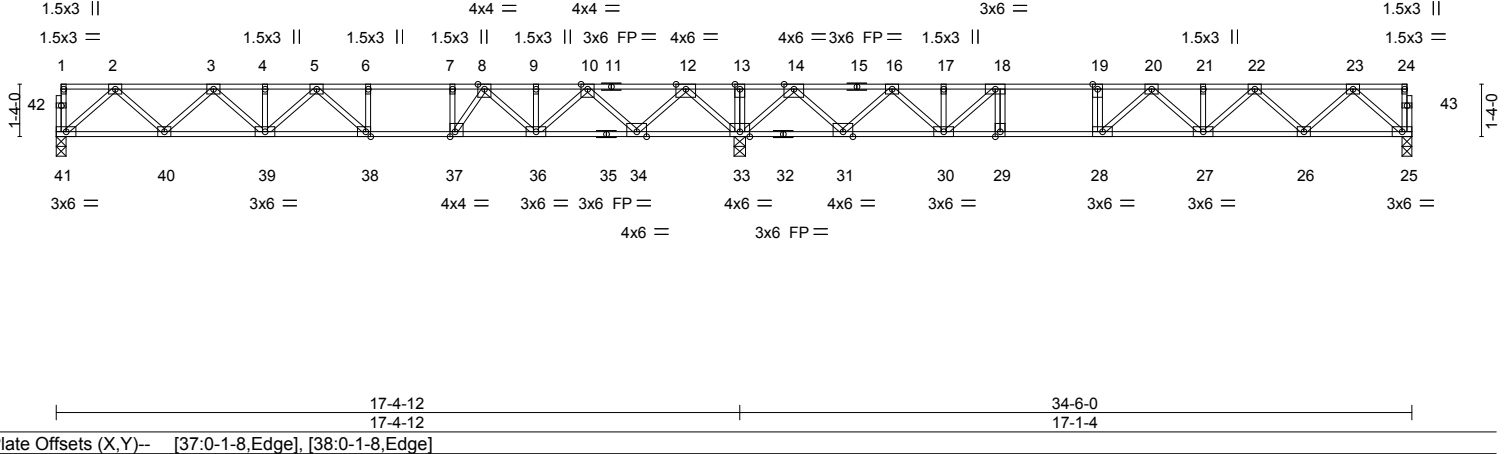
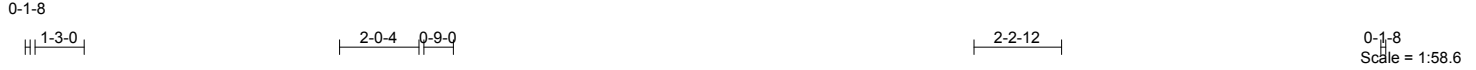
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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)

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767610
J0724-4090	F01	Floor	4	1	Job Reference (optional)	

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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:51:52 2024 Page 1
 ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwCDoi7J4zJC?f



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.97	Vert(LL) -0.22 27-28 >919 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.86	Vert(CT) -0.30 27-28 >679 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.56	Horz(CT) 0.06 25 n/a n/a		
BCDL 5.0	Code IRC2015/TP12014	Matrix-S		Weight: 184 lb	FT = 20%F, 11%E

LUMBER-
 TOP CHORD 2x4 SP No.1(flat) *Except*
 15-24: 2x4 SP 2400F 2.0E(flat)
 BOT CHORD 2x4 SP No.1(flat) *Except*
 25-32: 2x4 SP 2400F 2.0E(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 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 34-36,33-34,31-33,30-31.

REACTIONS. (size) 41=0-3-0, 25=0-3-0, 33=0-3-8
 Max Grav 41=839(LC 3), 25=841(LC 4), 33=2184(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1491/0, 3-4=-2414/0, 4-5=-2414/0, 5-6=-2597/0, 6-7=-2597/0, 7-8=-2597/0,
 8-9=-1806/70, 9-10=-1806/70, 10-12=-462/549, 12-13=0/2124, 13-14=0/2124,
 14-16=-668/787, 16-17=-1903/301, 17-18=-1903/301, 18-19=-2577/0, 19-20=-2577/0,
 20-21=-2426/0, 21-22=-2426/0, 22-23=-1494/0
 BOT CHORD 40-41=0/903, 39-40=0/2059, 38-39=0/2624, 37-38=0/2597, 36-37=0/2266,
 34-36=-293/1230, 33-34=-992/0, 31-33=-1132/0, 30-31=-513/1405, 29-30=0/2577,
 28-29=0/2577, 27-28=0/2632, 26-27=0/2068, 25-26=0/904
 WEBS 2-41=-1200/0, 2-40=0/819, 3-40=-790/0, 3-39=0/482, 12-33=-1566/0, 12-34=0/1182,
 10-34=-1133/0, 10-36=0/850, 5-39=-286/16, 5-38=-363/174, 8-36=-701/0, 8-37=0/905,
 7-37=-566/0, 23-25=-1201/0, 23-26=0/821, 22-26=-798/0, 22-27=0/488, 14-33=-1538/0,
 14-31=0/1170, 16-31=-1116/0, 16-30=0/752, 18-30=-1224/0, 20-27=-280/60,
 20-28=-447/82, 18-29=0/292

- 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.



Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	67767611
J0724-4090	F02	Floor	3	1	Job Reference (optional)	

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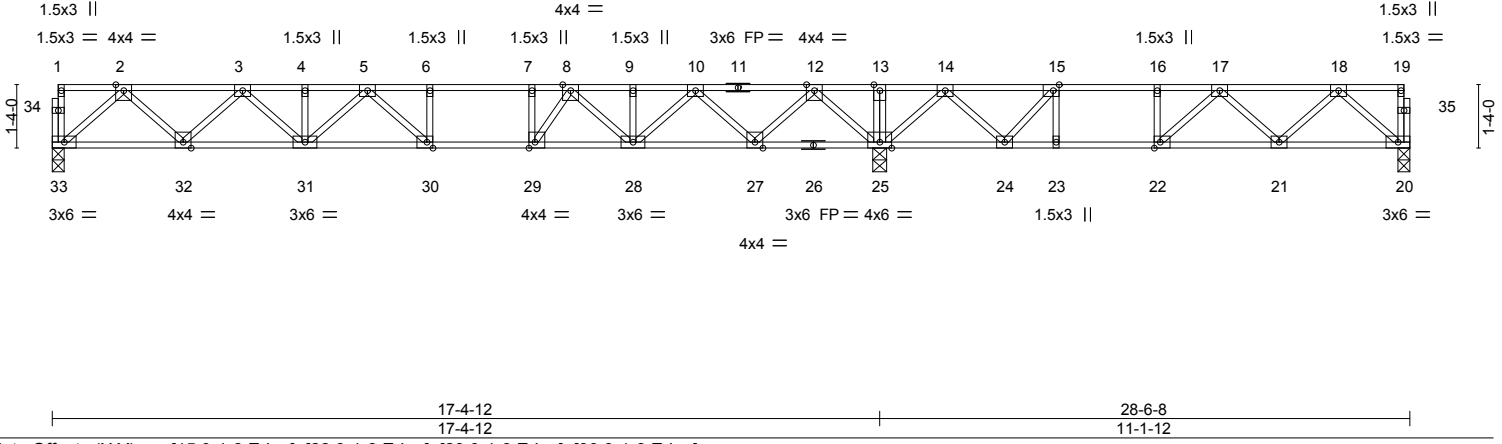


Plate Offsets (X,Y)--	[15:0-1-8,Edge], [22:0-1-8,Edge], [29:0-1-8,Edge], [30:0-1-8,Edge]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.80	Vert(LL) -0.20 30-31 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.80	Vert(CT) -0.28 30-31 >737 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.53	Horz(CT) 0.05 20 n/a n/a		
BCDL 5.0	Code IRC2015/TP12014	Matrix-S		Weight: 149 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 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 33=0-3-0, 20=0-3-0, 25=0-3-8
 Max Grav 33=870(LC 10), 20=551(LC 4), 25=1787(LC 1)

