

RE: 251382-A
Lot 47 Magnolia Hills

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Precision Custom Homes and Renovations Project Name: 251382-A
Lot/Block: 47 Model:
Address: 183 Myrtle Oak Drive Subdivision: Magnolia Hills
City: Cameron State: NC

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

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 25.3
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 27 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I76525545	A1	9/23/2025	21	I76525565	G1	9/23/2025
2	I76525546	A1GE	9/23/2025	22	I76525566	G1GE	9/23/2025
3	I76525547	A2	9/23/2025	23	I76525567	M1	9/23/2025
4	I76525548	A2-GR	9/23/2025	24	I76525568	M2	9/23/2025
5	I76525549	A2SG	9/23/2025	25	I76525569	PB1	9/23/2025
6	I76525550	A3	9/23/2025	26	I76525570	PB1GE	9/23/2025
7	I76525551	A4	9/23/2025	27	I76525571	PB2	9/23/2025
8	I76525552	A4A	9/23/2025				
9	I76525553	A4SG	9/23/2025				
10	I76525554	A5	9/23/2025				
11	I76525555	A6	9/23/2025				
12	I76525556	A6GE	9/23/2025				
13	I76525557	B1	9/23/2025				
14	I76525558	B1GE	9/23/2025				
15	I76525559	B2	9/23/2025				
16	I76525560	B2-GR	9/23/2025				
17	I76525561	C1	9/23/2025				
18	I76525562	C1GE	9/23/2025				
19	I76525563	D1	9/23/2025				
20	I76525564	D1GE	9/23/2025				

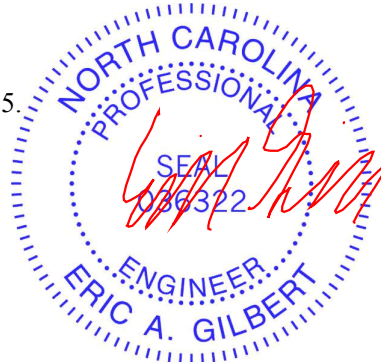
The truss drawing(s) referenced above have been prepared by
Truss Engineering Co. under my direct supervision
based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

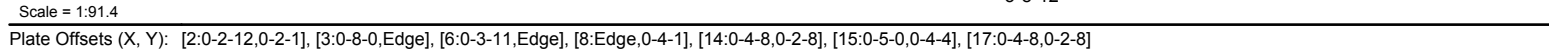
My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844

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



Comtech, Inc, Fayetteville, NC - 28314, Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:02 Page: 1
ID:oZsdJhAH7sgso7cS4ggLwVvqezV-RfC?PsB70Hq3NSgPqnL8w3uiTXbGKWRCDoi7J4zJC?f



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
20-0-15, Exterior(2R) 20-0-15 to 24-7-8, Interior (1)
24-7-8 to 29-2-1, Exterior(2R) 29-2-1 to 33-6-14, Interior
(1) 33-6-14 to 41-3-0 zone; cantilever left exposed ;C-C
for members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60

3) N/A

4) Provide adequate drainage to prevent water ponding.

5) All plates are MT20 plates unless otherwise indicated.

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
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members, with BCDL = 10.0psf.

8) Ceiling dead load (10.0 psf) on member(s). 3-4, 4-5,
5-21, 20-21; Wall dead load (5.0psf) on member
(s).4-17, 14-20

9) Bottom chord live load (40.0 psf) and additional bottom
chord dead load (10.0 psf) applied only to room. 16-17,
14-16

10) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 330 lb uplift at joint
2.

11) Graphical purlin representation does not depict the size
or the orientation of the purlin along the top and/or
bottom chord.

12) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

September 23, 2025

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 Components Association (www.sbcacomponents.com)

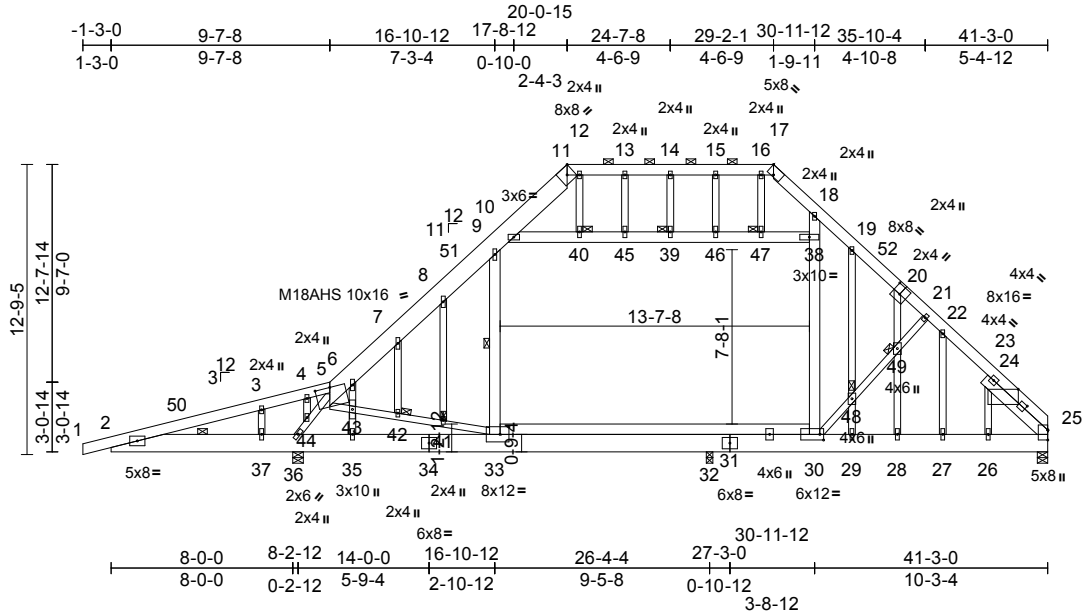
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	176525546
251382-A	A1GE	Attic	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:03
ID:oZsdJhAH7sgso7cS4ggLwVvqezV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:101.5

Plate Offsets (X, Y): [5:0-8-0,Edge], [11:0-3-11,Edge], [17:Edge,0-4-1], [20:0-4-0,0-4-8], [24:1-3-10,1-9-9], [25:1-4-8,0-2-0], [30:0-2-0,0-3-0], [33:0-4-12,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.27	30-33	>829	360	M18AHS 186/179
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.39	30-33	>563	240	MT20 244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.01	25	n/a	n/a	
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	-0.10	33-35	>999	240	Weight: 515 lb FT = 20%

LUMBER	
TOP CHORD	2x6 SP No.1 *Except* 5-11:2x10 SP No.1
BOT CHORD	2x10 SP No.1 *Except* 33-30:2x6 SP 2400F 2.0E
WEBS	2x4 SP No.2 *Except* 9-33,18-30:2x6 SP No.1, 10-38:2x6 SP No.2
OTHERS	2x4 SP No.2
SLIDER	Right 2x6 SP No.2 -- 3-8-9
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 11-17.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-37,36-37 9-5-9 oc bracing: 29-30.
WEBS	1 Row at midpt 9-33
JOINTS	1 Brace at Jt(s): 39, 40, 41, 42, 47, 48, 49 This truss requires both edges of the bottom chord be sheathed in the room area.
REACTIONS	(size) 25=0-5-8, 32=0-3-8, 36=0-5-8 Max Horiz 36=294 (LC 9) Max Uplift 36=89 (LC 12) Max Grav 25=1378 (LC 24), 32=1808 (LC 18), 36=2226 (LC 2)
FORCES	(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/16, 2-3=-743/958, 3-4=-673/896, 4-5=-671/931, 5-6=-1447/0, 6-7=-1845/0, 7-8=-1778/0, 8-9=-1670/0, 9-10=-1211/244, 10-11=-940/272, 11-12=-751/251, 12-13=-751/251, 13-14=-751/251, 14-15=-751/251, 15-16=-751/251, 16-17=-751/251, 17-18=-943/268, 18-19=-1696/245, 19-21=-1661/163, 21-22=-1584/152, 22-24=-1479/269, 24-25=-1691/124
BOT CHORD	2-37=-879/771, 36-37=-879/771, 35-36=-25/866, 33-35=-25/866, 32-33=0/763, 30-33=0/1330, 29-30=0/1057, 28-29=0/1057, 27-28=0/1057, 26-27=0/1058, 25-26=0/1046
WEBS	36-44=-1850/248, 5-44=-1982/261, 5-43=-424/1249, 42-43=-307/900, 41-42=-304/897, 33-41=-321/941, 9-33=-86/824, 30-38=-56/713, 18-38=0/584, 30-48=-294/477, 48-49=-276/443, 21-49=-277/451, 10-40=-537/53, 40-45=-536/53, 39-45=-536/53, 39-46=-536/53, 46-47=-536/53, 38-47=-536/53, 14-39=-17/45, 12-40=-53/262, 8-41=-79/161, 7-42=-15/13, 6-43=-904/325, 35-43=-322/119, 4-44=-37/214, 3-37=-359/203, 13-45=-66/65, 15-46=-133/71, 16-47=-37/400, 19-48=-165/111, 29-48=-220/70, 20-49=-227/47, 28-49=-184/42, 22-27=-288/185, 24-26=0/210

- 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 20-0-15, Exterior(2R) 20-0-15 to 24-7-8, Interior (1) 24-7-8 to 29-2-1, Exterior(2R) 29-2-1 to 33-6-14, Interior (1) 33-6-14 to 41-3-0 zone; cantilever left 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.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x6 (I) MT20 unless otherwise indicated.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

NOTES

- Unbalanced roof live loads have been considered for this design.



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Continued on page 2

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

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

ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills
251382-A	A1GE	Attic	1	1	I76525546
Job Reference (optional)					

- 10) Ceiling dead load (10.0 psf) on member(s). 9-10, 10-40, 40-45, 39-45, 39-46, 46-47, 38-47; Wall dead load (5.0psf) on member(s).9-33, 30-38
- 11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 32-33, 30-33
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 36.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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

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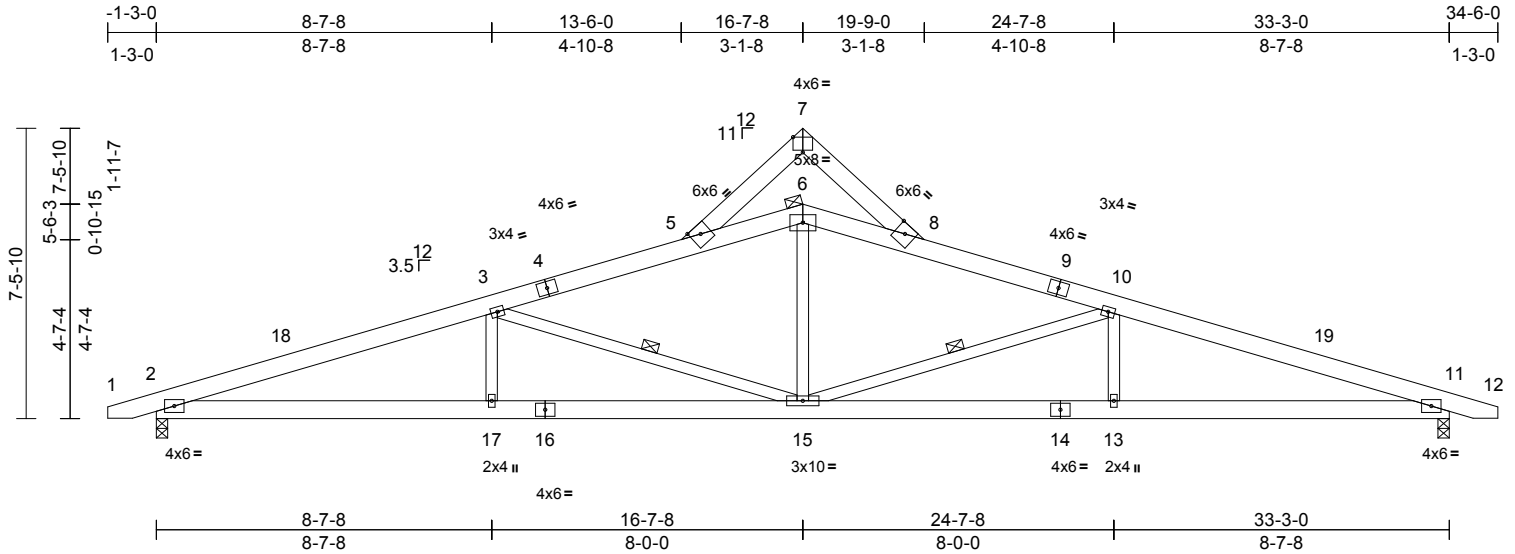
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	176525547
251382-A	A2	ROOF SPECIAL	6	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 E Sep 7 2025 Print: 25.3.0 E Sep 7 2025 MiTek Industries, Inc. Tue Sep 23 14:55:57
ID:oZsdJhAH7sgso7cS4ggLwVyrqezV-xKdyYQirnt6EVF75W3UmJMAVcKgQJ6WHVFnM_0yathn

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.15	15-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.32	15-17	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.10	11	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.12	15-17	>999	240	Weight: 222 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-8-1 oc bracing.
WEBS 1 Row at midpt 3-15, 10-15
JOINTS 1 Brace at Jt(s): 6

REACTIONS
(lb/size) 2=1383/0-3-8, 11=1383/0-3-8
Max Horiz 2=-84 (LC 17)
Max Uplift 2=-99 (LC 12), 11=-99 (LC 13)

FORCES
(lb) - Max. Comp./Max. Ten. - All forces 250
(lb) or less except when shown.
TOP CHORD 2-18=-3408/895, 3-18=-3339/913,
3-4=-2368/663, 4-5=-2295/677,
5-6=-2122/657, 6-8=-2122/659,
8-9=-2295/707, 9-10=-2368/693,
10-19=-3339/934, 11-19=-3408/916
BOT CHORD 2-17=-821/3180, 16-17=-821/3180,
15-16=-821/3180, 14-15=-810/3180,
13-14=-810/3180, 11-13=-810/3180
WEBS 6-15=-137/848, 3-15=-1084/349, 3-17=0/341,
10-15=-1084/343, 10-13=0/341

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) -0-11-3 to 3-5-10, Interior (1) 3-5-10 to 16-7-8, Exterior(2E) 16-7-8 to 19-7-10, Interior (1) 19-7-10 to 34-2-3 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 2 and 99 lb uplift at joint 11.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 23, 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
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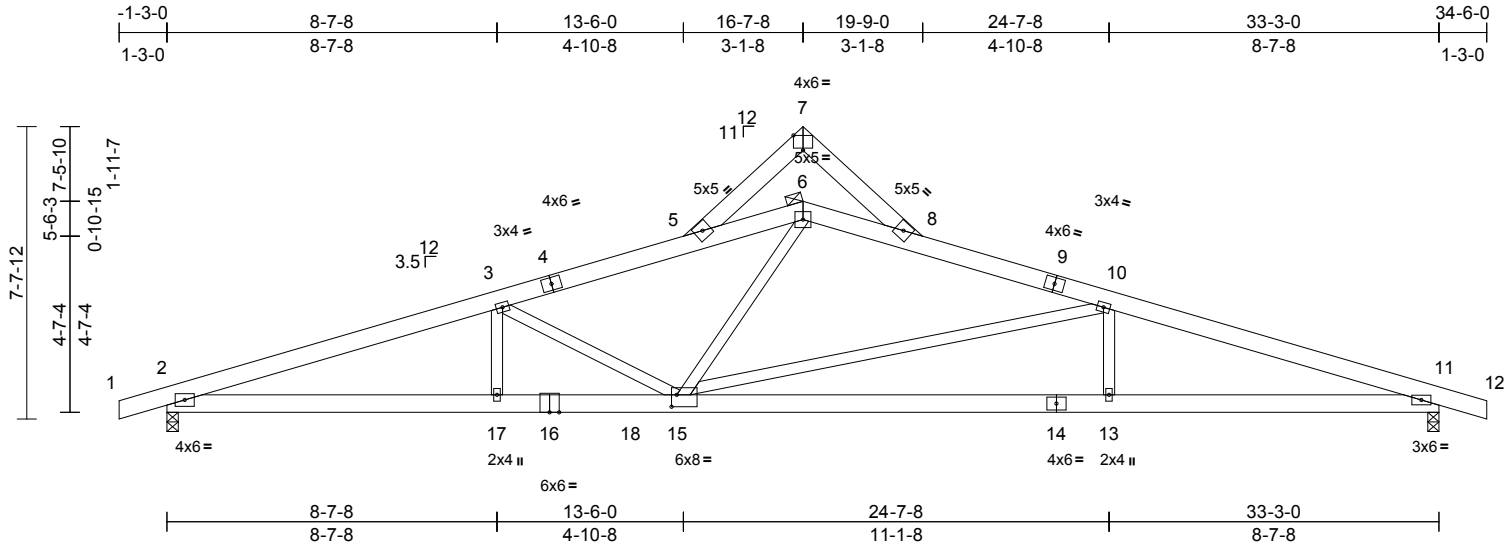
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	
251382-A	A2-GR	ROOF SPECIAL	1	2	Job Reference (optional)	I76525548

Comtech, Inc, Fayetteville, NC - 28314,

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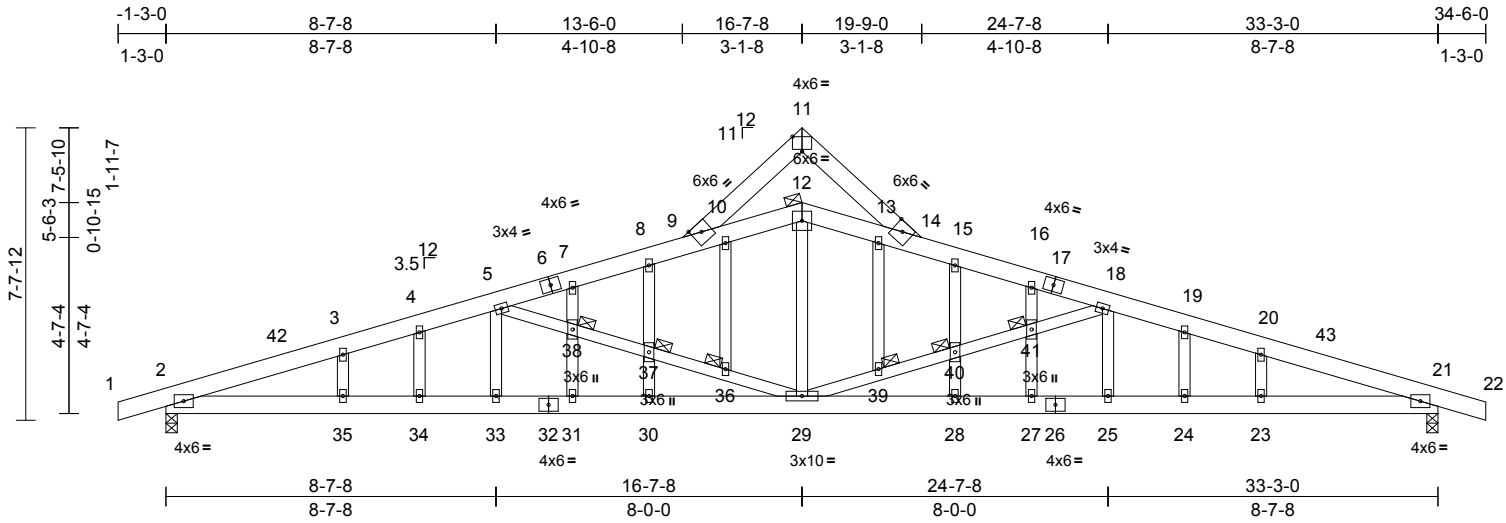


Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	176525549
251382-A	A2SG	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 E Sep 7 2025 Print: 25.3.0 E Sep 7 2025 MiTek Industries, Inc. Tue Sep 23 14:59:39
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Page: 1



Scale = 1:60.2

Plate Offsets (X, Y): [11:0-3-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.16	30-31	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.32	30-31	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.09	21	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.13	30-31	>999	240	Weight: 259 lb	FT = 20%

LUMBER

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

WEBS

12-29=-266/986, 5-33=-39/253,
18-25=-38/253, 5-38=-1028/325,
37-38=-1006/318, 36-37=-1017/321,
29-36=-1036/329, 29-39=-1036/324,
39-40=-1017/316, 40-41=-1006/314,
18-41=-1028/320

