

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: 251265-A
Lot 66 Magnolia Hills

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

Pages or sheets covered by this seal: 176353385 thru 176353408

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844



September 16, 2025

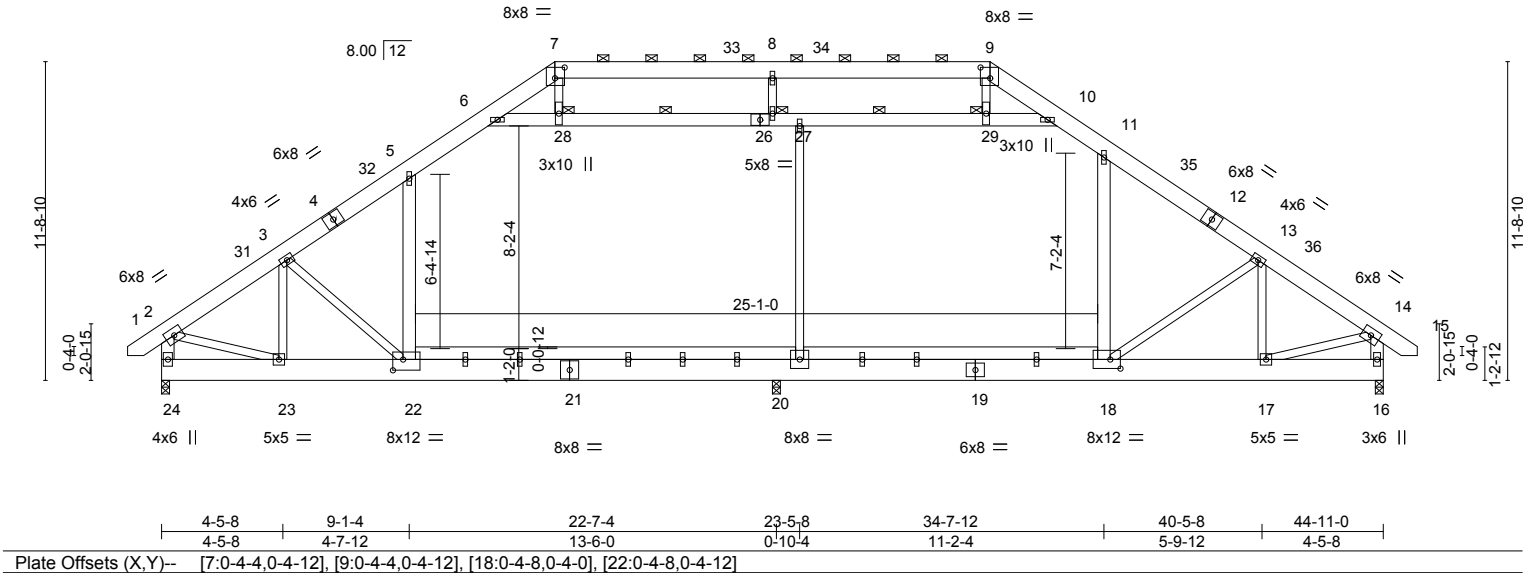
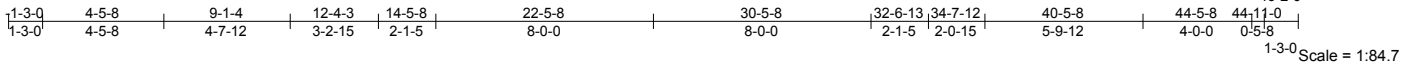
Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills	176353385
251265-A	A1	ATTIC	3	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:56:55 2025 Page 1
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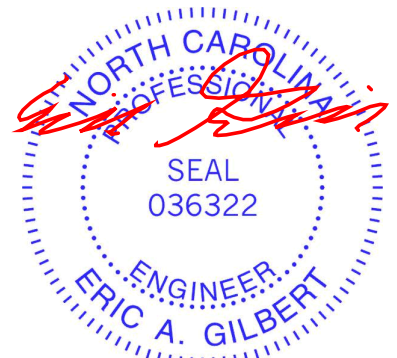
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.31	Vert(LL)	-0.29 20-22	>921	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.40 20-22	>672	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.03 16	n/a	n/a		
BCDL 10.0	Code IRC2021/TP12014		Matrix-S	Wind(LL)	0.22 18-20	>999	240	Weight: 547 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x8 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD 2x10 SP 2400F 2.0E *Except* 22-25,18-25: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 5-22,11-18,6-26,2-24,14-16,10-26: 2x6 SP No.1	WEBS 1 Row at midpt 27-28, 27-29
	JOINTS 1 Brace at Jt(s): 27, 28, 29

REACTIONS. (size) 24=0-3-8, 16=0-3-8, 20=0-3-8
Max Horz 24=299(LC 11)
Max Grav 24=2234(LC 2), 16=2157(LC 2), 20=1817(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2432/19, 3-5=-2785/18, 5-6=-2309/161, 6-7=-1823/281, 7-8=-1566/267, 8-9=-1566/267, 9-10=-1820/284, 10-11=-2262/171, 11-13=-2712/58, 13-14=-2334/42, 2-24=-2097/66, 14-16=-2019/81
BOT CHORD 23-24=-224/433, 22-23=-38/2157, 20-22=0/2151, 18-20=0/2151, 17-18=0/1885
WEBS 5-22=0/730, 11-18=0/576, 6-28=-1169/0, 27-28=-1143/0, 27-29=-1143/0, 10-29=-1175/0, 2-23=0/1839, 7-28=-9/474, 9-29=-13/470, 3-23=-839/74, 3-22=-246/450, 13-18=-244/562, 13-17=-784/101, 14-17=0/1744

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-7 to 3-6-7, Interior(1) 3-6-7 to 14-5-8, Exterior(2R) 14-5-8 to 20-9-12, Interior(1) 20-9-12 to 30-5-8, Exterior(2R) 30-5-8 to 36-9-12, Interior(1) 36-9-12 to 45-10-7 zone; end vertical left and right exposed; 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.
 - All plates are 2x6 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Ceiling dead load (10.0 psf) on member(s). 5-6, 10-11, 6-28, 27-28, 27-29, 10-29; Wall dead load (5.0psf) on member(s).5-22, 11-18
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 20-22, 18-20
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Attic room checked for L/360 deflection.



September 16, 2025

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)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	A1-GR	ATTIC	1	2	176353386

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:56:57 2025 Page 1
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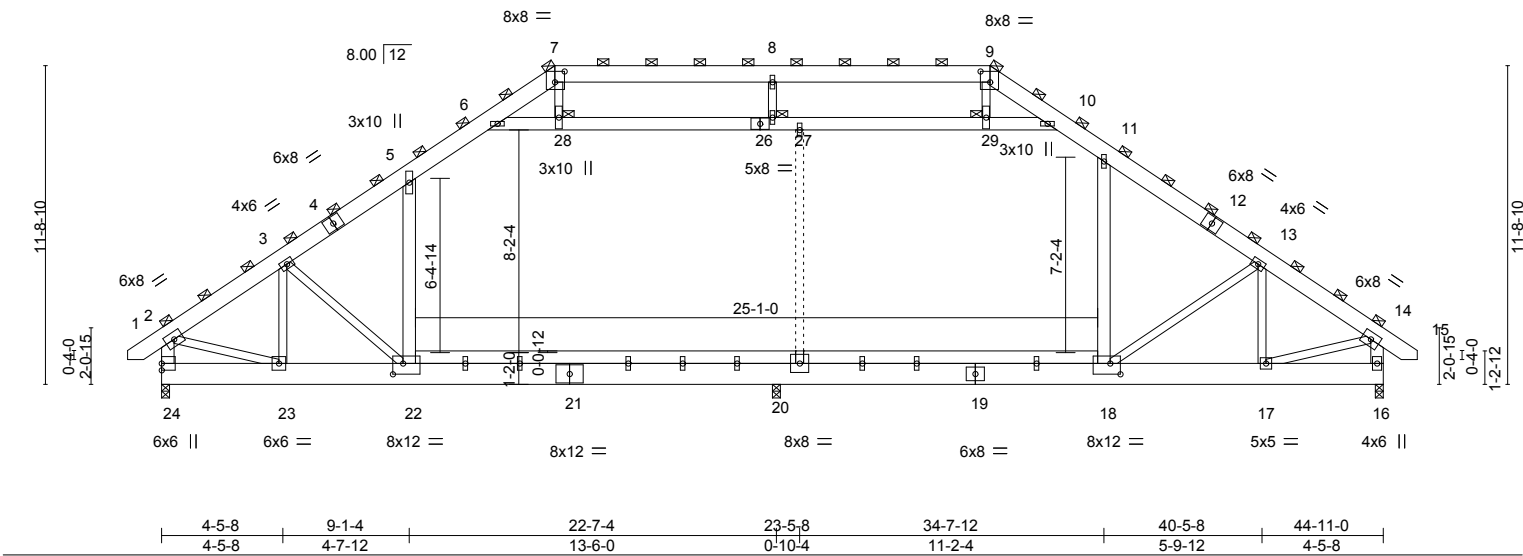
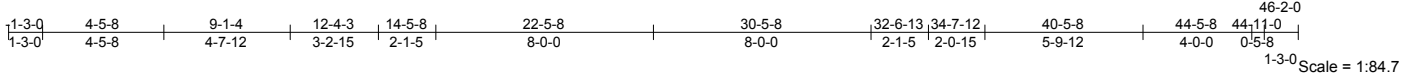


Plate Offsets (X,Y)-- [7:0-4-4,0-4-12], [9:0-4-4,0-4-12], [18:0-4-8,0-4-12], [22:0-4-8,0-4-12]											
LOADING (psf)		SPACING- 4-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP			
TCLL	20.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.45 20-22	>598	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.61 20-22	>441	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.64	Horz(CT)	0.04 16	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.22 18-20	>999	240	Weight: 1094 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x8 SP 2400F 2.0E	TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
BOT CHORD 2x10 SP 2400F 2.0E *Except*	(Switched from sheeted: Spacing > 2-8-0).
22-25,18-25: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except*	JOINTS 1 Brace at Jt(s): 7, 9, 2, 14, 27, 28, 29
5-22,11-18,6-26,2-24,14-16,10-26: 2x6 SP No.1	

REACTIONS.	(size) 24=0-3-8, 16=0-3-8, 20=0-3-8
	Max Horz 24=-597(LC 6)
	Max Grav 24=5742(LC 2), 16=4452(LC 2), 20=3642(LC 14)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-6103/0, 3-5=-6141/0, 5-6=-4906/0, 6-7=-3604/580, 7-8=-3092/535, 8-9=-3092/535, 9-10=-3620/551, 10-11=-4855/0, 11-13=-5822/0, 13-14=-4736/0, 2-24=-5194/0, 14-16=-4099/0
BOT CHORD	23-24=-421/970, 22-23=0/5359, 20-22=0/4674, 18-20=0/4674, 17-18=0/3809, 16-17=0/535
WEBS	5-22=0/2100, 11-18=0/1303, 6-28=-2970/0, 27-28=-2926/0, 27-29=-2926/0, 10-29=-2984/0, 2-23=0/4670, 8-27=-177/256, 7-28=-8/934, 9-29=0/961, 3-23=-1069/352, 3-22=-962/672, 13-18=-384/1539, 13-17=-1911/115, 14-17=0/3483

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x6 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Ceiling dead load (10.0 psf) on member(s). 5-6, 10-11, 6-28, 27-28, 27-29, 10-29; Wall dead load (5.0psf) on member(s).5-22, 11-18
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 20-22, 18-20
 - Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.



September 16,2025

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	A1-GR	ATTIC	1	2	I76353386
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:56:57 2025 Page 2
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NOTES-

- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-120, 2-5=-120, 5-6=-160, 6-7=-120, 7-9=-120, 9-10=-120, 10-11=-160, 11-14=-120, 14-15=-120, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Drag: 5-22=-20, 11-18=-20

2) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-100, 2-5=-100, 5-6=-140, 6-7=-100, 7-9=-100, 9-10=-100, 10-11=-140, 11-14=-100, 14-15=-100, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
Drag: 5-22=-20, 11-18=-20

3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-2=-40, 2-5=-40, 5-6=-80, 6-7=-40, 7-9=-40, 9-10=-40, 10-11=-80, 11-14=-40, 14-15=-40, 22-24=-120(F=-40), 16-22=-80, 6-10=-40
Drag: 5-22=-20, 11-18=-20

4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=5, 2-5=-26, 5-6=-50, 6-7=-26, 7-9=41, 9-10=22, 10-11=-2, 11-14=22, 14-15=8, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-29, 2-7=2, 9-14=46, 14-15=32, 2-24=28, 14-16=41
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=8, 2-5=22, 5-6=-2, 6-7=22, 7-9=41, 9-10=-26, 10-11=-50, 11-14=-26, 14-15=5, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-32, 2-7=-46, 9-14=-2, 14-15=29, 2-24=-41, 14-16=-28
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

6) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-56, 2-5=-69, 5-6=-109, 6-7=-69, 7-9=-2, 9-10=-21, 10-11=-61, 11-14=-21, 14-15=-8, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Horz: 1-2=16, 2-7=29, 9-14=19, 14-15=32, 2-24=55, 14-16=14
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

7) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-8, 2-5=-21, 5-6=-61, 6-7=-21, 7-9=-2, 9-10=-69, 10-11=-109, 11-14=-69, 14-15=-56, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Horz: 1-2=-32, 2-7=-19, 9-14=-29, 14-15=-16, 2-24=-14, 14-16=-55
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=28, 2-5=41, 5-6=17, 6-7=41, 7-9=17, 9-10=17, 10-11=-7, 11-14=17, 14-15=4, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-52, 2-7=-65, 9-14=41, 14-15=28, 2-24=16, 14-16=35
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=4, 2-5=17, 5-6=-7, 6-7=17, 7-9=17, 9-10=41, 10-11=17, 11-14=41, 14-15=28, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-28, 2-7=-41, 9-14=65, 14-15=52, 2-24=-35, 14-16=16
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=28, 2-5=41, 5-6=17, 6-7=41, 7-9=17, 9-10=17, 10-11=-7, 11-14=17, 14-15=4, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-52, 2-7=-65, 9-14=41, 14-15=28, 2-24=16, 14-16=35
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=4, 2-5=17, 5-6=-7, 6-7=17, 7-9=17, 9-10=41, 10-11=17, 11-14=41, 14-15=28, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-28, 2-7=-41, 9-14=65, 14-15=52, 2-24=-35, 14-16=-16
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=12, 2-5=-2, 5-6=-42, 6-7=-2, 7-9=-26, 9-10=-26, 10-11=-66, 11-14=-26, 14-15=-12, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Horz: 1-2=-52, 2-7=-38, 9-14=14, 14-15=28, 2-24=43, 14-16=8
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-12, 2-5=-26, 5-6=-66, 6-7=-26, 7-9=-26, 9-10=-2, 10-11=-42, 11-14=-2, 14-15=12, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Horz: 1-2=-28, 2-7=-14, 9-14=38, 14-15=52, 2-24=-8, 14-16=43
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

14) Dead + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 1-2=-40, 2-5=-40, 5-6=-80, 6-7=-40, 7-9=-40, 9-10=-40, 10-11=-80, 11-14=-40, 14-15=-40, 22-24=-240(F=-200), 18-22=-240, 16-18=-40, 6-10=-40
Drag: 5-22=-20, 11-18=-20

15) Dead: Lumber Increase=1.00, Plate Increase=1.00

Continued on page 3

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Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:56:57 2025 Page 3
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LOAD CASE(S) Standard

- Uniform Loads (plf)
Vert: 1-2=-40, 2-5=-40, 5-6=-80, 6-7=-40, 7-9=-40, 9-10=-40, 10-11=-80, 11-14=-40, 14-15=-40, 22-24=-240(F=-200), 18-22=-240, 16-18=-40, 6-10=-40
Drag: 5-22=-20, 11-18=-20
- 16) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-112, 2-5=-122, 5-6=-162, 6-7=-122, 7-9=-71, 9-10=-86, 10-11=-126, 11-14=-86, 14-15=-76, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
Horz: 1-2=12, 2-7=22, 9-14=14, 14-15=24, 2-24=42, 14-16=11
Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 17) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-76, 2-5=-86, 5-6=-126, 6-7=-86, 7-9=-71, 9-10=-122, 10-11=-162, 11-14=-122, 14-15=-112, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
Horz: 1-2=-24, 2-7=-14, 9-14=-22, 14-15=-12, 2-24=-11, 14-16=-42
Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 18) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-61, 2-5=-71, 5-6=-111, 6-7=-71, 7-9=-89, 9-10=-89, 10-11=-129, 11-14=-89, 14-15=-79, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
Horz: 1-2=-39, 2-7=-29, 9-14=11, 14-15=21, 2-24=33, 14-16=6
Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-79, 2-5=-89, 5-6=-129, 6-7=-89, 7-9=-89, 9-10=-71, 10-11=-111, 11-14=-71, 14-15=-61, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
Horz: 1-2=-21, 2-7=-11, 9-14=29, 14-15=39, 2-24=-6, 14-16=-33
Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 20) Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-24, 2-7=-33, 7-9=-24, 9-14=-24, 14-15=-24, 22-24=-64(F=-40), 18-22=-48, 16-18=-24
Horz: 2-7=9, 2-24=33
- 21) Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-24, 2-7=-24, 7-9=-24, 9-14=-33, 14-15=-24, 22-24=-64(F=-40), 18-22=-48, 16-18=-24
Horz: 9-14=-9, 14-16=-33
- 22) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-120, 2-5=-120, 5-6=-160, 6-7=-120, 7-9=-120, 9-10=-40, 10-11=-80, 11-14=-40, 14-15=-40, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Drag: 5-22=-20, 11-18=-20
- 23) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-40, 2-5=-40, 5-6=-80, 6-7=-40, 7-9=-120, 9-10=-120, 10-11=-160, 11-14=-120, 14-15=-120, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Drag: 5-22=-20, 11-18=-20
- 24) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-100, 2-5=-100, 5-6=-140, 6-7=-100, 7-9=-100, 9-10=-40, 10-11=-80, 11-14=-40, 14-15=-40, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
Drag: 5-22=-20, 11-18=-20
- 25) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-40, 2-5=-40, 5-6=-80, 6-7=-40, 7-9=-100, 9-10=-100, 10-11=-140, 11-14=-100, 14-15=-100, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
Drag: 5-22=-20, 11-18=-20
- 26) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=5, 2-5=-26, 5-6=-50, 6-7=-26, 7-9=41, 9-10=22, 10-11=-2, 11-14=22, 14-15=8, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-29, 2-7=2, 9-14=46, 14-15=32, 2-24=28, 14-16=41
Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 27) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=8, 2-5=22, 5-6=-2, 6-7=22, 7-9=41, 9-10=-26, 10-11=-50, 11-14=-26, 14-15=5, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-32, 2-7=-46, 9-14=-2, 14-15=29, 2-24=-41, 14-16=-28
Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 28) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-56, 2-5=-69, 5-6=-109, 6-7=-69, 7-9=-2, 9-10=-21, 10-11=-61, 11-14=-21, 14-15=-8, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Horz: 1-2=16, 2-7=29, 9-14=19, 14-15=32, 2-24=55, 14-16=14
Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 29) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-8, 2-5=-21, 5-6=-61, 6-7=-21, 7-9=-2, 9-10=-69, 10-11=-109, 11-14=-69, 14-15=-56, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Horz: 1-2=-32, 2-7=-19, 9-14=-29, 14-15=-16, 2-24=-14, 14-16=-55
Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 30) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 4

 **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 66 Magnolia Hills
251265-A	A1-GR	ATTIC	1	2	I76353386

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:56:57 2025 Page 4
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-NAmh6fkI9uZu6HU8pwkOf6O0W4zeiWr?FhVpr0ydR9K

LOAD CASE(S) Standard

- Uniform Loads (plf)
- Vert: 1-2=28, 2-5=41, 5-6=17, 6-7=41, 7-9=17, 9-10=17, 10-11=-7, 11-14=17, 14-15=4, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
- Horz: 1-2=-52, 2-7=-65, 9-14=41, 14-15=28, 2-24=16, 14-16=35
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 31) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=4, 2-5=17, 5-6=-7, 6-7=17, 7-9=17, 9-10=41, 10-11=17, 11-14=41, 14-15=28, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
- Horz: 1-2=-28, 2-7=-41, 9-14=65, 14-15=52, 2-24=-35, 14-16=-16
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 32) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=28, 2-5=41, 5-6=17, 6-7=41, 7-9=17, 9-10=17, 10-11=-7, 11-14=17, 14-15=4, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
- Horz: 1-2=-52, 2-7=-65, 9-14=41, 14-15=28, 2-24=16, 14-16=35
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 33) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=4, 2-5=17, 5-6=-7, 6-7=17, 7-9=17, 9-10=41, 10-11=17, 11-14=41, 14-15=28, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
- Horz: 1-2=-28, 2-7=-41, 9-14=65, 14-15=52, 2-24=-35, 14-16=-16
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 34) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=12, 2-5=-2, 5-6=-42, 6-7=-2, 7-9=-26, 9-10=-26, 10-11=-66, 11-14=-26, 14-15=-12, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
- Horz: 1-2=-52, 2-7=-38, 9-14=14, 14-15=28, 2-24=43, 14-16=8
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 35) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-12, 2-5=-26, 5-6=-66, 6-7=-26, 7-9=-26, 9-10=-2, 10-11=-42, 11-14=-2, 14-15=12, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
- Horz: 1-2=-28, 2-7=-14, 9-14=38, 14-15=52, 2-24=-8, 14-16=43
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 36) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-112, 2-5=-122, 5-6=-162, 6-7=-122, 7-9=-71, 9-10=-86, 10-11=-126, 11-14=-86, 14-15=-76, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
- Horz: 1-2=12, 2-7=22, 9-14=14, 14-15=24, 2-24=42, 14-16=11
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 37) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-76, 2-5=-86, 5-6=-126, 6-7=-86, 7-9=-71, 9-10=-122, 10-11=-162, 11-14=-122, 14-15=-112, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
- Horz: 1-2=-24, 2-7=-14, 9-14=-22, 14-15=-12, 2-24=-11, 14-16=42
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 38) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-61, 2-5=-71, 5-6=-111, 6-7=-71, 7-9=-89, 9-10=-89, 10-11=-129, 11-14=-89, 14-15=-79, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
- Horz: 1-2=-39, 2-7=-29, 9-14=11, 14-15=21, 2-24=33, 14-16=6
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 39) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-79, 2-5=-89, 5-6=-129, 6-7=-89, 7-9=-89, 9-10=-71, 10-11=-111, 11-14=-71, 14-15=-61, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
- Horz: 1-2=-21, 2-7=-11, 9-14=29, 14-15=39, 2-24=-6, 14-16=33
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 40) Reversal: Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-24, 2-7=-33, 7-9=-24, 9-14=-24, 14-15=-24, 22-24=-64(F=-40), 18-22=-48, 16-18=-24
- Horz: 2-7=9, 2-24=33
- 41) Reversal: Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-24, 2-7=-24, 7-9=-24, 9-14=-33, 14-15=-24, 22-24=-64(F=-40), 18-22=-48, 16-18=-24
- Horz: 9-14=-9, 14-16=-33

