

RE: 24-5542-A  
 RVF-LOT #16 ROOF

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: 24-5542-A  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.7  
 Wind Code: ASCE 7-16 Wind Speed: 130 mph  
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 46 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I65346335	GE01	5/6/2024	21	I65346355	SD02	5/6/2024
2	I65346336	HG01	5/6/2024	22	I65346356	SD03	5/6/2024
3	I65346337	HG02	5/6/2024	23	I65346357	SD04	5/6/2024
4	I65346338	J01	5/6/2024	24	I65346358	SD05	5/6/2024
5	I65346339	M01	5/6/2024	25	I65346359	SD06	5/6/2024
6	I65346340	M02	5/6/2024	26	I65346360	SD07	5/6/2024
7	I65346341	M02GE	5/6/2024	27	I65346361	SM01	5/6/2024
8	I65346342	M03	5/6/2024	28	I65346362	SM02GE	5/6/2024
9	I65346343	M04	5/6/2024	29	I65346363	SM03G	5/6/2024
10	I65346344	M04A	5/6/2024	30	I65346364	T01	5/6/2024
11	I65346345	M04GE	5/6/2024	31	I65346365	T01GE	5/6/2024
12	I65346346	M05A	5/6/2024	32	I65346366	T02	5/6/2024
13	I65346347	M05S	5/6/2024	33	I65346367	T02G	5/6/2024
14	I65346348	M06	5/6/2024	34	I65346368	T02SGE	5/6/2024
15	I65346349	PB01	5/6/2024	35	I65346369	T03	5/6/2024
16	I65346350	PB02	5/6/2024	36	I65346370	T03AS	5/6/2024
17	I65346351	PB02GE	5/6/2024	37	I65346371	T03GE	5/6/2024
18	I65346352	PB03	5/6/2024	38	I65346372	T04	5/6/2024
19	I65346353	PB04	5/6/2024	39	I65346373	V01	5/6/2024
20	I65346354	SD01	5/6/2024	40	I65346374	V02	5/6/2024

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Riverside Roof Truss.

Truss Design Engineer's Name: Gilbert, Eric

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

North Carolina COA: C-0844

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



May 06, 2024

RE: 24-5542-A - RVF-LOT #16 ROOF

Trenco  
818 Soundside Rd  
Edenton, NC 27932

**Site Information:**

Project Customer:    Project Name: 24-5542-A  
Lot/Block:  
Address:  
City, County:

Subdivision:

State:

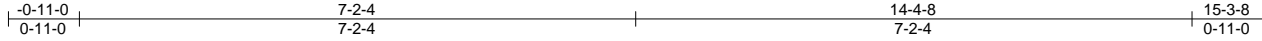
No.	Seal#	Truss Name	Date
41	I65346375	V03	5/6/2024
42	I65346376	V04	5/6/2024
43	I65346377	V05	5/6/2024
44	I65346378	V06	5/6/2024
45	I65346379	V07	5/6/2024
46	I65346380	V08	5/6/2024

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346335
24-5542-A	GE01	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

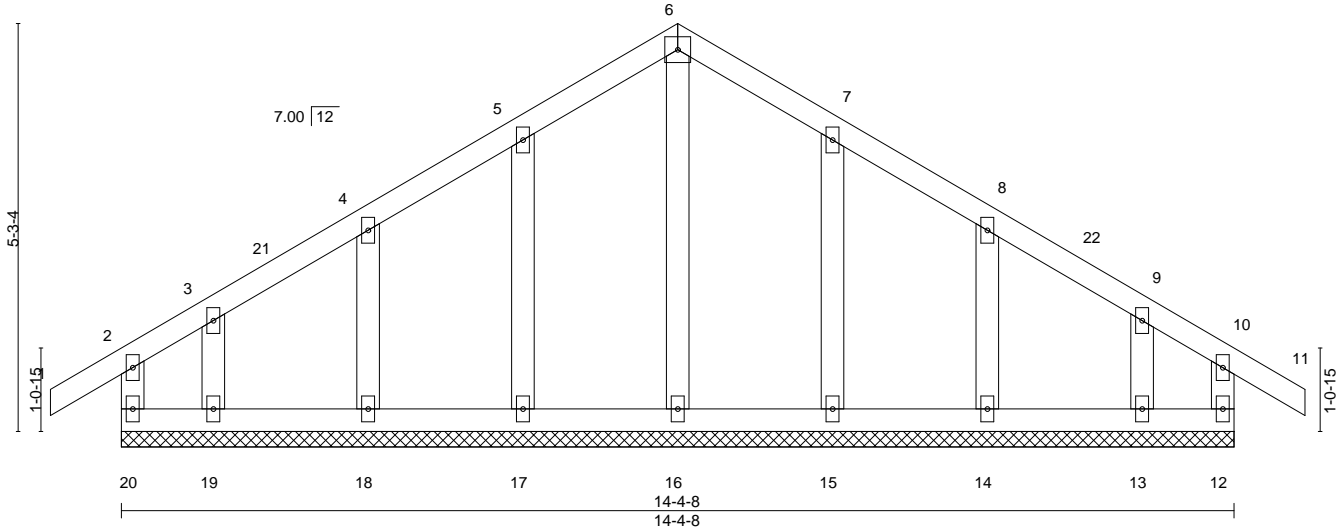
8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:04 2024 Page 1