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-9-4 oc bracing.
JOINTS 1 Brace at Jt(s): 12, 36, 37, 38, 39, 40, 41

REACTIONS (lb/size) 2=1402/0-3-8, 21=1402/0-3-8
Max Horiz 2=85 (LC 12)
Max Uplift 2=-109 (LC 8), 21=-109 (LC 9)

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

TOP CHORD 2-42=-3348/862, 3-42=-3289/868,
3-4=-3258/899, 4-5=-3230/913,
5-6=-2355/640, 6-7=-2325/646,
7-8=-2315/656, 8-9=-2312/691,
9-10=-2144/672, 10-12=-2157/679,
12-13=-2157/680, 13-14=-2144/675,
14-15=-2312/721, 15-16=-2315/688,
16-17=-2325/677, 17-18=-2355/671,
18-19=-3230/928, 19-20=-3258/914,
20-43=-3289/883, 21-43=-3348/878

BOT CHORD 2-35=-790/3113, 34-35=-790/3113,
33-34=-790/3113, 32-33=-790/3113,
31-32=-790/3113, 30-31=-790/3113,
29-30=-790/3113, 28-29=-773/3113,
27-28=-773/3113, 26-27=-773/3113,
25-26=-773/3113, 24-25=-773/3113,
23-24=-773/3113, 21-23=-773/3113

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 16-7-8, Exterior(2E) 16-7-8 to 19-7-10, Interior (1) 19-7-10 to 34-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 (||) MT20 unless otherwise indicated.
- 5) Gable 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 3-06-00 tall by 2-00-00 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 109 lb uplift at joint 2 and 109 lb uplift at joint 21.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 23, 2025

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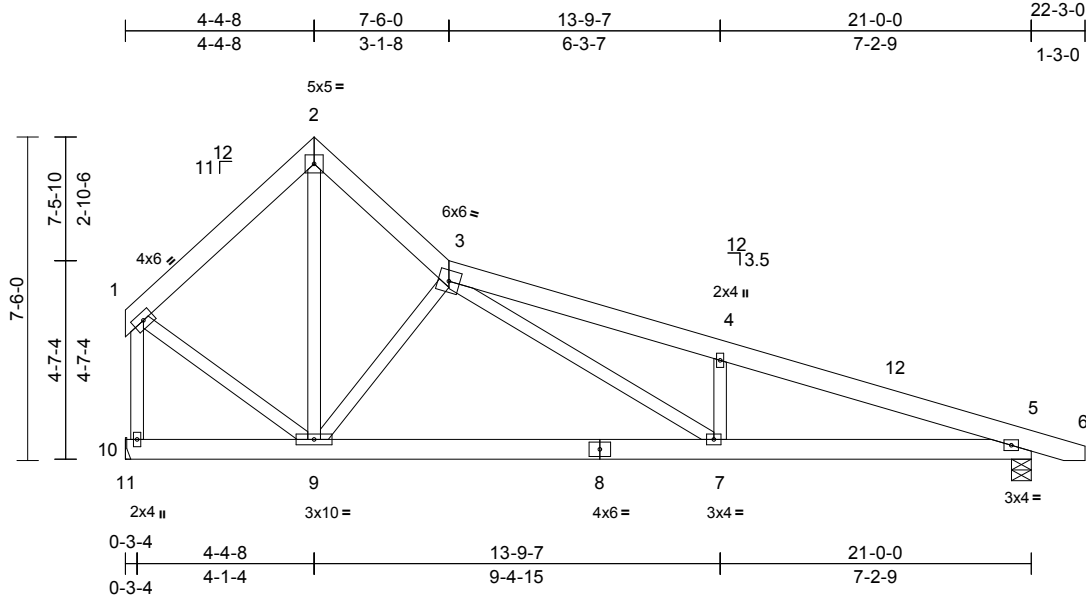
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	
251382-A	A3	Roof Special	3	1	Job Reference (optional)	I76525550

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:04
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Page: 1



Scale = 1:53.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.06	7-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.14	7-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.04	7-9	>999	240	Weight: 152 lb	FT = 20%

LUMBER

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

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 10 and 109 lb uplift at joint 5.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-4-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 9-10.

REACTIONS

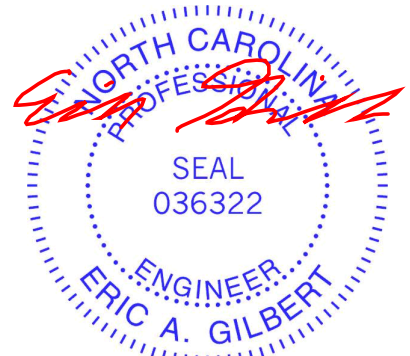
(size) 5=0-5-8, 10= Mechanical
Max Horiz 10=-168 (LC 8)
Max Uplift 5=-109 (LC 9), 10=-59 (LC 13)
Max Grav 5=896 (LC 1), 10=824 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-621/229, 2-3=-618/290, 3-4=-1878/592,
4-5=-1900/496, 5-6=0/6, 1-10=-806/265
BOT CHORD 10-11=0/0, 9-10=-53/169, 7-9=-179/921,
5-7=-397/1747
WEBS 2-9=-165/541, 3-7=-262/991, 4-7=-368/251,
1-9=-72/514, 3-9=-839/371

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) 2-3-11 to 9-6-12, Interior (1) 9-6-12 to 24-0-9 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.



September 23,2025

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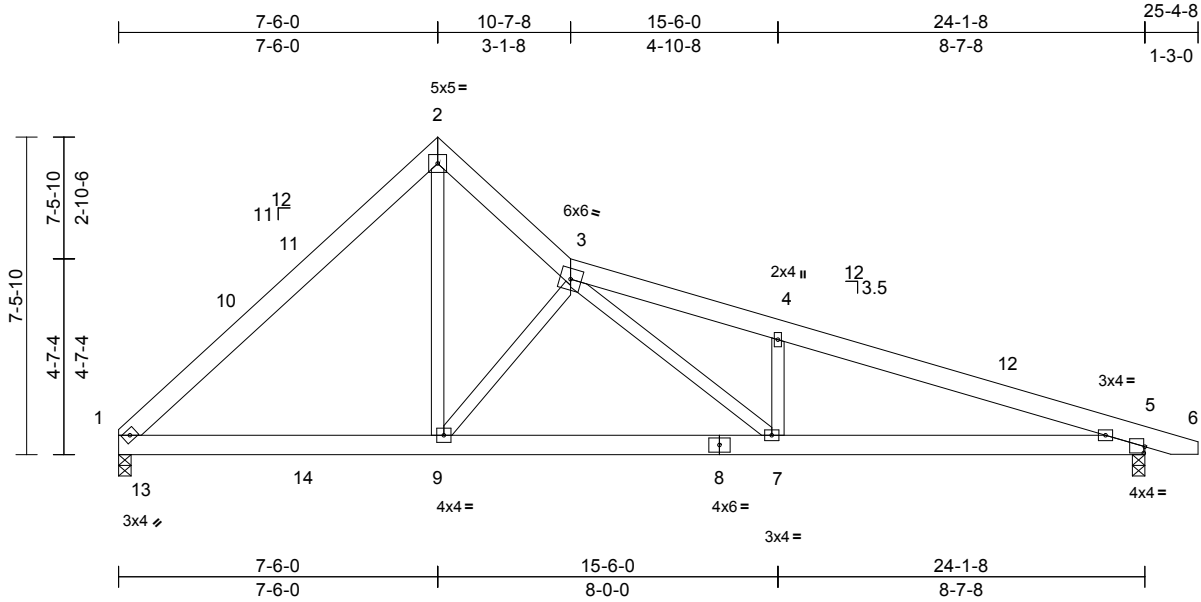
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	
251382-A	A4	ROOF SPECIAL	1	1	Job Reference (optional)	I76525551

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:04
ID:oZsdJhAH7sgso7cS4ggLwVyzqzV-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:54.2

Plate Offsets (X, Y): [5:0-0-5,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.10	5-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.19	5-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.06	5-7	>999	240	Weight: 156 lb	FT = 20%

LUMBER

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

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 1 and 104 lb uplift at joint 5.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

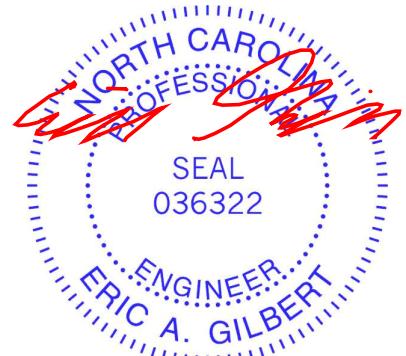
REACTIONS (size) 1=0-3-8, 5=0-3-8
Max Horiz 1=-171 (LC 8)
Max Uplift 1=-40 (LC 13), 5=-104 (LC 9)
Max Grav 1=1085 (LC 19), 5=1091 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1261/326, 2-3=-1183/427,
3-4=-2386/717, 4-5=-2407/625, 5-6=0/4
BOT CHORD 1-9=-90/917, 7-9=-317/1520, 5-7=-513/2249
WEBS 2-9=-230/1243, 3-9=-1073/375,
3-7=-257/982, 4-7=-412/269

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; MWFRS (envelope) and C-C Exterior(2E) 0-1-12 to 4-6-9, Interior (1) 4-6-9 to 7-6-0, Exterior(2E) 7-6-0 to 10-7-8, Interior (1) 10-7-8 to 25-0-11 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



September 23, 2025

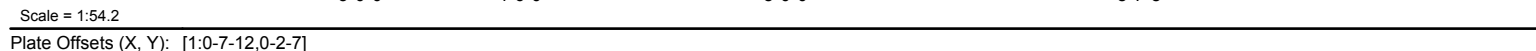
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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)

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818 Soundside Road
Edenton, NC 27932

Comtech, Inc, Fayetteville, NC - 28314, Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:04 Page: 1
ID:0zsdJhAH7sqs07cS4qgLvVvaezV-RfC?PsB70Hg3NSqPqnL8w3tUXbGKWRCDoI7J4zJC?f



- 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 7-6-0, Exterior(2E) 7-6-0 to 10-7-8, Interior (1) 10-7-8 to 25-0-11 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

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-4=-60, 4-7=-60, 1-6=-20
Concentrated Loads (lb)
Vert: 11=-1700 (B)
- 18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt.
metal=0.90
Uniform Loads (lb/ft)
Vert: 3-6=-20, 3-4=-20, 4-7=-20
Concentrated Loads (lb)
Vert: 11=-850 (B)

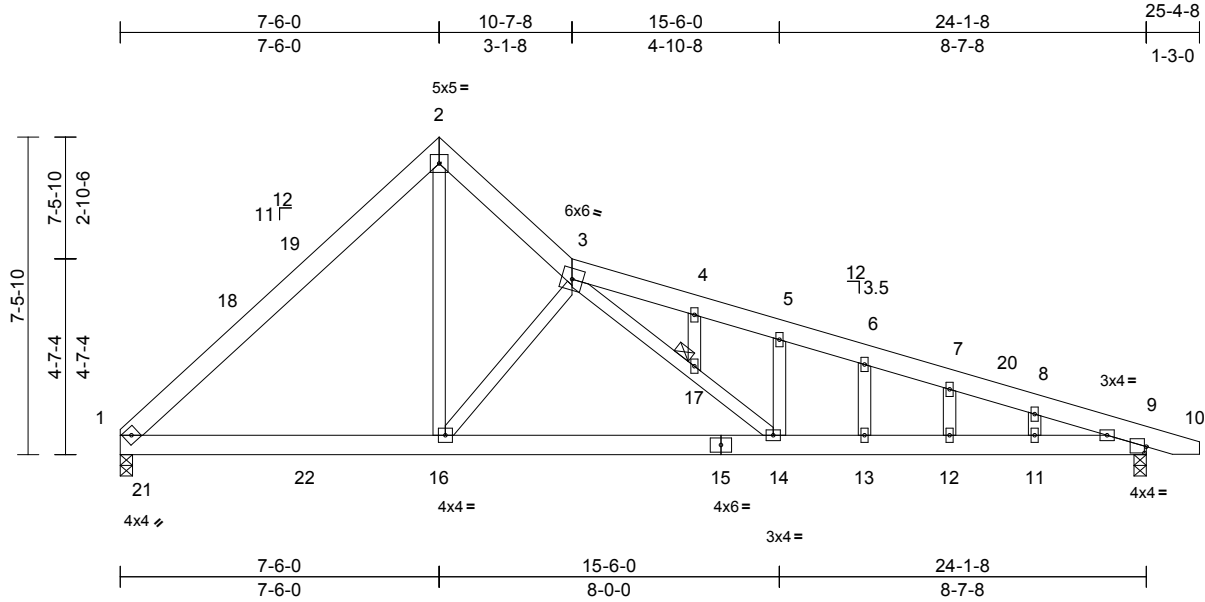


Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	176525553
251382-A	A4SG	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:04
ID:oZsdJhAH7sgso7cS4ggLwVyzqzV-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:54.2

Plate Offsets (X, Y): [9:0-0-9,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.08	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.15	12-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.06	12-13	>999	240	Weight: 163 lb	FT = 20%

LUMBER

TOP CHORD	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 5-0-4 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

JOINTS 1 Brace at Jt(s): 17

REACTIONS (size) 1=0-3-8, 9=0-3-8

Max Horiz 1=-171 (LC 8)

Max Uplift 1=-40 (LC 13), 9=-104 (LC 9)

Max Grav 1=1085 (LC 19), 9=1091 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1263/324, 2-3=-1185/427, 3-4=-2291/695, 4-5=-2318/685, 5-6=-2270/621, 6-7=-2285/612, 7-8=-2311/591, 8-9=-2389/574, 9-10=0/4

BOT CHORD 1-16=-88/918, 14-16=-322/1518, 13-14=-494/2194, 12-13=-494/2194, 11-12=-494/2194, 9-11=-494/2194

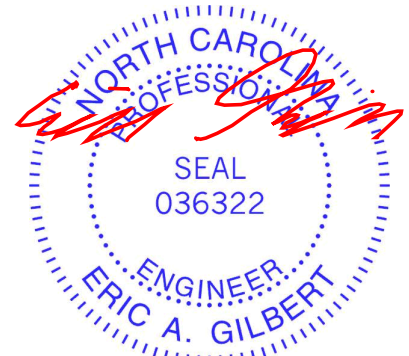
WEBS 2-16=-232/1248, 3-16=-1072/387, 3-17=-231/917, 14-17=-226/906, 5-14=-322/202, 4-17=-19/9, 6-13=-44/6, 7-12=-34/54, 8-11=0/93

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 7-6-0, Exterior(2E) 7-6-0 to 10-7-8, Interior (1) 10-7-8 to 25-0-11 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 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 1 and 104 lb uplift at joint 9.

LOAD CASE(S) Standard



September 23, 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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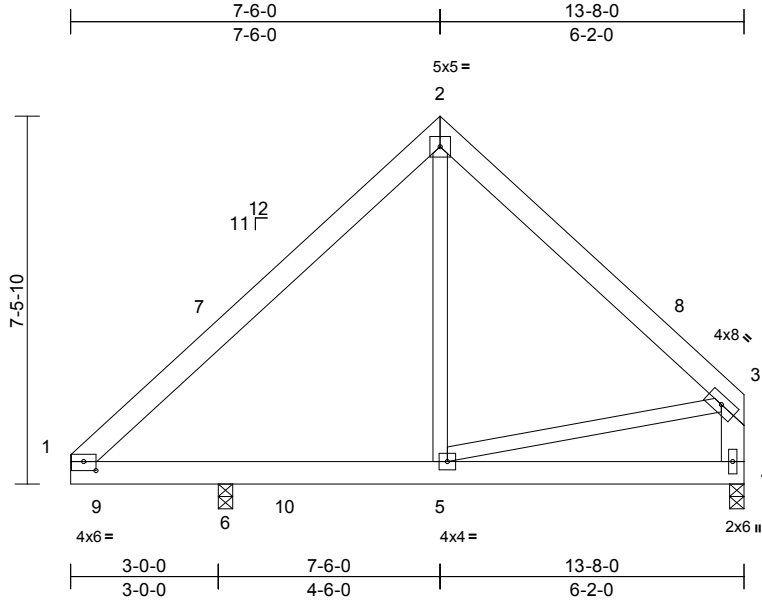
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	
251382-A	A5	COMMON	2	1	Job Reference (optional)	I76525554

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 E Sep 7 2025 Print: 25.3.0 E Sep 7 2025 MiTek Industries, Inc. Tue Sep 23 14:51:19
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Page: 1



Scale = 1:46.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.06	4-5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.10	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.05	4-5	>999	240	Weight: 97 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 4=373/0-3-8, 6=702/0-3-8
Max Horiz 6=164 (LC 9)
Max Uplift 4=-20 (LC 12), 6=-25 (LC 12)
Max Grav 4=449 (LC 19), 6=814 (LC 20)

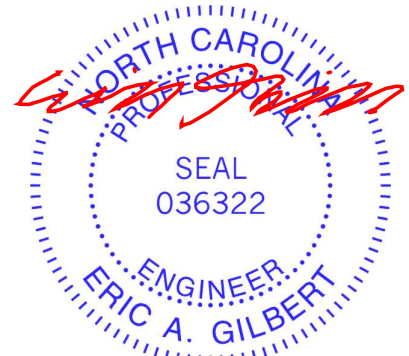
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250
(lb) or less except when shown.

TOP CHORD 1-7=-354/39, 3-8=-315/69, 3-4=-280/108

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) 0-0-0 to 4-4-13, Interior (1) 4-4-13 to 7-6-0, Exterior(2R) 7-6-0 to 11-10-13, Interior (1) 11-10-13 to 13-5-4 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 4 and 25 lb uplift at joint 6.

LOAD CASE(S) Standard



September 23,2025

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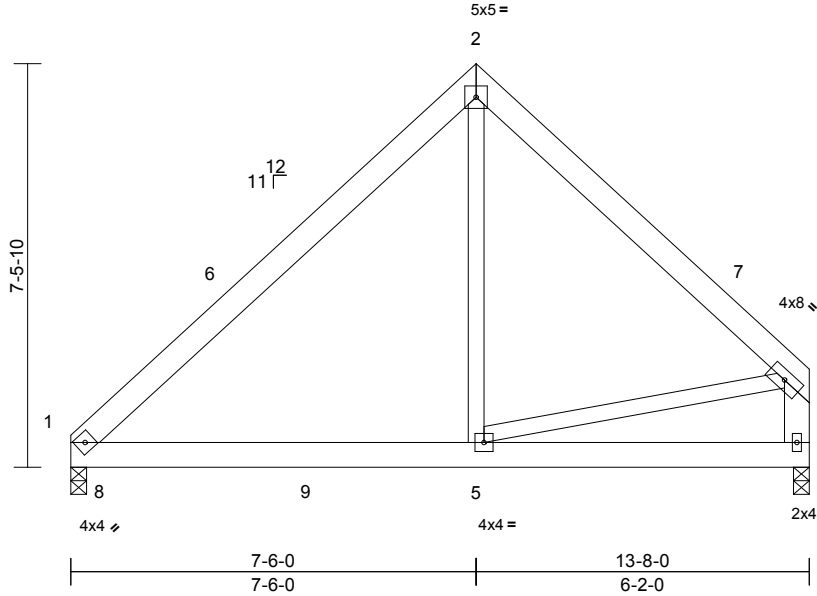
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	
251382-A	A6	COMMON	7	1	Job Reference (optional)	I76525555

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:04
ID:oZsdJhAH7sgso7cS4gglwVYqezV-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:42.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.04	1-5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.06	1-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.02	1-5	>999	240	Weight: 97 lb	FT = 20%

LUMBER

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

BRACING

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

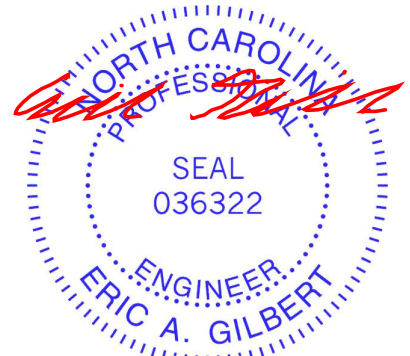
REACTIONS (size) 1=0-3-8, 4=0-3-8
Max Horiz 1=164 (LC 9)
Max Uplift 1=-18 (LC 12), 4=-25 (LC 12)
Max Grav 1=630 (LC 19), 4=628 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-629/178, 2-3=-624/208, 3-4=-562/202
BOT CHORD 1-5=-25/416, 4-5=-72/99
WEBS 2-5=0/378, 3-5=-40/380

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 7-6-0, Exterior(2R) 7-6-0 to 11-10-13, Interior (1) 11-10-13 to 13-5-4 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 25 lb uplift at joint 4.