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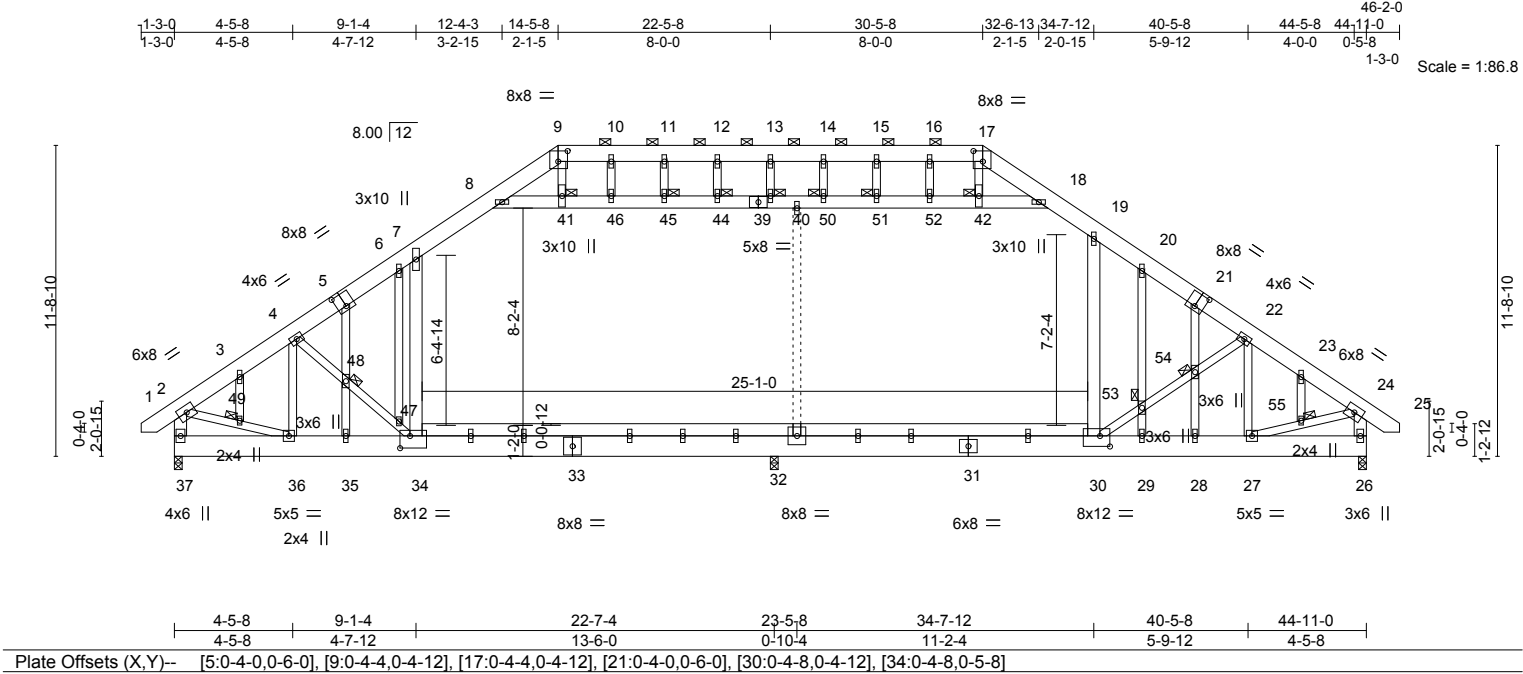


818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills	176353387
251265-A	A1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:56:56 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-u_ClvJgOaR1U7vyFDD96vrvUgfhz3Rs01IFlaydR9L



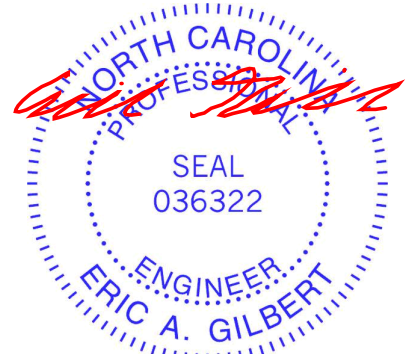
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.31	Vert(LL)	-0.28 32-34	>956	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.38 32-34	>699	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.58	Horz(CT)	0.03 26	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S	Wind(LL)	0.27 30-32	>983	240	Weight: 596 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x8 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-17.
BOT CHORD 2x10 SP 2400F 2.0E *Except* 34-38,30-38: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 7-34,19-30,8-39,2-37,24-26,18-39: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 40, 41, 42, 44, 45, 48, 49, 50, 51, 53, 54, 55
OTHERS 2x4 SP No.2	

REACTIONS. (size) 37=0-3-8, 26=0-3-8, 32=0-3-8
Max Horz 37=374(LC 11)
Max Uplift 37=-89(LC 12), 26=-93(LC 13)
Max Grav 37=2252(LC 2), 26=2176(LC 2), 32=1780(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2532/277, 3-4=-2381/289, 4-5=-2664/266, 5-6=-2869/280, 6-7=-2827/305, 7-8=-2332/431, 8-9=-1898/615, 9-10=-1650/556, 10-11=-1645/556, 11-12=-1645/556, 12-13=-1645/556, 13-14=-1645/556, 14-15=-1645/556, 15-16=-1645/556, 16-17=-1650/557, 17-18=-1891/609, 18-19=-2282/431, 19-20=-2752/344, 20-21=-2663/305, 21-22=-2648/268, 22-23=-2281/317, 23-24=-2426/307, 2-37=-2145/310, 24-26=-2065/332
BOT CHORD 36-37=-303/527, 35-36=-243/2160, 34-35=-243/2160, 32-34=-25/2177, 30-32=-25/2177, 29-30=-166/1906, 28-29=-166/1906, 27-28=-166/1906, 26-27=-43/298
WEBS 7-34=0/974, 19-30=0/812, 8-41=-1224/52, 41-46=-1198/60, 45-46=-1198/60, 44-45=-1198/60, 40-44=-1198/60, 40-50=-1198/60, 50-51=-1198/60, 51-52=-1198/60, 42-52=-1198/60, 18-42=-1237/67, 2-49=-101/1773, 36-49=-103/1830, 9-41=-206/679, 17-42=-227/667, 4-36=-534/188, 4-48=-346/496, 47-48=-344/471, 34-47=-419/490, 30-53=-376/597, 53-54=-341/556, 22-54=-356/585, 22-27=-632/181, 27-55=-132/1735, 24-55=-129/1682, 10-46=-277/144, 5-48=-549/9, 35-48=-538/7, 16-52=-270/156, 20-53=-306/47, 29-53=-338/31

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-7 to 3-6-7, Exterior(2N) 3-6-7 to 14-5-8, Corner(3R) 14-5-8 to 18-11-6, Exterior(2N) 18-11-6 to 30-5-8, Corner(3R) 30-5-8 to 34-11-6, Exterior(2N) 34-11-6 to 45-10-7 zone; end vertical 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) Provide adequate drainage to prevent water ponding.
 - 5) All plates are 2x6 MT20 unless otherwise indicated.
 - 6) Gable studs spaced at 2-0-0 oc.



September 16, 2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	A1GE	GABLE	1	1	176353387
					Job Reference (optional)

- NOTES-**
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 9) Ceiling dead load (10.0 psf) on member(s). 7-8, 18-19, 8-41, 41-46, 45-46, 44-45, 40-44, 40-50, 50-51, 51-52, 42-52, 18-42; Wall dead load (5.0psf) on member(s).7-34, 19-30
 - 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 32-34, 30-32
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 37 and 93 lb uplift at joint 26.
 - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 13) Attic room checked for L/360 deflection.

 **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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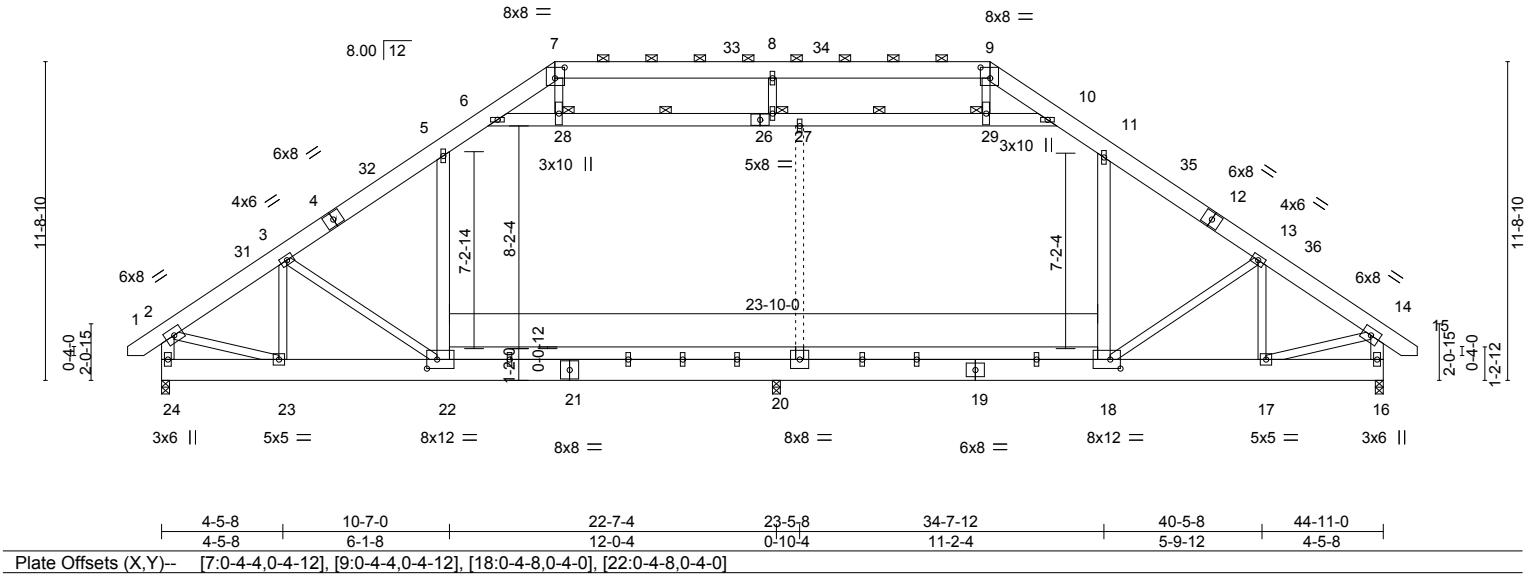
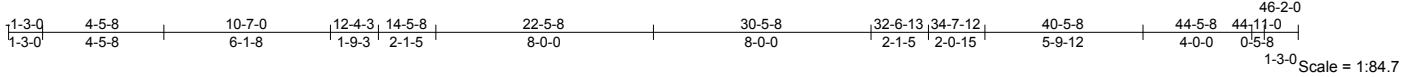


818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills	176353388
251265-A	A2	ATTIC	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:56:57 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-NAmh6fkI9uZu6HU8pwkOf6O524?MiVn?FhVpr0ydR9K



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.23 20-22	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.41	Vert(CT)	-0.29 20-22	>916	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.03 16	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S	Wind(LL)	0.22 20-22	>999	240	Weight: 548 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x8 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD 2x10 SP 2400F 2.0E *Except* 22-25,18-25: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 5-22,11-18,6-26,2-24,14-16,10-26: 2x6 SP No.1	WEBS 1 Row at midpt 27-28, 27-29
	JOINTS 1 Brace at Jt(s): 27, 28, 29

REACTIONS. (size) 24=0-3-8, 16=0-3-8, 20=0-3-8
Max Horz 24=299(LC 11)
Max Grav 24=2179(LC 2), 16=2174(LC 2), 20=1721(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2372/32, 3-5=-2728/42, 5-6=-2261/160, 6-7=-1845/266, 7-8=-1591/247, 8-9=-1591/247, 9-10=-1847/265, 10-11=-2267/159, 11-13=-2726/41, 13-14=-2362/35, 2-24=-2052/71, 14-16=-2043/73
BOT CHORD 23-24=-216/426, 22-23=-57/2106, 20-22=0/2154, 18-20=0/2154, 17-18=0/1909
WEBS 5-22=0/606, 11-18=0/596, 6-28=-1083/0, 27-28=-1052/0, 27-29=-1052/0, 10-29=-1085/0, 2-23=0/1783, 7-28=-13/467, 9-29=-10/471, 3-23=-754/76, 3-22=-228/510, 13-18=-228/526, 13-17=-769/80, 14-17=0/1771

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-7 to 3-6-7, Interior(1) 3-6-7 to 14-5-8, Exterior(2R) 14-5-8 to 20-9-12, Interior(1) 20-9-12 to 30-5-8, Exterior(2R) 30-5-8 to 36-9-12, Interior(1) 36-9-12 to 45-10-7 zone; end vertical left and right exposed; 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) All plates are 2x6 MT20 unless otherwise indicated.
 - 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) Ceiling dead load (10.0 psf) on member(s). 5-6, 10-11, 6-28, 27-28, 27-29, 10-29; Wall dead load (5.0psf) on member(s).5-22, 11-18
 - 8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 20-22, 18-20
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 10) Attic room checked for L/360 deflection.



September 16, 2025

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills	176353389
251265-A	A2-GR	ATTIC	1	2	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:00 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-nlRplgmBRpxTzkCjU3i5GI0YFI06vs7SxfjTSLydr9H

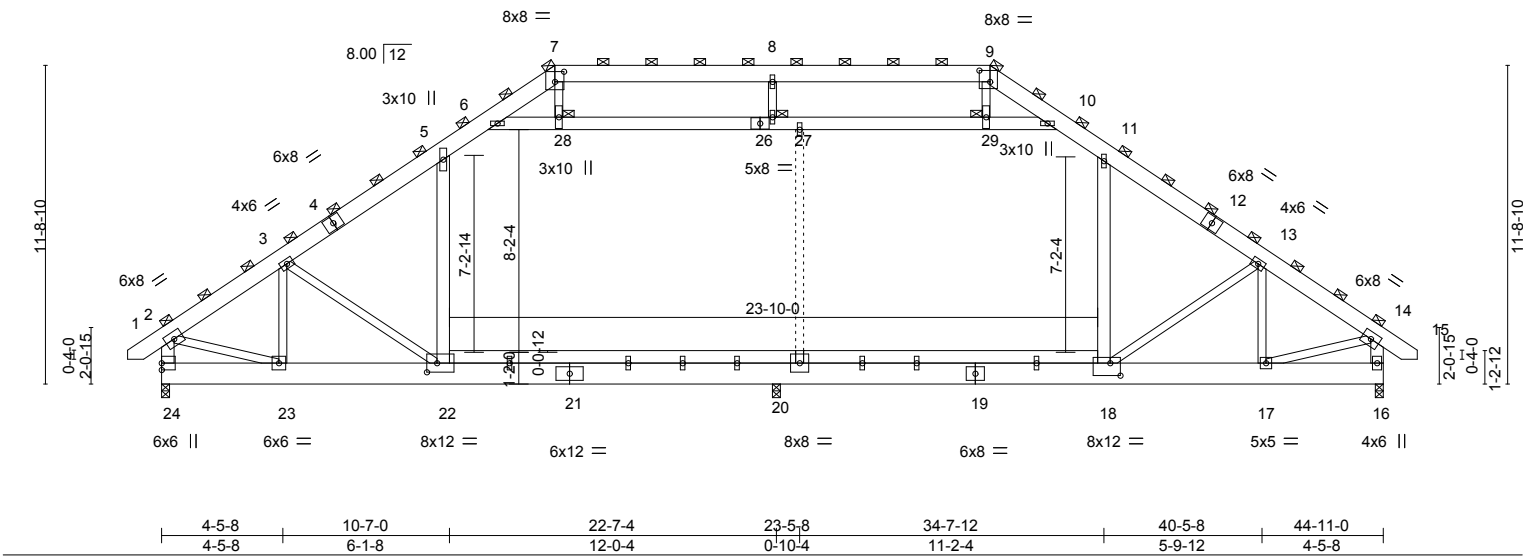
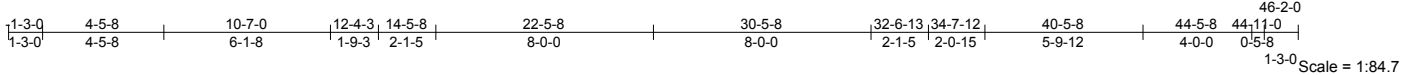


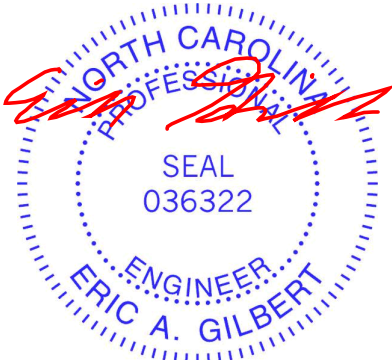
Plate Offsets (X,Y)--		[7:0-4-0,0-4-8], [9:0-4-12,0-5-0], [18:0-4-8,0-5-8], [22:0-4-8,0-4-0]									
LOADING (psf)		SPACING- 4-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP			
TCLL	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.41 20-22	>652	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.54 20-22	>496	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.04 16	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.22 20-22	>999	240	Weight: 1095 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x8 SP 2400F 2.0E	TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
BOT CHORD 2x10 SP 2400F 2.0E *Except*	(Switched from sheeted: Spacing > 2-8-0).
22-25,18-25: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except*	JOINTS 1 Brace at Jt(s): 7, 9, 2, 14, 27, 28, 29
5-22,11-18,6-26,2-24,14-16,10-26: 2x6 SP No.1	

REACTIONS.	(size) 24=0-3-8, 16=0-3-8, 20=0-3-8
	Max Horz 24=597(LC 7)
	Max Grav 24=5786(LC 2), 16=4525(LC 2), 20=3460(LC 14)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-6241/0, 3-5=-6111/0, 5-6=-4873/0, 6-7=-3651/530, 7-8=-3153/463, 8-9=-3153/464, 9-10=-3689/495, 10-11=-4949/0, 11-13=-5951/0, 13-14=-4818/0, 2-24=-5318/0, 14-16=-4168/0
BOT CHORD	23-24=-406/958, 22-23=0/5475, 20-22=0/4769, 18-20=0/4769, 17-18=0/3877, 16-17=0/539
WEBS	5-22=0/1895, 11-18=0/1379, 6-28=-2842/0, 27-28=-2804/0, 27-29=-2804/0, 10-29=-2865/0, 2-23=0/4787, 8-27=-176/258, 7-28=-24/912, 9-29=0/980, 3-23=-931/378, 3-22=-929/681, 13-18=-331/1550, 13-17=-1961/53, 14-17=0/3547

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x6 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Ceiling dead load (10.0 psf) on member(s). 5-6, 10-11, 6-28, 27-28, 27-29, 10-29; Wall dead load (5.0psf) on member(s).5-22, 11-18
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 20-22, 18-20
 - Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.



Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	A2-GR	ATTIC	1	2	I76353389

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:00 2025 Page 2
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-nlRplgmBRpxTzkCjU3I5GI0YFI06vs7SxfjTSLydR9H

NOTES-

- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-120, 2-5=-120, 5-6=-160, 6-7=-120, 7-9=-120, 9-10=-120, 10-11=-160, 11-14=-120, 14-15=-120, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Drag: 5-22=-20, 11-18=-20

2) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-100, 2-5=-100, 5-6=-140, 6-7=-100, 7-9=-100, 9-10=-100, 10-11=-140, 11-14=-100, 14-15=-100, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
Drag: 5-22=-20, 11-18=-20

3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-2=-40, 2-5=-40, 5-6=-80, 6-7=-40, 7-9=-40, 9-10=-40, 10-11=-80, 11-14=-40, 14-15=-40, 22-24=-120(F=-40), 16-22=-80, 6-10=-40
Drag: 5-22=-20, 11-18=-20

4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=5, 2-5=-26, 5-6=-50, 6-7=-26, 7-9=41, 9-10=22, 10-11=-2, 11-14=22, 14-15=8, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-29, 2-7=2, 9-14=46, 14-15=32, 2-24=28, 14-16=41
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=8, 2-5=22, 5-6=-2, 6-7=22, 7-9=41, 9-10=-26, 10-11=-50, 11-14=-26, 14-15=5, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-32, 2-7=-46, 9-14=-2, 14-15=29, 2-24=-41, 14-16=-28
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

6) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-56, 2-5=-69, 5-6=-109, 6-7=-69, 7-9=-2, 9-10=-21, 10-11=-61, 11-14=-21, 14-15=-8, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Horz: 1-2=16, 2-7=29, 9-14=19, 14-15=32, 2-24=55, 14-16=14
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

7) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-8, 2-5=-21, 5-6=-61, 6-7=-21, 7-9=-2, 9-10=-69, 10-11=-109, 11-14=-69, 14-15=-56, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Horz: 1-2=-32, 2-7=-19, 9-14=-29, 14-15=-16, 2-24=-14, 14-16=-55
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=28, 2-5=41, 5-6=17, 6-7=41, 7-9=17, 9-10=17, 10-11=-7, 11-14=17, 14-15=4, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-52, 2-7=-65, 9-14=41, 14-15=28, 2-24=16, 14-16=35
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=4, 2-5=17, 5-6=-7, 6-7=17, 7-9=17, 9-10=41, 10-11=17, 11-14=41, 14-15=28, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-28, 2-7=-41, 9-14=65, 14-15=52, 2-24=-35, 14-16=16
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=28, 2-5=41, 5-6=17, 6-7=41, 7-9=17, 9-10=17, 10-11=-7, 11-14=17, 14-15=4, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-52, 2-7=-65, 9-14=41, 14-15=28, 2-24=16, 14-16=35
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=4, 2-5=17, 5-6=-7, 6-7=17, 7-9=17, 9-10=41, 10-11=17, 11-14=41, 14-15=28, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
Horz: 1-2=-28, 2-7=-41, 9-14=65, 14-15=52, 2-24=-35, 14-16=16
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=12, 2-5=-2, 5-6=-42, 6-7=-2, 7-9=-26, 9-10=-26, 10-11=-66, 11-14=-26, 14-15=-12, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Horz: 1-2=-52, 2-7=-38, 9-14=14, 14-15=28, 2-24=43, 14-16=8
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-12, 2-5=-26, 5-6=-66, 6-7=-26, 7-9=-26, 9-10=-2, 10-11=-42, 11-14=-2, 14-15=12, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
Horz: 1-2=-28, 2-7=-14, 9-14=38, 14-15=52, 2-24=-8, 14-16=43
Drag: 7-8=-0, 8-9=0, 5-22=-20, 11-18=-20

14) Dead + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 1-2=-40, 2-5=-40, 5-6=-80, 6-7=-40, 7-9=-40, 9-10=-40, 10-11=-80, 11-14=-40, 14-15=-40, 22-24=-240(F=-200), 18-22=-240, 16-18=-40, 6-10=-40
Drag: 5-22=-20, 11-18=-20

15) Dead: Lumber Increase=1.00, Plate Increase=1.00

Continued on page 3

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	A2-GR	ATTIC	1	2	176353389
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:00 2025 Page 3
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-nlRplgmBRpxTzkCjU3I5GI0YFI06vs7SxfjTSLydR9H

LOAD CASE(S) Standard

- Uniform Loads (plf)
 Vert: 1-2=-40, 2-5=-40, 5-6=-80, 6-7=-40, 7-9=-40, 9-10=-40, 10-11=-80, 11-14=-40, 14-15=-40, 22-24=-240(F=-200), 18-22=-240, 16-18=-40, 6-10=-40
 Drag: 5-22=-20, 11-18=-20
- 16) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=-112, 2-5=-122, 5-6=-162, 6-7=-122, 7-9=-71, 9-10=-86, 10-11=-126, 11-14=-86, 14-15=-76, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
 Horz: 1-2=12, 2-7=22, 9-14=14, 14-15=24, 2-24=42, 14-16=11
 Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 17) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=-76, 2-5=-86, 5-6=-126, 6-7=-86, 7-9=-71, 9-10=-122, 10-11=-162, 11-14=-122, 14-15=-112, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
 Horz: 1-2=-24, 2-7=-14, 9-14=-22, 14-15=-12, 2-24=-11, 14-16=-42
 Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 18) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=-61, 2-5=-71, 5-6=-111, 6-7=-71, 7-9=-89, 9-10=-89, 10-11=-129, 11-14=-89, 14-15=-79, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
 Horz: 1-2=-39, 2-7=-29, 9-14=11, 14-15=21, 2-24=33, 14-16=6
 Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=-79, 2-5=-89, 5-6=-129, 6-7=-89, 7-9=-89, 9-10=-71, 10-11=-111, 11-14=-71, 14-15=-61, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
 Horz: 1-2=-21, 2-7=-11, 9-14=29, 14-15=39, 2-24=-6, 14-16=-33
 Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 20) Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=-24, 2-7=-33, 7-9=-24, 9-14=-24, 14-15=-24, 22-24=-64(F=-40), 18-22=-48, 16-18=-24
 Horz: 2-7=9, 2-24=33
- 21) Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=-24, 2-7=-24, 7-9=-24, 9-14=-33, 14-15=-24, 22-24=-64(F=-40), 18-22=-48, 16-18=-24
 Horz: 9-14=-9, 14-16=-33
- 22) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-120, 2-5=-120, 5-6=-160, 6-7=-120, 7-9=-120, 9-10=-40, 10-11=-80, 11-14=-40, 14-15=-40, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
 Drag: 5-22=-20, 11-18=-20
- 23) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-40, 2-5=-40, 5-6=-80, 6-7=-40, 7-9=-120, 9-10=-120, 10-11=-160, 11-14=-120, 14-15=-120, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
 Drag: 5-22=-20, 11-18=-20
- 24) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-100, 2-5=-100, 5-6=-140, 6-7=-100, 7-9=-100, 9-10=-40, 10-11=-80, 11-14=-40, 14-15=-40, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
 Drag: 5-22=-20, 11-18=-20
- 25) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-40, 2-5=-40, 5-6=-80, 6-7=-40, 7-9=-100, 9-10=-100, 10-11=-140, 11-14=-100, 14-15=-100, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
 Drag: 5-22=-20, 11-18=-20
- 26) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=5, 2-5=-26, 5-6=-50, 6-7=-26, 7-9=41, 9-10=22, 10-11=-2, 11-14=22, 14-15=8, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
 Horz: 1-2=-29, 2-7=2, 9-14=46, 14-15=32, 2-24=28, 14-16=41
 Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 27) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=8, 2-5=22, 5-6=-2, 6-7=22, 7-9=41, 9-10=-26, 10-11=-50, 11-14=-26, 14-15=5, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
 Horz: 1-2=-32, 2-7=-46, 9-14=-2, 14-15=29, 2-24=-41, 14-16=-28
 Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 28) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=-56, 2-5=-69, 5-6=-109, 6-7=-69, 7-9=-2, 9-10=-21, 10-11=-61, 11-14=-21, 14-15=-8, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
 Horz: 1-2=16, 2-7=29, 9-14=19, 14-15=32, 2-24=55, 14-16=14
 Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 29) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=-8, 2-5=-21, 5-6=-61, 6-7=-21, 7-9=-2, 9-10=-69, 10-11=-109, 11-14=-69, 14-15=-56, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
 Horz: 1-2=-32, 2-7=-19, 9-14=-29, 14-15=-16, 2-24=-14, 14-16=-55
 Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 30) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 4

 **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 66 Magnolia Hills
251265-A	A2-GR	ATTIC	1	2	I76353389
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:00 2025 Page 4
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-nlRplgmBRpxTzkCjU3i5GI0YFI06vs7SxfjTSLydR9H

LOAD CASE(S) Standard

- Uniform Loads (plf)
- Vert: 1-2=28, 2-5=41, 5-6=17, 6-7=41, 7-9=17, 9-10=17, 10-11=-7, 11-14=17, 14-15=4, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
- Horz: 1-2=-52, 2-7=-65, 9-14=41, 14-15=28, 2-24=16, 14-16=35
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 31) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=4, 2-5=17, 5-6=-7, 6-7=17, 7-9=17, 9-10=41, 10-11=17, 11-14=41, 14-15=28, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
- Horz: 1-2=-28, 2-7=-41, 9-14=65, 14-15=52, 2-24=-35, 14-16=-16
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 32) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=28, 2-5=41, 5-6=17, 6-7=41, 7-9=17, 9-10=17, 10-11=-7, 11-14=17, 14-15=4, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
- Horz: 1-2=-52, 2-7=-65, 9-14=41, 14-15=28, 2-24=16, 14-16=35
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 33) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=4, 2-5=17, 5-6=-7, 6-7=17, 7-9=17, 9-10=41, 10-11=17, 11-14=41, 14-15=28, 22-24=-64(F=-40), 18-22=-48, 16-18=-24, 6-10=-24
- Horz: 1-2=-28, 2-7=-41, 9-14=65, 14-15=52, 2-24=-35, 14-16=-16
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 34) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=12, 2-5=-2, 5-6=-42, 6-7=-2, 7-9=-26, 9-10=-26, 10-11=-66, 11-14=-26, 14-15=-12, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
- Horz: 1-2=-52, 2-7=-38, 9-14=14, 14-15=28, 2-24=43, 14-16=8
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 35) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-12, 2-5=-26, 5-6=-66, 6-7=-26, 7-9=-26, 9-10=-2, 10-11=-42, 11-14=-2, 14-15=12, 22-24=-80(F=-40), 18-22=-80, 16-18=-40, 6-10=-40
- Horz: 1-2=-28, 2-7=-14, 9-14=38, 14-15=52, 2-24=-8, 14-16=43
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 36) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-112, 2-5=-122, 5-6=-162, 6-7=-122, 7-9=-71, 9-10=-86, 10-11=-126, 11-14=-86, 14-15=-76, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
- Horz: 1-2=12, 2-7=22, 9-14=14, 14-15=24, 2-24=42, 14-16=11
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 37) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-76, 2-5=-86, 5-6=-126, 6-7=-86, 7-9=-71, 9-10=-122, 10-11=-162, 11-14=-122, 14-15=-112, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
- Horz: 1-2=-24, 2-7=-14, 9-14=-22, 14-15=-12, 2-24=-11, 14-16=-42
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 38) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-61, 2-5=-71, 5-6=-111, 6-7=-71, 7-9=-89, 9-10=-89, 10-11=-129, 11-14=-89, 14-15=-79, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
- Horz: 1-2=-39, 2-7=-29, 9-14=11, 14-15=21, 2-24=33, 14-16=6
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 39) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-79, 2-5=-89, 5-6=-129, 6-7=-89, 7-9=-89, 9-10=-71, 10-11=-111, 11-14=-71, 14-15=-61, 22-24=-200(F=-160), 18-22=-200, 16-18=-40, 6-10=-40
- Horz: 1-2=-21, 2-7=-11, 9-14=29, 14-15=39, 2-24=-6, 14-16=33
- Drag: 7-8=0, 8-9=0, 5-22=-20, 11-18=-20
- 40) Reversal: Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-24, 2-7=-33, 7-9=-24, 9-14=-24, 14-15=-24, 22-24=-64(F=-40), 18-22=-48, 16-18=-24
- Horz: 2-7=9, 2-24=33
- 41) Reversal: Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)
- Vert: 1-2=-24, 2-7=-24, 7-9=-24, 9-14=-33, 14-15=-24, 22-24=-64(F=-40), 18-22=-48, 16-18=-24
- Horz: 9-14=-9, 14-16=-33

 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 66 Magnolia Hills
251265-A	A2A-GR	ATTIC	1	3	176353390

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:56:59 2025 Page 1

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46-2-0

0-5-8

1-3-0 Scale = 1:84.7

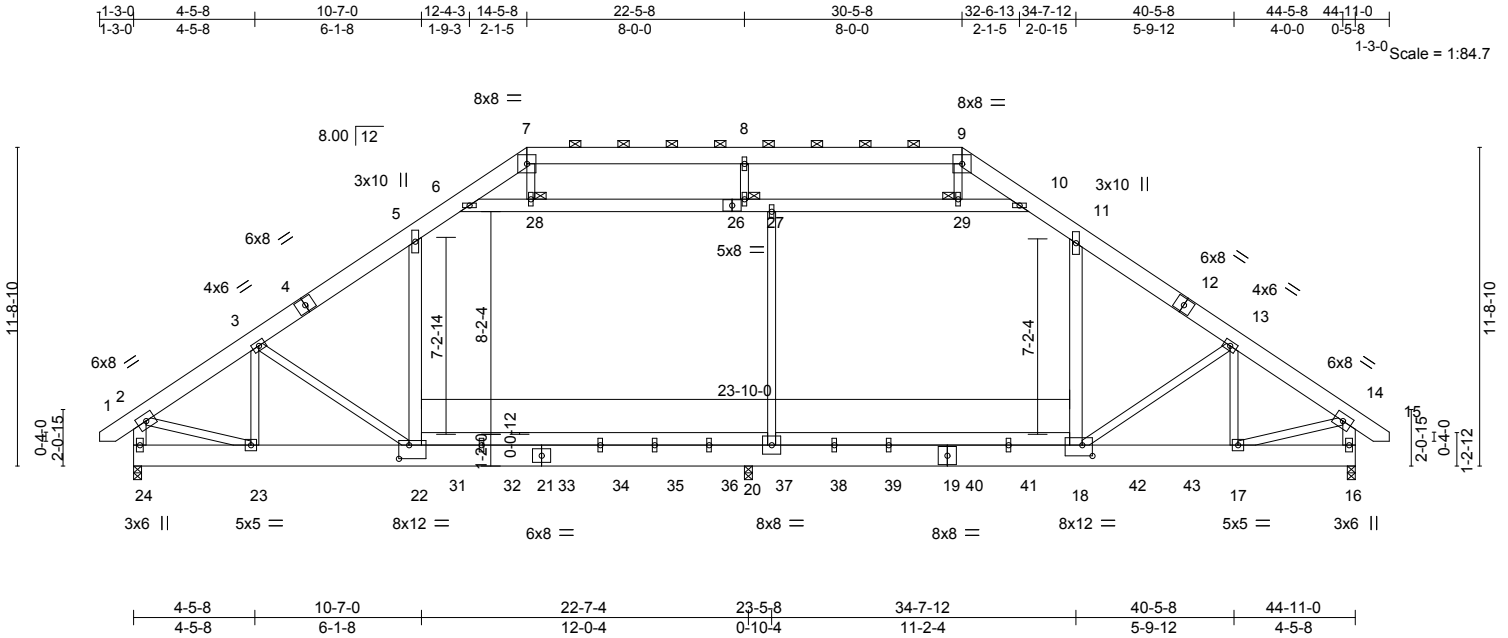


Plate Offsets (X,Y)-- [18:0-4-8,0-4-12], [22:0-4-8,0-6-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	-0.21	18-20	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.30	18-20	>872		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.53	Horz(CT)	0.03	16	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S	Wind(LL)	0.07	20-22	>999		
								Weight: 1643 lb	FT = 20%

LUMBER-
TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x10 SP 2400F 2.0E *Except*
22-25,18-25: 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
5-22,11-18,6-26,2-24,14-16,10-26: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 27, 28, 29

REACTIONS. (size) 24=0-3-8, 16=0-3-8, 20=0-3-8
Max Horz 24=299(LC 7)
Max Grav 24=4364(LC 2), 16=6289(LC 14), 20=5113(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4923/0, 3-5=-6079/0, 5-6=-4461/0, 6-7=-1707/246, 7-8=-1384/218, 8-9=-1384/218, 9-10=-1678/244, 10-11=-4423/0, 11-13=-6224/0, 13-14=-7162/0, 2-24=-4119/0, 14-16=-5868/0
BOT CHORD 23-24=-216/489, 22-23=-57/4032, 20-22=0/4894, 18-20=0/4894, 17-18=0/5951, 16-17=0/661
WEBS 5-22=0/2888, 11-18=0/3237, 6-28=-5077/0, 27-28=-5039/0, 27-29=-5039/0, 10-29=-5064/0, 2-23=0/3763, 7-28=-1/563, 9-29=0/469, 3-23=-1589/76, 3-22=-228/1133, 13-18=-1312/459, 13-17=-769/805, 14-17=0/5602

NOTES-

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 4 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x6 MT20 unless otherwise indicated.



September 16,2025

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 66 Magnolia Hills
251265-A	A2A-GR	ATTIC	1	3	176353390

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:56:59 2025 Page 2
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NOTES-
7) N/A

- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * 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.
- 10) Ceiling dead load (10.0 psf) on member(s). 5-6, 10-11, 6-28, 27-28, 27-29, 10-29; Wall dead load (5.0psf) on member(s).5-22, 11-18
- 11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 20-22, 18-20
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2488 lb down at 10-4-12, 160 lb down and 83 lb up at 11-9-4, 160 lb down and 83 lb up at 13-9-4, 160 lb down and 83 lb up at 15-9-4, 160 lb down and 83 lb up at 17-9-4, 160 lb down and 83 lb up at 19-9-4, 160 lb down and 83 lb up at 21-9-4, 917 lb down at 23-9-4, 917 lb down at 25-9-4, 917 lb down at 27-9-4, 264 lb down at 29-9-4, 264 lb down at 30-9-4, 264 lb down at 32-9-4, 264 lb down at 34-9-4, 264 lb down at 36-9-4, and 264 lb down at 38-9-4, and 2984 lb down at 40-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 14) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-2=-60, 2-5=-60, 5-6=-80, 6-7=-60, 7-9=-60, 9-10=-60, 10-11=-80, 11-14=-60, 14-15=-60, 22-24=-20, 18-22=-40, 16-18=-20, 6-10=-20
- Drag: 5-22=-10, 11-18=-10
- Concentrated Loads (lb)
- Vert: 22=-761(B) 18=-48(B) 19=-48(B) 17=-1017(B) 31=-5(B) 32=-5(B) 33=-5(B) 34=-5(B) 35=-5(B) 36=-5(B) 37=-236(B) 38=-236(B) 39=-236(B) 40=-48(B) 41=-48(B) 42=-48(B) 43=-48(B)

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	A3	MONOPITCH	2	1	176353391
					Job Reference (optional)

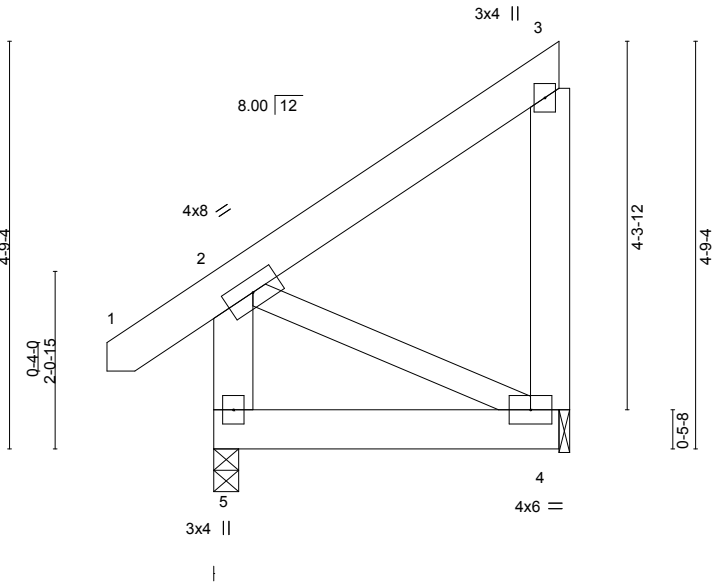
Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:00 2025 Page 1

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Scale = 1:27.0



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 0.09	Vert(LL)	-0.00	4-5	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P	Wind(LL)	0.00	5	****	240		
									Weight: 42 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
2-4: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 4=0-1-8
Max Horz 5=106(LC 9)
Max Uplift 4=81(LC 12)
Max Grav 5=241(LC 1), 4=167(LC 19)

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

BOT CHORD 4-5=-283/108
WEBS 2-4=-118/311

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-1-1 to 3-3-12, Interior(1) 3-3-12 to 3-11-0 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 4.



September 16,2025

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ENGINEERING BY
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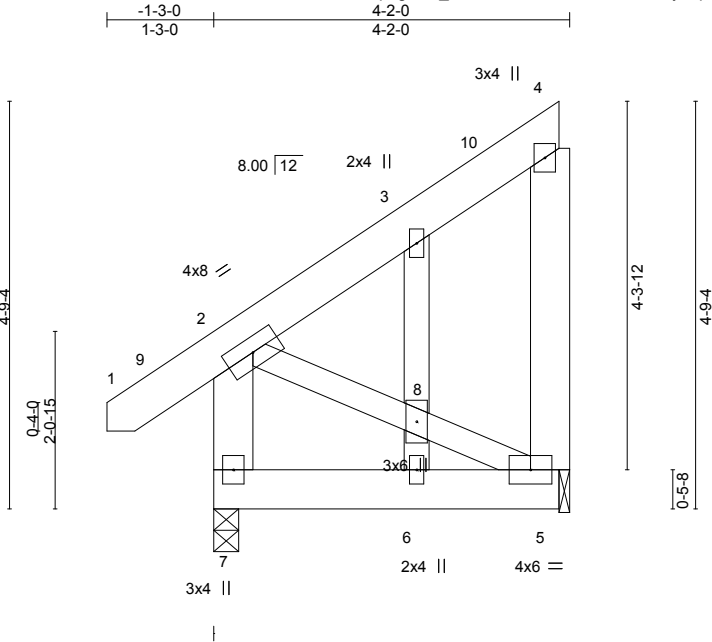
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	A3GE	GABLE	1	1	176353392
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:01 2025 Page 1

ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-Fx?By0npC73Kbunw2mpKpyZothS?eSKbAJT0_nydR9G



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S	Wind(LL)	0.00	6	>999	240		
					Weight: 46 lb		FT = 20%			

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
2-5: 2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 7=0-3-8, 5=0-1-8
Max Horz 7=125(LC 9)
Max Uplift 5=132(LC 12)
Max Grav 7=241(LC 1), 5=175(LC 19)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 6-7=-381/154, 5-6=-381/154
WEBS 2-8=-152/396, 5-8=-162/413

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-1-1 to 3-3-12, Exterior(2N) 3-3-12 to 3-11-0 zone; end vertical left 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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 5.