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4x4 =

Scale = 1:29.8



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 0.10	Vert(LL) -0.00	11	n/r	120		MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Lumber DOL 1.15		BC 0.04	Vert(CT) -0.00	11	n/r	120			
TCDL 10.0	Rep Stress Incr YES		WB 0.06	Horz(CT) -0.00	12	n/a	n/a			
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-R							
BCDL 10.0									Weight: 80 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**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.**

All bearings 14-4-8.  
 (lb) - Max Horz 20=-122(LC 14)  
 Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13  
 Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 7-2-4, Corner(3R) 7-2-4 to 10-2-4, Exterior(2N) 10-2-4 to 15-3-8 zone; cantilever left and right exposed; 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
- 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 12, 17, 18, 19, 15, 14, 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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

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



818 Soundside Road  
 Edenton, NC 27932

Job 24-5542-A	Truss HG01	Truss Type Half Hip Girder	Qty 1	Ply 2	RVF-LOT #16 ROOF Job Reference (optional)	165346336
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Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:05 2024 Page 1  
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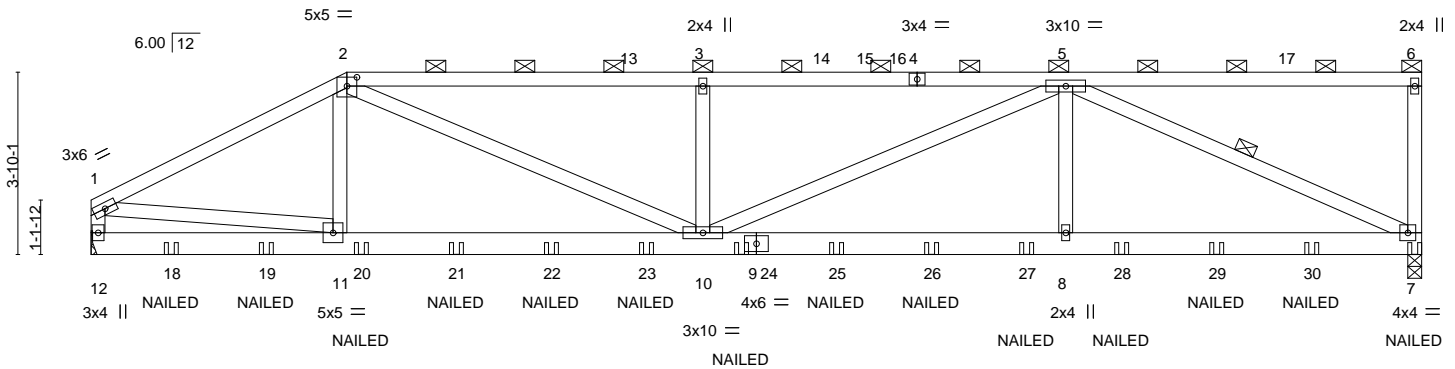