LOAD CASE(S) Standard



September 23,2025

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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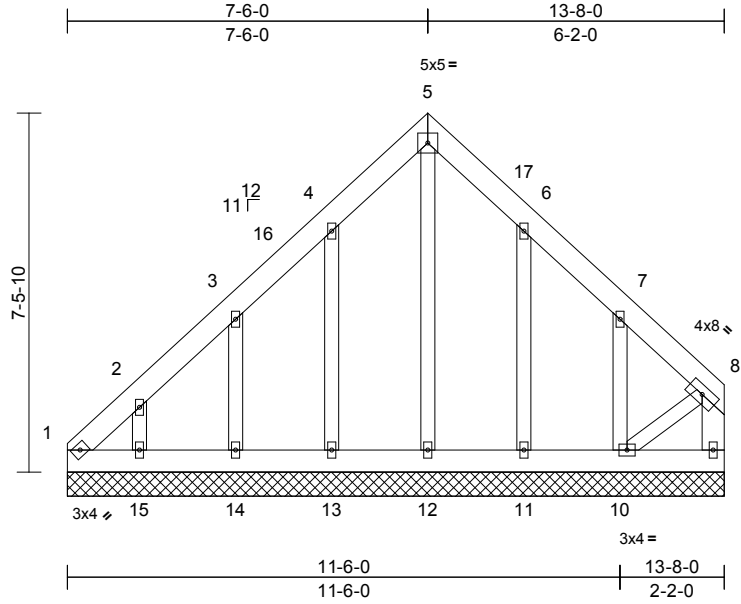
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	176525556
251382-A	A6GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:05
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 115 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1 *Except* 10-8:2x4 SP No.2
OTHERS	2x4 SP No.2

BRACING

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

REACTIONS	(size)	1=13-8-0, 9=13-8-0, 10=13-8-0, 11=13-8-0, 12=13-8-0, 13=13-8-0, 14=13-8-0, 15=13-8-0
Max Horiz		1=186 (LC 11)
Max Uplift		1=-67 (LC 10), 9=-36 (LC 11), 10=-147 (LC 13), 11=-60 (LC 13), 13=-61 (LC 12), 14=-79 (LC 12), 15=-84 (LC 12)
Max Grav		1=137 (LC 9), 9=145 (LC 19), 10=221 (LC 20), 11=179 (LC 20), 12=115 (LC 22), 13=184 (LC 19), 14=184 (LC 19), 15=174 (LC 19)

FORCES

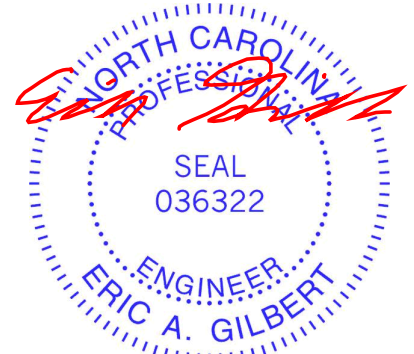
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-300/139, 2-3=-136/100, 3-4=-120/78, 4-5=-128/204, 5-6=-128/203, 6-7=-86/77, 7-8=-164/70, 8-9=-174/49
BOT CHORD	1-15=-105/199, 14-15=-106/200, 13-14=-106/201, 12-13=-107/201, 11-12=-107/201, 10-11=-106/201, 9-10=-28/43
WEBS	5-12=-151/48, 4-13=-144/167, 3-14=-155/249, 2-15=-140/235, 6-11=-140/194, 7-10=-156/257, 8-10=-99/199

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 Corner(3E) 0-1-12 to 4-6-9, Exterior(2N) 4-6-9 to 7-6-0, Corner(3R) 7-6-0 to 11-10-13, Exterior(2N) 11-10-13 to 13-5-4 zone; end vertical 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 1, 36 lb uplift at joint 9, 61 lb uplift at joint 13, 79 lb uplift at joint 14, 84 lb uplift at joint 15, 60 lb uplift at joint 11 and 147 lb uplift at joint 10.

LOAD CASE(S) Standard



September 23, 2025

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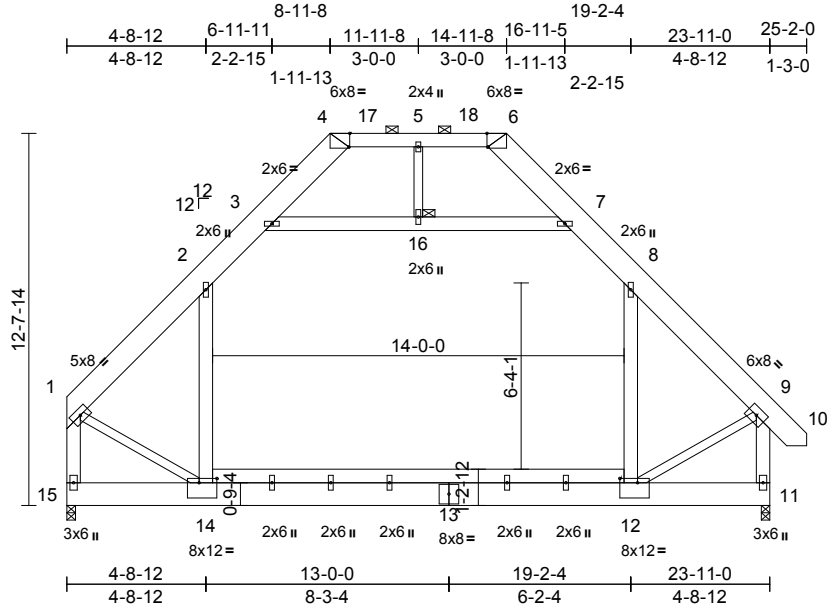
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	176525557
251382-A	B1	ATTIC	3	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:05
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Page: 1



Scale = 1:78.4

Plate Offsets (X, Y): [4:0-0-7,Edge], [6:0-0-7,Edge], [12:0-7-4,0-1-12], [14:0-7-4,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.20	12-14	>999	360	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.31	12-14	>903	240	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.01	11	n/a	n/a	
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.06	12-14	>999	240	Weight: 337 lb FT = 20%

LUMBER

TOP CHORD 2x10 SP No.1 *Except* 4-6:2x6 SP No.1
BOT CHORD 2x10 SP No.1 *Except* 14-12:2x6 SP No.1
WEBS 2x6 SP No.1 *Except* 5-16:2x4 SP No.3,
14-1,12-9:2x4 SP No.2

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.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc
bracing.

JOINTS 1 Brace at Jt(s): 16

REACTIONS (size) 11=0-3-8, 15=0-3-8
Max Horiz 15=-338 (LC 10)
Max Grav 11=1678 (LC 2), 15=1620 (LC 2)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=-1627/0, 2-3=-1068/159, 3-4=-484/140,
6-7=-484/137, 7-8=-1067/159, 8-9=-1626/0,
9-10=0/47, 1-15=-1949/0, 9-11=-1998/0,
4-5=-292/134, 5-6=-292/134

BOT CHORD 14-15=-337/333, 12-14=0/1088, 11-12=-49/60

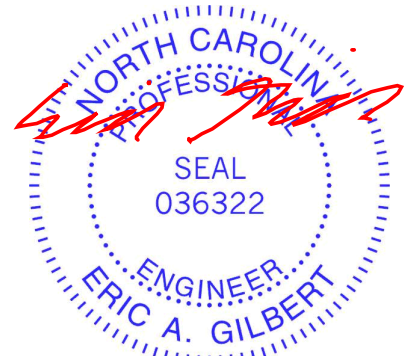
WEBS 8-12=-35/747, 2-14=-40/742, 3-16=-954/89,
7-16=-954/89, 5-16=0/142, 1-14=0/1296,
9-12=0/1309

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) 0-2-4 to 4-8-4, Interior (1) 4-8-4 to 9-3-5,
Exterior(2R) 9-3-5 to 13-8-1, Interior (1) 13-8-1 to
14-7-11, Exterior(2R) 14-7-11 to 19-2-12, Interior (1)
19-2-12 to 24-9-15 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) N/A
- 4) Provide adequate drainage to prevent water ponding.
- 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
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 7) Ceiling dead load (10.0 psf) on member(s). 2-3, 7-8,
3-16, 7-16; Wall dead load (5.0psf) on member(s). 8-12,
2-14
- 8) Bottom chord live load (40.0 psf) and additional bottom
chord dead load (10.0 psf) applied only to room. 12-14
- 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.

LOAD CASE(S) Standard



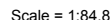
September 23, 2025

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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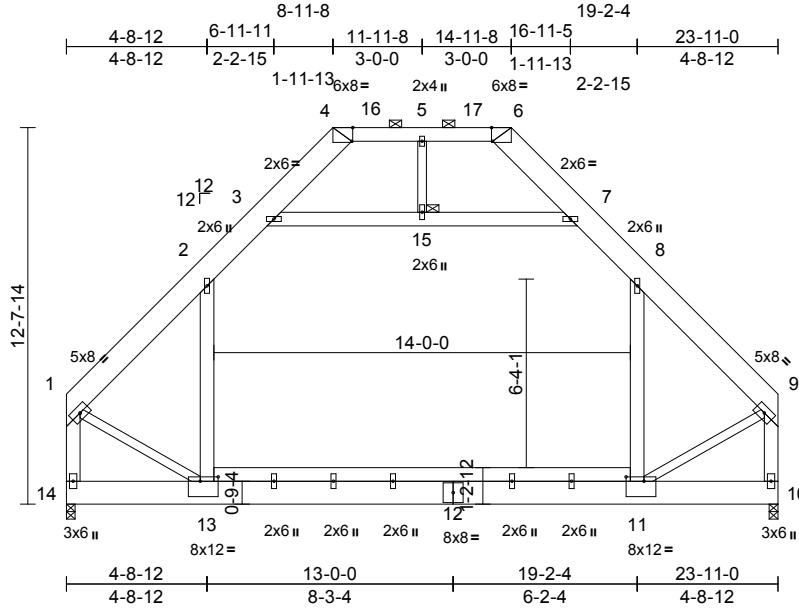
Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	176525559
251382-A	B2	ATTIC	5	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:05

Page: 1

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Scale = 1:77.4

Plate Offsets (X, Y): [4:0-0-7,Edge], [6:0-0-7,Edge], [11:0-7-4,0-1-12], [13:0-7-4,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.20	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.31	11-13	>903	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.06	11-13	>999	240	Weight: 331 lb	FT = 20%

LUMBER

TOP CHORD 2x10 SP No.1 *Except* 4-6:2x6 SP No.1
 BOT CHORD 2x10 SP No.1 *Except* 13-11:2x6 SP No.1
 WEBS 2x6 SP No.1 *Except* 5-15,13-1,11-9:2x4 SP No.2

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.): 4-6.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

JOINTS 1 Brace at Jt(s): 15

REACTIONS (size) 10=0-3-8, 14=0-3-8
 Max Horiz 14=321 (LC 9)
 Max Grav 10=1622 (LC 2), 14=1622 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1629/0, 2-3=-1069/156, 3-4=-483/139, 6-7=-483/140, 7-8=-1069/155, 8-9=-1628/0, 1-14=-1951/0, 9-10=-1952/0, 4-5=-290/135, 5-6=-290/135

BOT CHORD 13-14=-328/315, 11-13=0/1079, 10-11=-55/60
 WEBS 8-11=-40/743, 2-13=-40/743, 3-15=-956/82, 7-15=-956/82, 5-15=0/142, 1-13=0/1298, 9-11=0/1300

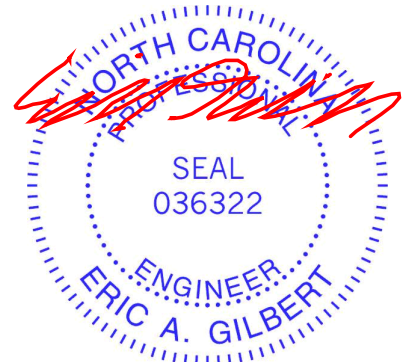
NOTES

- 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) 0-2-4 to 4-8-4, Interior (1) 4-8-4 to 9-3-5, Exterior(2R) 9-3-5 to 13-8-1, Interior (1) 13-8-1 to 14-7-11, Exterior(2R) 14-7-11 to 19-2-12, Interior (1) 19-2-12 to 23-8-12 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) N/A

- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (10.0 psf) on member(s). 2-3, 7-8, 3-15, 7-15; Wall dead load (5.0psf) on member(s).8-11, 2-13
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-13
- 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.

LOAD CASE(S) Standard



September 23,2025

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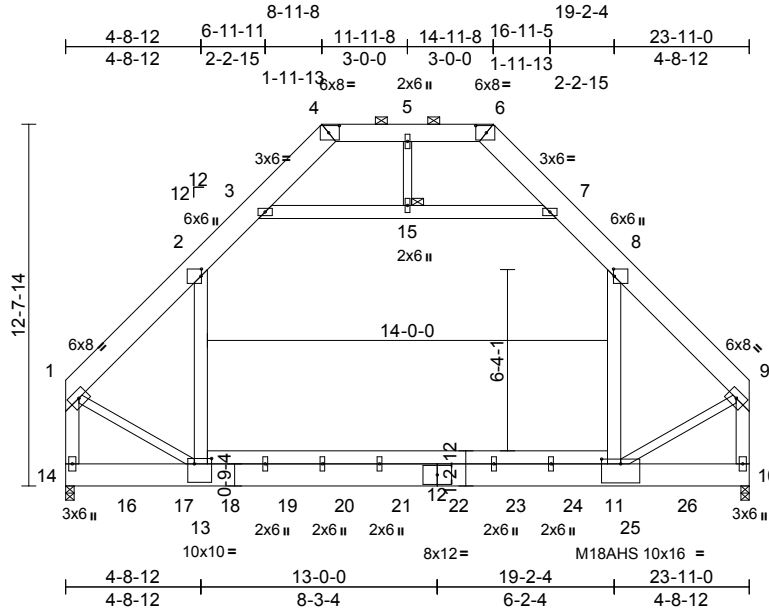
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	176525560
251382-A	B2-GR	ATTIC	1	3	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:05
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Page: 1



Scale = 1:80.6

Plate Offsets (X, Y): [2:0-3-0,0-0-4], [4:0-4-7,0-3-0], [6:0-4-7,0-3-0], [8:0-3-0,0-0-4], [11:0-8-0,0-2-0], [13:0-7-4,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.36	11-13	>778	360	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.47	11-13	>601	240	M18AHS 186/179
BCLL	0.0*	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.01	10	n/a	n/a	
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.01	11-13	>999	240	Weight: 1004 lb FT = 20%

LUMBER

TOP CHORD	2x10 SP 2400F 2.0E *Except* 4-6:2x8 SP No.1
BOT CHORD	2x10 SP 2400F 2.0E *Except* 13-11:2x6 SP No.1
WEBS	2x6 SP No.1 *Except* 5-15:2x4 SP No.3, 13-1,11-9:2x4 SP No.2

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.): 4-6.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

JOINTS 1 Brace at Jt(s): 15

REACTIONS	(size) 10=0-3-8, 14=0-3-8
	Max Horiz 14=216 (LC 5)
	Max Grav 10=7698 (LC 14), 14=8042 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-7471/0, 2-3=-3592/0, 3-4=-419/695, 6-7=-465/709, 7-8=-3577/0, 8-9=-7494/0, 1-14=-8898/0, 9-10=-8948/0, 4-5=-227/1173, 5-6=-227/1173
BOT CHORD	13-14=-230/242, 11-13=0/4778, 10-11=-19/21
WEBS	8-11=0/5473, 2-13=0/5420, 3-15=-5952/0, 7-15=-5952/0, 5-15=0/239, 1-13=0/5651, 9-11=0/5683

NOTES

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 3 rows staggered at 0-4-0 oc.
Web 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); Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (10.0 psf) on member(s) 2-3, 7-8, 3-15, 7-15; Wall dead load (5.0psf) on member(s) 8-11, 2-13
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-13
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1666 lb down at 2-1-12, 1666 lb down at 4-1-12, 456 lb down and 388 lb up at 5-9-4, 831 lb down and 326 lb up at 7-9-4, 1185 lb down and 77 lb up at 9-9-4, 1185 lb down and 77 lb up at 11-9-4, 1185 lb down and 77 lb up at 13-9-4, 1185 lb down and 77 lb up at 15-9-4, 1185 lb down and 77 lb up at 17-9-4, and 1185 lb down and 77 lb up at 19-9-4, and 1185 lb down and 77 lb up at 21-9-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-3=-80, 3-4=-60, 6-7=-60, 7-8=-80, 8-9=-60, 13-14=-20, 11-13=-40, 10-11=-20, 3-15=-20, 7-15=-20, 4-6=-60
Drag: 8-11=-10, 2-13=-10
Concentrated Loads (lb)
Vert: 16=-401 (B), 17=-401 (B), 18=-10 (B), 19=-120 (B), 20=-249 (B), 21=-249 (B), 22=-249 (B), 23=-249 (B), 24=-249 (B), 25=-249 (B), 26=-249 (B)



September 23,2025

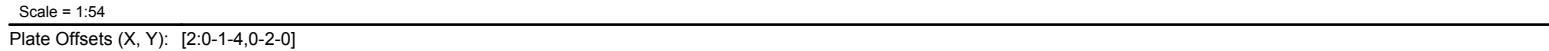
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

Comtech, Inc, Fayetteville, NC - 28314, Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:05 Page: 1
ID:oZsdJhAH7sgso7cS4ggLwVvyqezV-RfC?PsB70Hq3NSgPqnL8w3uiTXbGKWRcD0i7J4JcZ?f



LUMBER			4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3'-06"-00 tall by 2'-00"-00 wide will fit between the bottom chord and any other members.
TOP CHORD	2x6 SP No.1		
BOT CHORD	2x6 SP No.1		
WEBS	2x4 SP No.2 *Except* 12-2:2x6 SP No.1		
SLIDER	Right 2x4 SP No.2 -- 3-2-6		5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 12 and 74 lb uplift at joint 7.
BRACING			
TOP CHORD	Structural wood sheathing directly applied or 6'-0"-0 oc purlins, except end verticals.		
BOT CHORD	Rigid ceiling directly applied or 10'-0"-0 oc bracing.		
WEBS	1 Row at midpt	4-11	
REACTIONS	(size)	7=0-3-8, 12=0-3-0	
	Max Horiz	12=-174 (LC 10)	
	Max Uplift	7=-74 (LC 13), 12=-40 (LC 13)	
	Max Grav	7=883 (LC 1), 12=903 (LC 1)	
FORCES		(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/55, 2-3=-862/295, 3-4=-708/295, 4-7=-1288/372, 7-8=0/0, 2-12=-843/366		
BOT CHORD	11-12=-190/331, 9-11=-232/1060, 7-9=-232/1060		
WEBS	3-11=-46/433, 4-11=-591/271, 4-9=0/275, 2-11=-26/390		

-

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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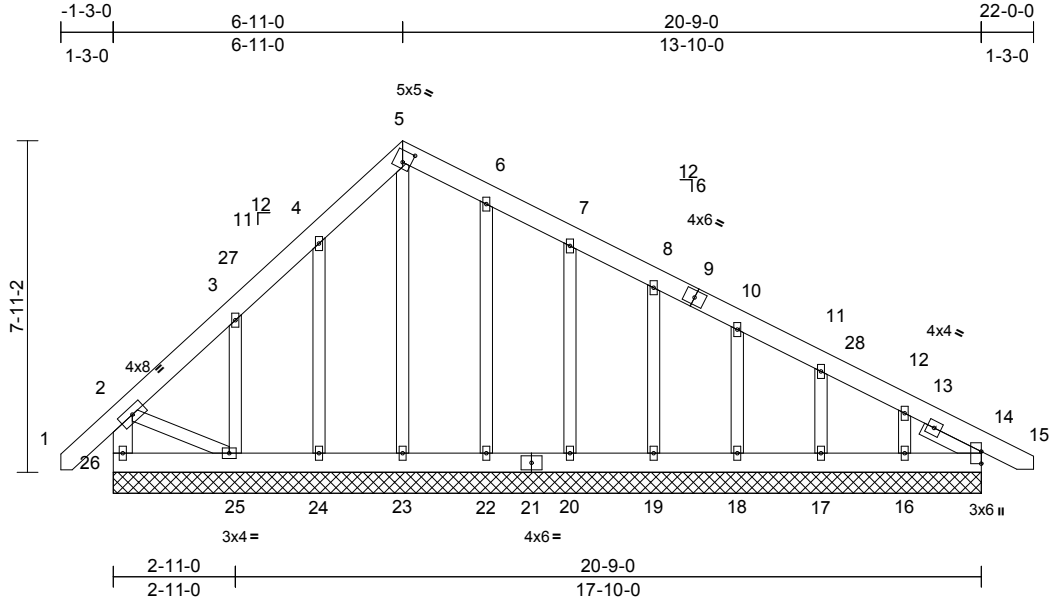
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills
251382-A	C1GE	ROOF SPECIAL SUPPORT	1	1	Job Reference (optional)
					I76525562