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

TOP CHORD 2-3=-1558/0, 3-4=-2542/0, 4-5=-2542/0, 5-6=-2818/0, 6-7=-2818/0, 7-8=-2818/0, 8-9=-2111/0, 9-10=-2111/0, 10-12=-826/0, 12-13=0/1418, 13-14=0/1418, 14-15=-650/619, 15-16=-1081/304, 16-17=-1081/304, 17-18=-883/0

BOT CHORD 32-33=0/938, 31-32=0/2155, 30-31=0/2787, 29-30=0/2818, 28-29=0/2533, 27-28=0/1567, 25-27=-305/58, 24-25=-893/218, 23-24=-304/1081, 22-23=-304/1081, 21-22=-76/1124, 20-21=0/581

WEBS 2-33=-1246/0, 2-32=0/863, 3-32=-831/0, 3-31=0/526, 5-31=-333/0, 5-30=-218/326, 7-29=-478/0, 12-25=-1482/0, 12-27=0/1109, 10-27=-1068/0, 10-28=0/779, 8-28=-620/0, 18-20=-770/0, 18-21=-19/421, 17-21=-334/119, 17-22=-362/0, 15-23=0/294, 14-25=-959/0, 14-24=0/763, 8-29=0/756, 15-24=-884/0

- 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.



August 23, 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)



Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	677612
J0724-4090	F03	FLOOR	9	1		

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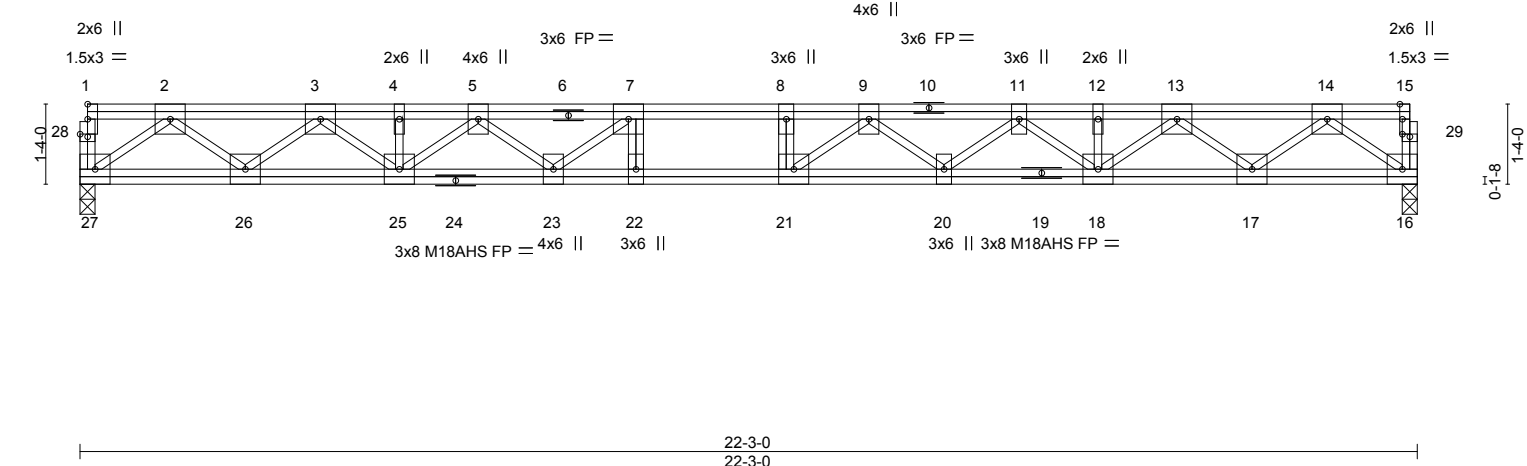
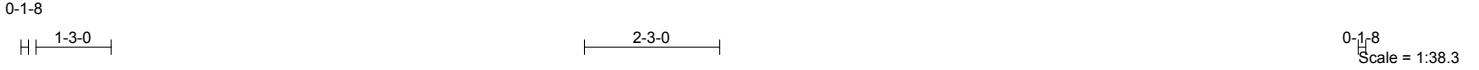


Plate Offsets (X,Y)-- [15:0-3-0,Edge], [28:0-1-8,0-0-8], [29:0-1-8,0-0-8]

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 0.29	Vert(LL)	-0.32	21	>820	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.63	Vert(CT)	-0.44	21	>596	360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.05	16	n/a	n/a		
BCDL 5.0	Code IRC2015/TP12014		Matrix-S							
									Weight: 177 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) 27=0-3-0, 16=0-3-0
Max Grav 27=1203(LC 1), 16=1203(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2456/0, 3-4=-4314/0, 4-5=-4314/0, 5-7=-5453/0, 7-8=-5953/0, 8-9=-5953/0, 9-11=-5456/0, 11-12=-4309/0, 12-13=-4309/0, 13-14=-2456/0
 BOT CHORD 26-27=0/1471, 25-26=0/3495, 23-25=0/5013, 22-23=0/5953, 21-22=0/5953, 20-21=0/5834, 18-20=0/5027, 17-18=0/3494, 16-17=0/1472
 WEBS 2-27=-1819/0, 2-26=0/1306, 3-26=-1375/0, 3-25=0/1063, 5-25=-906/0, 5-23=0/717, 7-23=-941/0, 14-16=-1819/0, 14-17=0/1306, 13-17=-1373/0, 13-18=0/1057, 11-18=-930/0, 11-20=0/568, 9-20=-536/0, 9-21=-298/676, 8-21=-288/42

- 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 6x6 MT20 unless otherwise indicated.
 - 4) Plates checked for a plus or minus 1 degree rotation about its center.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



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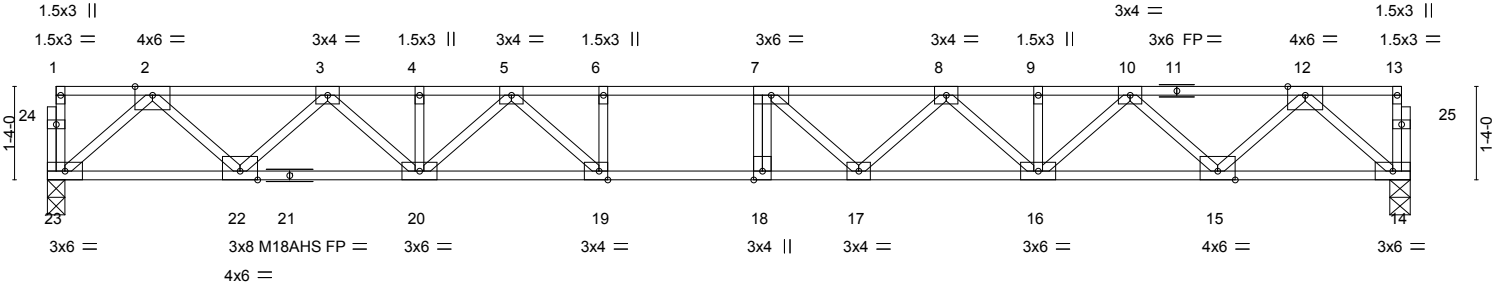
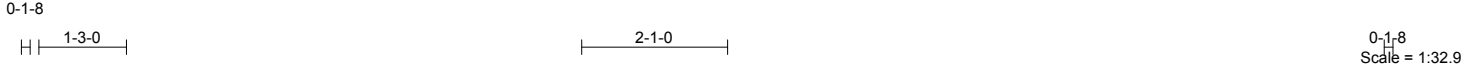
<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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/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>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767613
J0724-4090	F04	Floor	6	1	Job Reference (optional)	