Plate Offsets (X,Y)-- [2:0-2-8,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.95	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Lumber DOL 1.15	BC 0.63	Vert(LL) -0.15 8-10 >999 240		
TCDL 10.0	Rep Stress Incr NO	WB 0.67	Vert(CT) -0.26 8-10 >999 180		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-MS	Horz(CT) 0.04 7 n/a n/a		
BCDL 10.0				Weight: 339 lb	FT = 20%

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

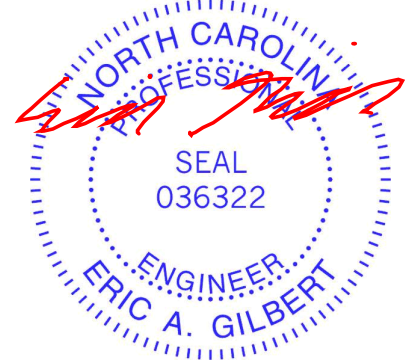
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-8-0 max.): 2-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-7

**REACTIONS.** (size) 7=0-3-8, 12=Mechanical  
Max Horz 12=119(LC 9)  
Max Uplift 7=-485(LC 9), 12=-403(LC 12)  
Max Grav 7=2573(LC 30), 12=2239(LC 30)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-3462/625, 2-3=-5101/911, 3-5=-5101/911, 6-7=-250/75, 1-12=-2059/387  
BOT CHORD 11-12=-162/339, 10-11=-558/3058, 8-10=-778/4095, 7-8=-778/4095  
WEBS 2-11=-140/364, 2-10=-374/2251, 3-10=-594/150, 5-10=-233/1105, 5-8=-109/857, 5-7=-4433/810, 1-11=-469/2848

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=485, 12=403.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 6, 2024

Continued on pages 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

**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	RVF-LOT #16 ROOF	I65346336
24-5542-A	HG01	Half Hip Girder	1	2	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:05 2024 Page 2  
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**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-43, 2-6=-53, 7-12=-20

Concentrated Loads (lb)

Vert: 7=-182(B) 18=-174(B) 19=-174(B) 20=-174(B) 21=-174(B) 22=-174(B) 23=-174(B) 24=-174(B) 25=-174(B) 26=-174(B) 27=-174(B) 28=-174(B) 29=-174(B)  
 30=-174(B)

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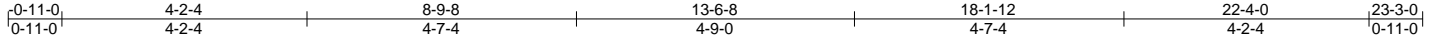
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346337
24-5542-A	HG02	Hip Girder	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:06 2024 Page 1

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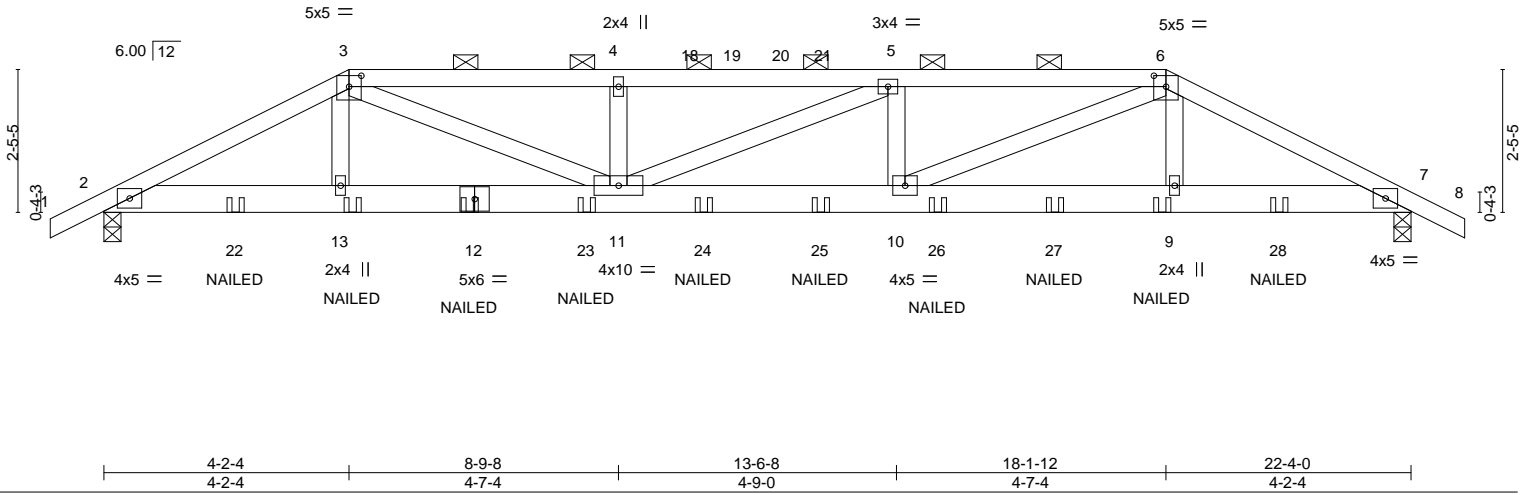