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:05
ID:oZsdJhAH7sgso7cS4ggLwVyzqzV-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:55.1

Plate Offsets (X, Y): [5:0-2-6,0-3-4]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 177 lb	FT = 20%

LUMBER	
TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1 *Except* 2-25:2x4 SP No.2
OTHERS	2x4 SP No.2
SLIDER	Right 2x4 SP No.2 -- 1-6-6
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS (size)	
14=20-9-0, 16=20-9-0, 17=20-9-0, 18=20-9-0, 19=20-9-0, 20=20-9-0, 22=20-9-0, 23=20-9-0, 24=20-9-0, 25=20-9-0, 26=20-9-0	
Max Horiz	26=-174 (LC 10)
Max Uplift	16=-69 (LC 13), 17=-31 (LC 13), 18=-34 (LC 13), 19=-33 (LC 13), 20=-40 (LC 13), 22=-16 (LC 13), 24=-59 (LC 12), 25=-147 (LC 12), 26=-59 (LC 8)
Max Grav	14=159 (LC 1), 16=139 (LC 26), 17=164 (LC 1), 18=159 (LC 26), 19=160 (LC 1), 20=162 (LC 26), 22=162 (LC 26), 23=142 (LC 22), 24=176 (LC 19), 25=243 (LC 19), 26=224 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-26=-200/72, 1-2=0/55, 2-3=-119/110, 3-4=-79/133, 4-5=-102/244, 5-6=-90/223, 6-7=-75/180, 7-8=-59/117, 8-10=-68/58, 10-11=-76/23, 11-12=-85/26, 12-14=-187/51, 14-15=0/0

BOT CHORD	
25-26=-82/169, 24-25=-49/207, 23-24=-49/207, 22-23=-49/207, 20-22=-49/207, 19-20=-49/207, 18-19=-49/207, 17-18=-49/207, 16-17=-49/207, 14-16=-49/207	
WEBS	
5-23=-148/20, 4-24=-141/139, 3-25=-161/263, 6-22=-122/72, 7-20=-122/119, 8-19=-120/107, 10-18=-120/107, 11-17=-124/123, 12-16=-100/197, 2-25=-100/246	
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 Corner(3E) -1-1-6 to 3-3-7, Exterior(2N) 3-3-7 to 6-11-0, Corner(3R) 6-11-0 to 11-3-13, Exterior(2N) 11-3-13 to 21-9-10 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 3-06-00 tall by 2-00-00 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 59 lb uplift at joint 26, 59 lb uplift at joint 24, 147 lb uplift at joint 25, 16 lb uplift at joint 22, 40 lb uplift at joint 20, 33 lb uplift at joint 19, 34 lb uplift at joint 18, 31 lb uplift at joint 17 and 69 lb uplift at joint 16.

LOAD CASE(S) Standard



September 23,2025

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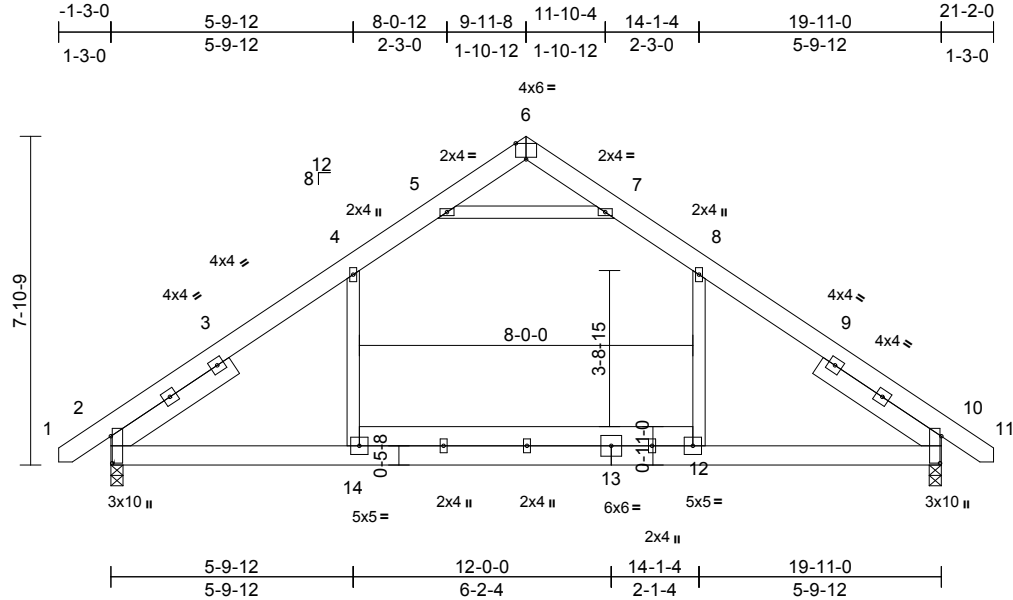
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	
251382-A	D1	COMMON	6	1	Job Reference (optional)	I76525563

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:06
ID:oZsdJhAH7sgso7cS4ggLwVYqezV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:55.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.12	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.17	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.08	2-14	>999	240	Weight: 164 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2
SLIDER	Left 2x6 SP No.2 -- 3-6-6, Right 2x6 SP No.2 -- 3-6-6

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.

REACTIONS

(size)	2=0-3-8, 10=0-3-8
Max Horiz	2=177 (LC 9)
Max Uplift	2=-55 (LC 12), 10=-55 (LC 13)
Max Grav	2=1072 (LC 19), 10=1072 (LC 20)

FORCES

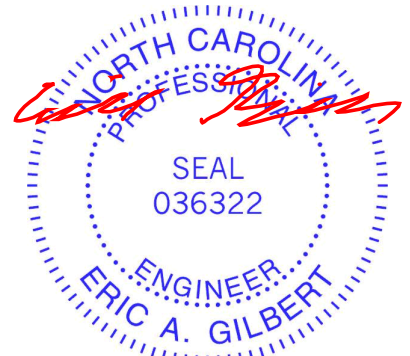
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-1/0, 2-4=-1345/193, 4-5=-896/253, 5-6=-28/247, 6-7=-28/248, 7-8=-896/253, 8-10=-1345/194, 10-11=-1/0
BOT CHORD	2-14=-42/963, 12-14=-42/963, 10-12=-42/963
WEBS	4-14=0/509, 8-12=0/509, 5-7=-1183/319

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) -1-1-1 to 3-3-12, Interior (1) 3-3-12 to 9-11-8, Exterior(2R) 9-11-8 to 14-1-4, Interior (1) 14-1-4 to 21-0-1 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 2 and 55 lb uplift at joint 10.

LOAD CASE(S) Standard



September 23,2025

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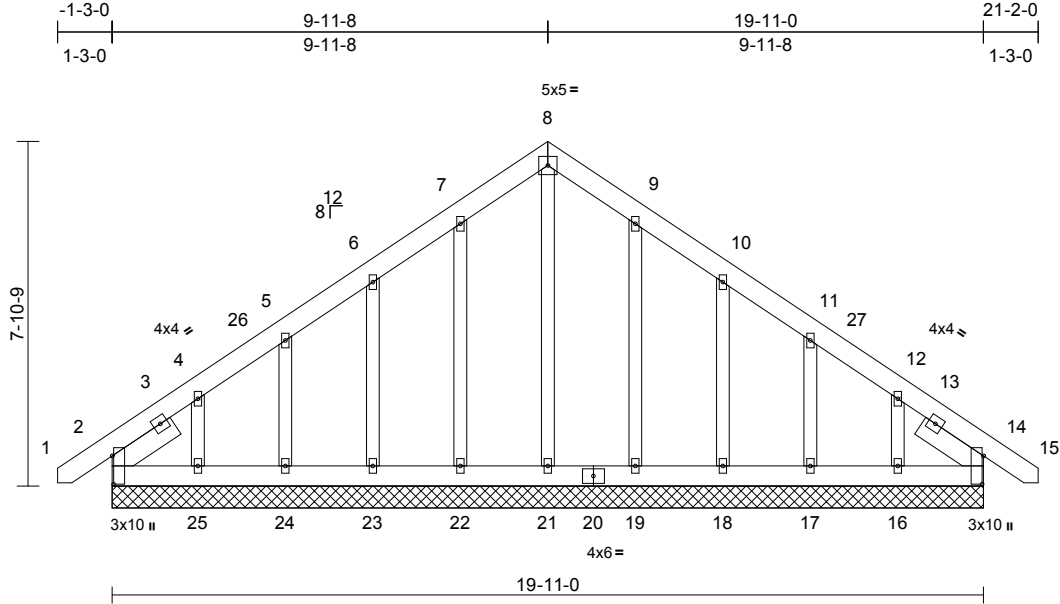
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	
251382-A	D1GE	GABLE	1	1	Job Reference (optional)	I76525564

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:06
ID:oZsdJhAH7sgso7cS4ggLwVvqezV-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:52.7

Plate Offsets (X, Y): [2:0-7-12,0-0-6], [14:0-7-12,0-0-6]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	14	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							
										Weight: 172 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.2 -- 1-8-9, Right 2x6 SP No.2 -- 1-8-9

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=19-11-0, 14=19-11-0,
16=19-11-0, 17=19-11-0,
18=19-11-0, 19=19-11-0,
21=19-11-0, 22=19-11-0,
23=19-11-0, 24=19-11-0,
25=19-11-0
Max Horiz 2=177 (LC 9)
Max Uplift 2=-61 (LC 8), 14=-13 (LC 9),
16=-91 (LC 13), 17=-42 (LC 13),
18=-54 (LC 13), 19=-30 (LC 13),
22=-33 (LC 12), 23=-53 (LC 12),
24=-41 (LC 12), 25=-101 (LC 12)
Max Grav 2=206 (LC 20), 14=180 (LC 1),
16=177 (LC 20), 17=172 (LC 20),
18=175 (LC 20), 19=170 (LC 20),
21=138 (LC 22), 22=175 (LC 19),
23=173 (LC 19), 24=170 (LC 19),
25=192 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1/0, 2-4=-185/137, 4-5=-124/93,
5-6=-115/89, 6-7=-104/159, 7-8=-136/223,
8-9=-136/223, 9-10=-103/159, 10-11=-75/75,
11-12=-84/40, 12-14=-145/74, 14-15=-1/0

BOT CHORD 2-25=-64/166, 24-25=-64/166,
23-24=-64/166, 22-23=-64/166,
21-22=-64/166, 19-21=-64/166,
18-19=-64/166, 17-18=-64/166,
16-17=-64/166, 14-16=-64/166
WEBS 8-21=-140/36, 7-22=-135/91, 6-23=-133/130,
5-24=-132/122, 4-25=-145/185,
9-19=-130/91, 10-18=-134/130,
11-17=-133/122, 12-16=-140/183

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 Corner(3E) -1-1-1 to 3-3-12, Exterior(2N) 3-3-12 to 9-11-8, Corner(3R) 9-11-8 to 14-4-5, Exterior(2N) 14-4-5 to 21-0-1 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 2, 13 lb uplift at joint 14, 33 lb uplift at joint 22, 53 lb uplift at joint 23, 41 lb uplift at joint 24, 101 lb uplift at joint 25, 30 lb uplift at joint 19, 54 lb uplift at joint 18, 42 lb uplift at joint 17 and 91 lb uplift at joint 16.

LOAD CASE(S) Standard



September 23,2025

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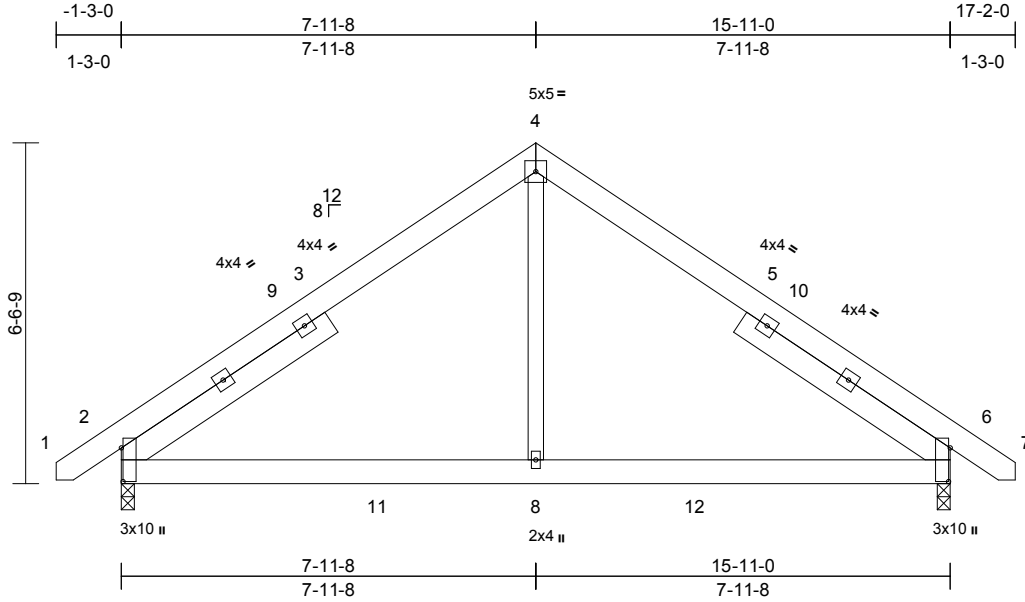
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	
251382-A	G1	COMMON	6	1	Job Reference (optional)	I76525565

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:06
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Page: 1



Scale = 1:44.2

Plate Offsets (X, Y): [2:0-7-12,0-0-6], [6:0-7-12,0-0-6]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.03	2-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.05	6-8	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.03	2-8	>999	240	Weight: 121 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2
SLIDER	Left 2x6 SP No.2 -- 4-9-14, Right 2x6 SP No.2 -- 4-9-14

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 98 lb uplift at joint 2 and 98 lb uplift at joint 6.

LOAD CASE(S) Standard

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=0-3-0, 6=0-3-0
Max Horiz 2=145 (LC 9)
Max Uplift 2=-98 (LC 9), 6=-98 (LC 8)
Max Grav 2=822 (LC 2), 6=822 (LC 2)

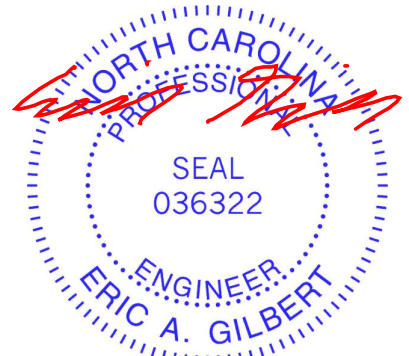
FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-1/0, 2-4=-861/426, 4-6=-861/426, 6-7=-1/0
BOT CHORD	2-8=-195/612, 6-8=-195/612
WEBS	4-8=-204/582

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) -1-1-1 to 3-3-12, Interior (1) 3-3-12 to 7-11-8, Exterior(2R) 7-11-8 to 12-4-5, Interior (1) 12-4-5 to 17-0-1 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



September 23, 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)

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Edenton, NC 27932

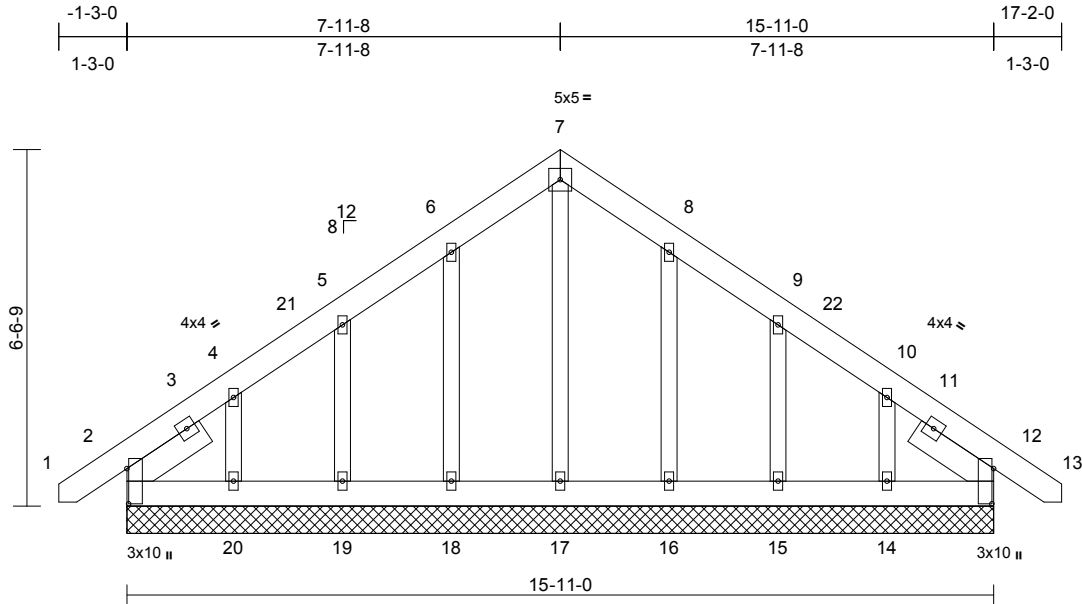
Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills
251382-A	G1GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)

I76525566

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:06
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Page: 1



Scale = 1:42.3

Plate Offsets (X, Y): [2:0-7-12,0-0-6], [12:0-7-12,0-0-6]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	12	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							
										Weight: 132 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.2 -- 1-8-9, Right 2x6 SP No.2 -- 1-8-9

WEBS

7-17=-119/22, 6-18=-136/112, 5-19=-134/150,
4-20=-138/197, 8-16=-132/113,
9-15=-136/151, 10-14=-137/194

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

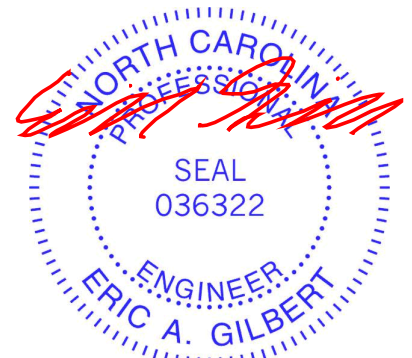
(size)	2=15-11-0, 12=15-11-0, 14=15-11-0, 15=15-11-0, 16=15-11-0, 17=15-11-0, 18=15-11-0, 19=15-11-0, 20=15-11-0
Max Horiz	2=145 (LC 9)
Max Uplift	2=-46 (LC 8), 12=-8 (LC 9), 14=-80 (LC 13), 15=-49 (LC 13), 16=-36 (LC 13), 18=-38 (LC 12), 19=-47 (LC 12), 20=-88 (LC 12)
Max Grav	2=191 (LC 20), 12=180 (LC 1), 14=172 (LC 20), 15=175 (LC 20), 16=172 (LC 20), 17=128 (LC 22), 18=176 (LC 19), 19=172 (LC 19), 20=184 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-1/0, 2-4=-156/105, 4-5=-107/73, 5-6=-99/133, 6-7=-122/208, 7-8=-122/208, 8-9=-84/133, 9-10=-76/36, 10-12=-118/55, 12-13=-1/0
BOT CHORD	2-20=-50/150, 19-20=-50/150, 18-19=-50/150, 17-18=-50/150, 16-17=-50/150, 15-16=-50/150, 14-15=-50/150, 12-14=-50/150

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 Corner(3E) -1-1-1 to 3-3-12, Exterior(2N) 3-3-12 to 7-11-8, Corner(3R) 7-11-8 to 12-4-5, Exterior(2N) 12-4-5 to 17-0-1 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 2, 8 lb uplift at joint 12, 38 lb uplift at joint 18, 47 lb uplift at joint 19, 88 lb uplift at joint 20, 36 lb uplift at joint 16, 49 lb uplift at joint 15 and 80 lb uplift at joint 14.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12.