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19-5-8
19-5-8

Plate Offsets (X,Y)-- [19:0-1-8,Edge]		CSL		DEFL.				PLATES	GRIP
LOADING (psf)	SPACING-	TC	BC	Vert(LL)	Vert(CT)	Horz(CT)	MT20	M18AHS	
TCLL 40.0	2-0-0	0.48		-0.27	-0.37	0.06			
TCDL 10.0	Plate Grip DOL 1.00	0.69		18	18	14	244/190		
BCLL 0.0	Lumber DOL 1.00	0.54		>842	>615	n/a	186/179		
BCDL 5.0	Rep Stress Incr YES	Matrix-S		480	360				
	Code IRC2015/TPI2014								
							Weight: 103 lb	FT = 20%F, 11%E	

LUMBER-	BRACING-
TOP CHORD 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 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 23=0-3-0, 14=0-3-8
Max Grav 23=1050(LC 1), 14=1050(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1952/0, 3-4=-3301/0, 4-5=-3301/0, 5-6=-4143/0, 6-7=-4143/0, 7-8=-3998/0, 8-9=-3296/0, 9-10=-3296/0, 10-12=-1951/0
BOT CHORD 22-23=0/1144, 20-22=0/2724, 19-20=0/3756, 18-19=0/4143, 17-18=0/4143, 16-17=0/3795, 15-16=0/2729, 14-15=0/1143
WEBS 2-23=-1521/0, 2-22=0/1123, 3-22=-1073/0, 3-20=0/785, 5-20=-617/0, 5-19=0/809, 6-19=-366/0, 12-14=-1519/0, 12-15=0/1124, 10-15=-1081/0, 10-16=0/771, 8-16=-679/0, 8-17=0/446, 7-17=-530/153

- 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.



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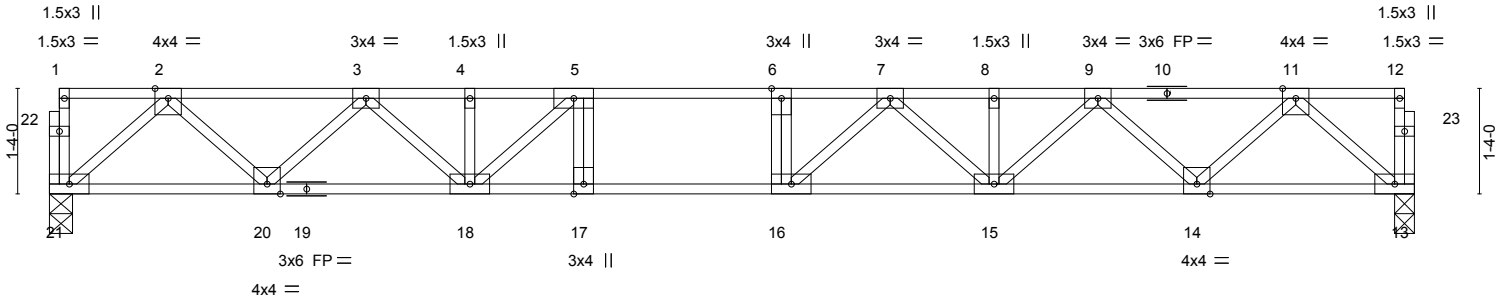
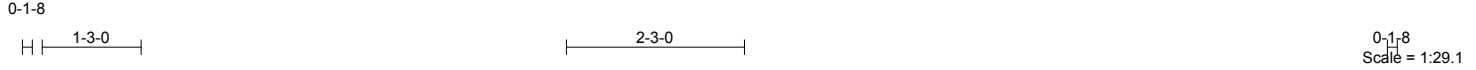
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ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job J0724-4090	Truss F05	Truss Type FLOOR	Qty 2	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767614
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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:51:54 2024 Page 1
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17-3-0
17-3-0

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 0.47	Vert(LL)	-0.23 15-16	>887	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.89	Vert(CT)	-0.31 15-16	>663	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.45	Horz(CT)	0.05 13	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S					Weight: 94 lb	FT = 20%F, 11%E

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.

REACTIONS. (size) 21=0-3-8, 13=0-3-0
Max Grav 21=929(LC 1), 13=929(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1690/0, 3-4=-2767/0, 4-5=-2767/0, 5-6=-3229/0, 6-7=-3229/0, 7-8=-2794/0, 8-9=-2794/0, 9-11=-1685/0
BOT CHORD 20-21=0/1006, 18-20=0/2339, 17-18=0/3229, 16-17=0/3229, 15-16=0/3101, 14-15=0/2342, 13-14=0/1005
WEBS 11-13=-1335/0, 11-14=0/947, 9-14=-913/0, 9-15=0/615, 7-15=-417/0, 7-16=-130/522, 6-16=-269/6, 2-21=-1336/0, 2-20=0/951, 3-20=-903/0, 3-18=0/582, 5-18=-858/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x6 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



August 23, 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)

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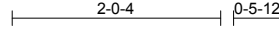
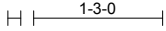
Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills
J0724-4090	F06	Floor	2	1	167767615

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ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8



Scale = 1:22.3

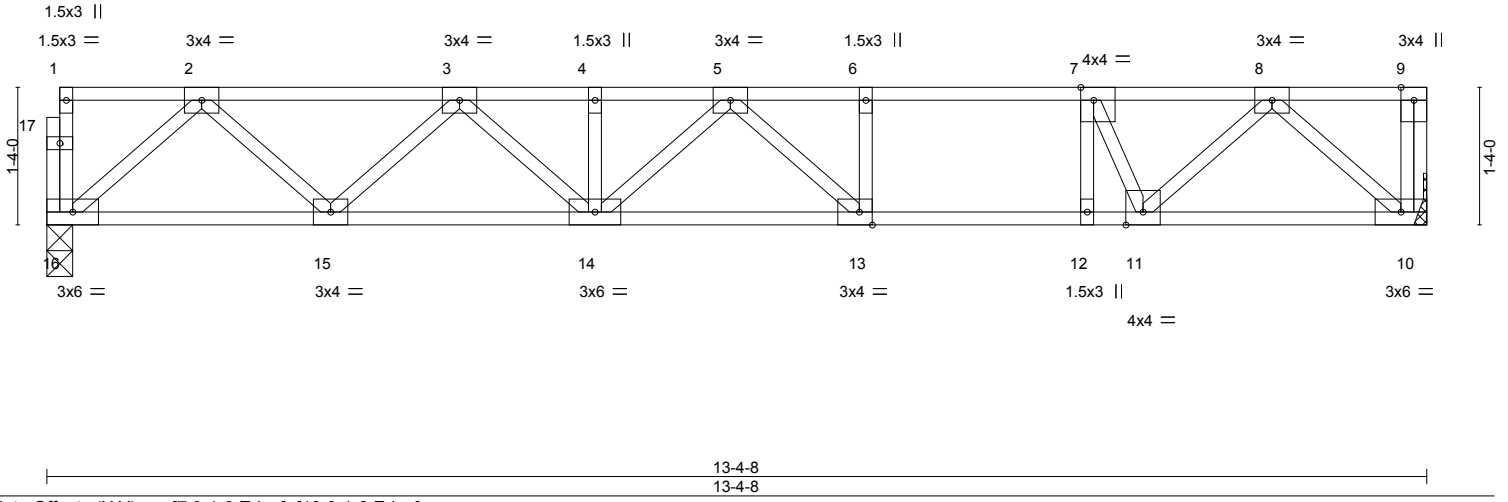


Plate Offsets (X,Y)--	[7:0-1-8,Edge], [13:0-1-8,Edge]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00		TC 0.74	Vert(LL) -0.19	13-14	>820	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00		BC 0.75	Vert(CT) -0.26	13-14	>603	360		
BCLL 0.0	Rep Stress Incr YES		WB 0.39	Horz(CT) 0.02	10	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 72 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 2400F 2.0E(flat)		BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)			