Plate Offsets (X,Y)-- [3:0-2-8,0-2-4], [6:0-2-8,0-2-4]

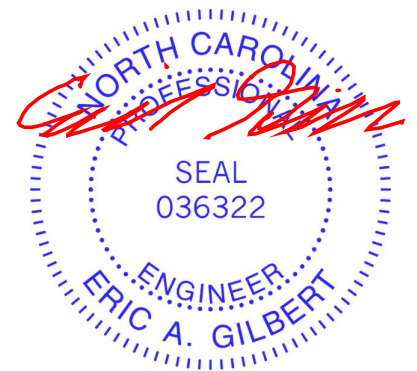
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.99	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.74	Vert(LL) -0.23 10-11 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.73	Vert(CT) -0.40 10-11 >670 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.06 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 122 lb	FT = 20%

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

**REACTIONS.** (size) 2=0-3-8, 7=0-3-8  
 Max Horz 2=42(LC 57)  
 Max Uplift 2=222(LC 12), 7=223(LC 12)  
 Max Grav 2=1481(LC 34), 7=1488(LC 34)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=3057/405, 3-4=4252/579, 4-5=4252/579, 5-6=4304/588, 6-7=3061/407  
 BOT CHORD 2-13=319/2724, 11-13=318/2692, 10-11=540/4304, 9-10=321/2696, 7-9=322/2726  
 WEBS 3-13=31/468, 3-11=232/1709, 4-11=363/130, 5-10=351/105, 6-10=240/1763,  
 6-9=30/462

- 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=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=222, 7=223.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



May 6, 2024

LOAD CASE(S) Standard  
 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.**  
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Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346337
24-5542-A	HG02	Hip Girder	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:06 2024 Page 2  
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**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-43, 3-6=-53, 6-8=-43, 2-7=-20

Concentrated Loads (lb)

Vert: 12=-119(F) 13=-119(F) 9=-119(F) 22=-118(F) 23=-119(F) 24=-119(F) 25=-119(F) 26=-119(F) 27=-119(F) 28=-118(F)

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

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818 Soundside Road  
 Edenton, NC 27932



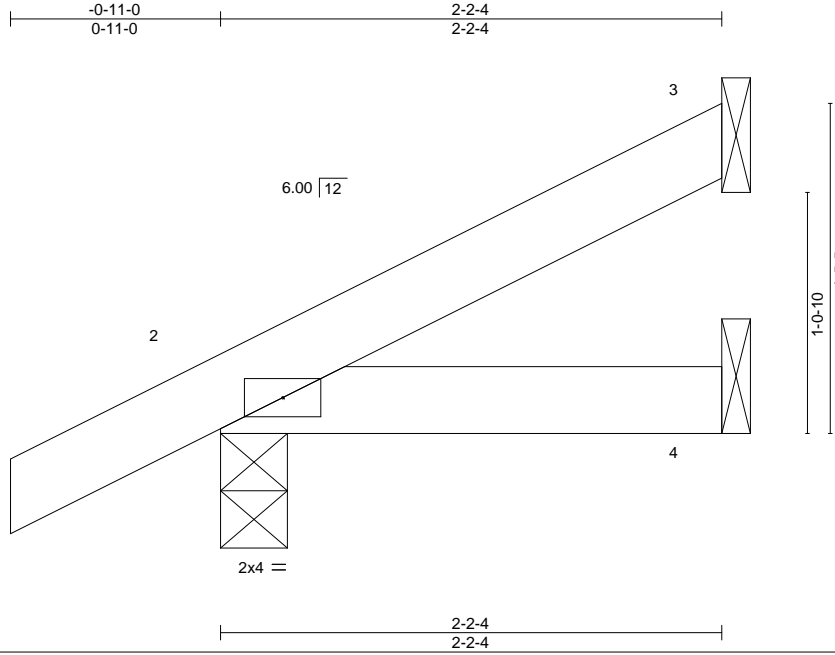
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346338
24-5542-A	J01	Jack-Open	2	1	Job Reference (optional)	

Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:07 2024 Page 1

ID:DIJU\_rm8eUvAVtjXeNVKK9zic16-0kdh2z7PgBx7DNysID?FuVJo4INISxkaQaGbWwzKFw6



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.06	Vert(LL)	-0.00	7	>999	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	-0.00	7	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP					Weight: 9 lb	FT = 20%
BCDL 10.0	Code IRC2018/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-4 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
 Max Horz 2=51(LC 16)  
 Max Uplift 3=14(LC 16), 2=34(LC 16)  
 Max Grav 3=50(LC 21), 2=157(LC 21), 4=37(LC 7)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; 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
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024



Job 24-5542-A	Truss M01	Truss Type MONOPITCH	Qty 5	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	I65346339
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Riverside Roof Truss, LLC,

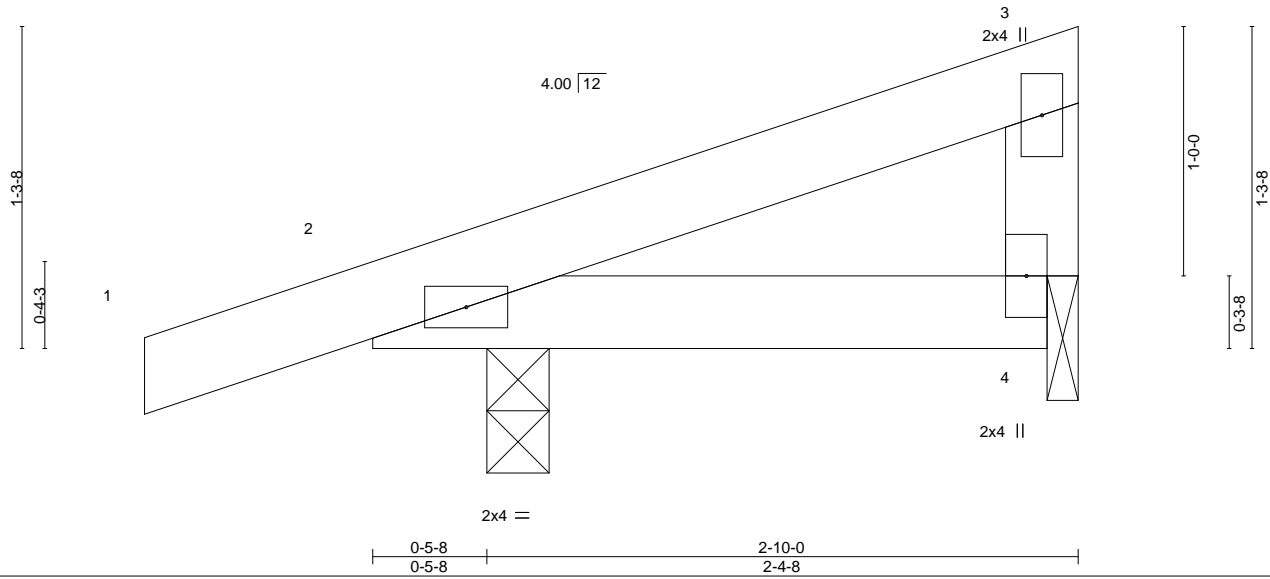
Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:07 2024 Page 1

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Scale = 1:9.3



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.07	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) -0.00 9 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.00 4-9 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.00 2 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 11 lb	FT = 20%

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

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=37(LC 15)  
 Max Uplift 2=48(LC 16), 4=2(LC 13)  
 Max Grav 2=207(LC 21), 4=63(LC 21)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 2-8-4 zone; cantilever left and right exposed; 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
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346340
24-5542-A	M02	MONOPITCH	5	1	Job Reference (optional)	