September 16, 2025

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ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills	176353393
251265-A	B1	ROOF SPECIAL	7	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:01 2025 Page 1

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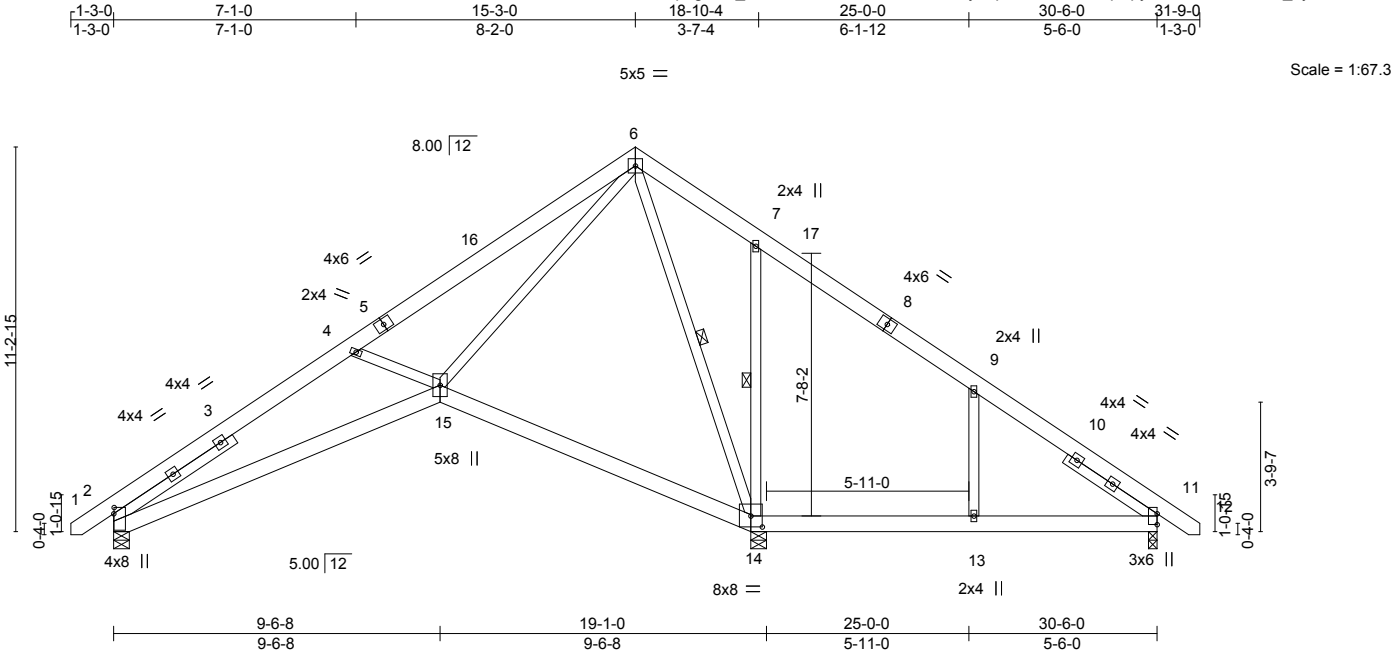


Plate Offsets (X,Y)-- [2:0-2-3,0-0-2], [14:0-4-0,0-3-13]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP			
TCLL	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.27 13-14	>531	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.44 13-14	>324	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.10 14	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.26 13-14	>540	240	Weight: 230 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 4-3-8, Right 2x4 SP No.2 3-2-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS 1 Row at midpt 7-14, 6-14

REACTIONS. (size) 2=0-5-8, 14=0-5-8, 11=0-3-0
Max Horz 2=-262(LC 10)
Max Uplift 2=-94(LC 13), 14=-70(LC 12), 11=-374(LC 8)
Max Grav 2=801(LC 20), 14=1793(LC 19), 11=636(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1550/611, 4-6=-1207/522, 6-7=-347/662, 7-9=-175/491, 9-11=-361/445
BOT CHORD 2-15=-438/1478, 13-14=-305/168, 11-13=-305/168
WEBS 4-15=-424/302, 6-15=-191/1354, 7-14=-717/456, 6-14=-917/139

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-1-1 to 3-3-12, Interior(1) 3-3-12 to 15-3-0, Exterior(2R) 15-3-0 to 19-7-13, Interior(1) 19-7-13 to 31-7-1 zone; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 2, 70 lb uplift at joint 14 and 374 lb uplift at joint 11.
 - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



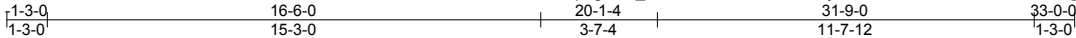
September 16,2025

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills	176353394
251265-A	B1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:02 2025 Page 1

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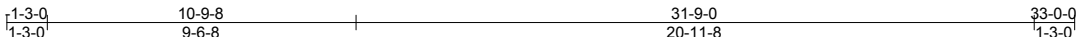
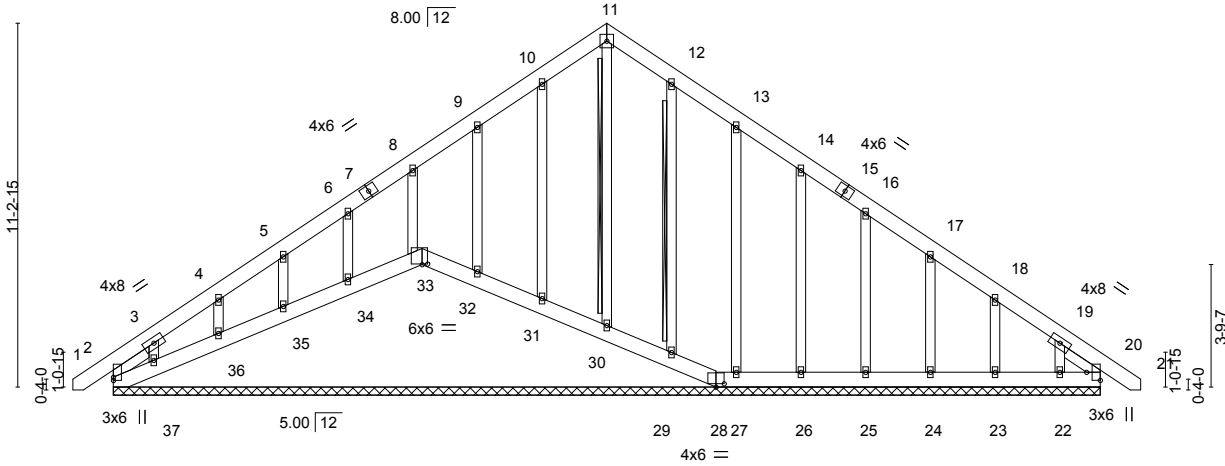


Plate Offsets (X,Y)-- [20:Edge,0-5-2], [28:0-3-0,0-1-4], [33:0-2-0,0-0-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00 20 n/r 120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00 20 n/r 120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01 20 n/a n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S				Weight: 267 lb	FT = 20%

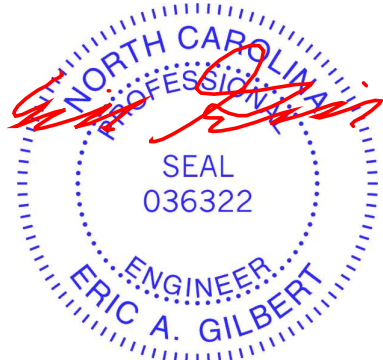
LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 1-5-6, Right 2x4 SP No.2 1-4-6

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 11-30, 12-29
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. All bearings 30-6-0.
(lb) - Max Horz 2=-327(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 33, 28, 20, 31, 32, 34, 35, 36, 29, 26, 25, 24, 23 except 2=-270(LC 8), 37=-242(LC 12), 27=-109(LC 13), 22=-161(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 28, 20, 30, 31, 32, 34, 35, 36, 37, 29, 27, 26, 25, 24, 23, 22 except 2=350(LC 20), 33=253(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-429/318, 3-4=-255/219, 9-10=-159/268, 10-11=-184/292, 11-12=-184/292, 19-20=-302/154
BOT CHORD 2-37=-131/260, 36-37=-131/263, 35-36=-132/263, 34-35=-131/264, 33-34=-134/262, 32-33=-131/267, 31-32=-132/269, 30-31=-132/269, 29-30=-132/269, 28-29=-127/269

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-1-1 to 3-3-0, Exterior(2N) 3-3-0 to 15-3-0, Corner(3R) 15-3-0 to 19-7-13, Exterior(2N) 19-7-13 to 31-7-1 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33, 28, 20, 31, 32, 34, 35, 36, 29, 26, 25, 24, 23 except (jt=lb) 2=270, 37=242, 27=109, 22=161.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



September 16,2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills	176353395
251265-A	C1	ROOF SPECIAL	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:03 2025 Page 1

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2-0-2

2-0-2

7-2-0

5-1-14

12-2-0

5-0-0

20-2-0

8-0-0

30-5-8

10-3-8

31-8-8

1-3-0

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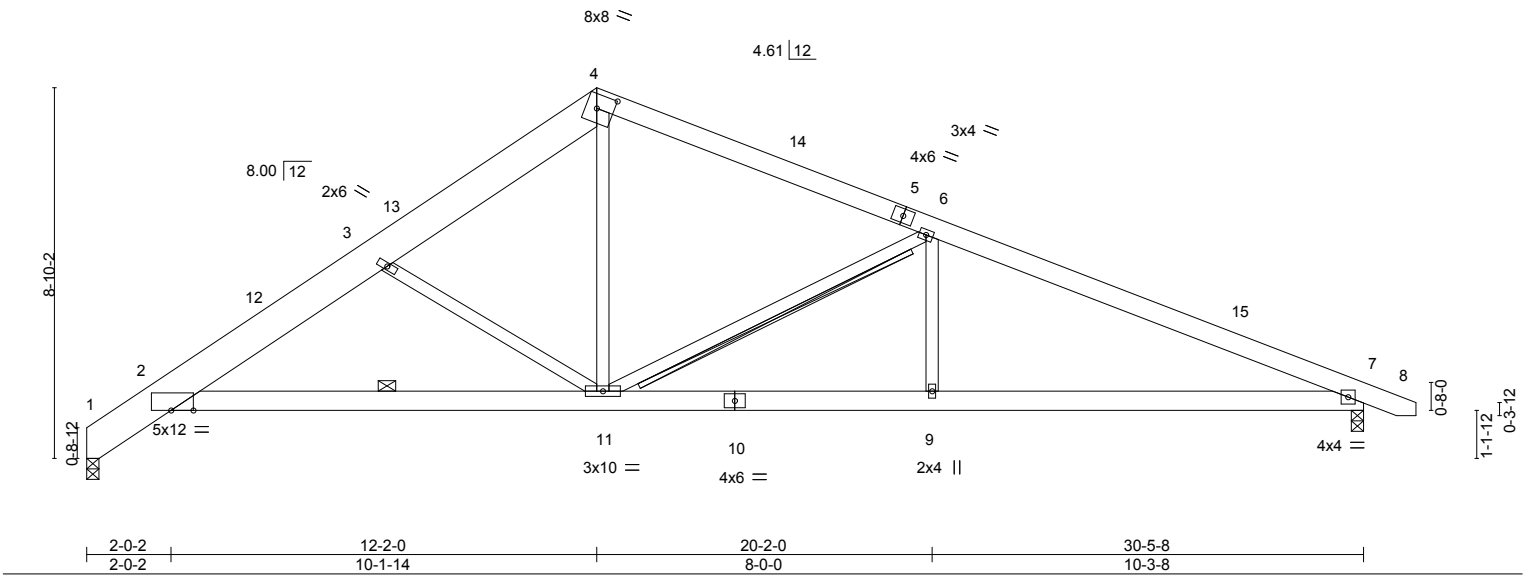


Plate Offsets (X,Y)--		[2:0-6-6,Edge], [4:0-4-13,0-4-0]									
2-0-2		12-2-0		20-2-0		30-5-8					
2-0-2		10-1-14		8-0-0		10-3-8					
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL 20.0		2-0-0		TC 0.71		in (loc) l/defl L/d		MT20		244/190	
TCDL 10.0		Plate Grip DOL 1.15		BC 0.47		Vert(LL) -0.11 2-11 >999 360					
BCLL 0.0 *		Lumber DOL 1.15		WB 0.50		Vert(CT) -0.28 2-11 >999 240					
BCDL 10.0		Rep Stress Incr YES		Matrix-S		Horz(CT) 0.12 7 n/a n/a					
		Code IRC2021/TPI2014				Wind(LL) 0.08 2-11 >999 240		Weight: 212 lb		FT = 20%	

LUMBER-

TOP CHORD 2x6 SP No.1 *Except*
1-4: 2x10 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-5-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
10-0-0 oc bracing: 2-11
WEBS T-Brace: 2x4 SPF No.2 - 6-11
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS.

(size) 1=0-3-8, 7=0-3-8
Max Horz 1=-201(LC 10)
Max Uplift 1=-48(LC 12), 7=-104(LC 13)
Max Grav 1=1210(LC 1), 7=1278(LC 1)

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

TOP CHORD 1-2=-569/126, 2-3=-2092/519, 3-4=-1644/440, 4-6=-1467/411, 6-7=-2383/507
BOT CHORD 2-11=-409/1874, 9-11=-366/2112, 7-9=-366/2112
WEBS 3-11=-764/339, 4-11=-190/1036, 6-11=-960/279, 6-9=0/375

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 12-2-0, Exterior(2R) 12-2-0 to 16-6-13, Interior(1) 16-6-13 to 31-5-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 7=104.
- 7) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



September 16, 2025

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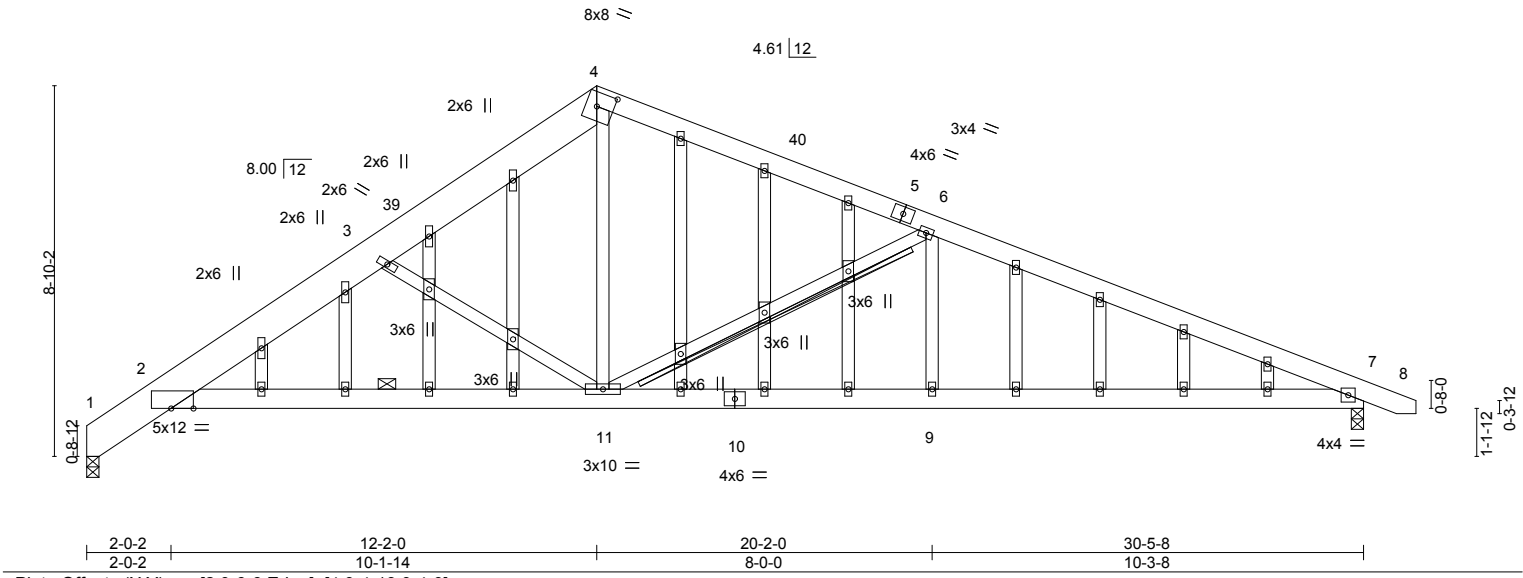
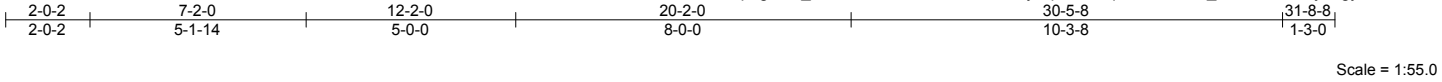
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	C1SG	ROOF SPECIAL STRUCTU	1	1	176353396
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:03 2025 Page 1

ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-BK7yNip3kkK1qCxl9BrouNe_VV1n6FLuddy72gydR9E



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 0.71	Vert(LL)	-0.11	2-11	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.28	2-11	>999	240	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.12	7	n/a	n/a	
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S	Wind(LL)	0.11	2-11	>999	240	
Weight: 263 lb									FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 1-4: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-4-5 oc purlins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 2-11
BOT CHORD 2x6 SP No.1	WEBS T-Brace: 2x4 SPF No.2 - 6-11 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.
WEBS 2x4 SP No.2	
OTHERS 2x4 SP No.2	

REACTIONS.	(size) 1=0-3-8, 7=0-3-8
Max Horz	1=-273(LC 10)
Max Uplift	1=-208(LC 12), 7=-307(LC 13)
Max Grav	1=1210(LC 1), 7=1278(LC 1)
FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-569/212, 2-3=-2092/511, 3-4=-1644/430, 4-6=-1467/409, 6-7=-2383/509
BOT CHORD	2-11=-445/1874, 9-11=-359/2112, 7-9=-359/2112
WEBS	3-11=-784/393, 4-11=-188/1036, 6-11=-960/401, 6-9=0/375

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 12-2-0, Exterior(2R) 12-2-0 to 16-6-13, Interior(1) 16-6-13 to 31-5-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) All plates are 2x4 MT20 unless otherwise indicated.
 - 5) Gable studs spaced at 2-0-0 oc.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) * This truss has been designed for a live load of 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.
 - 8) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=208, 7=307.
 - 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



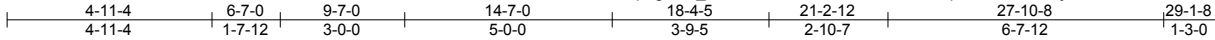
September 16, 2025

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	C2	ROOF SPECIAL	7	1	176353397
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:04 2025 Page 1

ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-fWhKa2phV2SuSMWVjuM1RbBDLvGKrb51sHigb6ydR9D



4x6 =

Scale = 1:55.5

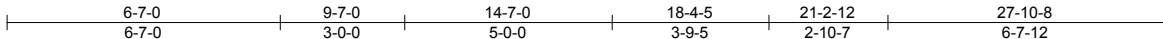
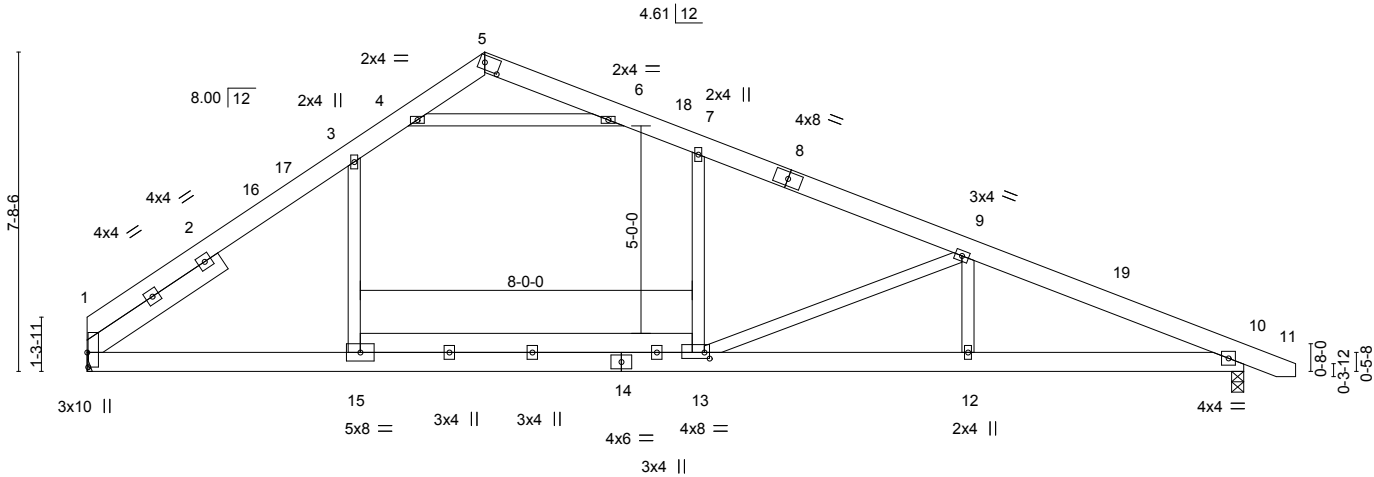


Plate Offsets (X,Y)-- [1:0-4-4,0-0-4], [5:0-4-7,0-2-0], [13:0-1-8,0-1-12]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP			
TCLL	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.31 12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.56 12-13	>598	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.04 10	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S		Wind(LL)	0.23 12-13	>999	240	Weight: 205 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.1 *Except*
9-12,9-13: 2x4 SP No.2
SLIDER Left 2x6 SP No.1 3-11-6

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-2-13 oc bracing.