REACTIONS. (size) 16=0-3-0, 10=Mechanical
Max Grav 16=716(LC 1), 10=722(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1220/0, 3-4=-1896/0, 4-5=-1896/0, 5-6=-1704/0, 6-7=-1704/0, 7-8=-1302/0
BOT CHORD 15-16=0/760, 14-15=0/1670, 13-14=0/1949, 12-13=0/1704, 11-12=0/1704, 10-11=0/716
WEBS 2-16=-1010/0, 2-15=0/639, 3-15=-626/0, 3-14=0/308, 5-13=-412/72, 7-12=0/568, 8-10=-953/0, 8-11=0/815, 7-11=-1014/0

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



August 23, 2024

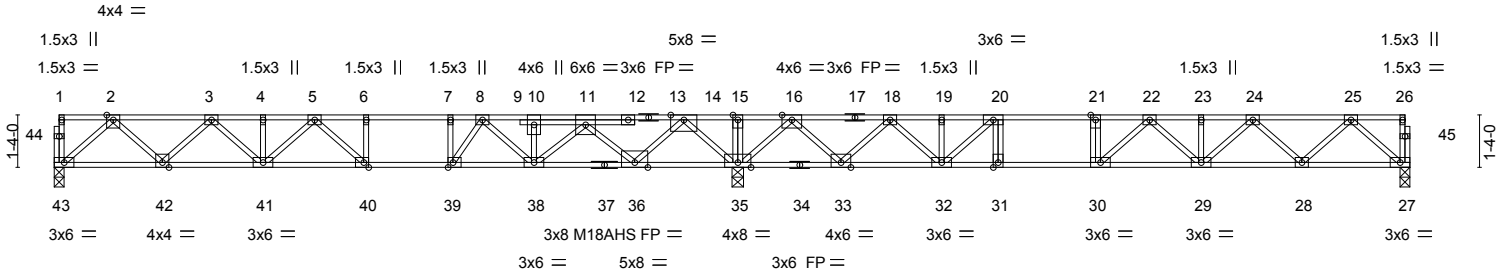
<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	167767618
J0724-4090	FG1	Floor	1	1	Job Reference (optional)	

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ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcD0i7J4zJC?f



	17-4-12	34-6-0
	17-4-12	17-1-4
Plate Offsets (X,Y)--	[39:0-1-8,Edge], [40:0-1-8,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 0.95	Vert(LL)	-0.23	29-30	>878	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.85	Vert(CT)	-0.31	29-30	>648	M18AHS	186/179
BCLL 0.0	Rep Stress Incr	NO	WB 0.62	Horz(CT)	0.06	27	n/a		
BCDL 5.0	Code IRC2015/TP12014		Matrix-S						
								Weight: 187 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat) *Except* 17-26: 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* 27-34: 2x4 SP 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat) *Except* 14-36: 2x4 SP No.2(flat)	

REACTIONS. (size) 43=0-3-0, 27=0-3-0, 35=0-3-8
Max Grav 43=953(LC 3), 27=765(LC 4), 35=2938(LC 1)

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

TOP CHORD 2-3=-1739/0, 3-4=-2892/0, 4-5=-2892/0, 5-6=-3424/0, 6-7=-3424/0, 7-8=-3424/0, 8-10=-3016/0, 10-11=-3016/0, 11-14=-1021/0, 14-15=0/3063, 15-16=0/3063, 16-18=0/1580, 18-19=-1140/968, 19-20=-1140/968, 20-21=-2003/416, 21-22=-2003/416, 22-23=-2104/0, 23-24=-2104/0, 24-25=-1326/0

BOT CHORD 42-43=0/1033, 41-42=0/2417, 40-41=0/3231, 39-40=0/3424, 38-39=0/3244, 36-38=0/2605, 35-36=-1179/0, 33-35=-2004/0, 32-33=-1239/576, 31-32=-416/2003, 30-31=-416/2003, 29-30=-86/2221, 28-29=0/1826, 27-28=0/816

WEBS 2-43=-1373/0, 2-42=0/982, 3-42=-943/0, 3-41=0/646, 14-35=-2577/0, 14-36=0/2181, 11-36=-2209/0, 11-38=0/620, 5-41=-460/0, 5-40=-39/469, 8-38=-404/0, 8-39=0/599, 7-39=-391/0, 25-27=-1084/0, 25-28=0/710, 24-28=-695/0, 24-29=-73/378, 16-35=-1628/0, 16-33=0/1269, 18-33=-1212/0, 18-32=0/831, 19-32=0/283, 20-32=-1442/0, 22-30=-637/0, 20-31=0/355

- 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 3x4 MT20 unless otherwise indicated.
 - 4) Plates checked for a plus or minus 1 degree rotation about its center.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 6) CAUTION, Do not erect truss backwards.
 - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 879 lb down at 13-6-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00



Continued on page 2

<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 TRENCO A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Lot 7 Magnolia Hills	I67767618
J0724-4090	FG1	Floor	1	1	Job Reference (optional)	

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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:51:56 2024 Page 2
 ID:3YJEg_u8zX16RsP?VvW_V6zd0wB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 27-43=-10, 1-26=-100

Concentrated Loads (lb)

Vert: 11=-799(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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Job J0724-4090	Truss FG2	Truss Type FLOOR GIRDER	Qty 1	Ply 1	Lot 7 Magnolia Hills Job Reference (optional)	167767619
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8.630 s Jul 12 2024 MiTek Industries, Inc. Fri Aug 23 09:51:56 2024 Page 1

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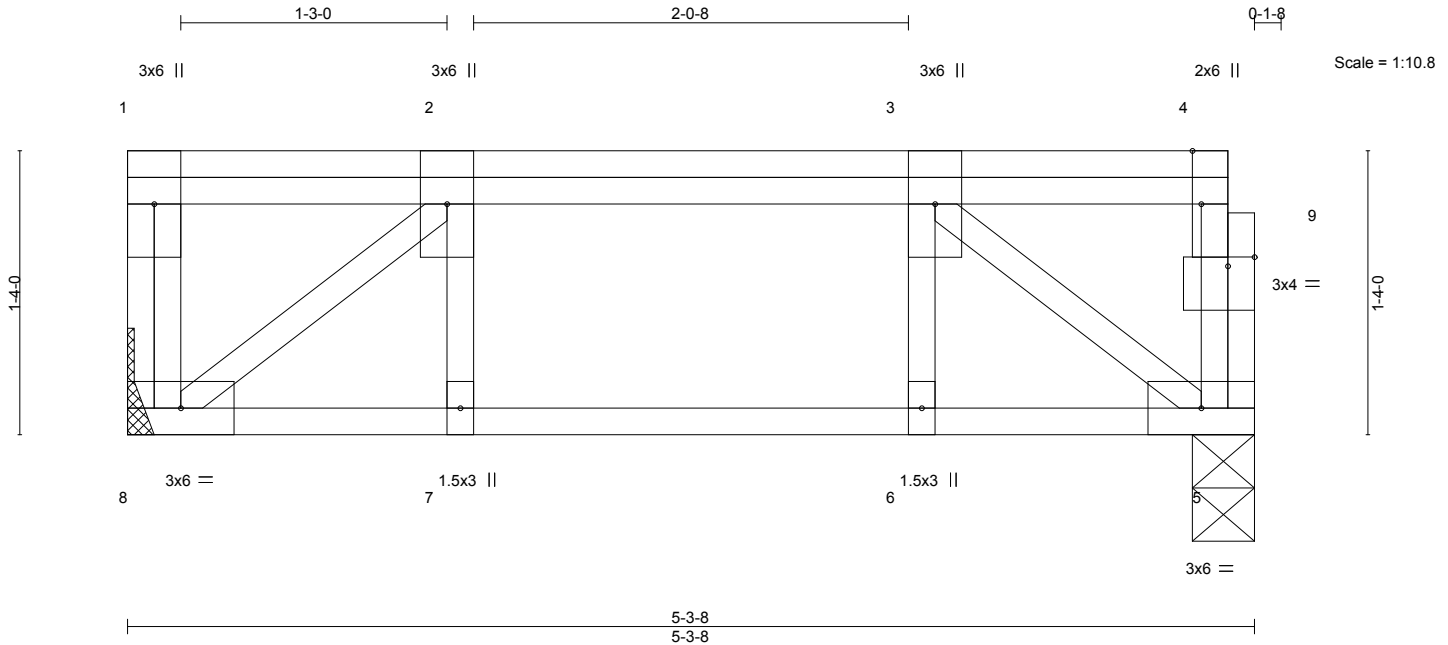