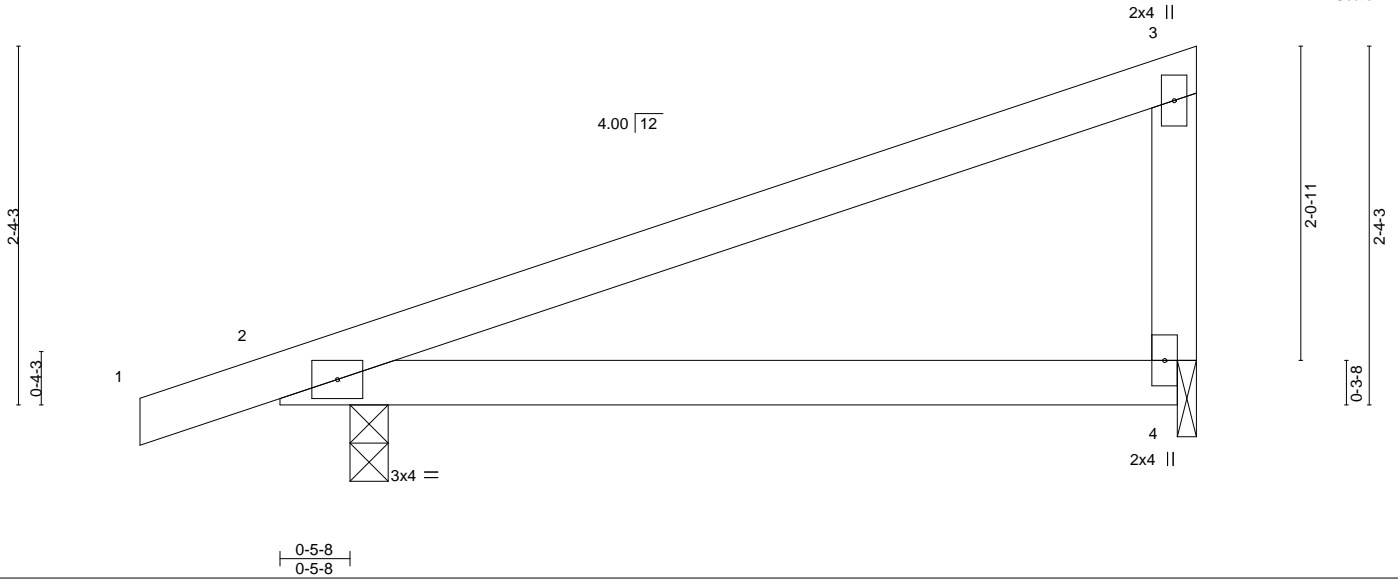
Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:08 2024 Page 1

ID:DIJU\_rm8eUvAvtjXeNVKK9zicI6-UxB3GJ81QV3\_rWW2swWURisrWifHBO\_jjE093NzKFw5  
6-0-0  
6-0-0



Scale = 1:15.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.46	Vert(LL) 0.04	4-9	>999	240	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.31	Vert(CT) -0.08	4-9	>866	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT) 0.00	2	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 22 lb	FT = 20%

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

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=74(LC 15)  
 Max Uplift 2=-47(LC 16), 4=-10(LC 16)  
 Max Grav 2=318(LC 2), 4=217(LC 21)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 5-10-4 zone; cantilever left and right exposed ; 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
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