LOAD CASE(S) Standard

September 23, 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.sbcacompnents.com)

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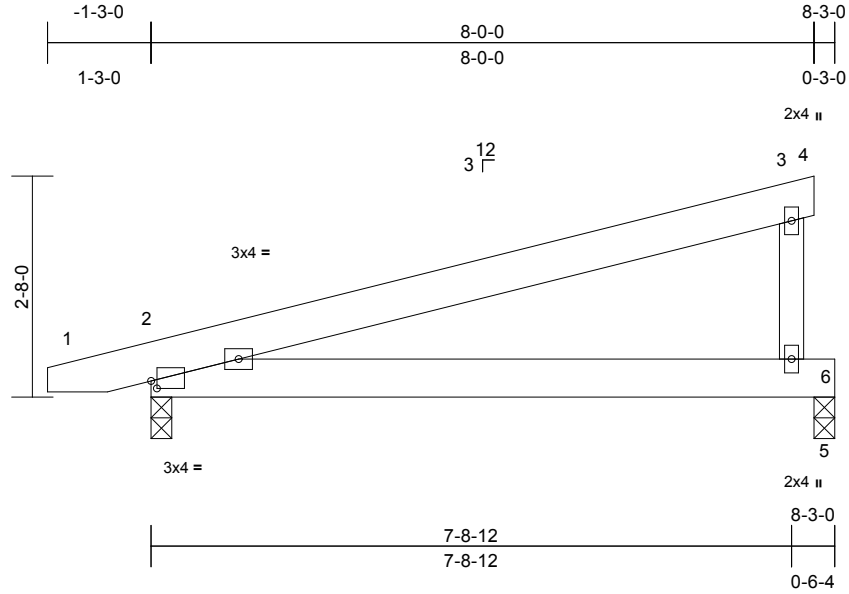
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	
251382-A	M1	MONOPITCH	7	1	Job Reference (optional)	I76525567

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:06
ID:oZsdJhAH7sgso7cS4ggLwVvqezV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:27.8

Plate Offsets (X, Y): [2:0-0-13,0-1-1]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.06	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.12	2-6	>818	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Wind(LL)	0.09	2-6	>999	240		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 44 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 2=0-3-0, 5=0-3-0
Max Horiz 2=72 (LC 8)
Max Uplift 2=-153 (LC 8), 5=-127 (LC 8)
Max Grav 2=384 (LC 1), 5=298 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/1, 2-3=-102/48, 3-4=-1/0, 3-6=-230/294
BOT CHORD 2-6=0/0, 5-6=0/0

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)-0-10-11 to 3-6-2, Interior (1) 3-6-2 to 8-0-0 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3'-06-00 tall by 2'-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 153 lb uplift at joint 2 and 127 lb uplift at joint 5.

LOAD CASE(S) Standard



September 23,2025

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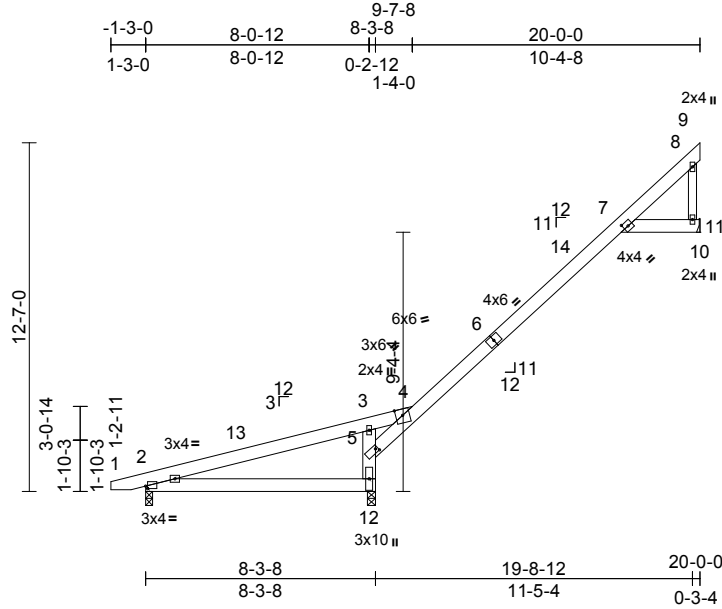
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills
251382-A	M2	ROOF SPECIAL	3	1	Job Reference (optional)
					I76525568

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:06
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Page: 1



Scale = 1:83.1

Plate Offsets (X, Y): [2:0-0-13,0-1-1], [5:0-1-0,0-1-8], [7:0-2-0,0-2-2]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.14	7	>966	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.23	7	>611	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.19	11	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.21	7	>666	240	Weight: 98 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3 *Except* 8-11:2x4 SP No.2,
12-3:2x6 SP No.1

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) 2=0-3-0, 11= Mechanical, 12=0-3-8
Max Horiz 2=454 (LC 12)
Max Uplift 2=-180 (LC 8), 11=-172 (LC 12),
12=-327 (LC 12)
Max Grav 2=194 (LC 21), 11=338 (LC 19),
12=1206 (LC 1)

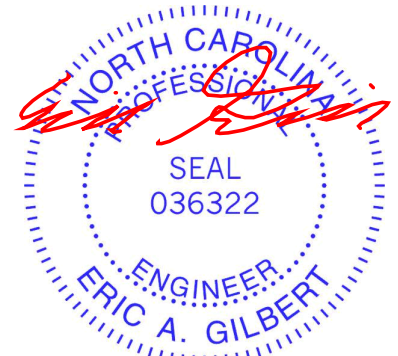
FORCES

(lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=0/1, 2-3=-977/747, 3-4=-1216/1265,
4-5=-1349/751, 4-7=-314/97, 7-8=-154/112,
8-9=-4/0, 8-11=-198/218
BOT CHORD 2-12=-553/328, 7-11=-26/28, 10-11=0/0
WEBS 5-12=-1123/584, 3-5=-439/271

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) -0-10-11 to 3-6-2, Interior (1) 3-6-2 to 20-0-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 172 lb uplift at joint 11, 180 lb uplift at joint 2 and 327 lb uplift at joint 12.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S)** Standard



September 23,2025

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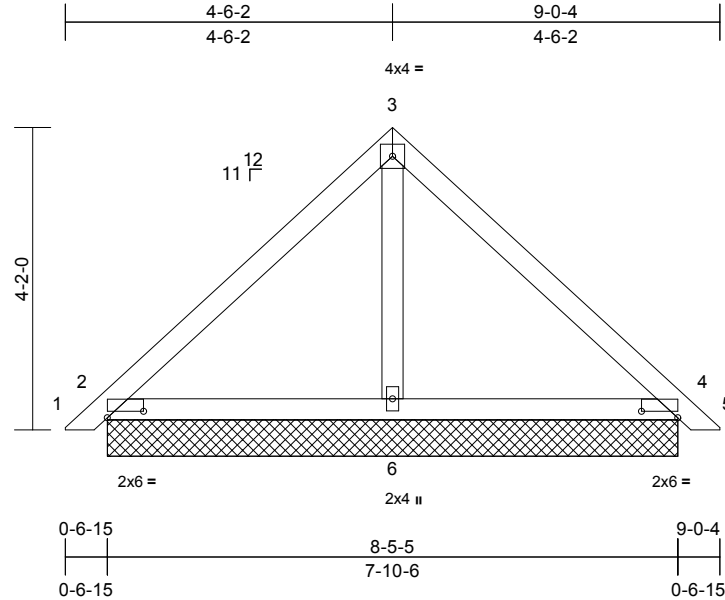
Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills
251382-A	PB1	Piggyback	6	1	Job Reference (optional)

I76525569

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:06
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Page: 1



Scale = 1:31.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999	244/190
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-S							
										Weight: 35 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 2=7-10-6, 4=7-10-6, 6=7-10-6
Max Horiz 2=95 (LC 11)
Max Uplift 2=-22 (LC 13), 4=-29 (LC 13)
Max Grav 2=196 (LC 1), 4=196 (LC 1), 6=282 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/13, 2-3=-149/92, 3-4=-141/109, 4-5=0/13
BOT CHORD 2-6=-23/67, 4-6=-23/67
WEBS 3-6=-158/93

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) 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 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 2 and 29 lb uplift at joint 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



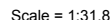
September 23, 2025

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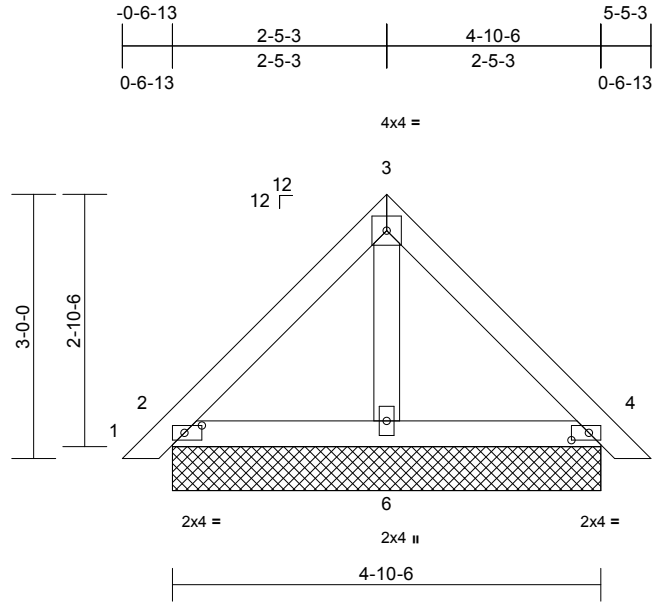
Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills
251382-A	PB2	Piggyback	10	1	Job Reference (optional)

I76525571

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Sep 7 2025 Print: 25.3.0 S Sep 7 2025 MiTek Industries, Inc. Mon Sep 22 11:55:06
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Page: 1



Scale = 1:26.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							
Weight: 23 lb FT = 20%											

LUMBER

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

BRACING

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

REACTIONS

(size) 2=4-10-6, 4=4-10-6, 6=4-10-6
Max Horiz 2=67 (LC 11)
Max Uplift 2=-24 (LC 13), 4=-28 (LC 13)
Max Grav 2=142 (LC 1), 4=142 (LC 1), 6=151 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/13, 2-3=-91/76, 3-4=-81/97, 4-5=0/13
BOT CHORD 2-6=-24/70, 4-6=-24/70
WEBS 3-6=-88/70

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) 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 6-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 2 and 28 lb uplift at joint 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



September 23, 2025

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

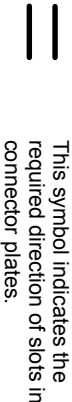
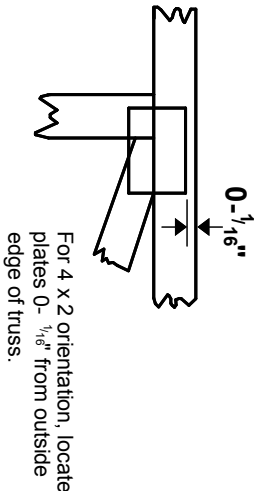
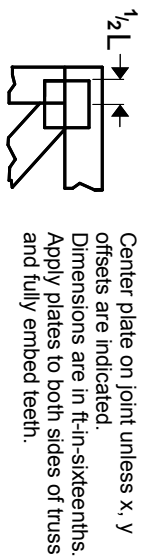
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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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

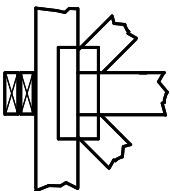
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

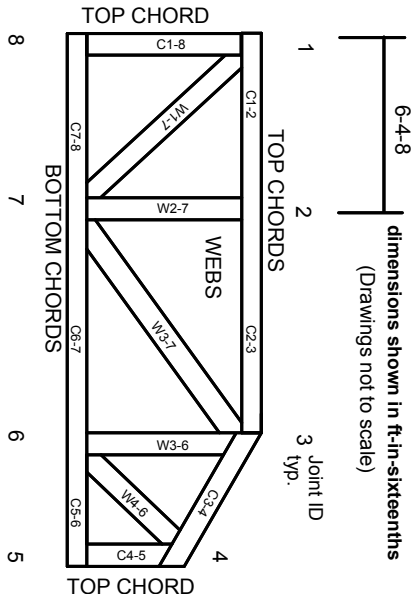
BEARING



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.

MITek

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

RE: 251382-B
Lot 47 Magnolia Hills

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Precision Custom Homes and Renovations Project Name: 251382-B
Lot/Block: Model:
Address: 183 Myrtle Oak Dr. Subdivision:
City: Cameron State: NC

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

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 25.3
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 13 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I75911624	ET1	8/26/2025
2	I75911625	F1	8/26/2025
3	I75911626	F1A	8/26/2025
4	I75911627	F2	8/26/2025
5	I75911628	F2A	8/26/2025
6	I75911629	F3	8/26/2025
7	I75911630	F4	8/26/2025
8	I75911631	F5	8/26/2025
9	I75911632	F5A	8/26/2025
10	I75911633	F6	8/26/2025
11	I75911634	F6A	8/26/2025
12	I75911635	FG1	8/26/2025
13	I75911636	FG2	8/26/2025

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

Truss Design Engineer's Name: Gilbert, Eric

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

North Carolina COA: C-0844

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

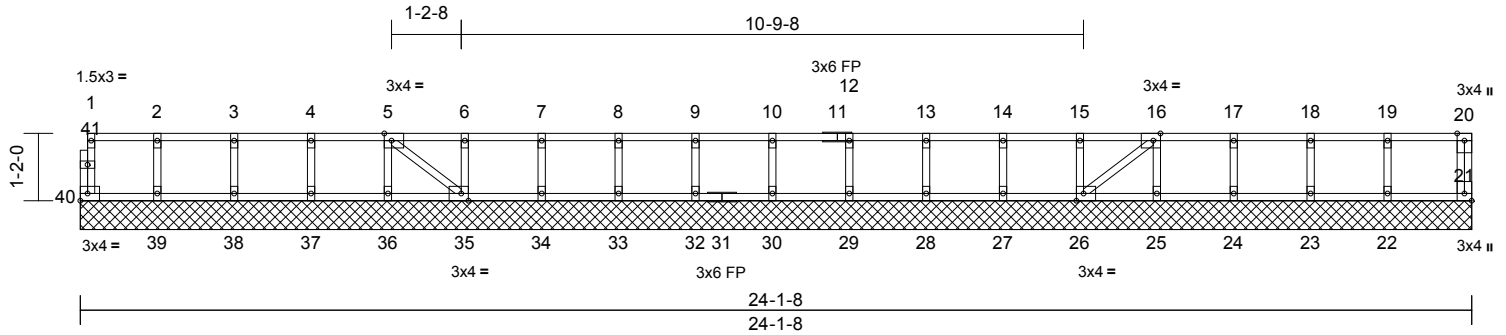


Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills
251382-B	ET1	GABLE	1	1	175911624
Job Reference (optional)					

Comtech, Inc, Fayetteville, NC - 28314,

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ID:oZsdJhAH7sgso7cS4ggLwVyzqzV-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:40

Plate Offsets (X, Y): [5:0-1-8,Edge], [16:0-1-8,Edge], [21:Edge,0-1-8], [26:0-1-8,Edge], [35:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	21	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							
Weight: 104 lb FT = 20%F, 11%E											

LUMBER

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

BRACING

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

REACTIONS	(size)	21=24-1-8, 22=24-1-8, 23=24-1-8, 24=24-1-8, 25=24-1-8, 26=24-1-8, 27=24-1-8, 28=24-1-8, 29=24-1-8, 30=24-1-8, 32=24-1-8, 33=24-1-8, 34=24-1-8, 35=24-1-8, 36=24-1-8, 37=24-1-8, 38=24-1-8, 39=24-1-8, 40=24-1-8
Max Grav		21=58 (LC 1), 22=166 (LC 1), 23=142 (LC 1), 24=148 (LC 1), 25=140 (LC 1), 26=153 (LC 1), 27=147 (LC 1), 28=147 (LC 1), 29=147 (LC 1), 30=147 (LC 1), 32=147 (LC 1), 33=147 (LC 1), 34=147 (LC 1), 35=155 (LC 1), 36=138 (LC 1), 37=147 (LC 1), 38=146 (LC 1), 39=152 (LC 1), 40=49 (LC 1)

FORCES

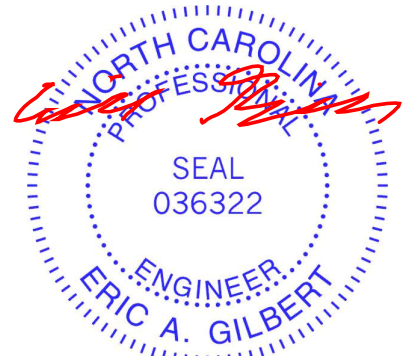
TOP CHORD	(lb) - Maximum Compression/Maximum Tension	1-40=-44/0, 20-21=-53/0, 1-2=-3/0, 2-3=-3/0, 3-4=-3/0, 4-5=-3/0, 5-6=0/8, 6-7=0/8, 7-8=0/8, 8-9=0/8, 9-10=0/8, 10-12=0/8, 12-13=0/8, 13-14=0/8, 14-15=0/8, 15-16=0/8, 16-17=0/0, 17-18=0/0, 18-19=0/0, 19-20=0/0
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BOT CHORD	39-40=0/3, 38-39=0/3, 37-38=0/3, 36-37=0/3, 35-36=0/3, 34-35=-8/0, 33-34=-8/0, 32-33=-8/0, 30-32=-8/0, 29-30=-8/0, 28-29=-8/0, 27-28=-8/0, 26-27=-8/0, 25-26=0/0, 24-25=0/0, 23-24=0/0, 22-23=0/0, 21-22=0/0
WEBS	2-39=-138/0, 3-38=-133/0, 4-37=-133/0, 5-36=-125/0, 6-35=-133/0, 7-34=-133/0, 8-33=-133/0, 9-32=-133/0, 10-30=-133/0, 12-29=-133/0, 13-28=-133/0, 14-27=-133/0, 15-26=-133/0, 16-25=-127/0, 17-24=-134/0, 18-23=-129/0, 19-22=-151/0, 5-35=-13/0, 16-26=-10/0

NOTES

- 1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
- 2) Plates checked for a plus or minus 1 degree rotation about its center.
- 3) Gable requires continuous bottom chord bearing.
- 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 5) Gable studs spaced at 1-4-0 oc.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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



August 26, 2025

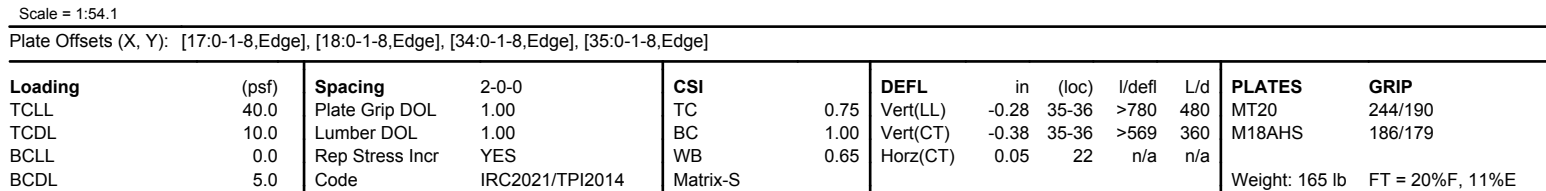
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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)

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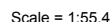
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ID:oZsdJhAH7sgso7cS4ggLwVYgezV-RfC?PsB70Hg3NSgPqnL8w3uITxbGKWRcDoi7J4Cz?f



WEBS 2-38=-1374/0, 2-37=0/949, 3-37=-917/0,
3-36=0/591, 4-36=-80/0, 5-36=-370/0,
5-35=-371/279, 6-35=-157/117,
12-30=-1802/0, 20-22=-1075/0, 20-23=0/702,
19-23=-665/0, 19-24=-145/201,
14-30=-1551/0, 14-29=0/1132,
16-29=-1081/0, 16-27=0/742, 13-30=-113/0,
12-31=0/1373, 11-31=-1321/0, 11-32=0/1025,
9-32=-146/0, 8-32=-820/0, 8-34=0/1108,
7-34=-524/0, 17-27=-961/0, 17-26=0/298,
18-24=-93/370, 18-25=270/0