Plate Offsets (X,Y)--	[4:0-3-0,Edge], [9:0-1-8,0-0-8]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.09	Vert(LL) -0.01 6-7 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.24	Vert(CT) -0.02 6-7 >999 360		
BCLL 0.0	Rep Stress Incr NO	WB 0.31	Horz(CT) 0.01 5 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 36 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 5-3-8 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, 5=0-3-8
Max Grav 8=899(LC 1), 5=893(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1036/0
BOT CHORD 7-8=0/1036, 6-7=0/1036, 5-6=0/1036
WEBS 2-8=-1325/0, 3-5=-1321/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) Plates checked for a plus or minus 1 degree rotation about its center.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 5) CAUTION, Do not erect truss backwards.
 - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 650 lb down at 1-10-4, and 667 lb down at 3-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 7) 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: 5-8=10, 1-4=-100
Concentrated Loads (lb)
Vert: 2=-622(B) 3=-622(B)

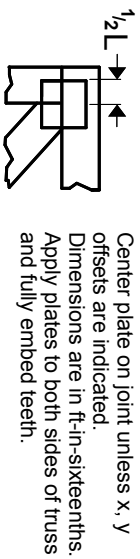


August 23, 2024

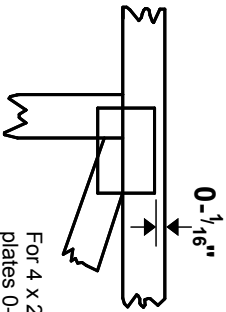
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Symbols

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

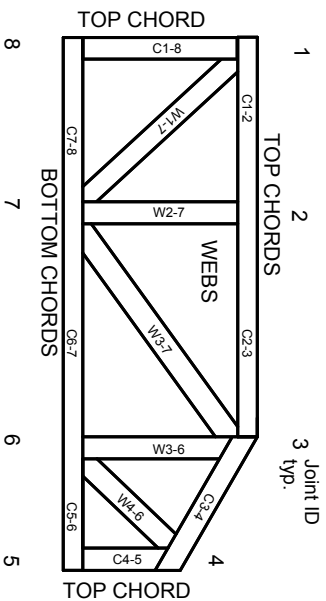


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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

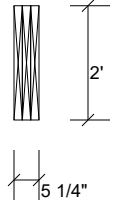
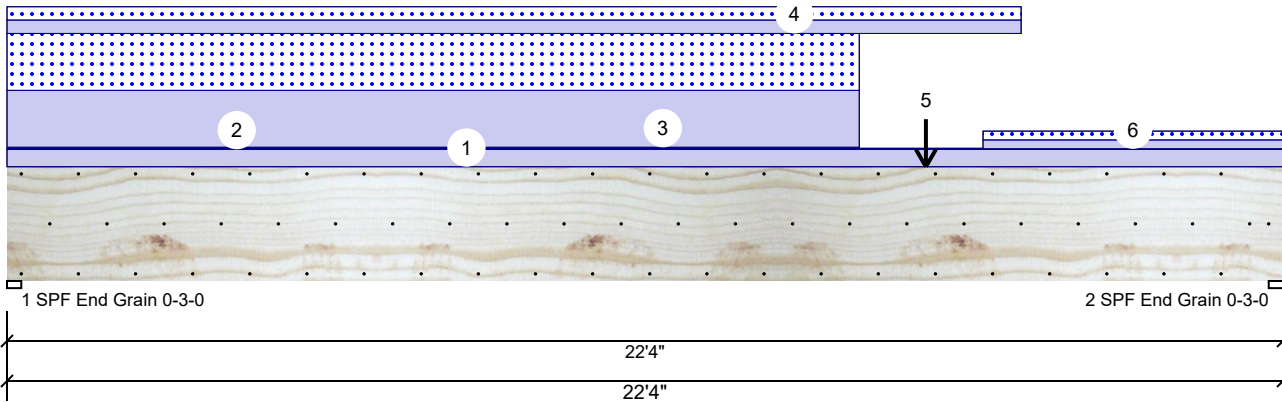
General Safety Notes

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 1 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.

FB1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	112	7018	5324	0	0
2	Vertical	112	5588	3893	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	93%	7018 / 5324	12342	L	D+S
2 - SPF End Grain	3.000"	Vert	72%	5588 / 3893	9480	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	65847 ft-lb	11' 1/4"	131295 ft-lb	0.502 (50%)	D+S	L
Unbraced	65847 ft-lb	11' 1/4"	66073 ft-lb	0.997 (100%)	D+S	L
Shear	9886 lb	2'3"	30912 lb	0.320 (32%)	D+S	L
LL Defl inch	0.228 (L/1158)	11'1"	0.549 (L/480)	0.414 (41%)	S	L
TL Defl inch	0.530 (L/498)	11'1 1/4"	0.733 (L/360)	0.723 (72%)	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". Nail from both sides.
- 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 3'11 15/16" 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			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Tie-In Far	0-0-0 to 22-4-0	0-3-0	Far Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
2	Tie-In Near	0-0-0 to 22-4-0	0-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
3	Part. Uniform	0-0-0 to 14-11-0		Top	392 PLF	0 PLF	392 PLF	0 PLF	0 PLF	A TRUSSES

Continued on page 2...

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

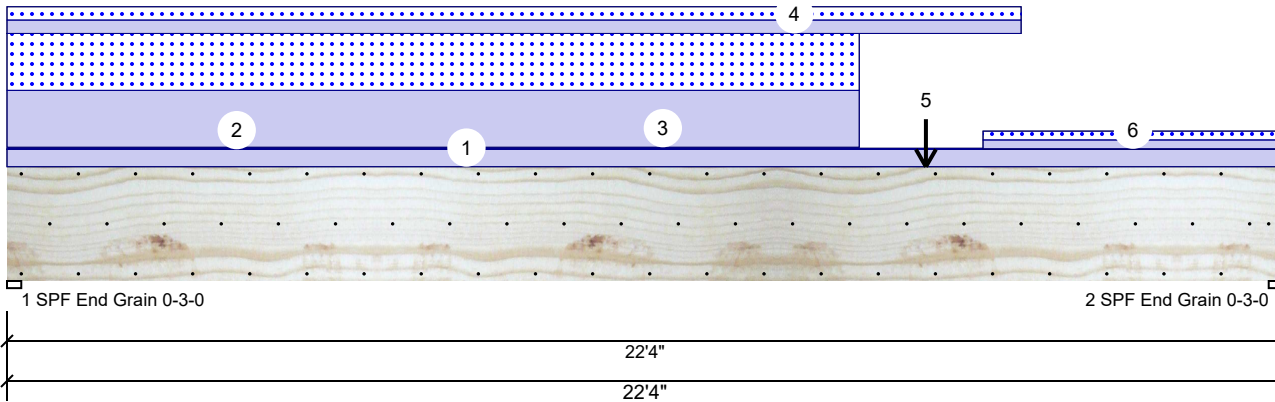
This design is valid until 6/28/2026

Manufacturer Info

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

FB1 Kerto-S LVL 1.750" X 24.000" 3-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	0-0-0 to 17-9-0		Near Face	92 PLF	0 PLF	92 PLF	0 PLF	0 PLF	P TRUSSES
5	Point	16-1-0		Top	1416 lb	0 lb	1416 lb	0 lb	0 lb	A1
	Bearing Length	0-3-8								
6	Part. Uniform	17-1-0 to 22-4-0		Top	61 PLF	0 PLF	61 PLF	0 PLF	0 PLF	Y TRUSSES
	Self Weight				28 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