REACTIONS.

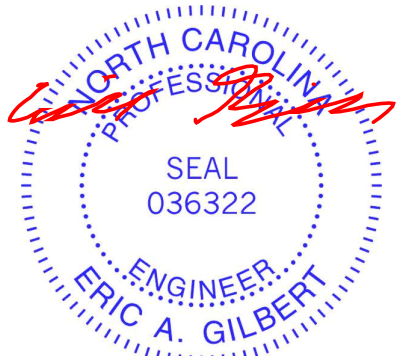
(size) 1=Mechanical, 10=0-3-8
Max Horz 1=-189(LC 10)
Max Uplift 1=-37(LC 12), 10=-104(LC 13)
Max Grav 1=1108(LC 1), 10=1180(LC 1)

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

TOP CHORD 1-3=-1685/393, 3-4=-1221/417, 5-6=-43/275, 6-7=-1215/407, 7-9=-1449/387,
9-10=-2434/503
BOT CHORD 1-15=-165/1243, 13-15=-173/1248, 12-13=-396/2187, 10-12=-396/2187
WEBS 3-15=0/525, 7-13=0/385, 4-6=-1466/471, 9-12=0/375, 9-13=-1095/252

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 9-7-0, Exterior(2R) 9-7-0 to 13-11-13, Interior(1) 13-11-13 to 28-10-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 10=104.



September 16,2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	C2GE	ROOF SPECIAL SUPPORT	1	1	176353398
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:05 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-8jEioOqKGLal3V5hHctGz0jUkJq3aEgB4xRE7YydR9C

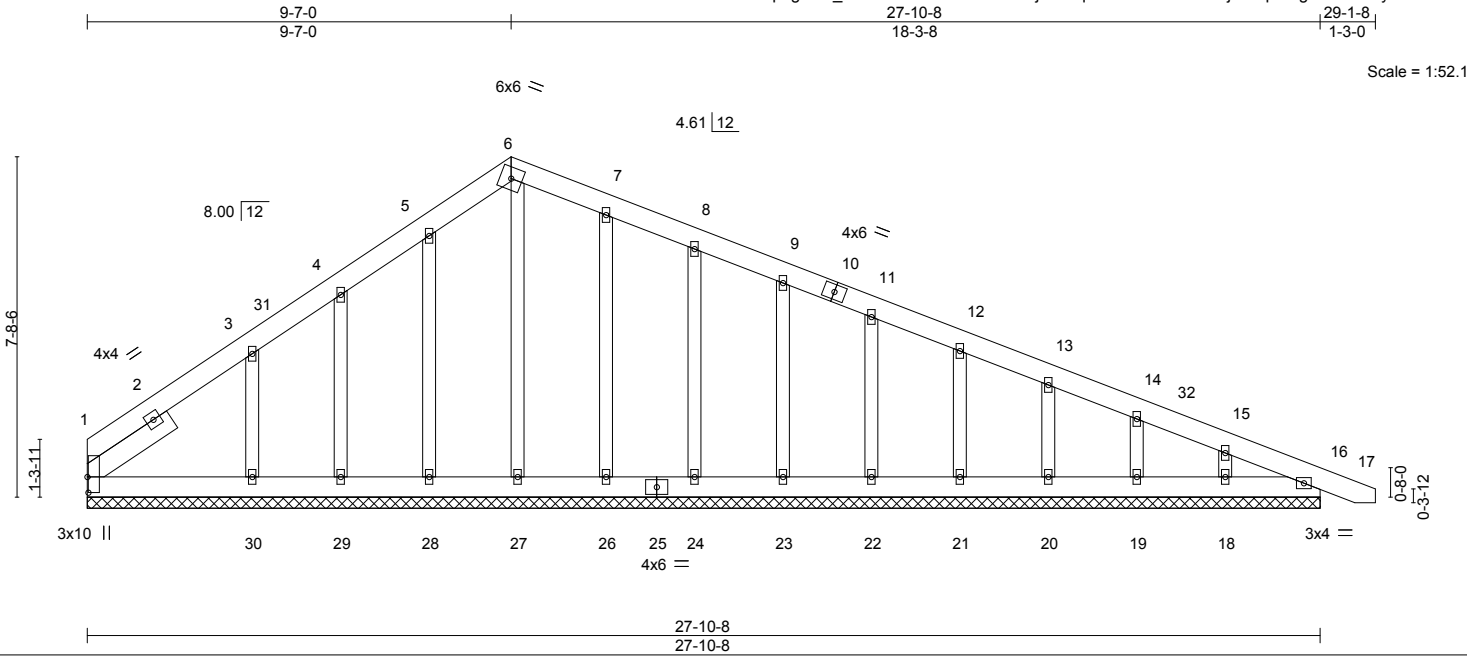


Plate Offsets (X,Y)-- [1:0-4-4,0-0-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	16	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	16	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code IRC2021/TPI2014		Matrix-S							Weight: 215 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
SLIDER Left 2x6 SP No.1 2-3-13

BRACING-

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

REACTIONS.

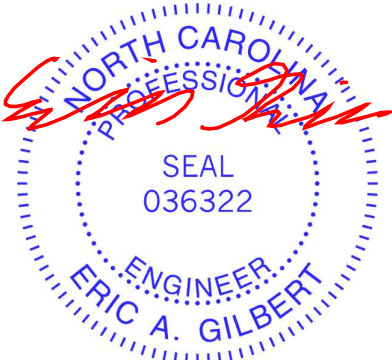
All bearings 27-10-8.
(lb) - Max Horz 1=-260(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 28, 29, 26, 24, 23, 22, 21, 20, 19, 18, 16 except 30=-206(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 27, 28, 29, 26, 24, 23, 22, 21, 20, 19, 18, 16 except 30=346(LC 19)

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

TOP CHORD 5-6=-129/309, 6-7=-119/293, 7-8=-107/260
WEBS 3-30=-257/344

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-0 to 4-4-13, Exterior(2N) 4-4-13 to 9-7-0, Corner(3R) 9-7-0 to 13-8-12, Exterior(2N) 13-8-12 to 28-10-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 28, 29, 26, 24, 23, 22, 21, 20, 19, 18, 16 except (jt=lb) 30=206.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.



September 16,2025

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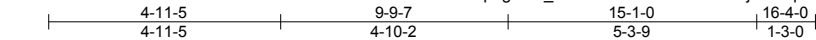
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	D1	ROOF SPECIAL	2	1	176353399
Job Reference (optional)					

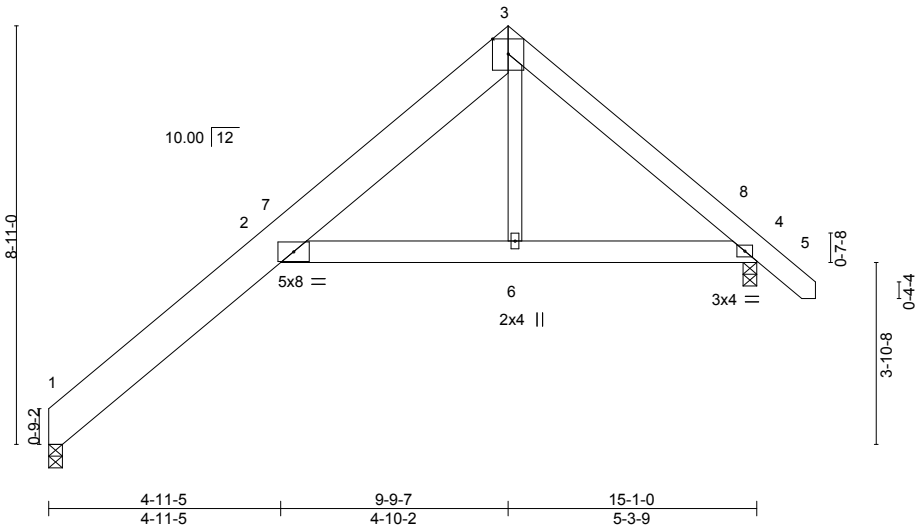
Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:05 2025 Page 1
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8x8 =

Scale = 1:49.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.66	Vert(LL)	-0.15	2	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.30	2	>597	240	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.23	4	n/a	n/a	
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S	Wind(LL)	0.17	2	>999	240	
									Weight: 102 lb FT = 20%

LUMBER-

TOP CHORD 2x10 SP No.1 *Except*
3-5: 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-

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

REACTIONS.

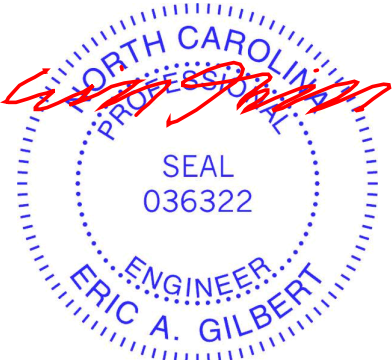
(size) 1=0-3-8, 4=0-3-8
Max Horz 1=179(LC 9)
Max Uplift 1=-6(LC 12), 4=-46(LC 12)
Max Grav 1=610(LC 1), 4=674(LC 1)

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

TOP CHORD 1-2=-394/101, 2-3=-530/224, 3-4=-768/330
BOT CHORD 2-6=-54/550, 4-6=-54/557
WEBS 3-6=0/284

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 9-9-7, Exterior(2R) 9-9-7 to 14-2-4, Interior(1) 14-2-4 to 16-2-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4.



September 16, 2025

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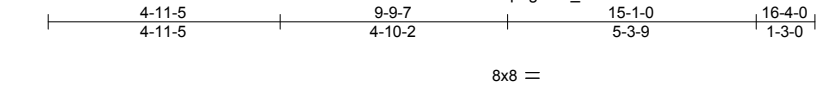
ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	D1SG	GABLE	1	1	176353400
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:06 2025 Page 1
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Scale = 1:49.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.66	Vert(LL)	-0.15	2	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.30	2	>597	240	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.23	4	n/a	n/a	
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S	Wind(LL)	0.22	2	>814	240	
									Weight: 110 lb FT = 20%

LUMBER-

TOP CHORD 2x10 SP No.1 *Except*
3-5: 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 4=0-3-8
Max Horz 1=247(LC 12)
Max Uplift 1=-83(LC 12), 4=-145(LC 12)
Max Grav 1=610(LC 1), 4=674(LC 1)

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

TOP CHORD 1-2=-415/127, 2-3=-530/198, 3-4=-783/302
BOT CHORD 2-6=-93/570, 4-6=-93/577
WEBS 3-6=0/284

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 9-9-7, Exterior(2R) 9-9-7 to 14-2-4, Interior(1) 14-2-4 to 16-2-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 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) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 4=145.



September 16,2025

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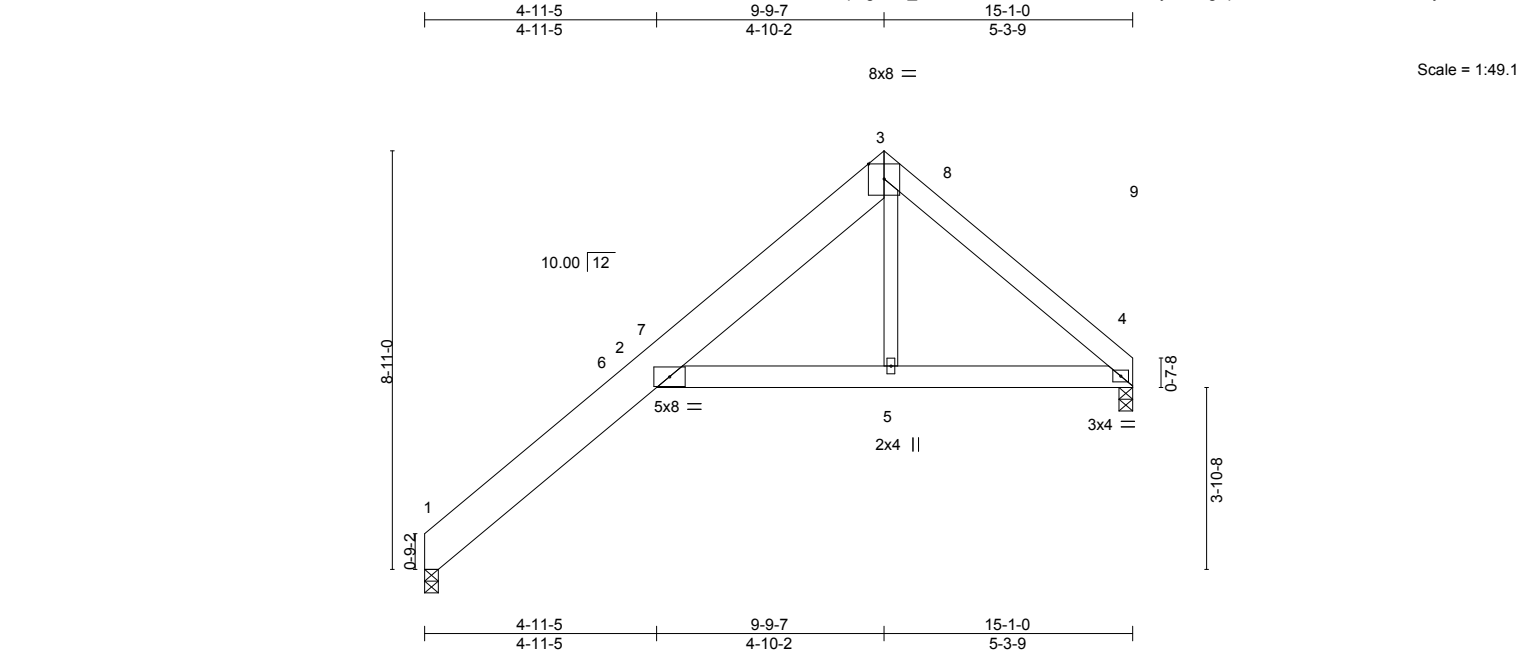
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	D2	ROOF SPECIAL	2	1	I76353401
					Job Reference (optional)

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:06 2025 Page 1

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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	-0.15	2	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.30	2	>594	240	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.24	4	n/a	n/a	
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.16	2	>999	240	
								Weight: 99 lb	FT = 20%

LUMBER-
TOP CHORD 2x10 SP No.1 *Except*
3-4: 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS. (size) 1=0-3-8, 4=0-3-8
Max Horz 1=191(LC 9)
Max Uplift 1=-3(LC 12), 4=-47(LC 12)
Max Grav 1=613(LC 1), 4=596(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-391/85, 2-3=-540/159, 3-4=-774/241
BOT CHORD 2-5=-71/542, 4-5=-70/549
WEBS 3-5=0/287

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 9-9-7, Exterior(2) 9-9-7 to 14-2-4, Interior(1) 14-2-4 to 14-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4.

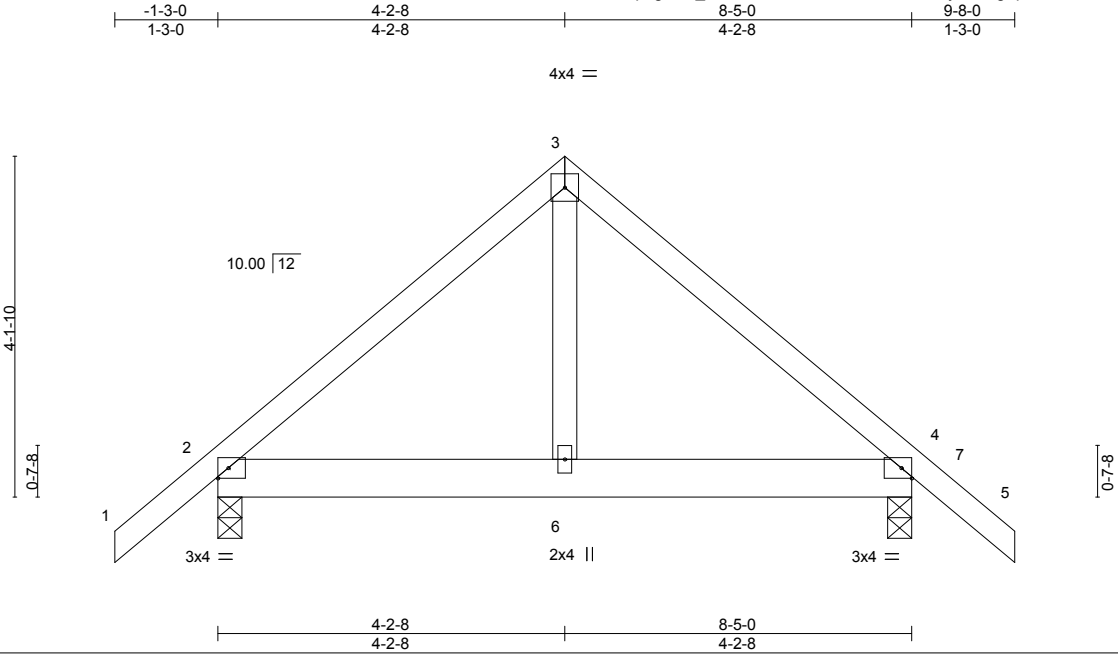


September 16,2025

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	G1	COMMON	3	1	176353402
Job Reference (optional)					

Comtech, Inc. Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:06 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-cvo4?kry1fichfgtqJOVW0GcGiAwJlLKJbBnf?ydR9B



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 0.29	Vert(LL)	-0.00	6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01	2-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P	Wind(LL)	0.00	6	>999	240	Weight: 46 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=-109(LC 10)
Max Uplift 2=-34(LC 12), 4=-34(LC 13)
Max Grav 2=409(LC 1), 4=409(LC 1)

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

TOP CHORD 2-3=-321/119, 3-4=-321/120

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-3-0 to 3-1-13, Interior(1) 3-1-13 to 4-2-8, Exterior(2R) 4-2-8 to 8-7-5, Interior(1) 8-7-5 to 9-8-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



September 16,2025

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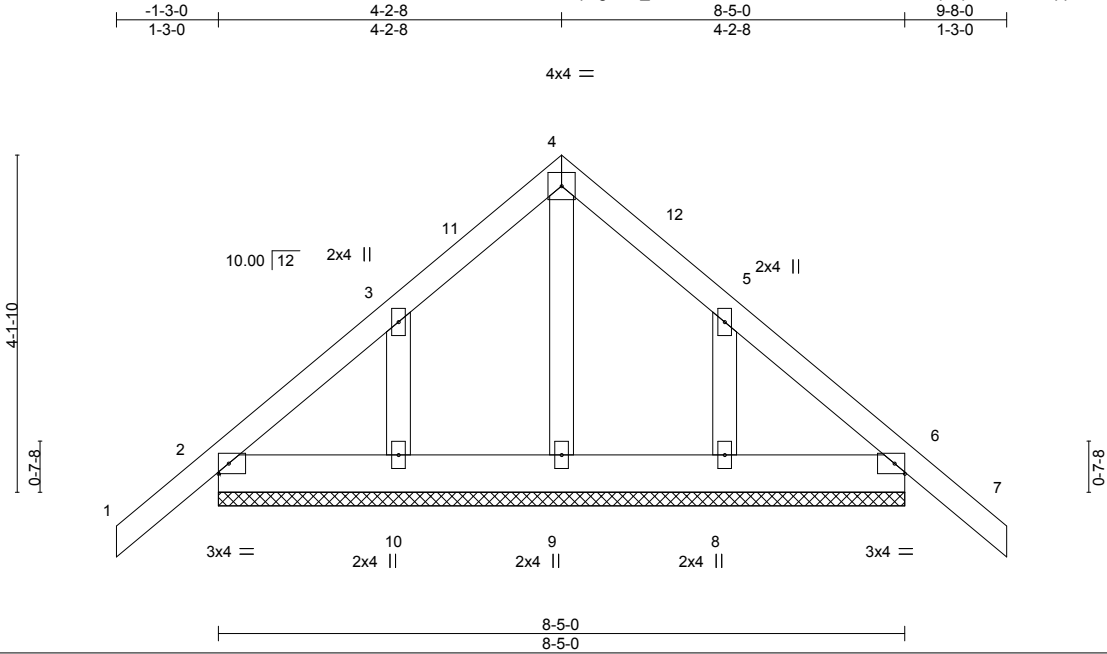
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	G1GE	GABLE	1	1	176353403
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:07 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-45MTD4saozqTJpF4O1wk3DppV6VI2AXUYFwKBRYdR9A



Scale = 1:28.3

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 0.13	Vert(LL)	-0.00	7	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.01	7	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-P						Weight: 52 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2

BRACING-

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

REACTIONS.

All bearings 8-5-0.
(lb) - Max Horz 2=136(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=133(LC 12), 8=131(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

WEBS 3-10=224/277, 5-8=224/275

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-3-0 to 3-1-13, Exterior(2N) 3-1-13 to 4-2-8, Corner(3R) 4-2-8 to 8-5-0, Exterior(2N) 8-5-0 to 9-8-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6 except (jt=lb) 10=133, 8=131.