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 3x4 (=) MT20 unless otherwise indicated.
- 4) Plates checked for a plus or minus 1 degree rotation about its center.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

August 26, 2025

Page: 1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.98	Vert(LL)	-0.19	38-39	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.91	Vert(CT)	-0.50	38-39	>440	360	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.08	25	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 234 lb	FT = 20%F, 11%E

WEBS

2-41=-2731/0, 2-40=0/2138, 3-40=-363/0,
4-40=-1603/0, 4-39=0/1192, 5-39=-285/0,
6-39=-717/3, 6-38=-762/231, 7-38=-119/365,
14-33=-3899/0, 14-34=0/3358, 13-34=-340/0,
12-34=-3062/0, 12-35=0/2105, 11-35=-410/0,
9-35=-1704/0, 9-37=0/2330, 8-37=-1254/0,
23-25=-2043/0, 23-26=0/1274,
22-26=-1247/33, 22-27=-360/145,
18-32=-2518/0, 18-30=0/1840,
20-30=-2105/0, 21-27=-65/650,
21-28=-277/0, 20-29=0/301, 15-33=-351/0,
16-33=-3476/0, 16-32=0/2432

Uniform Loads (lb/ft)
Vert: 1-15=-140, 15-24=-220, 25-41=-10

7) 1st chase Dead + Floor Live (unbalanced): Lumber
Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-8=-220, 8-15=-140, 15-24=-220, 25-41=-10

8) 2nd chase Dead + Floor Live (unbalanced): Lumber
Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-7=-140, 7-24=-220, 25-41=-10

9) 3rd chase Dead + Floor Live (unbalanced): Lumber
Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-21=-220, 21-24=-140, 25-41=-10

10) 4th chase Dead + Floor Live (unbalanced): Lumber
Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-15=-220, 15-20=-140, 20-24=-220, 25-41=-10

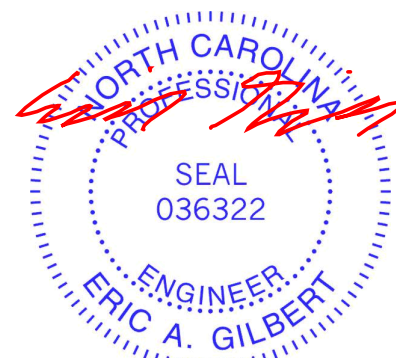
REACTIONS (lb/size) 25=1207/0-3-8, 33=4660/0-3-8,
41=1695/0-3-0
Max Grav 25=1315 (LC 4), 33=4660 (LC 1),
41=1742 (LC 3)

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) The Fabrication Tolerance at joint 36 = 11%
- 4) Plates checked for a plus or minus 1 degree rotation about its center.
- 5) Load case(s) 1, 3, 4, 7, 8, 9, 10 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 10-00-00 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 (lb/ft)
Ver: 1-24=-220, 25-41=-10
- 3) 1st Dead + Floor Live (unbalanced): Lumber
Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Ver: 1-15=-220, 15-24=-140, 25-41=-10
- 4) 2nd Dead + Floor Live (unbalanced): Lumber
Increase=1.00, Plate Increase=1.00



August 26, 2025



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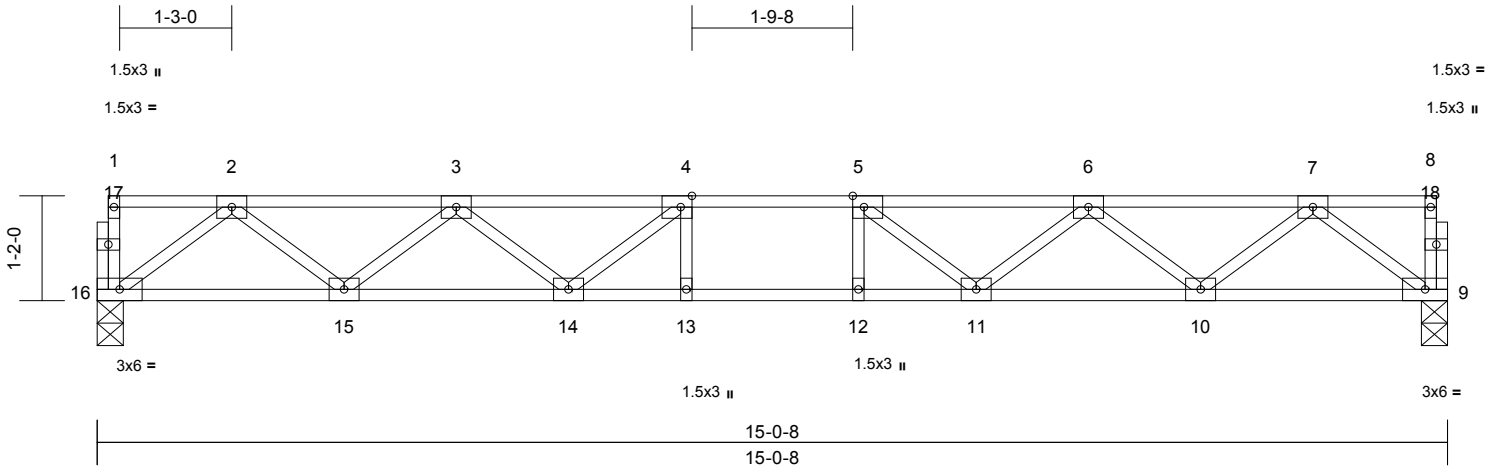
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills
251382-B	F2	FLOOR	3	1	Job Reference (optional)
					I75911627

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Aug 20 2025 Print: 25.3.0 S Aug 20 2025 MiTek Industries, Inc. Tue Aug 26 10:18:44
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Page: 1



Scale = 1:25.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	-0.15	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.72	Vert(CT)	-0.20	12-13	>886	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.04	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 75 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS (size) 9=0-3-8, 16=0-3-8
Max Grav 9=807 (LC 1), 16=807 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-16=-42/0, 8-9=-42/0, 1-2=-2/0, 2-3=-1656/0,
3-4=-2575/0, 4-5=-2865/0, 5-6=-2575/0,
6-7=-1656/0, 7-8=-2/0

BOT CHORD 15-16=0/1000, 14-15=0/2277, 13-14=0/2865,
12-13=0/2865, 11-12=0/2865, 10-11=0/2277,
9-10=0/1000

WEBS 2-16=-1252/0, 2-15=0/853, 3-15=-809/0,
3-14=0/447, 4-14=-545/0, 4-13=-126/155,
7-9=-1252/0, 7-10=0/853, 6-10=-809/0,
6-11=0/447, 5-11=-545/0, 5-12=-126/155

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x4 (=) MT20 unless otherwise indicated.
- 3) Plates checked for a plus or minus 1 degree rotation about its center.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



August 26, 2025

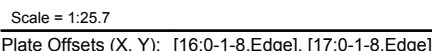
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Edenton, NC 27932

Comtech, Inc, Fayetteville, NC - 28314, Run: 25.30 S Aug 20 2025 Print: 25.3.0 S Aug 20 2025 MiTek Industries, Inc. Tue Aug 26 10:18:44 Page: 1
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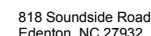
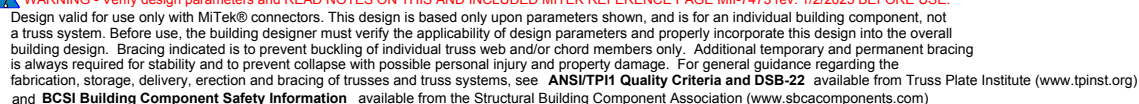
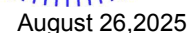
LUMBER		4) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 375 lb down at 4-4-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
TOP CHORD	2x4 SP No.1(flat)	
BOT CHORD	2x4 SP 2400F 2.0E(flat)	
WEBS	2x4 SP No.3(flat)	5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
OTHERS	2x4 SP No.3(flat)	
BRACING		

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

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-23=-54/0, 13-14=-34/0, 1-2=-3/0, 2-3=-2295/0, 3-5=-2300/0, 5-6=-3511/0, 6-8=-3511/0, 8-9=-3199/0, 9-10=-3199/0, 10-11=-3199/0, 11-12=-1829/0, 12-13=-2/0
BOT CHORD	22-23=0/1287, 21-22=0/1287, 20-21=0/3293, 19-20=0/3293, 18-19=0/3520, 17-18=0/3520, 16-17=0/3199, 15-16=0/2572, 14-15=0/1107
WEBS	12-14=-1387/0, 12-15=0/939, 11-15=-968/0, 11-16=0/987, 10-16=-366/0, 2-23=-1601/0, 2-22=0/14, 2-21=0/1280, 3-21=-39/12, 5-21=-1238/0, 5-20=0/9, 5-19=0/270, 6-19=-164/0, 8-19=-140/101, 8-18=0/187, 8-17=-679/178, 9-17=-106/116

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Plates checked for a plus or minus 1 degree rotation about its center.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

1) Dead + Floor Live (balanced): Lumber Increase=1.00,
Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 14-23=-10, 1-13=-100
Concentrated Loads (lb)
Vert: 5=-295 (F)

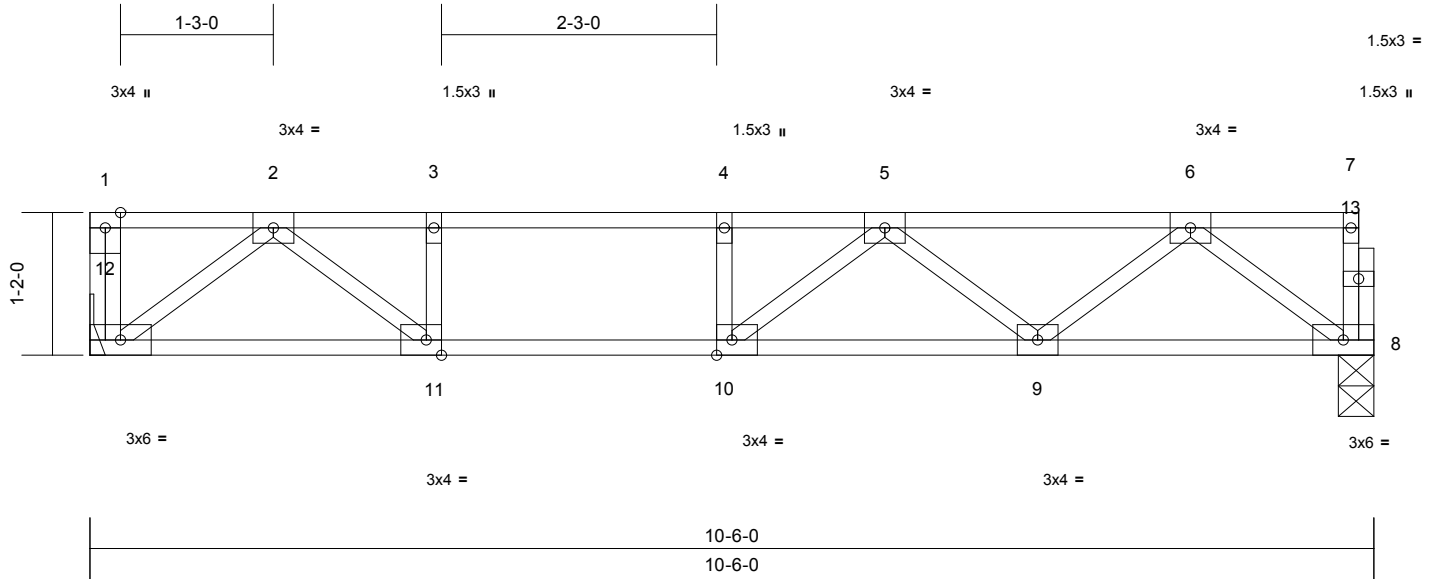


Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills	175911629
251382-B	F3	Floor	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Aug 20 2025 Print: 25.3.0 S Aug 20 2025 MiTek Industries, Inc. Tue Aug 26 10:18:44
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Page: 1



Scale = 1:18.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.66	Vert(LL)	-0.14	9-10	>904	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.61	Vert(CT)	-0.18	9-10	>684	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.01	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 53 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

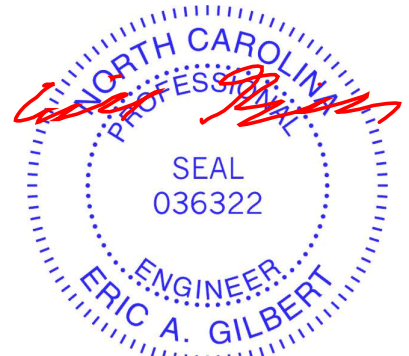
REACTIONS (size) 8=0-3-8, 12= Mechanical
Max Grav 8=558 (LC 1), 12=564 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-77/0, 7-8=-38/0, 1-2=0/0, 2-3=-1261/0, 3-4=-1261/0, 4-5=-1261/0, 5-6=-1043/0, 6-7=-2/0
BOT CHORD 11-12=0/656, 10-11=0/1261, 9-10=0/1325, 8-9=0/682
WEBS 2-12=-822/0, 2-11=0/791, 6-8=-852/0, 6-9=0/471, 5-9=-367/0, 5-10=-168/192, 4-10=-116/23, 3-11=-377/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Plates checked for a plus or minus 1 degree rotation about its center.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



August 26, 2025

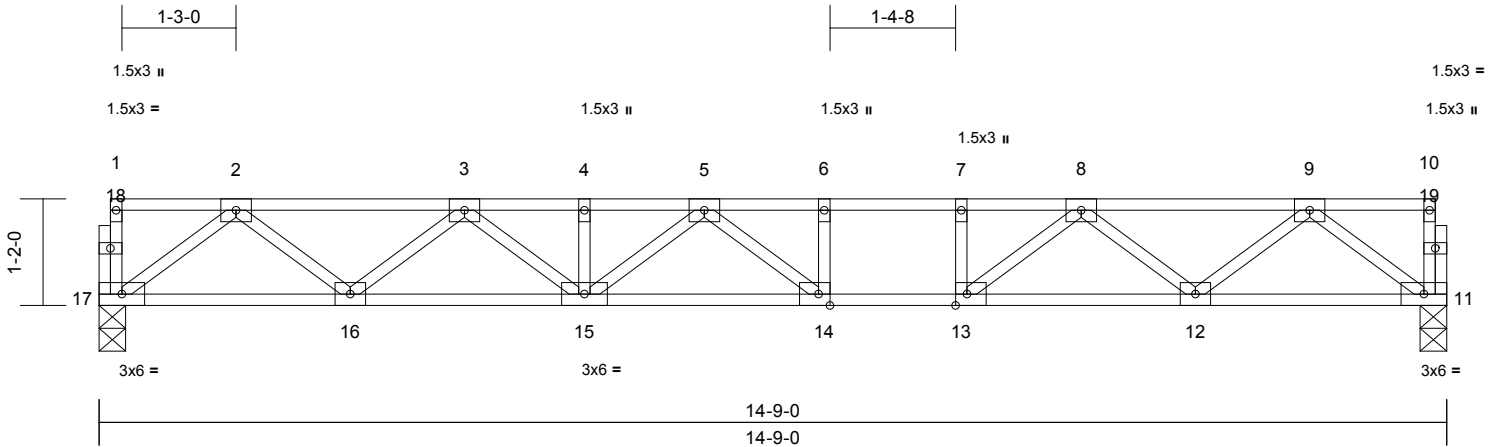
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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 47 Magnolia Hills
251382-B	F4	FLOOR	5	1	Job Reference (optional)
					I75911630



Scale = 1:25.2

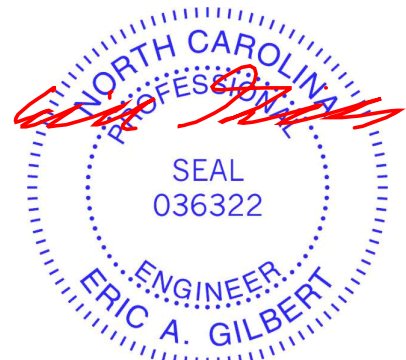
Plate Offsets (X, Y): [13:0-1-8,Edge], [14:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.51	Vert(LL)	-0.17	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.24	14-15	>732	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 76 lb	FT = 20%F, 11%E

- LUMBER
- TOP CHORD 2x4 SP No.1(flat)
- BOT CHORD 2x4 SP No.1(flat)
- WEBS 2x4 SP No.3(flat)
- OTHERS 2x4 SP No.3(flat)
- BRACING
- TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS (size) 11=0-3-8, 17=0-3-8
- Max Grav 11=791 (LC 1), 17=791 (LC 1)
- FORCES (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-17=-35/0, 10-11=-34/0, 1-2=-2/0, 2-3=-1607/0, 3-4=-2556/0, 4-5=-2556/0, 5-6=-2657/0, 6-7=-2657/0, 7-8=-2657/0, 8-9=-1596/0, 9-10=-2/0
- BOT CHORD 16-17=0/983, 15-16=0/2207, 14-15=0/2744, 13-14=0/2657, 12-13=0/2204, 11-12=0/984
- WEBS 2-17=-1230/0, 2-16=0/813, 3-16=-780/0, 3-15=0/446, 4-15=-75/0, 5-15=-253/0, 5-14=-298/246, 6-14=-121/86, 9-11=-1232/0, 9-12=0/797, 8-12=-791/0, 8-13=0/722, 7-13=-312/0

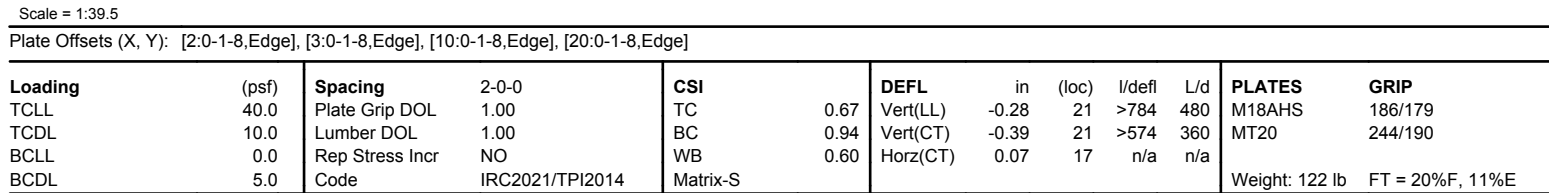
- NOTES
- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x4 (=) MT20 unless otherwise indicated.
- 3) Plates checked for a plus or minus 1 degree rotation about its center.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



August 26,2025

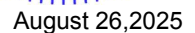
Comtech, Inc, Fayetteville, NC - 28314, Run: 25.30 S Aug 20 2025 Print: 25.3.0 S Aug 20 2025 MiTek Industries, Inc. Tue Aug 26 10:18:44 Page: 1
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- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) Plates checked for a plus or minus 1 degree rotation about its center.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00,
Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 17-29=-10, 1-16=-100
Concentrated Loads (lb)
Vert: 1=-1450



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.sbccomponents.com)



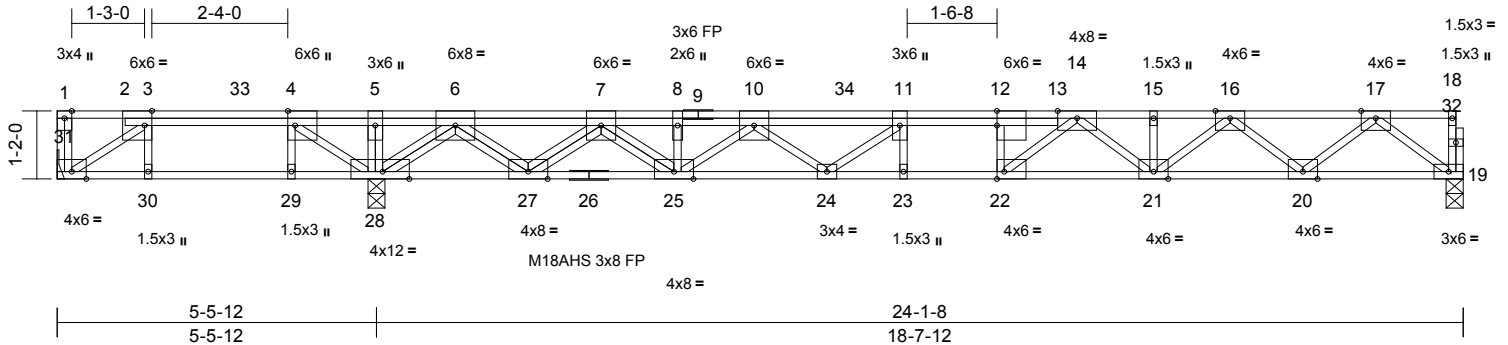
Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills
251382-B	F5A	Floor	1	1	Job Reference (optional)
					I75911632