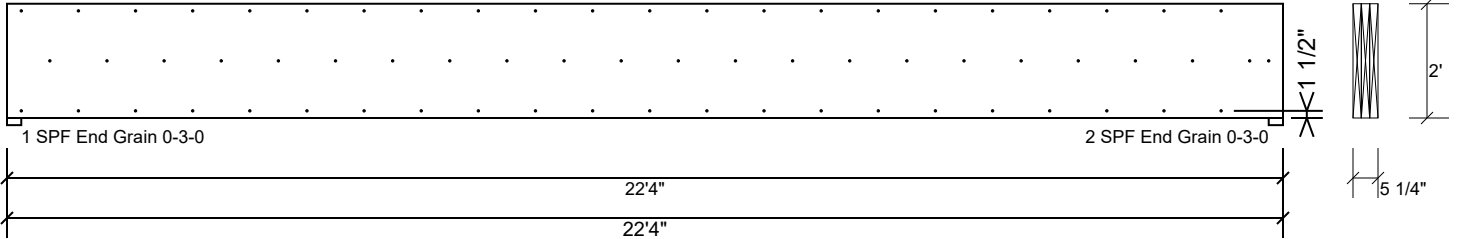
This design is valid until 6/28/2026

Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
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FB1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED

Level: Level



Multi-Ply Analysis

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

Capacity	43.4 %
Load	122.7 PLF
Yield Limit per Foot	282.4 PLF
Yield Limit per Fastener	94.1 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+S
Duration Factor	1.15

Notes

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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

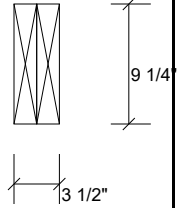
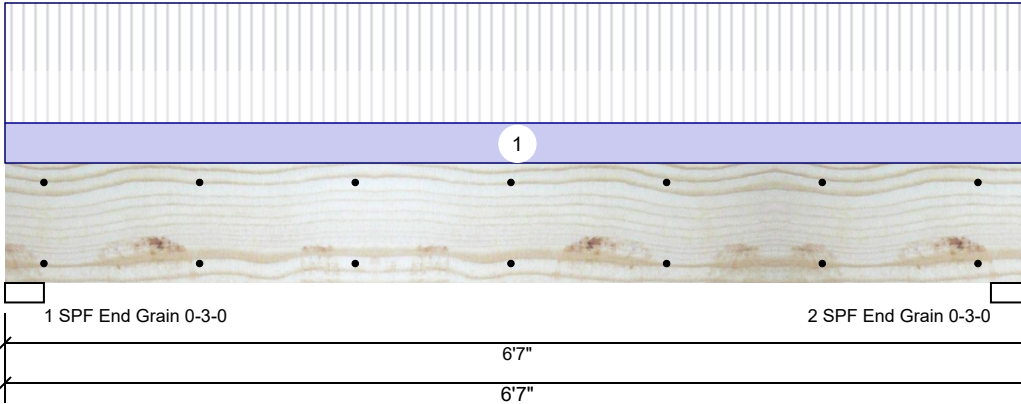
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Manufacturer Info

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

DB2 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/IRC 2015
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	2696	922	0	0	0
2	Vertical	2696	922	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	41%	922 / 2696	3618	L	D+L
2 - SPF End Grain	3.000"	Vert	41%	922 / 2696	3618	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5296 ft-lb	3'3 1/2"	12542 ft-lb	0.422 (42%)	D+L	L
Unbraced	5296 ft-lb	3'3 1/2"	9872 ft-lb	0.536 (54%)	D+L	L
Shear	2502 lb	1' 1/4"	6907 lb	0.362 (36%)	D+L	L
LL Defl inch	0.073 (L/1016)	3'3 1/2"	0.155 (L/480)	0.473 (47%)	L	L
TL Defl inch	0.098 (L/757)	3'3 1/2"	0.207 (L/360)	0.476 (48%)	D+L	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	273 PLF	819 PLF	0 PLF	0 PLF	0 PLF	F01
	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

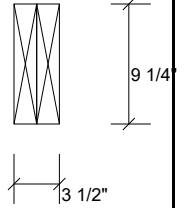
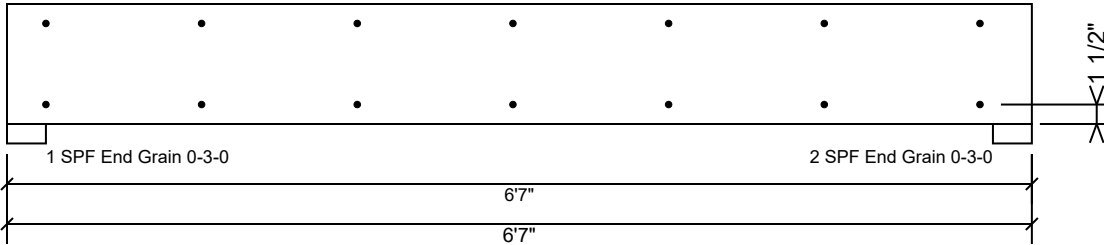
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DB2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

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

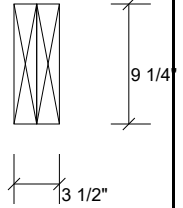
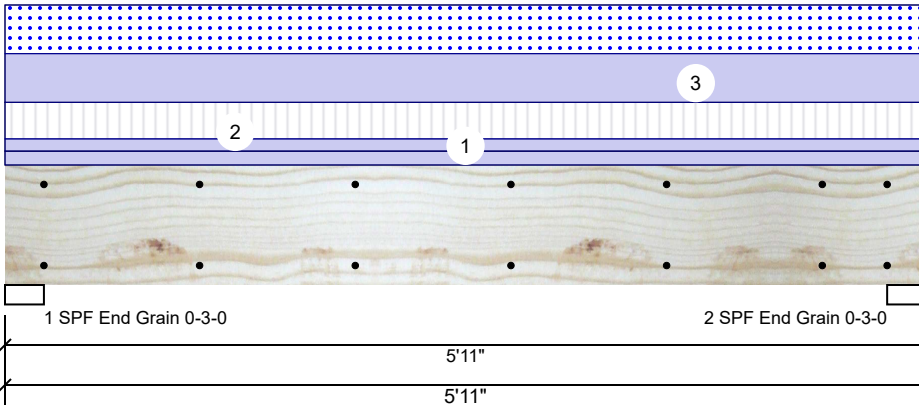
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HDR1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

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/IRC 2015
Load Sharing:	No
Deck:	Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	932	1926	1240	0	0
2	Vertical	932	1926	1240	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	40%	1926 / 1629	3555	L	D+0.75(L+S)
2 - SPF End Grain	3.000"	Vert	40%	1926 / 1629	3555	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4613 ft-lb	2'11 1/2"	14423 ft-lb	0.320 (32%)	D+0.75(L+S)	L
Unbraced	4613 ft-lb	2'11 1/2"	11027 ft-lb	0.418 (42%)	D+0.75(L+S)	L
Shear	2334 lb	4'10 3/4"	7943 lb	0.294 (29%)	D+0.75(L+S)	L
LL Defl inch	0.033 (L/2026)	2'11 1/2"	0.139 (L/480)	0.237 (24%)	0.75(L+S)	L
TL Defl inch	0.072 (L/928)	2'11 1/2"	0.185 (L/360)	0.388 (39%)	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	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	105 PLF	315 PLF	0 PLF	0 PLF	0 PLF	FLOOR TRUSSES
3	Uniform			Top	419 PLF	0 PLF	419 PLF	0 PLF	0 PLF	ROOF TRUSSES
	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