September 16,2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	M1	MONOPITCH	3	1	176353404
					Job Reference (optional)

Comtech, Inc. Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:07 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-45MTD4saozqTJpF4O1wk3Dpmy6UO2AHUYFwKBRYdR9A



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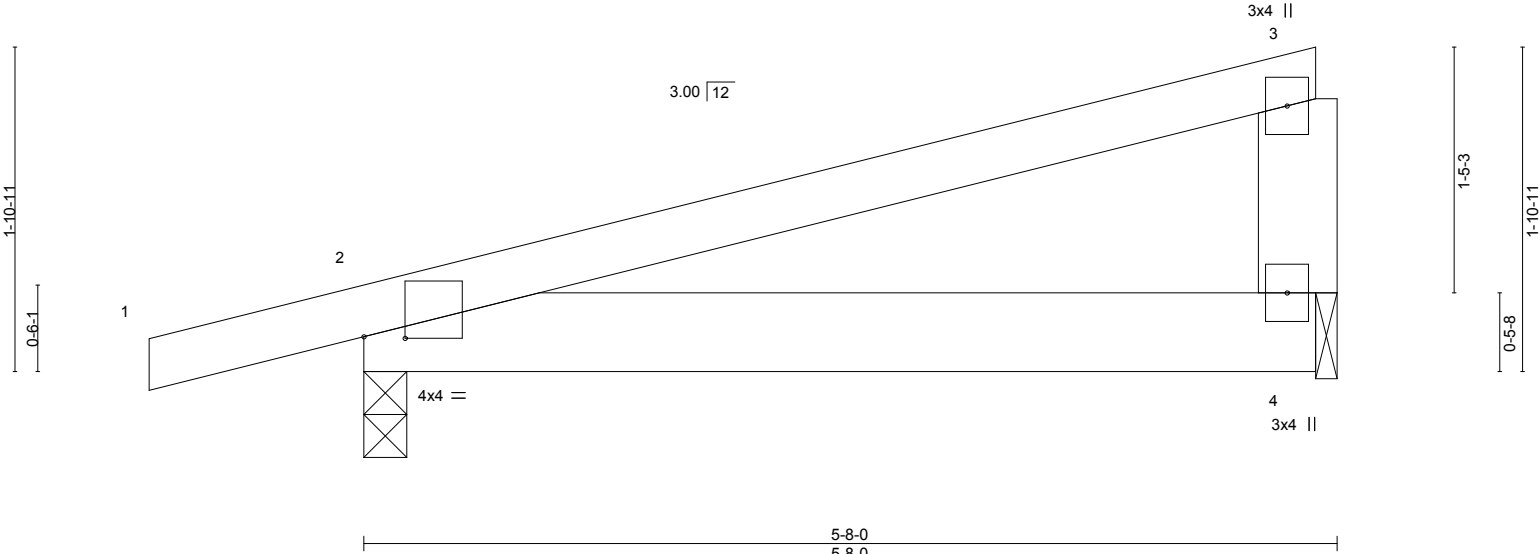


Plate Offsets (X,Y)--		[2:0-2-14,0-0-2]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.		in (loc) l/defl L/d		PLATES GRIP	
TCLL	20.0	Plate Grip DOL 1.15		TC 0.36		Vert(LL) -0.01 2-4		>999 360		MT20 244/190	
TCDL	10.0	Lumber DOL 1.15		BC 0.11		Vert(CT) -0.02 2-4		>999 240			
BCLL	0.0 *	Rep Stress Incr YES		WB 0.00		Horz(CT) 0.00		n/a n/a			
BCDL	10.0	Code IRC2021/TPI2014		Matrix-P		Wind(LL) 0.01 2-4		>999 240		Weight: 26 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 5-8-0 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=57(LC 8)
Max Uplift 2=-132(LC 8), 4=-82(LC 8)
Max Grav 2=306(LC 1), 4=202(LC 1)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-3-0 to 3-1-13, Interior(1) 3-1-13 to 5-5-4 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=132.



September 16,2025

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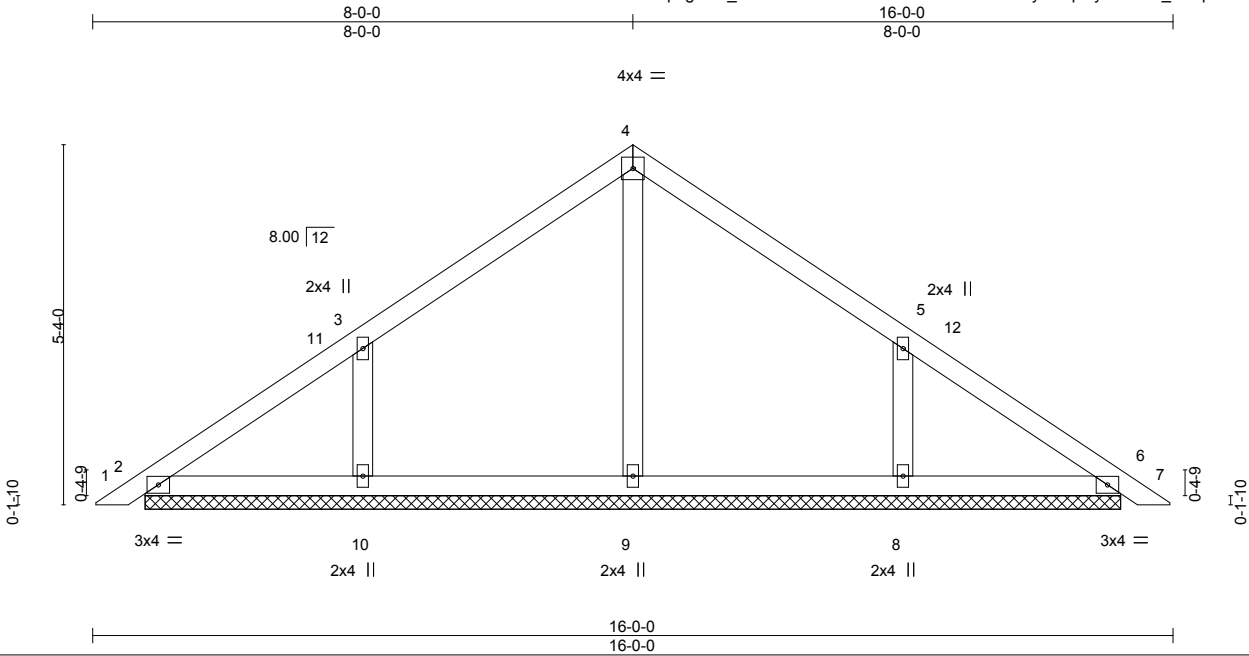
ENGINEERING BY
TRENCO
A MITEK Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	PB	GABLE	5	1	176353406
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:08 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-YHwrQQsCZGyKwzpGyKzBRL_2Wq2ncPdnvguktydR99



Scale = 1:34.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	0.00	6	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	0.00	7	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S						Weight: 63 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 14-5-6.
(lb) - Max Horz 2=-123(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2 except 10=-104(LC 12), 8=-104(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 6 except 9=252(LC 1), 10=362(LC 19), 8=362(LC 20)

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

WEBS 3-10=-278/225, 5-8=-277/225

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-7 to 4-8-4, Interior(1) 4-8-4 to 8-0-0, Exterior(2R) 8-0-0 to 12-4-13, Interior(1) 12-4-13 to 15-8-9 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 10=104, 8=104.
- 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



September 16,2025

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ENGINEERING BY
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A MiTek Affiliate

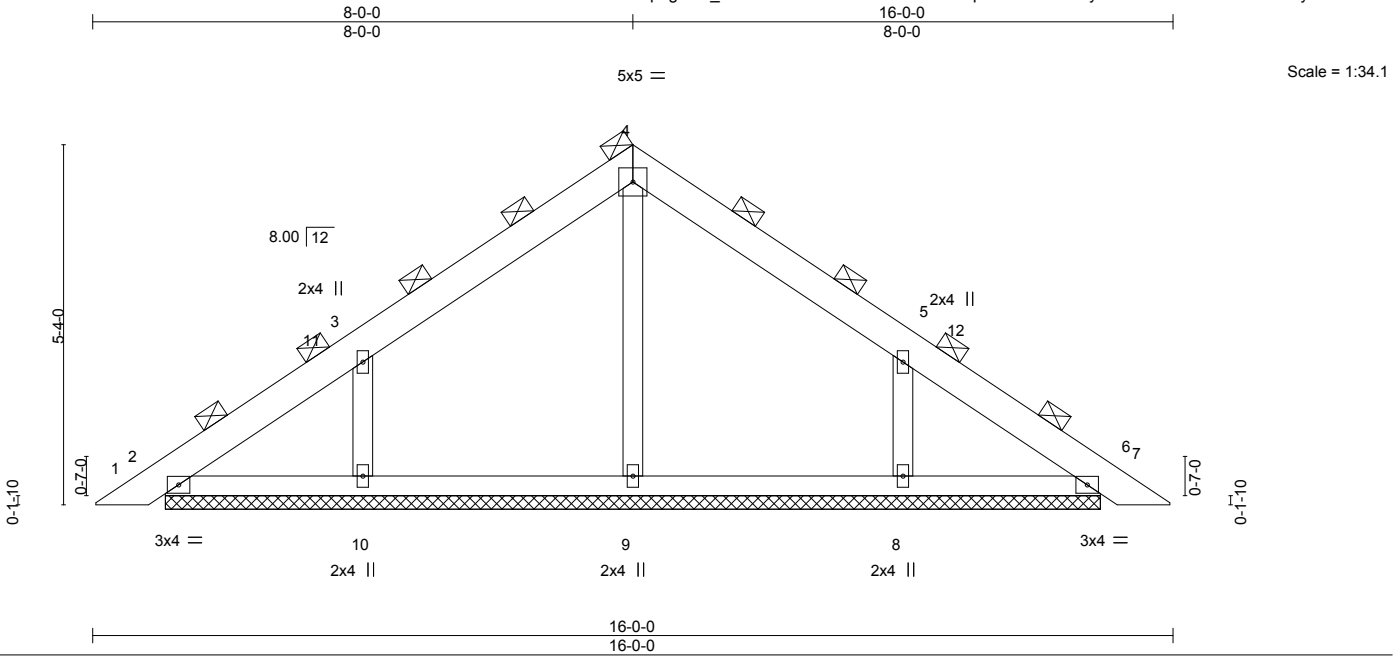
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	PBA	GABLE	2	1	176353407
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:09 2025 Page 1

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LOADING (psf)	SPACING-	5-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	0.00	6	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	0.00	7	n/r	120		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.16	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S						Weight: 77 lb	FT = 20%

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

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 13-10-3.
(lb) - Max Horz 2=302(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2 except 10=253(LC 12), 8=249(LC 13)
Max Grav All reactions 250 lb or less at joint(s) except 2=390(LC 1), 6=390(LC 1), 9=616(LC 1), 10=863(LC 19), 8=857(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-327/230, 3-4=-350/358, 4-5=-316/351
WEBS 4-9=-411/0, 3-10=-674/548, 5-8=-668/548

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-5-4 to 4-10-1, Interior(1) 4-10-1 to 8-0-0, Exterior(2R) 8-0-0 to 12-4-13, Interior(1) 12-4-13 to 15-6-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 10=253, 8=249.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 16,2025

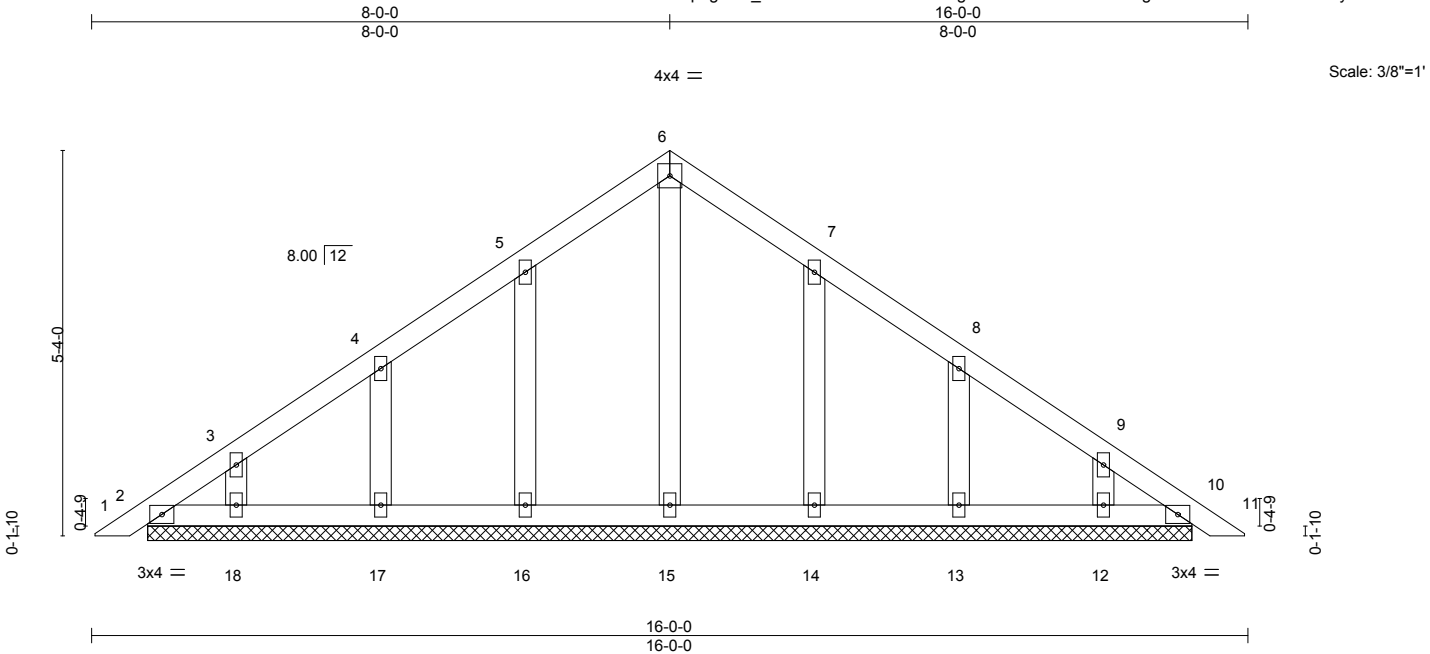
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-A	PGBE	GABLE	1	1	176353408
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 08:57:10 2025 Page 1
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	-0.00	10	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	10	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	10	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S						Weight: 74 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 14-5-6.
(lb) - Max Horz 2--154(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 16, 17, 18, 14, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 18, 14, 13, 12

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-7 to 4-8-4, Interior(1) 4-8-4 to 8-0-0, Exterior(2R) 8-0-0 to 12-4-13, Interior(1) 12-4-13 to 15-8-9 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 16, 17, 18, 14, 13, 12.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



September 16,2025

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

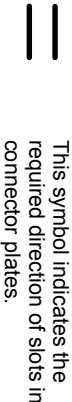
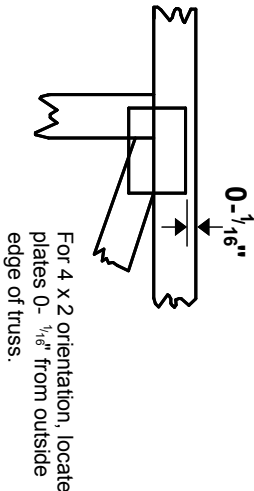
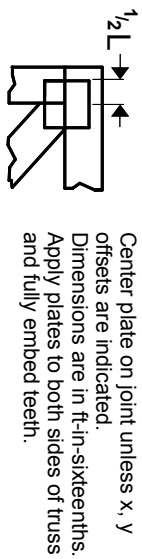
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



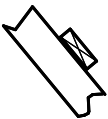
* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

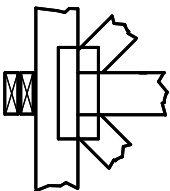
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

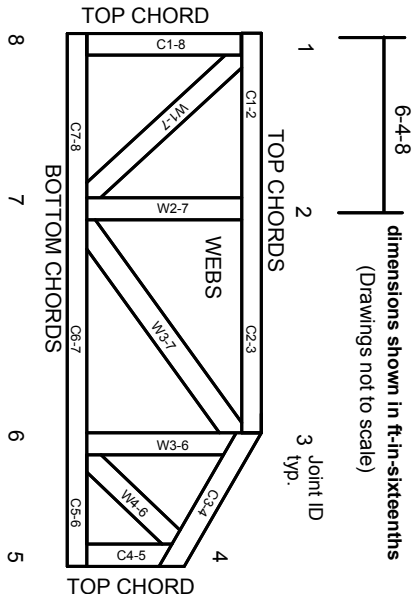
BEARING



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

Industry Standards:
ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:
ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.
Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: 251265-B
Lot 66 Magnolia Hills

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

Pages or sheets covered by this seal: 176353622 thru 176353626

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844



September 15, 2025

Gilbert, Eric

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

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 09:00:45 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-h1XtzcVJSxIYTJvzApqsuBq0j_qE7ibZg9ktqoydR5m

Scale = 1:29.3



NOTES-

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



WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEL REFERENCE PAGE MIT-TR-17-169: 1/2/2023 FOR ONE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

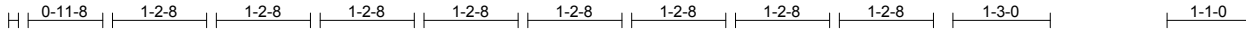
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills	I76353623
251265-B	F1A	FLOOR	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 09:00:46 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-9E5FAyVyDFQO4TU9jWL5RPN6rO8Js1FjvpTQNFydR5I

0-1-8



Scale = 1:29.6

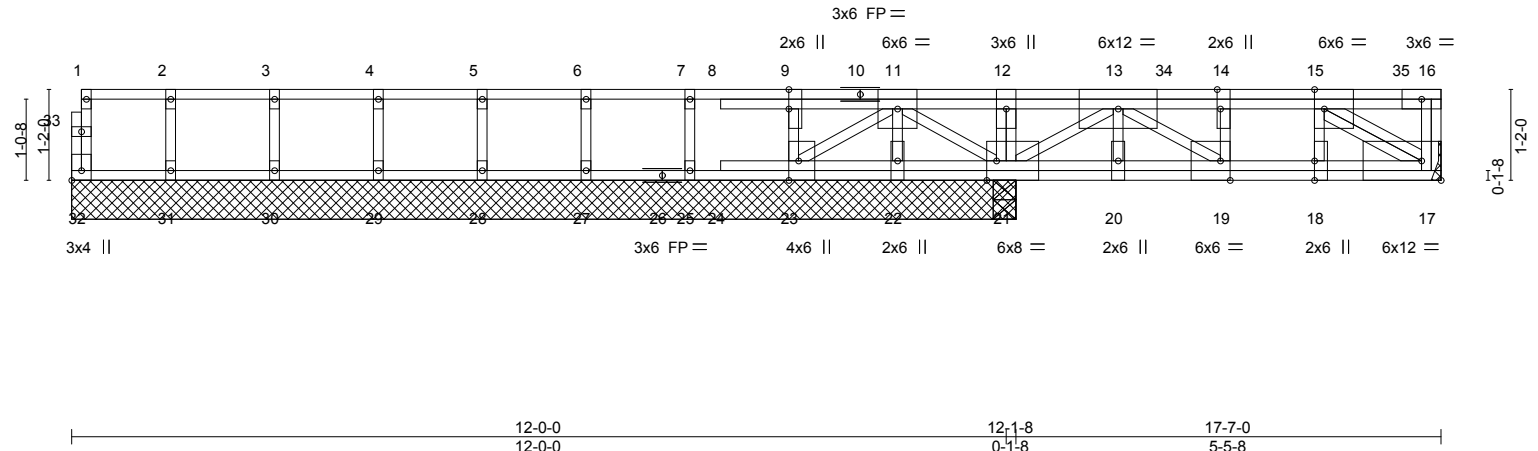


Plate Offsets (X,Y)--											[9:0-3-0,0-0-0], [14:0-3-0,Edge], [15:0-1-8,Edge], [18:0-3-0,0-0-0], [19:0-1-8,Edge], [21:0-1-8,Edge], [23:0-3-0,Edge], [32:Edge,0-1-8]										
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP			
TCLL	40.0	Plate Grip DOL	1.00	TC	0.67	Vert(LL)	-0.02	19-20	>999	480						MT20	244/190				
TCDL	10.0	Lumber DOL	1.00	BC	0.45	Vert(CT)	-0.04	19-20	>999	360											
BCLL	0.0	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.01	17	n/a	n/a											
BCDL	5.0	Code IRC2021/TPI2014		Matrix-S																	
											Weight: 112 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)	
WEBS 2x4 SP No.3(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 22-23,21-22.
REACTIONS.	
All bearings 12-1-8 except (jt=length) 17=Mechanical.	
(lb) - Max Uplift All uplift 100 lb or less at joint(s) except 22=-249(LC 4), 23=-218(LC 4)	
Max Grav All reactions 250 lb or less at joint(s) 32, 22, 23, 25, 27, 28, 29, 30, 31 except 17=3004(LC 4), 21=2701(LC 1), 21=2701(LC 1)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	16-17=-1072/0, 11-12=0/1300, 12-13=0/1300, 13-14=-3063/0, 14-15=-3063/0
BOT CHORD	22-23=-540/0, 21-22=-540/0, 20-21=0/1789, 19-20=0/1789, 18-19=0/3063, 17-18=0/3063
WEBS	11-21=-908/0, 13-21=-3362/0, 13-19=0/1535, 14-19=-837/0, 15-17=-3633/0, 15-18=-243/269, 11-23=0/658, 12-21=-264/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 1.5x3 MT20 unless otherwise indicated.
 - 3) Plates checked for a plus or minus 1 degree rotation about its center.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 249 lb uplift at joint 22 and 218 lb uplift at joint 23.
 - 6) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
Concentrated Loads (lb)
Vert: 15=-1299 34=-1299 35=-1250
2) Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100