Comtech, Inc, Fayetteville, NC - 28314,

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Page: 1

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Scale = 1:39.5

Plate Offsets (X, Y): [3:0-1-8,Edge], [4:0-3-0,Edge], [22:0-1-8,Edge], [28:0-5-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.95	Vert(LL)	-0.35	23-24	>632	480	M18AHS 186/179
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.48	23-24	>466	360	MT20 244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.84	Horz(CT)	0.07	19	n/a	n/a	
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							
Weight: 153 lb FT = 20%F, 11%E											

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-8-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 19=0-3-8, 28=0-3-8, 31=Mechanical
Max Uplift 31=335 (LC 4)
Max Grav 19=1210 (LC 4), 28=3059 (LC 8), 31=476 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-31=-258/0, 18-19=-36/0, 1-3=-16/36, 3-4=-603/1007, 4-5=0/3329, 5-6=0/3329, 6-7=-1061/84, 7-8=-4111/0, 8-10=-4106/0, 10-11=-6189/0, 11-12=-6524/0, 12-14=-6547/0, 14-15=-4621/0, 15-16=-4621/0, 16-17=-2663/0, 17-18=-2/0
BOT CHORD 30-31=-1007/603, 29-30=-1007/603, 28-29=-1007/603, 27-28=-1013/0, 25-27=0/2710, 24-25=0/5739, 23-24=0/6524, 22-23=0/6524, 21-22=0/5319, 20-21=0/3745, 19-20=0/1537
WEBS 5-28=0/614, 3-31=-730/1218, 4-28=-3566/0, 4-29=0/220, 3-30=-171/0, 6-28=-2854/0, 6-27=0/2180, 7-27=-2132/0, 7-25=0/1815, 8-25=-120/129, 10-25=-2038/0, 10-24=0/656, 11-24=-648/0, 11-23=-193/52, 17-19=-1925/0, 17-20=0/1466, 16-20=-1408/0, 16-21=0/1119, 15-21=-154/0, 14-21=-891/0, 14-22=0/1730, 12-22=-907/0

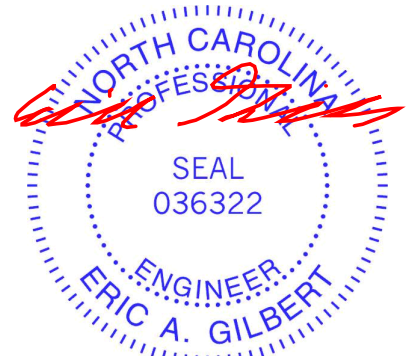
NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates 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 335 lb uplift at joint 31.
- Load case(s) 3, 4, 10 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 19-31=-10, 1-18=-100
Concentrated Loads (lb)
Vert: 33=-940, 34=-800
- 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 19-31=-10, 1-5=-100, 5-18=-20
Concentrated Loads (lb)
Vert: 33=-940, 34=-218
- 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 19-31=-10, 1-5=-20, 5-18=-100
Concentrated Loads (lb)
Vert: 33=-256, 34=-800
- 4th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (lb/ft)
Vert: 19-31=-10, 1-5=-100, 5-11=-20, 11-18=-100
Concentrated Loads (lb)
Vert: 33=-940, 34=-218



August 26, 2025

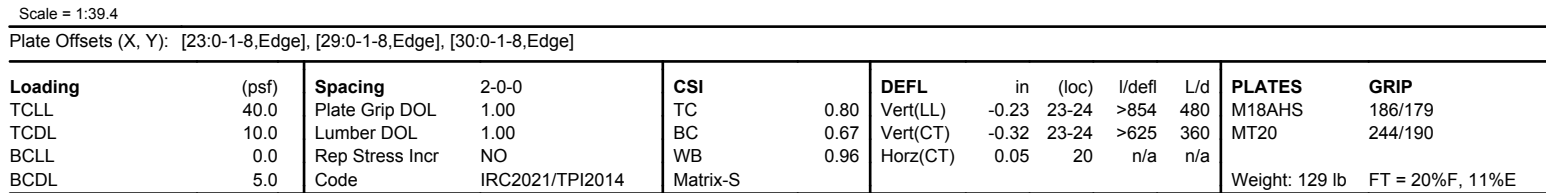
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A MiTek Affiliate

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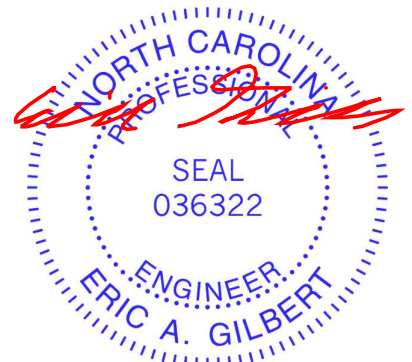
NOTES

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

- 3) Plates checked for a plus or minus 1 degree rotation about its center.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 31.
- 6) Load case(s) 3, 4, 8, 10 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 10-00-00 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.

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00,
Plate Increase=1.00
Uniform Loads (lb/ft)
 Vert: 20-31=-10, 1-19=-100
Concentrated Loads (lb)
 Vert: 1=-900, 32=-800
- 3) 1st Dead + Floor Live (unbalanced): Lumber
Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
 Vert: 20-31=-10, 1-6=-100, 6-19=-20
Concentrated Loads (lb)
 Vert: 1=-900, 32=-218
- 4) 2nd Dead + Floor Live (unbalanced): Lumber
Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
 Vert: 20-31=-10, 1-6=-20, 6-19=-100
Concentrated Loads (lb)
 Vert: 1=-245, 32=-800
- 8) 2nd chase Dead + Floor Live (unbalanced): Lumber
Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
 Vert: 20-31=-10, 1-3=-20, 3-19=-100
Concentrated Loads (lb)

Vert: 1=-245, 32=-800
10) 4th chase Dead + Floor Live (unbalanced): Lumber
Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 20-31=-10, 1-6=-100, 6-12=-20, 12-19=-100
Concentrated Loads (lb)
Vert: 1=-900, 32=-218



August 26, 2025

WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEL REFERENCE PAGE MIT-TR-17-0169, 1/12/2023 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)

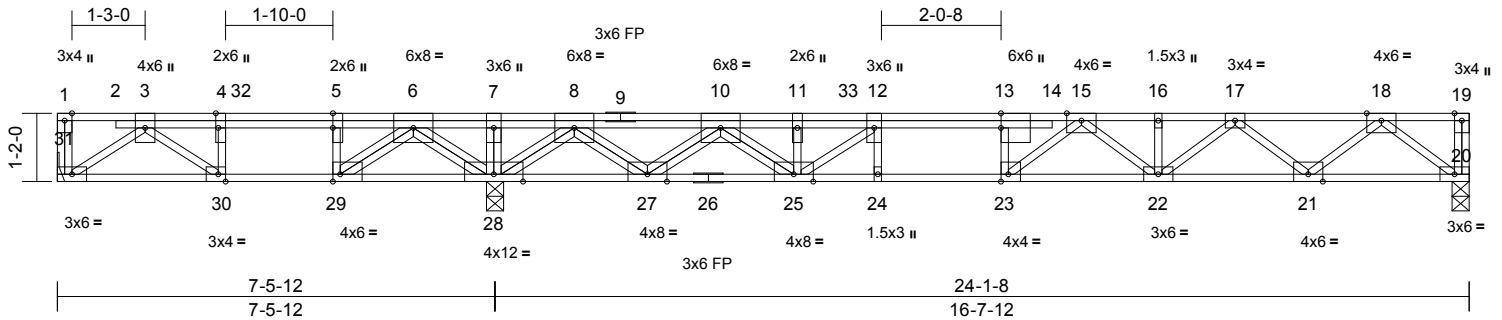
ENGINEERING BY
TRENCO
A Mi Tek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills
251382-B	F6A	Floor	1	1	175911634
Job Reference (optional)					

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Aug 20 2025 Print: 25.3.0 S Aug 20 2025 MiTek Industries, Inc. Tue Aug 26 10:18:45
ID:oZsdJhAH7sgso7cS4ggLwVYqezV-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:39.4

Plate Offsets (X, Y): [4:0-3-0,Edge], [5:0-3-0,Edge], [13:0-3-0,Edge], [23:0-1-8,Edge], [29:0-1-8,Edge], [30:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.75	Vert(LL)	-0.21	23-24	>964	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.28	23-24	>703	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.05	20	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 157 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 20=0-3-8, 28=0-3-8, 31= Mechanical
Max Uplift 31=200 (LC 4)
Max Grav 20=997 (LC 7), 28=2925 (LC 1), 31=851 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-31=-46/34, 19-20=-39/0, 1-3=-17/0, 3-4=-1646/1142, 4-5=-1646/1142, 5-6=-1646/1142, 6-7=0/3508, 7-8=0/3508, 8-10=-431/34, 10-11=-3614/0, 11-12=-3649/0, 12-13=-4508/0, 13-15=-4517/0, 15-16=-3542/0, 16-17=-3542/0, 17-18=-2109/0, 18-19=0/0
BOT CHORD 30-31=-275/1106, 29-30=-1142/1646, 28-29=-2620/108, 27-28=-1386/0, 25-27=0/2081, 24-25=0/4508, 23-24=0/4508, 22-23=0/3953, 21-22=0/2935, 20-21=0/1247
WEBS 7-28=-352/0, 3-31=-1357/337, 3-30=-1083/674, 4-30=-434/601, 8-28=-2633/0, 8-27=0/2161, 10-27=-2111/0, 10-25=0/1955, 11-25=-725/221, 12-25=-1132/0, 12-24=-51/74, 18-20=-1565/0, 18-21=0/1122, 17-21=-1076/0, 17-22=0/775, 16-22=-137/0, 15-22=-525/0, 15-23=-297/1070, 13-23=-593/164, 6-28=-1850/0, 6-29=0/2954, 5-29=-1637/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- 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 200 lb uplift at joint 31.
- Load case(s) 3, 4, 10 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.

LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 20-31=-10, 1-19=-100
Concentrated Loads (lb)
Vert: 32=-1000, 33=-800
- 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 20-31=-10, 1-7=-100, 7-19=-20
Concentrated Loads (lb)
Vert: 32=-1000, 33=-218
- 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 20-31=-10, 1-7=-20, 7-19=-100
Concentrated Loads (lb)
Vert: 32=-273, 33=-800
- 4th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)

Vert: 20-31=-10, 1-7=-100, 7-12=-20, 12-19=-100
Concentrated Loads (lb)
Vert: 32=-1000, 33=-218



August 26, 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

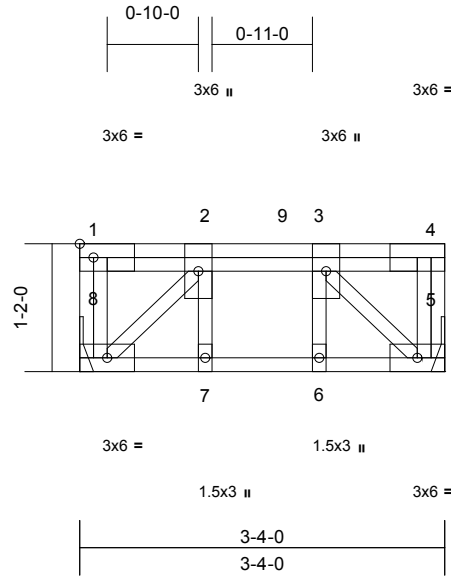
Job	Truss	Truss Type	Qty	Ply	Lot 47 Magnolia Hills
251382-B	FG1	Floor Girder	1	1	Job Reference (optional)
					I75911635

Comtech, Inc, Fayetteville, NC - 28314,

Run: 25.30 S Aug 20 2025 Print: 25.3.0 S Aug 20 2025 MiTek Industries, Inc. Tue Aug 26 10:18:45

Page: 1

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Scale = 1:21

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	0.18	0.00	6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.13	0.00	6	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.13	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S						Weight: 25 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Grav 5=461 (LC 4), 8=395 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-8=-1/51, 4-5=-53/0, 1-2=0/0, 2-3=-409/0, 3-4=0/0

BOT CHORD 7-8=0/409, 6-7=0/409, 5-6=0/409

WEBS 2-8=-567/0, 2-7=0/34, 3-5=-567/0, 3-6=-17/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- Plates checked for a plus or minus 1 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 544 lb down at 1-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Vert: 9=-464 (B)



August 26, 2025

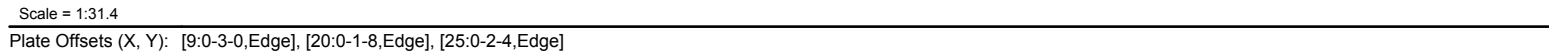
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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.sbcacompnents.com)

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Comtech, Inc, Fayetteville, NC - 28314, Run: 25.30 S Aug 20 2025 Print: 25.3.0 S Aug 20 2025 MiTek Industries, Inc. Tue Aug 26 10:18:45 Page: 1
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LUMBER		4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 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.
TOP CHORD	2x4 SP No.1(flat)	5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 441 lb down at 8-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
BOT CHORD	2x4 SP 2400F 2.0E(flat)	
WEBS	2x4 SP No.3(flat)	6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
OTHERS	2x4 SP No.3(flat)	
BRACING		LOAD CASE(S) Standard
TOP CHORD	Structural wood sheathing directly applied or 5-3-2 oc purlins, except end verticals.	1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	Uniform Loads (lb/ft) Vert: 1-16=-100, 17-27=-10
REACTIONS (size) 17=0-3-8, 27=0-3-8		Concentrated Loads (lb) Vert: 8=-361 (B)
Max Grav 17=1172 (LC 1), 27=1216 (LC 1)		
FORCES (lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-27=-57/0, 16-17=-36/0, 1-2=-3/0, 2-3=-2812/0, 3-4=-2812/0, 4-6=-4977/0, 6-7=-4976/0, 7-8=-6186/0, 8-9=-6186/0, 9-10=-6186/0, 10-12=-4419/0, 12-13=-4416/0, 13-15=-2567/0, 15-16=-2/0 26-27=0/1545, 24-26=0/3872, 23-24=0/3872, 22-23=0/5851, 21-22=0/5851, 20-21=0/6186, 19-20=0/5317, 18-19=0/3610, 17-18=0/1484 15-17=-1859/0, 15-18=0/1409, 13-18=-1358/0, 13-19=0/1029, 12-19=0/41, 10-19=-1124/0, 10-20=0/1569, 9-20=-816/0, 2-27=-1924/0, 2-26=0/17, 2-25=0/1607, 3-25=-155/0, 4-25=-1346/0, 4-24=0/21, 4-23=0/1400, 6-23=-212/0, 7-23=-1086/0, 7-22=-16/95, 7-21=-73/826, 8-21=-416/0	
BOT CHORD		
WEBS		

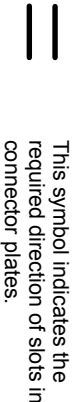
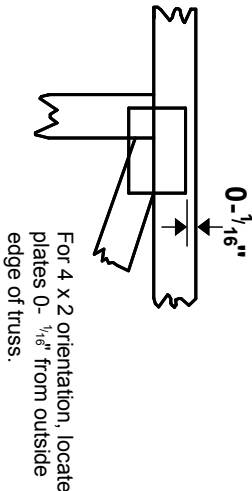
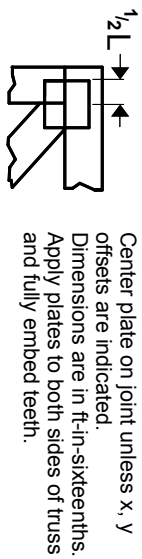
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

4 X 4

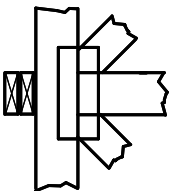
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

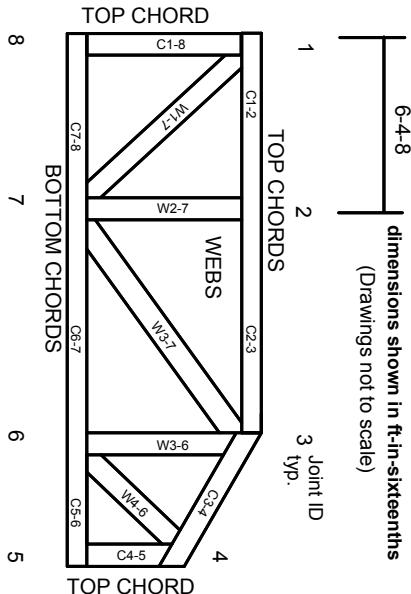
BEARING



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: MII-7473 rev. 1/2/2023



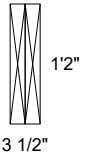
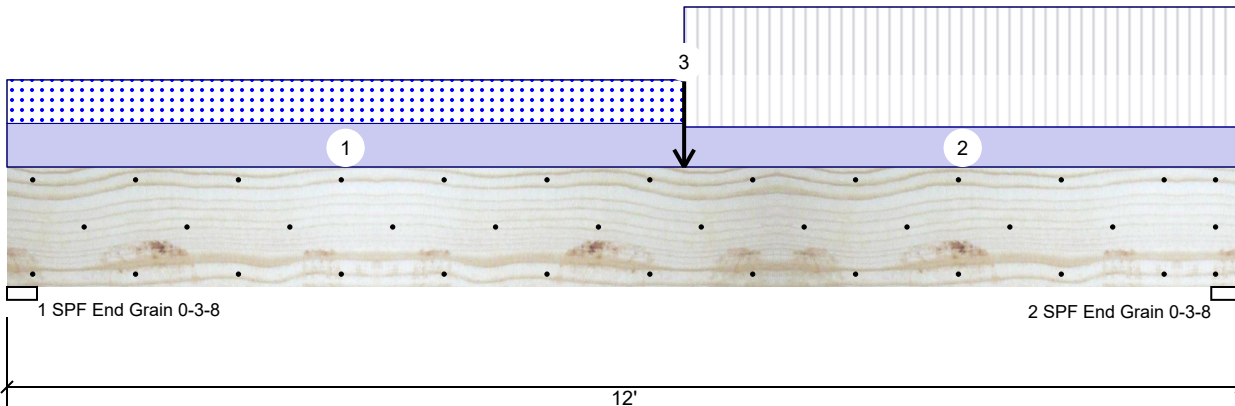
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

Page 1 of 12

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

Level: Level



Member Information

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

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

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2515	2325	1421	0	0
2	Vertical	5367	2369	514	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	51%	2325 / 2952	5277	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	Vert	75%	2369 / 5367	7736	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	24155 ft-lb	6'7"	26999 ft-lb	89%	D+L	L
Unbraced	24155 ft-lb	6'7"	24188 ft-lb	100%	D+L	L
Shear	6145 lb	10'6 1/2"	10453 lb	59%	D+L	L
LL Defl inch	0.242 (L/573)	6'7"	0.289 (L/480)	84%	L	L
TL Defl inch	0.373 (L/371)	6'6"	0.385 (L/360)	97%	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 laterally braced at a maximum of 3'3 1/4" o.c.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 6-7-0		Top	294 PLF	0 PLF	294 PLF	0 PLF	0 PLF	A1
2	Part. Uniform	6-7-0 to 12-0-0		Top	270 PLF	810 PLF	0 PLF	0 PLF	0 PLF	F1
3	Point	6-7-0		Top	1165 lb	3495 lb	0 lb	0 lb	0 lb	F1A
	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