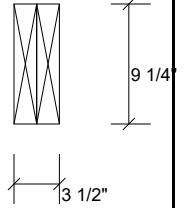
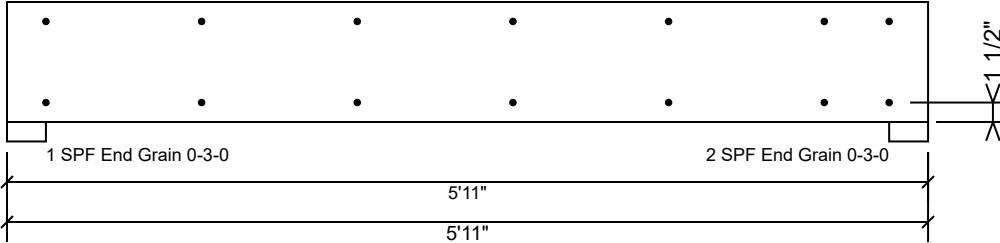
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Manufacturer Info

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HDR1 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

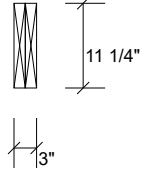
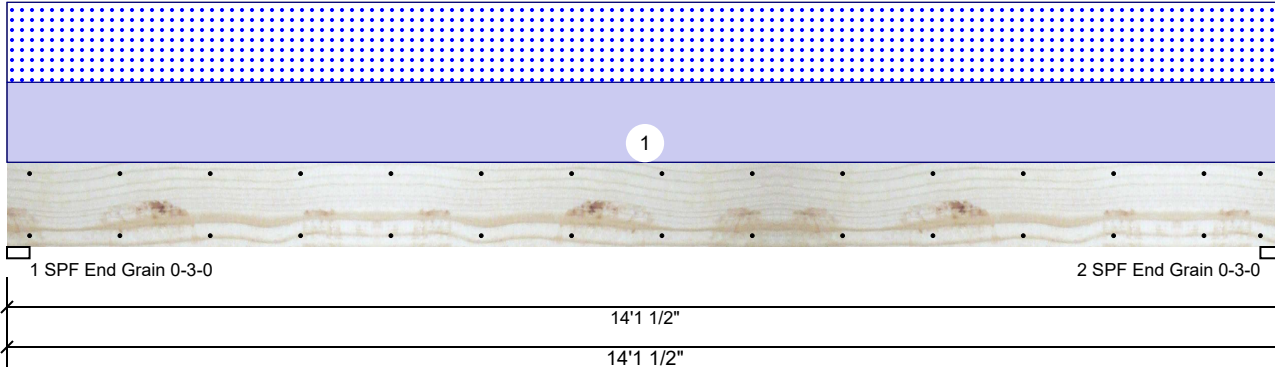
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Manufacturer Info

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

DB3 SP #2 2.000" X 12.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	586	586	0	0
2	Vertical	0	586	586	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	23%	586 / 586	1172	L	D+S
2 - SPF End Grain	3.000"	Vert	23%	586 / 586	1172	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3923 ft-lb	7' 3/4"	4548 ft-lb	0.863 (86%)	D+S	L
Unbraced	3923 ft-lb	7' 3/4"	3925 ft-lb	1.000 (100%)	D+S	L
Shear	975 lb	1'2 1/4"	4528 lb	0.215 (22%)	D+S	L
LL Defl inch	0.134 (L/1232)	7' 13/16"	0.344 (L/480)	0.390 (39%)	S	L
TL Defl inch	0.268 (L/616)	7' 13/16"	0.458 (L/360)	0.585 (58%)	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 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 a maximum of 7'2 3/8" o.c.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

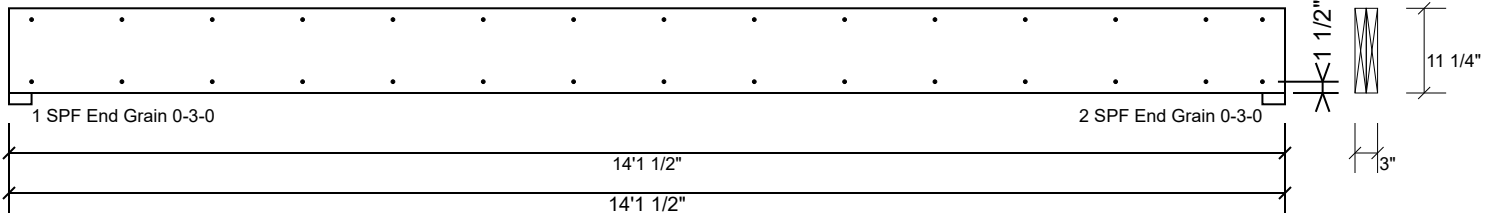
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	83 PLF	0 PLF	83 PLF	0 PLF	0 PLF	P TRUSSES

Manufacturer Info

This design is valid until 6/28/2026

DB3 SP #2 2.000" X 12.000" 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".

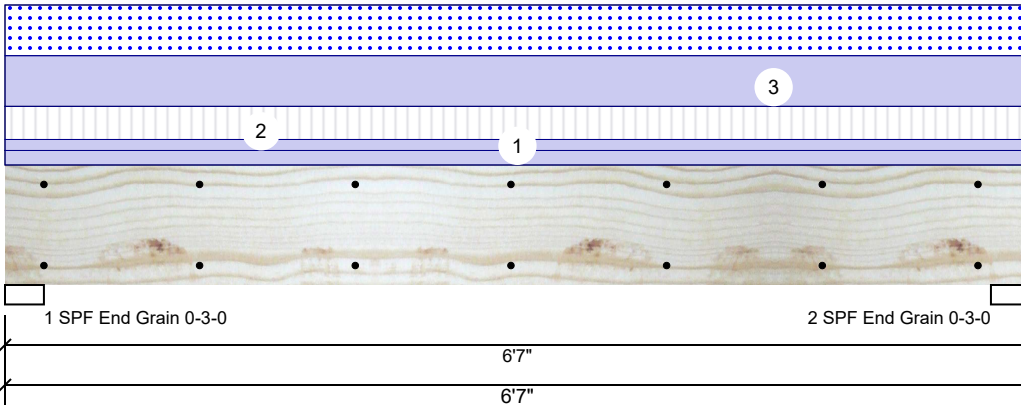
Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	202.6 PLF
Yield Limit per Fastener	101.3 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Manufacturer Info	

This design is valid until 6/28/2026

HDR2 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/IRC 2015
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	902	2097	1379	0	0
2	Vertical	902	2097	1379	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	43%	2097 / 1711	3808	L	D+0.75(L+S)
2 - SPF End Grain	3.000"	Vert	43%	2097 / 1711	3808	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5574 ft-lb	3' 1/2"	14423 ft-lb	0.386 (39%)	D+0.75(L+S)	L
Unbraced	5574 ft-lb	3' 1/2"	10370 ft-lb	0.538 (54%)	D+0.75(L+S)	L
Shear	2633 lb	1' 1/4"	7943 lb	0.331 (33%)	D+0.75(L+S)	L
LL Defl inch	0.047 (L/1601)	3' 1/2"	0.155 (L/480)	0.300 (30%)	0.75(L+S)	L
TL Defl inch	0.104 (L/719)	3' 1/2"	0.207 (L/360)	0.501 (50%)	D+0.75(L+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 2 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 end bearings.
- 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			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	91 PLF	274 PLF	0 PLF	0 PLF	0 PLF	FLOOR TRUSSES
3	Uniform			Top	419 PLF	0 PLF	419 PLF	0 PLF	0 PLF	ROOF TRUSSES
	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

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

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

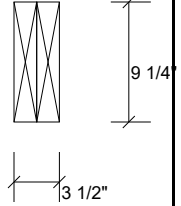
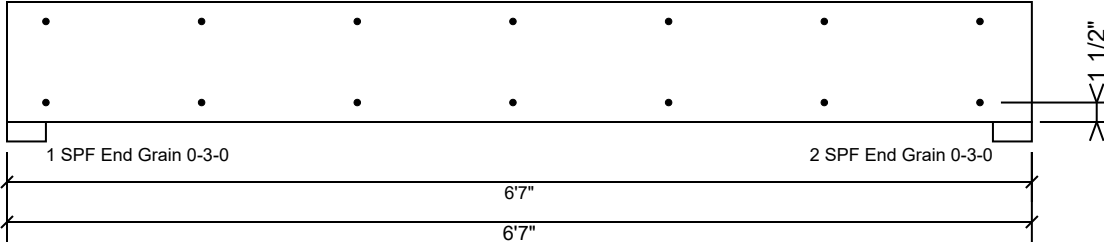
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HDR2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