Continued on page 2

September 15,2025

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-B	F1A	FLOOR	1	1	I76353623
Job Reference (optional)					

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 09:00:46 2025 Page 2
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-9E5FAyVyDFQO4TU9jWL5RPN6rO8Js1FjvpTQNFydR5I

- LOAD CASE(S)** Standard
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-140, 16-35=-20
- Concentrated Loads (lb)
- Vert: 15=-390 34=-390 35=-341
- 4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-20, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-140, 16-35=-20
- Concentrated Loads (lb)
- Vert: 15=-390 34=-390 35=-341
- 6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-20, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 7) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 8) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 9) 3rd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 10) 4th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 11) 5th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 12) 6th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 13) 7th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 14) 8th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 15) 9th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 16) 10th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 17) 11th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100

Continued on page 3

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

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



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-B	F1A	FLOOR	1	1	I76353623
Job Reference (optional)					

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 09:00:46 2025 Page 3
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-9E5FAyVyDFQO4TU9jWL5RPN6rO8Js1FjvpTQNFydR5I

LOAD CASE(S) Standard

- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 18) 12th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 19) 13th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 20) 14th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 21) 15th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-15=-220, 15-35=-140, 16-35=-20
- Concentrated Loads (lb)
- Vert: 15=-390 34=-1299 35=-341
- 22) 16th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-14=-140, 14-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-390 35=-1250
- 23) 17th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 24) 18th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 25) 19th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 26) 20th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 27) 21st chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 28) 22nd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 29) 23rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 30) 24th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 31) 25th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 32) 26th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100

Continued on page 4

 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 66 Magnolia Hills
251265-B	F1A	FLOOR	1	1	I76353623
Job Reference (optional)					

- LOAD CASE(S)** Standard
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 33) 27th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 34) 28th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 35) 29th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 36) 30th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-1299 35=-1250
- 37) 31st chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-15=-220, 15-35=-140, 16-35=-20
- Concentrated Loads (lb)
- Vert: 15=-390 34=-1299 35=-341
- 38) 32nd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)
- Vert: 17-32=-10, 1-12=-100, 12-14=-140, 14-35=-220, 16-35=-100
- Concentrated Loads (lb)
- Vert: 15=-1299 34=-390 35=-1250

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

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



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-B	F2	FLOOR	3	1	I76353624
Comtech, Inc. Fayetteville, NC - 28314,					
25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 09:00:46 2025 Page 1					
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-9E5FAyVyDFQO4TU9jWL5RPN9vO4fs6jvpTQNFydR5I					
Job Reference (optional)					

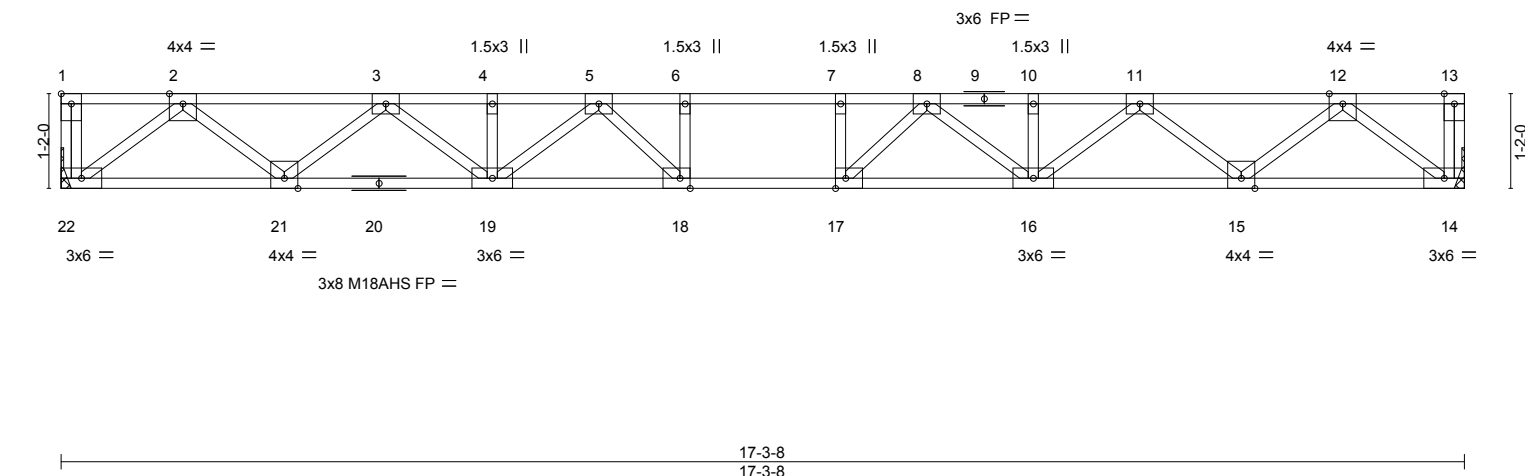
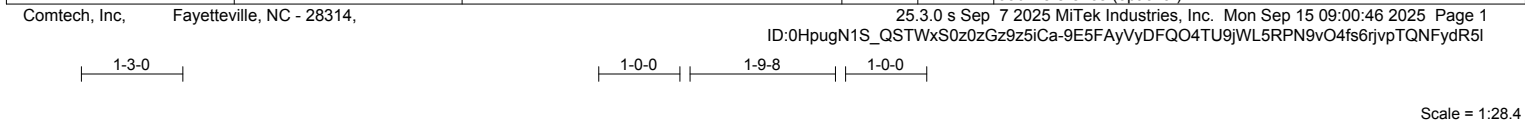


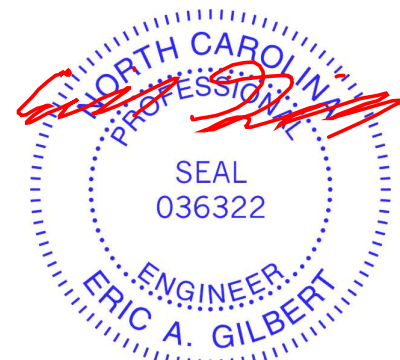
Plate Offsets (X,Y)-- [1:Edge,0-1-8], [17:0-1-8,Edge], [18:0-1-8,Edge]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.47	in (loc)	l/defl	MT20	GRIP
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(LL)	-0.25 17-18 >821 480	M18AHS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.49	Vert(CT)	-0.34 17-18 >597 360		186/179
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S		Horz(CT)	0.06 14 n/a n/a		
								Weight: 89 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) 22=Mechanical, 14=Mechanical
Max Grav 22=937(LC 1), 14=937(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1961/0, 3-4=-3242/0, 4-5=-3242/0, 5-6=-3793/0, 6-7=-3793/0, 7-8=-3793/0, 8-10=-3242/0, 10-11=-3242/0, 11-12=-1961/0
BOT CHORD 21-22=0/1169, 19-21=0/2719, 18-19=0/3607, 17-18=0/3793, 16-17=0/3607, 15-16=0/2719, 14-15=0/1169
WEBS 2-22=-1467/0, 2-21=0/1031, 3-21=-986/0, 3-19=0/668, 12-14=-1467/0, 12-15=0/1031, 11-15=-986/0, 11-16=0/668, 5-19=-466/0, 8-16=-466/0, 8-17=-99/572, 7-17=-301/10, 5-18=-99/572, 6-18=-301/10

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) Refer to girder(s) for truss to truss connections.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
Strongbacks to be attached to walls at their outer ends or restrained by other means.

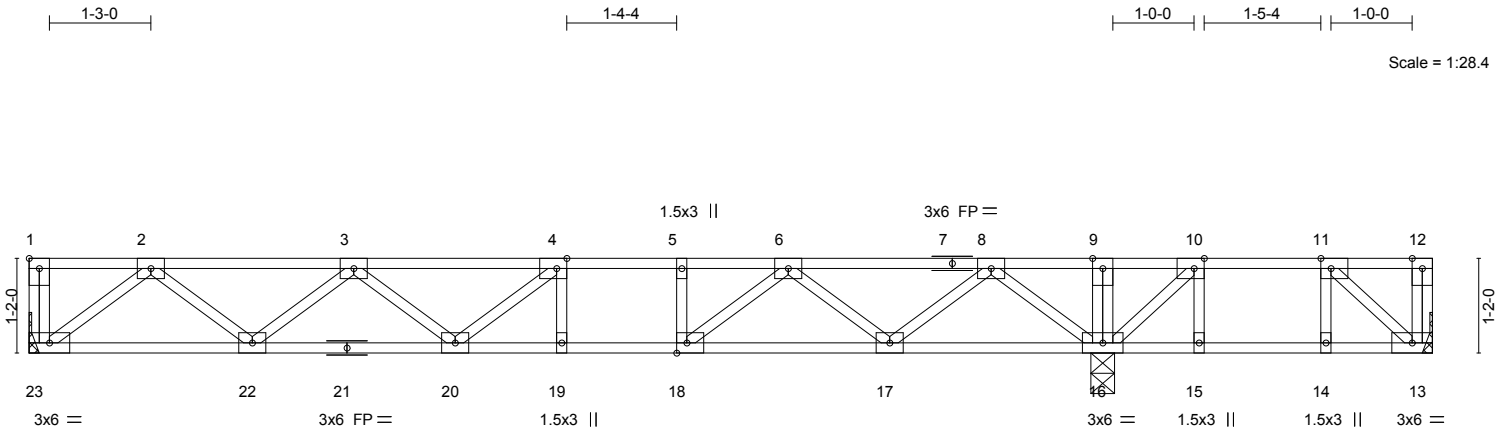


September 15, 2025

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills	I76353625
251265-B	F3	FLOOR	6	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 09:00:47 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-eQfdOIWa_ZYFid3MHESKzcwMEoRKbbEs8TD_vhydR5k



Scale = 1:28.4

Plate Offsets (X,Y)--		[1:Edge,0-1-8], [4:0-1-8,Edge], [10:0-1-8,Edge], [11:0-1-8,Edge], [18:0-1-8,Edge]	
LOADING (psf)		SPACING- 2-0-0	
TCLL	40.0	Plate Grip DOL	1.00
TCDL	10.0	Lumber DOL	1.00
BCLL	0.0	Rep Stress Incr	YES
BCDL	5.0	Code	IRC2021/TPI2014
CSI.		DEFL.	
TC		in (loc) l/defl L/d	
BC		Vert(LL) -0.11 19-20 >999 480	
WB		Vert(CT) -0.15 19-20 >999 360	
Matrix-S		Horz(CT) 0.03 16 n/a n/a	
PLATES		GRIP	
MT20		244/190	
Weight: 90 lb		FT = 20%F, 11%E	

LUMBER-

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

BRACING-

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

REACTIONS. (size) 23=Mechanical, 13=Mechanical, 16=0-3-8
Max Uplift 13=-63(LC 3)
Max Grav 23=686(LC 10), 13=180(LC 4), 16=1100(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1338/0, 3-4=-1948/0, 4-5=-1992/0, 5-6=-1992/0, 6-8=-1059/0, 8-9=0/507, 9-10=0/507
BOT CHORD 22-23=0/829, 20-22=0/1819, 19-20=0/1992, 18-19=0/1992, 17-18=0/1617, 16-17=0/498
WEBS 2-23=-1041/0, 2-22=0/662, 3-22=-626/0, 8-16=-1167/0, 8-17=0/740, 6-17=-739/0, 6-18=0/605, 10-16=-560/0

NOTES-

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x4 MT20 unless otherwise indicated.
- Plates checked for a plus or minus 1 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 13.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.



September 15, 2025

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
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills	I76353626
251265-B	F4	FLOOR	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

25.3.0 s Sep 7 2025 MiTek Industries, Inc. Mon Sep 15 09:00:47 2025 Page 1
ID:0HpugN1S_QSTWxS0z0zGz9z5iCa-eQfdOIWa_ZYFid3MHESKzcwLfoRHbZcs8TD_vhydR5k

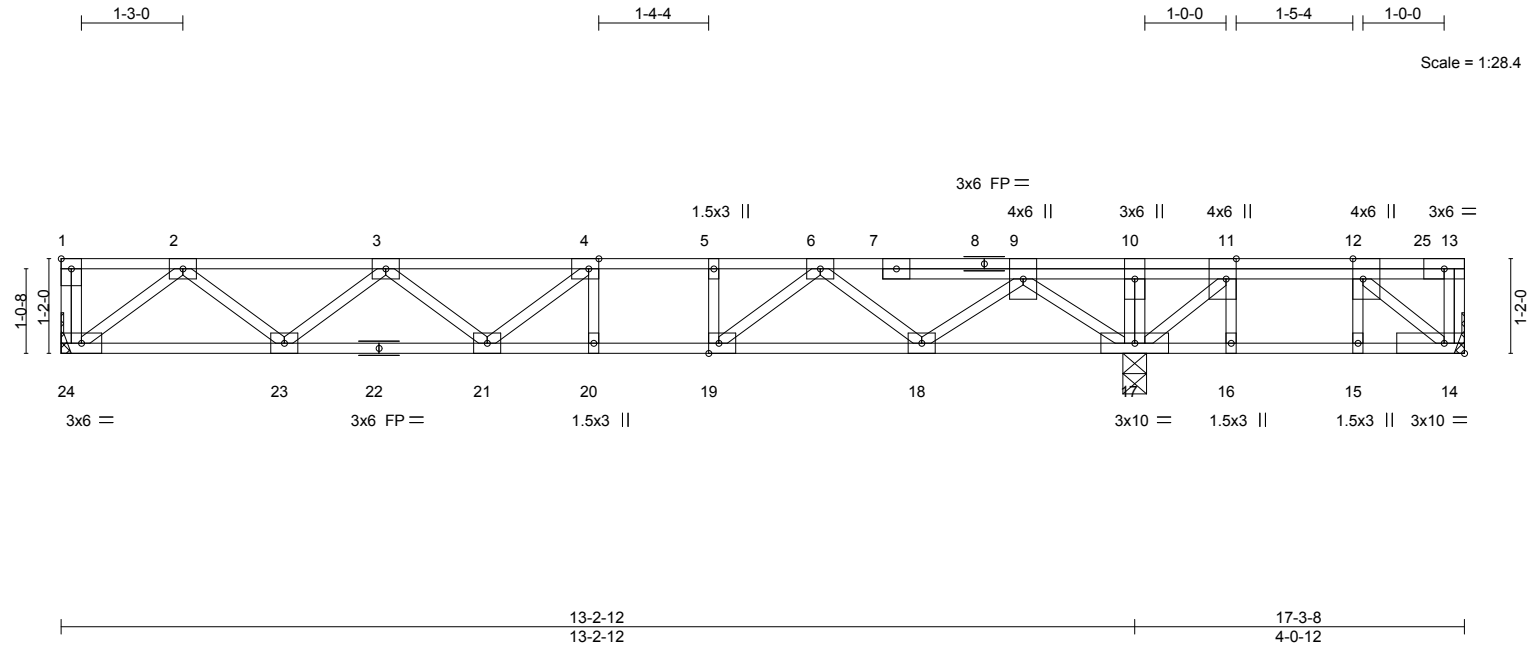


Plate Offsets (X,Y)--		[1:Edge,0-1-8], [4:0-1-8,Edge], [11:0-3-0,Edge], [12:0-3-0,Edge], [19:0-1-8,Edge]	
LOADING (psf)		SPACING-	
TCLL 40.0		2-0-0	
TCDL 10.0		Plate Grip DOL 1.00	
BCLL 0.0		Lumber DOL 1.00	
BCDL 5.0		Rep Stress Incr NO	
		Code IRC2021/TPI2014	
		CSI.	
		TC 0.41	
		BC 0.66	
		WB 0.46	
		Matrix-S	
		DEFL.	
		in (loc) l/defl L/d	
		Vert(LL) -0.10 20-21 >999 480	
		Vert(CT) -0.13 20-21 >999 360	
		Horz(CT) 0.03 14 n/a n/a	
		PLATES GRIP	
		MT20 244/190	
		Weight: 99 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 No.1(flat)		BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.	
WEBS 2x4 SP No.3(flat)			

REACTIONS.		(size) 24=Mechanical, 14=Mechanical, 17=0-3-8
		Max Grav 24=700(LC 10), 14=2508(LC 4), 17=1748(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 13-14=-1282/0, 2-3=-1374/0, 3-4=-2016/0, 4-5=-2093/0, 5-6=-2093/0, 6-9=-1230/0, 9-10=-296/671, 10-11=-295/671, 11-12=-1522/0	
BOT CHORD 23-24=0/848, 21-23=0/1871, 20-21=0/2093, 19-20=0/2093, 18-19=0/1719, 17-18=0/695, 16-17=0/1522, 15-16=0/1522, 14-15=0/1522	
WEBS 2-24=-1064/0, 2-23=0/684, 3-23=-647/0, 3-21=0/282, 9-17=-1207/0, 9-18=0/736, 6-18=-707/0, 6-19=0/558, 4-21=-284/37, 12-14=-1972/0, 11-17=-1955/0	

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) Refer to girder(s) for truss to truss connections.	
5) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.	
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.	
7) CAUTION, Do not erect truss backwards.	

LOAD CASE(S) Standard	
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00	
Uniform Loads (plf)	
Vert: 1-10=-100, 10-25=-220, 13-25=-100, 14-24=-10	
Concentrated Loads (lb)	
Vert: 12=-1250 25=-1250	
2) Dead: Lumber Increase=1.00, Plate Increase=1.00	
Uniform Loads (plf)	
Vert: 1-10=-100, 10-25=-220, 13-25=-100, 14-24=-10	
Concentrated Loads (lb)	
Vert: 12=-1250 25=-1250	
3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00	



September 15, 2025

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Lot 66 Magnolia Hills
251265-B	F4	FLOOR	1	1	I76353626
Job Reference (optional)					

- LOAD CASE(S)**
Standard
- Uniform Loads (plf)

Vert: 1-10=-100, 10-25=-140, 13-25=-20, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-341 25=-341
- 4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)

Vert: 1-10=-20, 10-25=-220, 13-25=-100, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-1250 25=-1250
- 5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)

Vert: 1-10=-100, 10-25=-140, 13-25=-20, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-341 25=-341
- 6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)

Vert: 1-10=-20, 10-25=-220, 13-25=-100, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-1250 25=-1250
- 7) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)

Vert: 1-5=-100, 5-10=-20, 10-25=-220, 13-25=-100, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-1250 25=-1250
- 8) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)

Vert: 1-4=-20, 4-10=-100, 10-25=-220, 13-25=-100, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-1250 25=-1250
- 9) 3rd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)

Vert: 1-10=-100, 10-12=-220, 12-25=-140, 13-25=-20, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-1250 25=-341
- 10) 4th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)

Vert: 1-10=-100, 10-11=-140, 11-25=-220, 13-25=-100, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-1250 25=-1250
- 11) 5th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)

Vert: 1-5=-100, 5-10=-20, 10-25=-220, 13-25=-100, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-1250 25=-1250
- 12) 6th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)

Vert: 1-4=-20, 4-10=-100, 10-25=-220, 13-25=-100, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-1250 25=-1250
- 13) 7th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)

Vert: 1-10=-100, 10-12=-220, 12-25=-140, 13-25=-20, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-1250 25=-341
- 14) 8th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
- Uniform Loads (plf)

Vert: 1-10=-100, 10-11=-140, 11-25=-220, 13-25=-100, 14-24=-10
- Concentrated Loads (lb)

Vert: 12=-1250 25=-1250


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

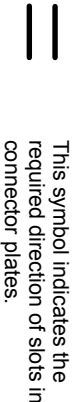
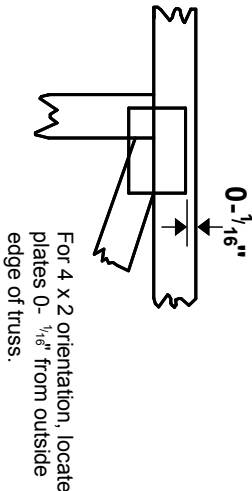
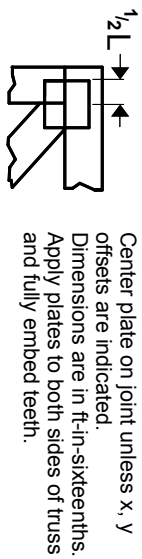
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.sbcacompoments.com)



818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

4 X 4

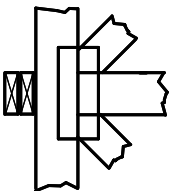
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

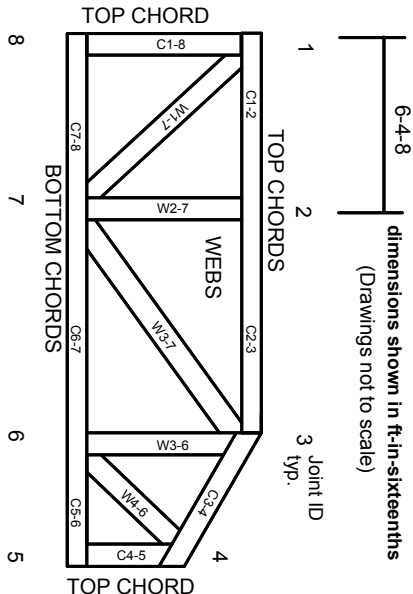
BEARING



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

Industry Standards:
ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:
ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.
Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