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

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

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



This design is valid until 2/28/2028



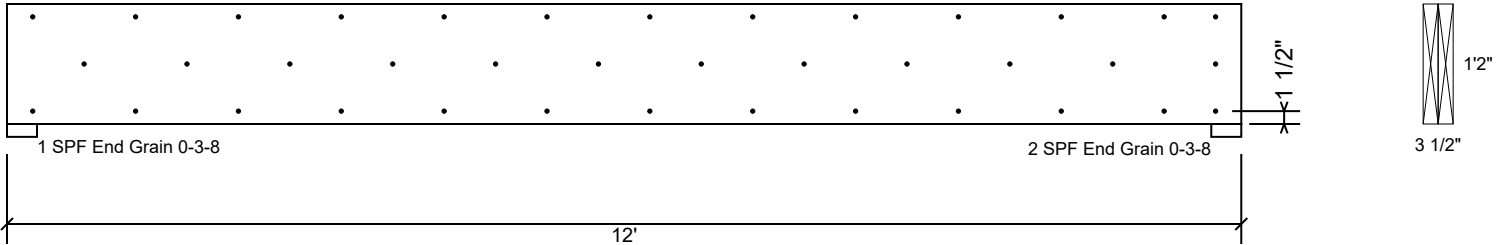
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

Page 2 of 12

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

Level: Level



Multi-Ply Analysis

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

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

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 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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1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS





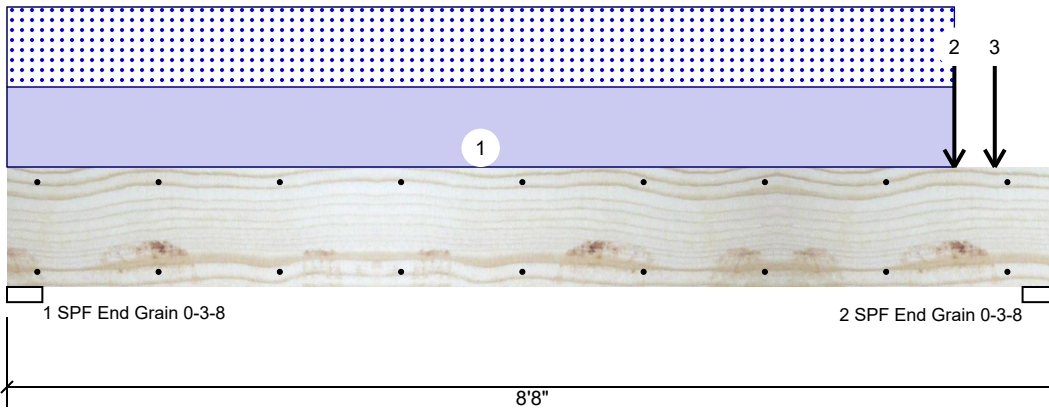
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

Page 3 of 12

BM2 Kerto-S LVL 1.750" X 11.875" 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 2012
Load Sharing:	No
Header Supports:	No
Glass:	
Deck:	Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	2091	2042	0	0
2	Vertical	0	5243	4972	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	40%	2091 / 2042	4133	L	D+S
2 - SPF End Grain	3.500"	Vert	99%	5243 / 4972	10215	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9474 ft-lb	5' 3/8"	22897 ft-lb	41%	D+S	L
Unbraced	9474 ft-lb	5' 3/8"	22897 ft-lb	41%	D+S	L
Shear	6356 lb	7'4 5/8"	10197 lb	62%	D+S	L
LL Defl inch	0.073 (L/1357)	4'6 13/16"	0.274 (L/360)	27%	S	L
TL Defl inch	0.147 (L/670)	4'6 13/16"	0.410 (L/240)	36%	D+S	L

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 7-9-12		Top	406 PLF	0 PLF	406 PLF	0 PLF	0 PLF	B2
2	Point	7-9-12		Top	3842 lb	0 lb	3842 lb	0 lb	0 lb	B2-GR
	Bearing Length	0-3-8								
3	Point	8-1-12		Top	240 lb	0 lb	0 lb	0 lb	0 lb	Wall Above
	Bearing Length	0-3-8								
	Self Weight				9 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

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

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

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





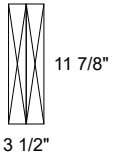
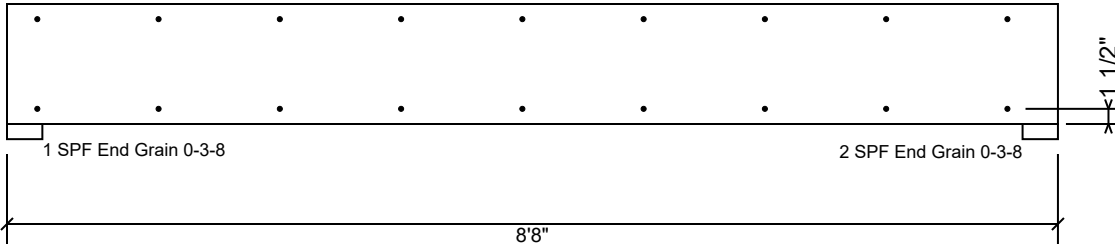
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

Page 4 of 12

BM2 Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

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

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

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 2/28/2028

Manufacturer Info

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301 Merritt 7 Building, 2nd Floor
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www.metsawood.com/us

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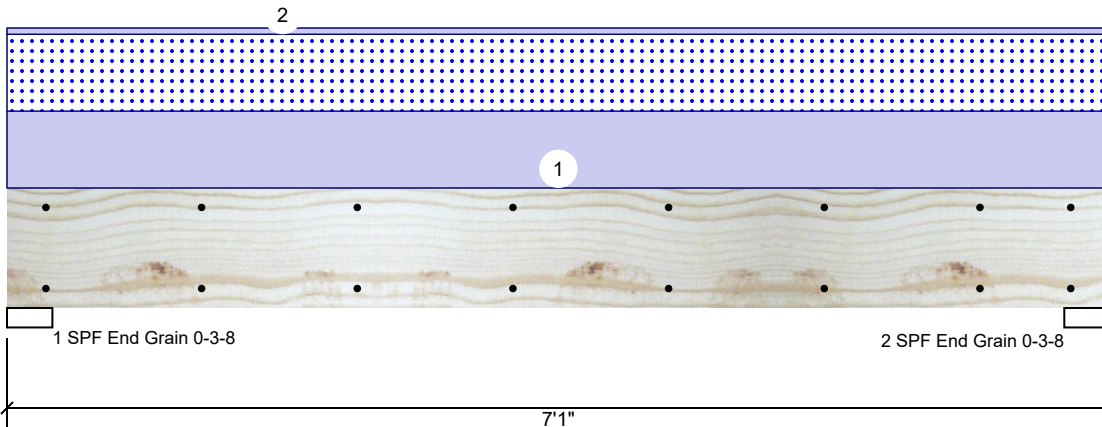
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

Page 5 of 12

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: 360
Deflection TL: 240
Importance: Normal - II
Temperature: Temp <= 100°F

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

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	2150	1966	0	0
2	Vertical	0	2150	1966	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	40%	2150 / 1966	4116	L	D+S
2 - SPF End Grain	3.500"	Vert	40%	2150 / 1966	4116	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6376 ft-lb	3'6 1/2"	14423 ft-lb	44%	D+S	L
Unbraced	6376 ft-lb	3'6 1/2"	9973 ft-lb	64%	D+S	L
Shear	2881 lb	1' 3/4"	7943 lb	36%	D+S	L
LL Defl inch	0.063 (L/1263)	3'6 1/2"	0.221 (L/360)	29%	S	L
TL Defl inch	0.132 (L/603)	3'6 1/2"	0.331 (L/240)	40%	D+S	L

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	555 PLF	0 PLF	555 PLF	0 PLF	0 PLF	A1
2	Uniform			Top	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Above
	Self Weight				7 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

This design is valid until 2/28/2028

Manufacturer Info

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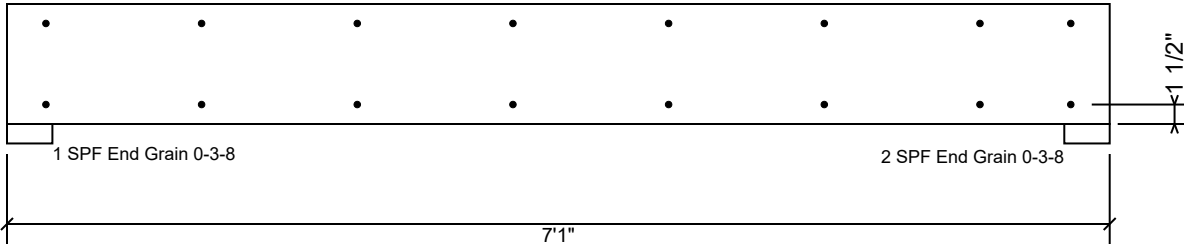
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

Page 6 of 12

BM3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

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

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

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

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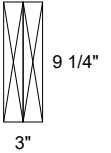
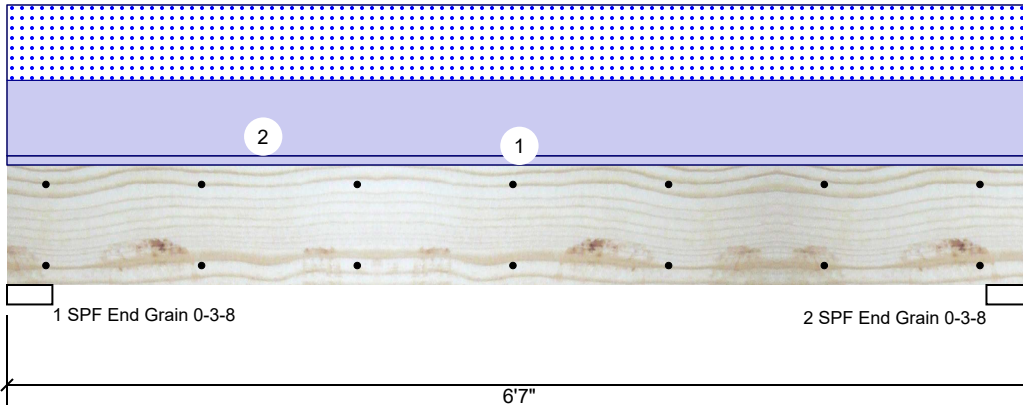
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

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BM4 S-P-F #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level



Member Information

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

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

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1380	1205	0	0
2	Vertical	0	1380	1205	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	58%	1380 / 1205	2584	L	D+S
2 - SPF End Grain	3.500"	Vert	58%	1380 / 1205	2584	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3682 ft-lb	3'3 1/2"	3946 ft-lb	93%	D+S	L
Unbraced	3682 ft-lb	3'3 1/2"	3946 ft-lb	93%	D+S	L
Shear	1750 lb	5'6 1/4"	2872 lb	61%	D+S	L
LL Defl inch	0.042 (L/1757)	3'3 1/2"	0.153 (L/480)	27%	S	L
TL Defl inch	0.090 (L/819)	3'3 1/2"	0.204 (L/360)	44%	D+S	L

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Above
2	Uniform			Top	366 PLF	0 PLF	366 PLF	0 PLF	0 PLF	A1
	Self Weight				8 PLF					

Manufacturer Info

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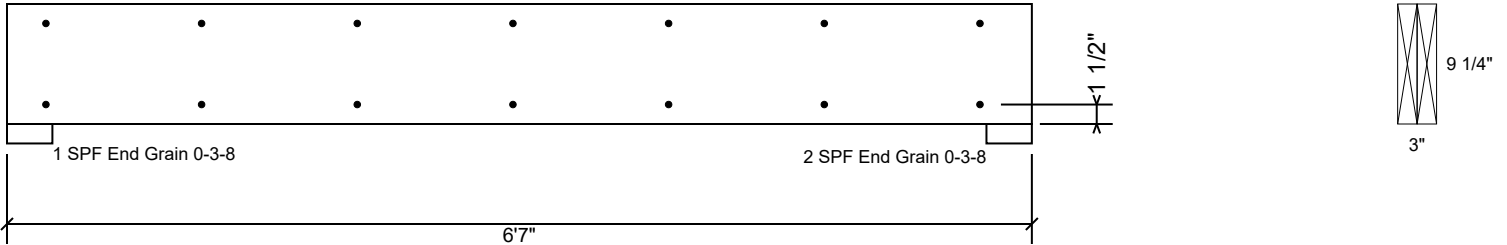
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

Page 8 of 12

BM4 S-P-F #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

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

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	157.4 PLF
Yield Limit per Fastener	78.7 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Manufacturer Info

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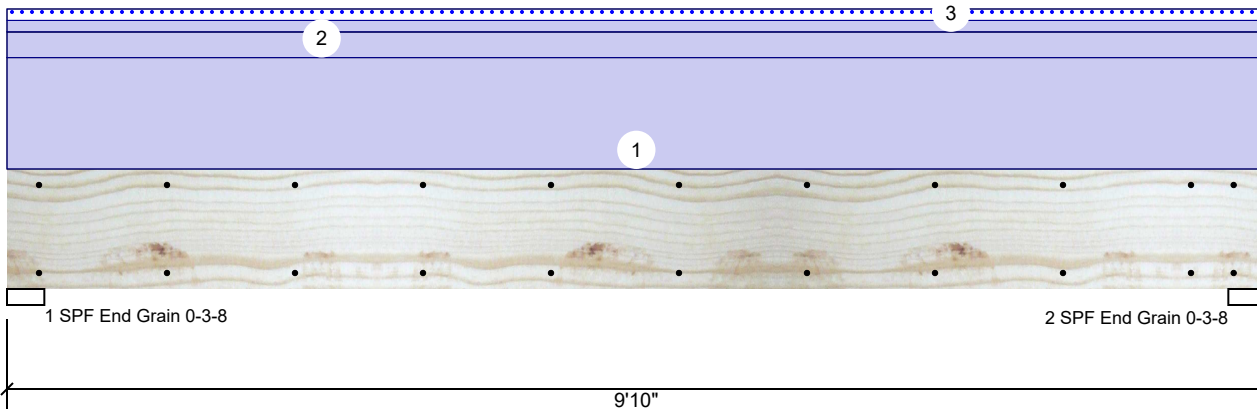
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

Page 9 of 12

GDH S-P-F #2 2.000" X 12.000" 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 2012
Load Sharing: No
Header Supports: No
Glass:
Deck: Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1327	98	0	0
2	Vertical	0	1327	98	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	32%	1327 / 98	1425	L	D+S
2 - SPF End Grain	3.500"	Vert	32%	1327 / 98	1425	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2965 ft-lb	4'11"	4153 ft-lb	71%	D	Uniform
Unbraced	2965 ft-lb	4'11"	4153 ft-lb	71%	D	Uniform
Shear	995 lb	1'2 3/4"	2734 lb	36%	D	Uniform
LL Defl inch (L/16128)	0.007	4'11"	0.312 (L/360)	2%	S	L
TL Defl inch (L/1113)	0.101	4'11"	0.469 (L/240)	22%	D+S	L

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	195 PLF	0 PLF	0 PLF	0 PLF	0 PLF	B1GE
2	Uniform			Top	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Above
3	Tie-In	0-0-0 to 9-10-0	1-0-0	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	Roof Load
	Self Weight				10 PLF					

Manufacturer Info

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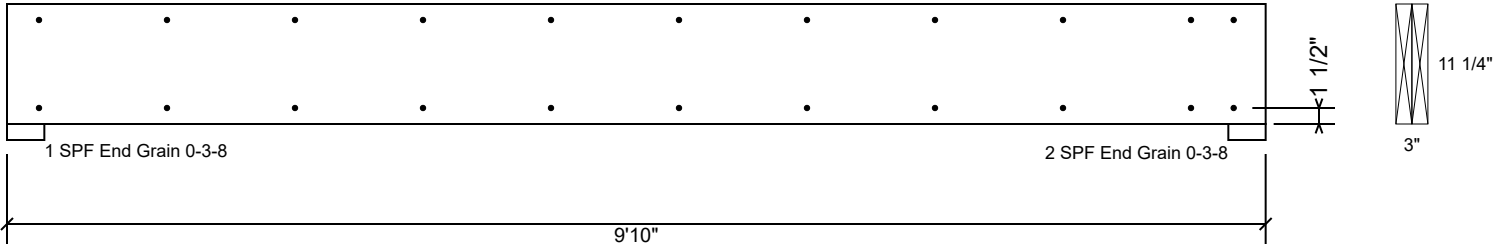
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

Page 10 of 12

GDH S-P-F #2 2.000" X 12.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

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

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	157.4 PLF
Yield Limit per Fastener	78.7 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Manufacturer Info

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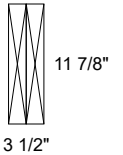
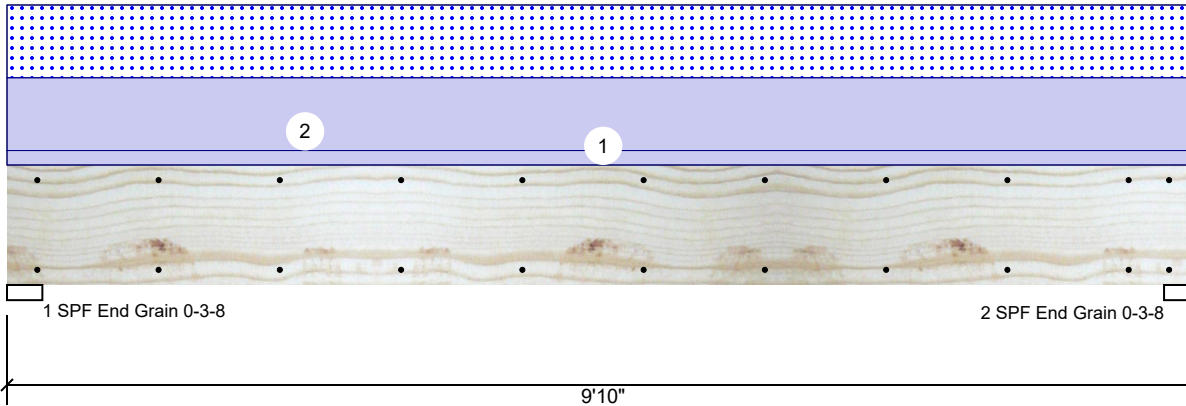
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

Page 11 of 12

GDH2 Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Header	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Header Supports:	No
Importance:	Normal - II	Glass:	
Temperature:	Temp <= 100°F	Deck:	Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1378	1111	0	0
2	Vertical	0	1378	1111	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	24%	1378 / 1111	2489	L	D+S
2 - SPF End Grain	3.500"	Vert	24%	1378 / 1111	2489	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5562 ft-lb	4'11"	22897 ft-lb	24%	D+S	L
Unbraced	5562 ft-lb	4'11"	22897 ft-lb	24%	D+S	L
Shear	1840 lb	1'3 3/8"	10197 lb	18%	D+S	L
LL Defl inch	0.047 (L/2389)	4'11"	0.312 (L/360)	15%	S	L
TL Defl inch	0.105 (L/1066)	4'11"	0.469 (L/240)	23%	D+S	L

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Above
2	Uniform			Top	226 PLF	0 PLF	226 PLF	0 PLF	0 PLF	C1
	Self Weight				9 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

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

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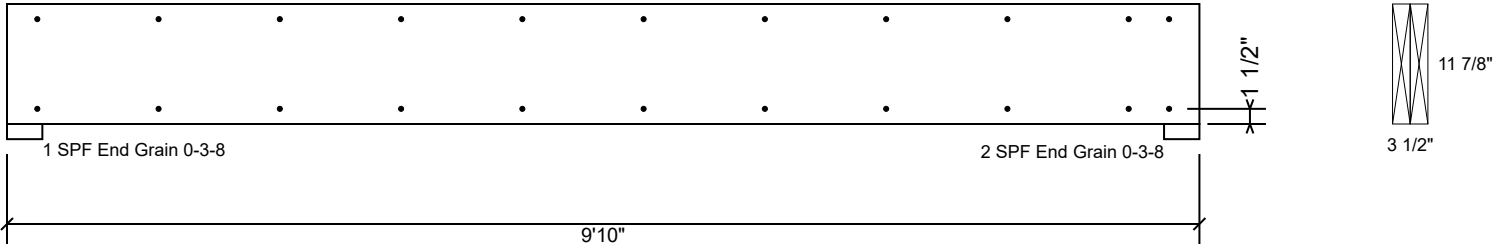
Client: Precision Custom Homes
Project: Sarah
Address:

Date: 9/24/2025
Input by: Johnnie Baggett
Job Name: Lot 47 Magnolia Hills
Project #: 251382

Page 12 of 12

GDH2 Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

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

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

Notes

Calculated 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

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