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

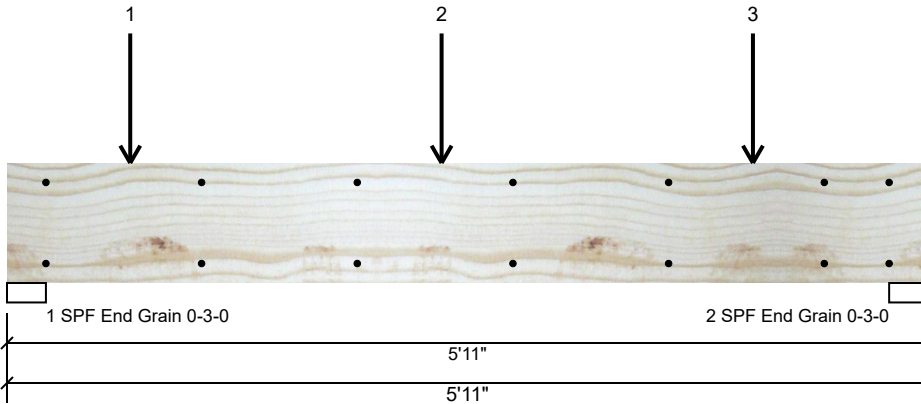
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HDR3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
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	1472	1451	0	0
2	Vertical	0	871	850	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	33%	1472 / 1451	2923	L	D+S
2 - SPF End Grain	3.000"	Vert	20%	871 / 850	1721	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4533 ft-lb	2'9 1/2"	14423 ft-lb	0.314 (31%)	D+S	L
Unbraced	4533 ft-lb	2'9 1/2"	11027 ft-lb	0.411 (41%)	D+S	L
Shear	2468 lb	1' 1/4"	7943 lb	0.311 (31%)	D+S	L
LL Defl inch	0.031 (L/2162)	2'9 1/2"	0.139 (L/480)	0.222 (22%)	S	L
TL Defl inch	0.062 (L/1074)	2'9 1/2"	0.185 (L/360)	0.335 (34%)	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 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.

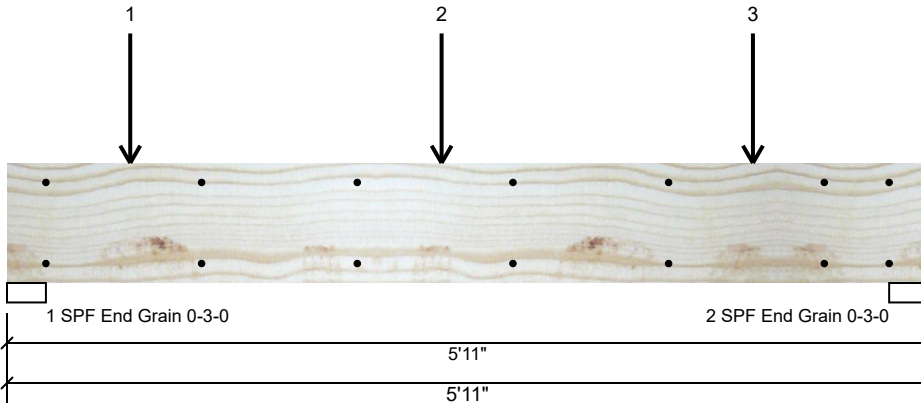
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Point	0-9-8		Top	763 lb	0 lb	763 lb	0 lb	0 lb	A2
	Bearing Length	0-3-8								
2	Point	2-9-8		Top	1416 lb	0 lb	1416 lb	0 lb	0 lb	A1
	Bearing Length	0-3-8								
3	Point	4-9-8		Top	122 lb	0 lb	122 lb	0 lb	0 lb	YA2

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"> 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive chemicals 	<p>Handling & Installation</p> <ol style="list-style-type: none"> 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 	<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>

HDR3 Kerto-S LVL 1.750" X 9.250" 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
	Bearing Length	0-3-8								
	Self Weight				7 PLF					

Notes

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Lumber

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Handling & Installation

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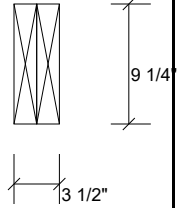
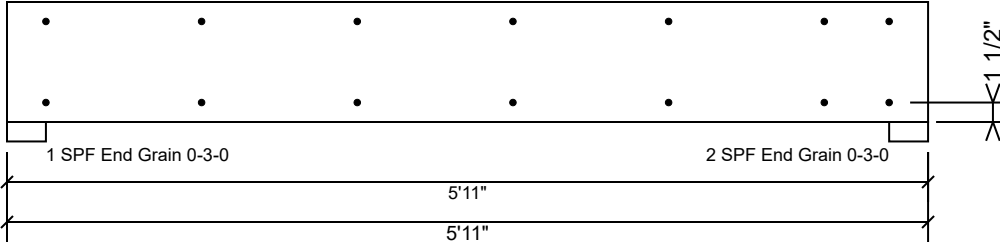
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HDR3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

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

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Lumber

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chemicals

Handling & Installation

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2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
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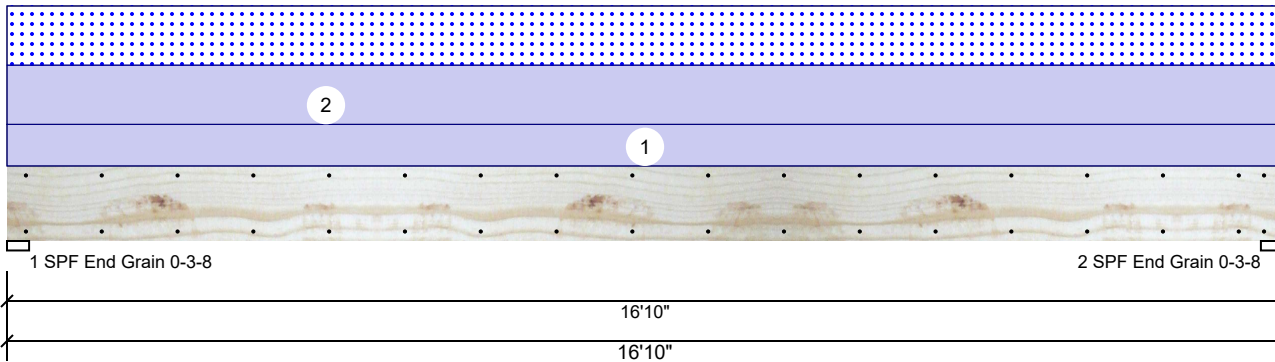
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GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	995	539	0	0
2	Vertical	0	995	539	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	15%	995 / 539	1534	L	D+S
2 - SPF End Grain	3.500"	Vert	15%	995 / 539	1534	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6108 ft-lb	8'5"	22897 ft-lb	0.267 (27%)	D+S	L
Unbraced	6108 ft-lb	8'5"	6109 ft-lb	1.000 (100%)	D+S	L
Shear	1309 lb	1'3 3/8"	10197 lb	0.128 (13%)	D+S	L
LL Defl inch	0.112 (L/1755)	8'5 1/16"	0.409 (L/480)	0.273 (27%)	S	L
TL Defl inch	0.319 (L/617)	8'5 1/16"	0.546 (L/360)	0.584 (58%)	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 2 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 16'3 3/4" 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	Uniform			Top	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	64 PLF	0 PLF	64 PLF	0 PLF	0 PLF	P2
	Self Weight				9 PLF					

Notes

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Lumber

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Handling & Installation

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