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



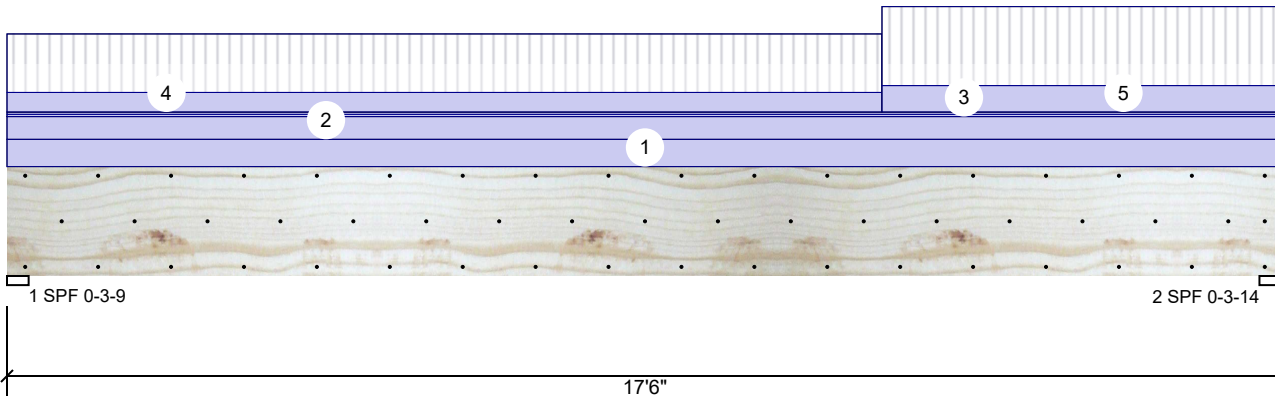
Client: Precision Custom Homes
Project:
Address:

Date: 9/15/2025
Input by: Neil Baggett
Job Name: Lot 66 Magnolia Hills
Project #:

Page 1 of 10

BM1 Kerto-S LVL 1.750" X 18.000" 2-Ply - PASSED

Level: Level



Member Information

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

Application: Floor
Design Method: ASD
Building Code: IBC/IRC 2015
Load Sharing: No
Deck: Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2318	2907	87	0	0
2	Vertical	2674	3033	88	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.563"	Vert	99%	2907 / 2318	5226	L	D+L
2 - SPF	3.875"	Vert	99%	3033 / 2674	5707	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	22105 ft-lb	8'10 13/16"	42981 ft-lb	51%	D+L	L
Unbraced	22105 ft-lb	8'10 13/16"	42981 ft-lb	51%	D+L	L
Shear	4418 lb	15'8 1/8"	13440 lb	33%	D+L	L
LL Defl inch	0.172 (L/1190)	8'9 15/16"	0.426 (L/480)	40%	L	L
TL Defl inch	0.381 (L/536)	8'9 1/2"	0.568 (L/360)	67%	D+L	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings.
- Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on bottom edge only and across their full width.
- Top loads must be supported equally by all plies.
- Top must be continuously laterally braced.
- Bottom must be laterally braced at 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 Above
2	Uniform			Top	100 PLF	0 PLF	0 PLF	0 PLF	0 PLF	C2GE
3	Tie-In	0-0-0 to 17-6-0	0-6-0	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	Roof Load
4	Part. Uniform	0-0-0 to 12-0-0		Top	86 PLF	257 PLF	0 PLF	0 PLF	0 PLF	F3
5	Part. Uniform	12-0-0 to 17-6-0		Top	116 PLF	347 PLF	0 PLF	0 PLF	0 PLF	F2
	Self Weight				14 PLF					

Notes

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Lumber

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

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

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

Manufacturer Info

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

Comtech, Inc.
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28314
910-864-TRUS





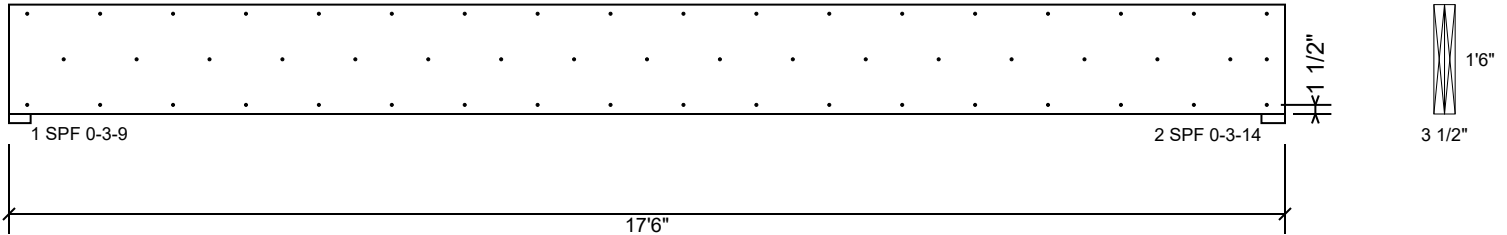
Client: Precision Custom Homes
Project:
Address:

Date: 9/15/2025
Input by: Neil Baggett
Job Name: Lot 66 Magnolia Hills
Project #:

Page 2 of 10

BM1 Kerto-S LVL 1.750" X 18.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

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

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

Notes

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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

Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
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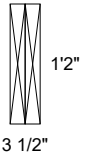
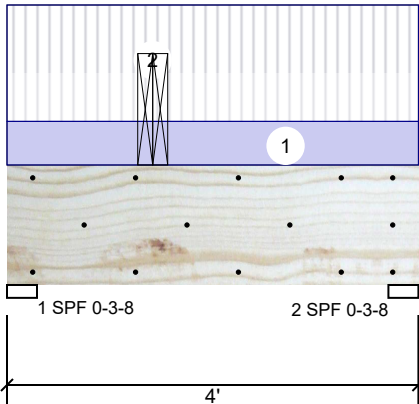
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This design is valid until 2/28/2028

BM2 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Member Information

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

Application: Floor
Design Method: ASD
Building Code: IBC/IRC 2015
Load Sharing: No
Deck: Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	80	1802	1701	0	0
2	Vertical	80	935	858	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	67%	1802 / 1701	3503	L	D+S
2 - SPF	3.500"	Vert	34%	935 / 858	1793	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4133 ft-lb	1'5"	31049 ft-lb	13%	D+S	L
Unbraced	4133 ft-lb	1'5"	31049 ft-lb	13%	D+S	L
Shear	3280 lb	1'5 1/2"	12021 lb	27%	D+S	L
LL Defl inch	0.007 (L/6271)	1'5"	0.089 (L/480)	8%	S	L
TL Defl inch	0.014 (L/3060)	1'5"	0.118 (L/360)	12%	D+S	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings.
- Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on bottom edge only and across their full width.
- Top loads must be supported equally by all plies.
- Top must be continuously laterally braced.
- Bottom must be laterally braced at 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	Tie-In	0-0-0 to 4-0-0	1-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	Floor Load
2	Point	1-5-0		Top	2634 lb	0 lb	2559 lb	0 lb	0 lb	B3 Brg 2
	Bearing Length	0-3-8								
	Self Weight				11 PLF					

Notes

Calculated Structural 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

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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This design is valid until 2/28/2028



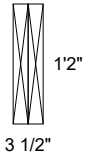
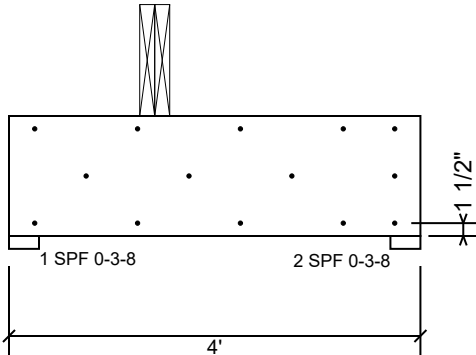
Client: Precision Custom Homes
Project:
Address:

Date: 9/15/2025
Input by: Neil Baggett
Job Name: Lot 66 Magnolia Hills
Project #:

Page 4 of 10

BM2 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

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

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

Notes

Calculated Structural 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 2/28/2028

Manufacturer Info

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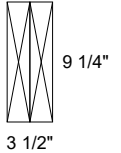
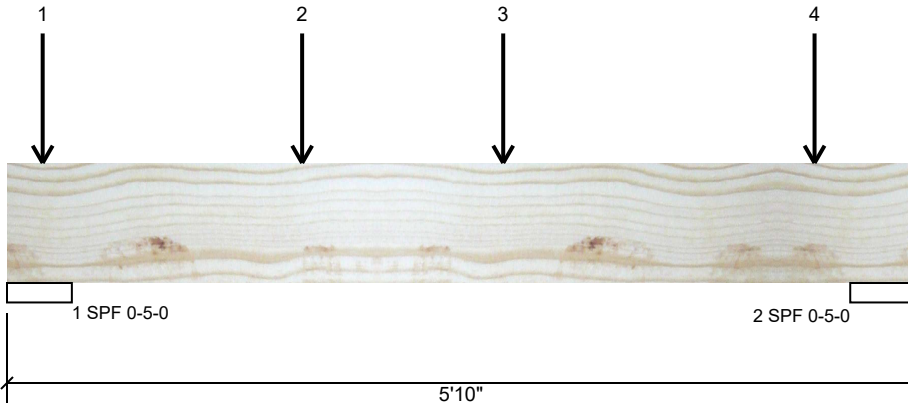
Client: Precision Custom Homes
Project:
Address:

Date: 9/15/2025
Input by: Neil Baggett
Job Name: Lot 66 Magnolia Hills
Project #:

Page 5 of 10

BM3 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: 240
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	0	3107	3086	0	0
2	Vertical	0	2835	2814	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.000"	Vert	83%	3107 / 3086	6193	L	D+S
2 - SPF	5.000"	Vert	76%	2835 / 2814	5649	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9142 ft-lb	1'10 3/4"	14423 ft-lb	63%	D+S	L
Unbraced	9142 ft-lb	1'10 3/4"	11505 ft-lb	79%	D+S	L
Shear	5930 lb	1'2 1/4"	7943 lb	75%	D+S	L
LL Defl inch	0.058 (L/1065)	2'8 7/16"	0.128 (L/480)	45%	S	L
TL Defl inch	0.116 (L/531)	2'8 7/16"	0.256 (L/240)	45%	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Girders are designed to be supported on bottom edge only and across their full width.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at end bearings.
- 6 Bottom must be laterally braced at end bearings.
- 7 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	0-2-12		Top	127 lb	0 lb	127 lb	0 lb	0 lb	A2
	Bearing Length	0-3-8								
2	Point	1-10-12		Top	3363 lb	0 lb	3363 lb	0 lb	0 lb	A1-GR
	Bearing Length	0-3-8								
3	Point	3-2-4		Top	1205 lb	0 lb	1205 lb	0 lb	0 lb	A1
	Bearing Length	0-3-8								
4	Point	5-2-4		Top	1205 lb	0 lb	1205 lb	0 lb	0 lb	A1

Continued on page 2...

Notes

Calculated Structural 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 2/28/2028

Manufacturer Info

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

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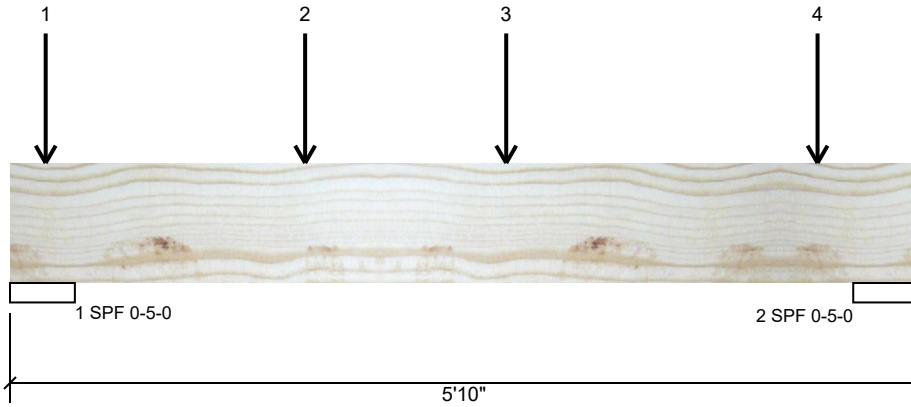
Client: Precision Custom Homes
Project:
Address:

Date: 9/15/2025
Input by: Neil Baggett
Job Name: Lot 66 Magnolia Hills
Project #:

Page 6 of 10

BM3 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

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 2/28/2028

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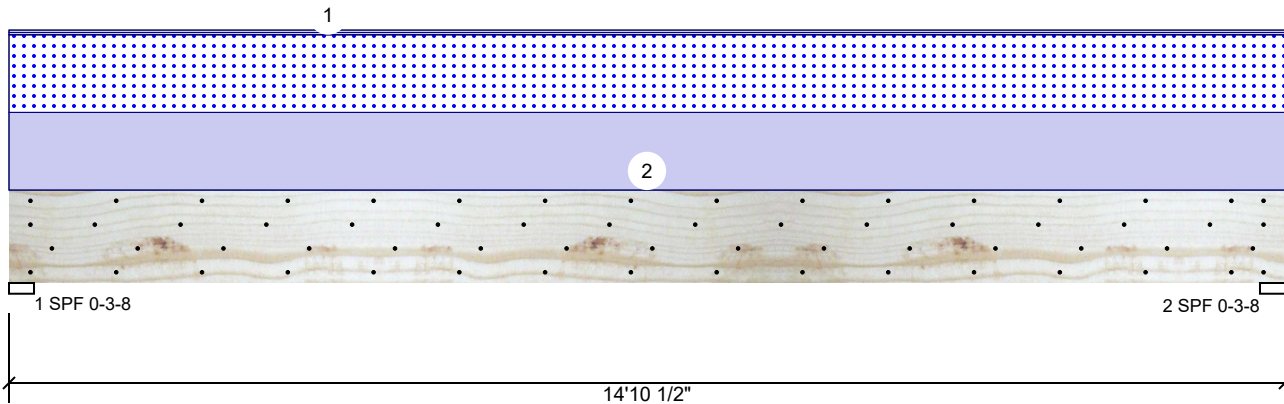
Client: Precision Custom Homes
Project:
Address:

Date: 9/15/2025
Input by: Neil Baggett
Job Name: Lot 66 Magnolia Hills
Project #:

Page 7 of 10

BM4 Kerto-S LVL 1.750" X 13.000" 2-Ply - PASSED

Level: Level



Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 360
Deflection TL: 240
Importance: Normal - II
Temperature: Temp <= 100°F

Application: Roof
Slope: 0/12
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	0	2634	2559	0	0
2	Vertical	0	2634	2559	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	100%	2634 / 2559	5192	L	D+S
2 - SPF	3.500"	Vert	100%	2634 / 2559	5192	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	18137 ft-lb	7'5 1/4"	27071 ft-lb	67%	D+S	L
Unbraced	18137 ft-lb	7'5 1/4"	27071 ft-lb	67%	D+S	L
Shear	4978 lb	13'6"	11163 lb	45%	D+S	L
LL Defl inch	0.284 (L/610)	7'5 5/16"	0.481 (L/360)	59%	S	L
TL Defl inch	0.575 (L/301)	7'5 5/16"	0.721 (L/240)	80%	D+S	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings.
- Fasten all plies using 4 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 bottom edge only and across their full width.
- Top must be continuously laterally braced.
- Bottom must be laterally braced at 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	Tie-In	0-0-0 to 14-10-8	0-6-0	Near Face	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	Roof Load
2	Uniform			Far Face	334 PLF	0 PLF	334 PLF	0 PLF	0 PLF	C2
	Self Weight				10 PLF					

Notes

Calculated Structural 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

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

- For flat roofs provide proper drainage to prevent ponding

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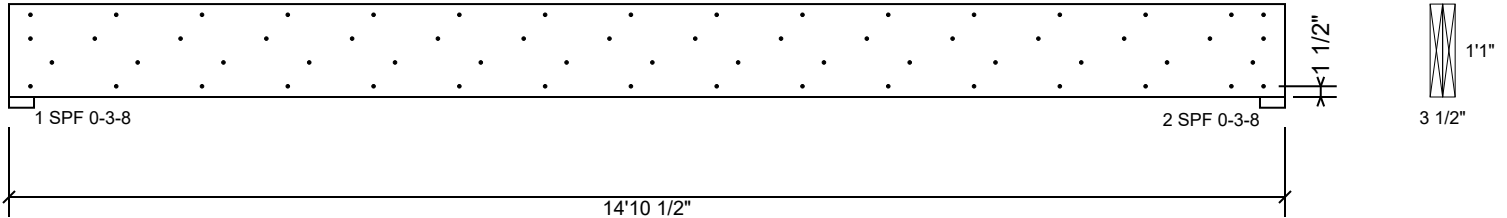
Client: Precision Custom Homes
Project:
Address:

Date: 9/15/2025
Input by: Neil Baggett
Job Name: Lot 66 Magnolia Hills
Project #:

Page 8 of 10

BM4 Kerto-S LVL 1.750" X 13.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 4 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	88.7 %
Load	334.0 PLF
Yield Limit per Foot	376.5 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

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 2/28/2028

Manufacturer Info

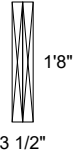
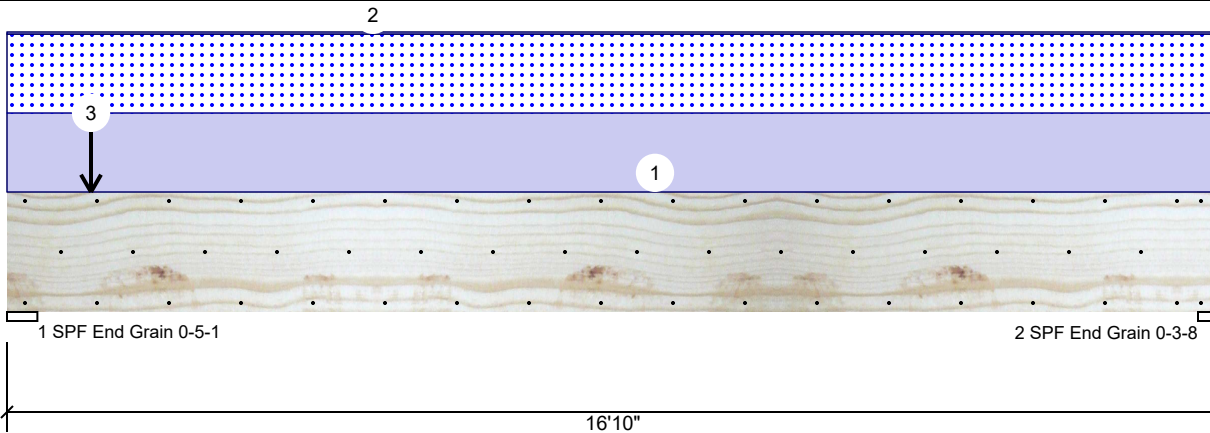
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GDH Kerto-S LVL 1.750" X 20.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Header
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC/IRC 2015
Load Sharing:	No
Header Supports:	No
Glass:	
Deck:	Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	7562	7303	0	0
2	Vertical	0	5273	5017	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	5.063"	Vert	100%	7562 / 7303	14865	L	D+S
2 - SPF End Grain	3.500"	Vert	100%	5273 / 5017	10290	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	41804 ft-lb	8'3 5/16"	60066 ft-lb	70%	D+S	L
Unbraced	41804 ft-lb	8'3 5/16"	60066 ft-lb	70%	D+S	L
Shear	9636 lb	2'1 1/16"	17173 lb	56%	D+S	L
LL Defl inch	0.244 (L/801)	8'4 13/16"	0.542 (L/360)	45%	S	L
TL Defl inch	0.499 (L/391)	8'4 13/16"	0.813 (L/240)	61%	D+S	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings.
- Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Headers are designed to be supported on bottom edge only and across their full width.
- Top loads must be supported equally by all plies.
- Top must be continuously laterally braced.
- Bottom must be laterally braced at 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	586 PLF	0 PLF	586 PLF	0 PLF	0 PLF	A1
2	Uniform			Top	15 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Above
3	Point	1-2-0		Top	2456 lb	0 lb	2456 lb	0 lb	0 lb	A1-GR
	Bearing Length	0-3-8								
	Self Weight				16 PLF					

Notes

Calculated Structural 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

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

- For flat roofs provide proper drainage to prevent ponding

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1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS



This design is valid until 2/28/2028



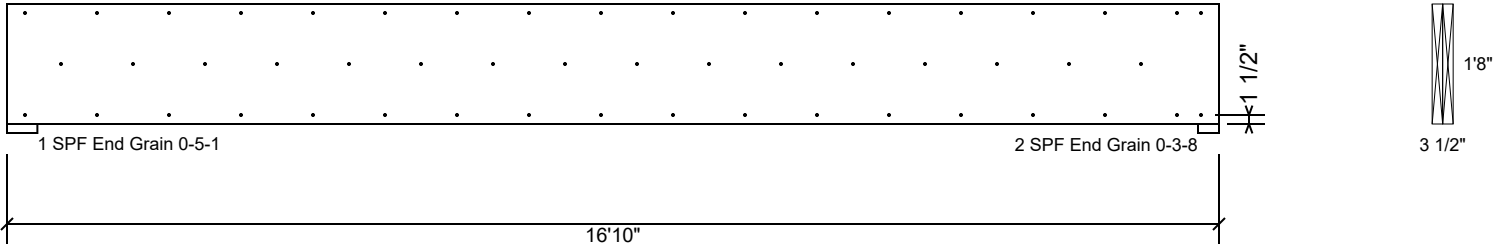
Client: Precision Custom Homes
Project:
Address:

Date: 9/15/2025
Input by: Neil Baggett
Job Name: Lot 66 Magnolia Hills
Project #:

Page 10 of 10

GDH Kerto-S LVL 1.750" X 20.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

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

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

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

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Manufacturer Info

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

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