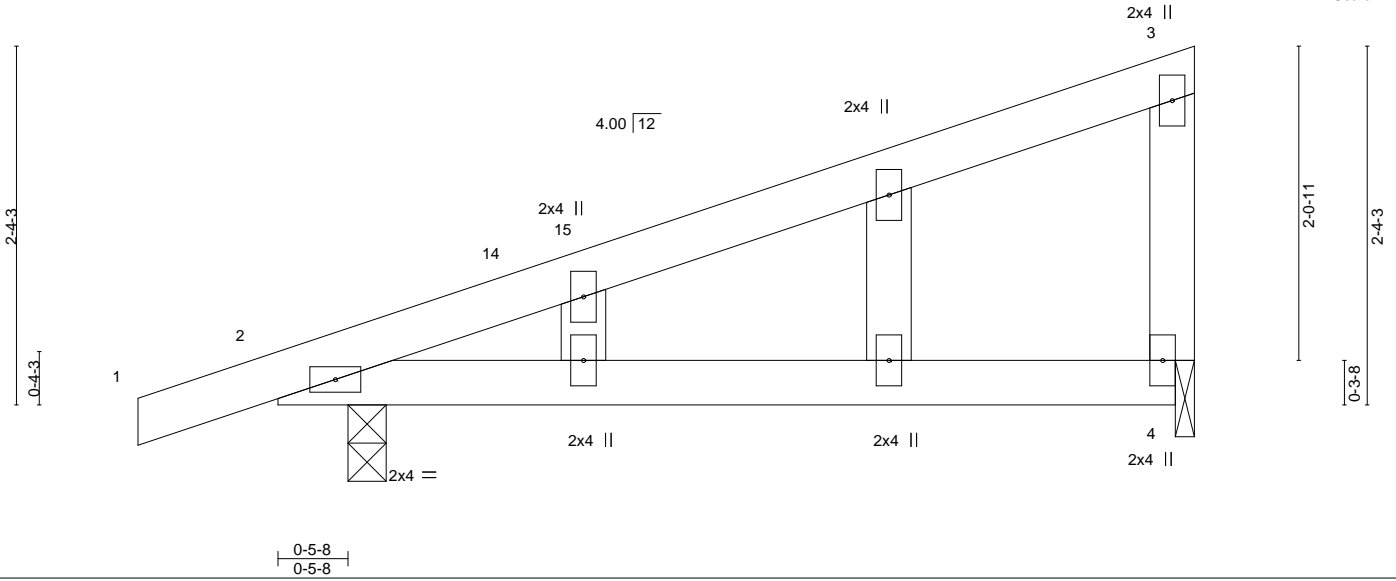
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346341
24-5542-A	M02GE	GABLE	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:08 2024 Page 1  
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 6-0-0 6-0-0



Scale = 1:15.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.46	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.31	Vert(LL) 0.05 4-13 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.08 4-13 >866 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.00 2 n/a n/a	Weight: 25 lb	FT = 20%
BCDL 10.0	Code IRC2018/TPI2014				

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

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=74(LC 15)  
 Max Uplift 2=-47(LC 16), 4=-10(LC 16)  
 Max Grav 2=318(LC 2), 4=217(LC 21)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 5-10-4 zone; cantilever left and right exposed ; 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
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
  - 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346342
24-5542-A	M03	MONOPITCH	14	1	Job Reference (optional)	

Riverside Roof Truss, LLC,

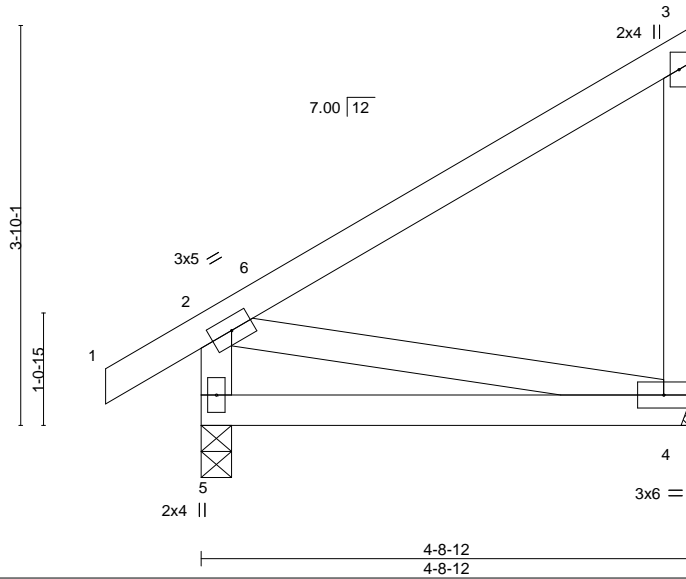
Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:09 2024 Page 1

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Scale = 1:22.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.41	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.24	Vert(LL) -0.02 4-5 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) -0.05 4-5 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP	Horz(CT) -0.00 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 29 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-8-12 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

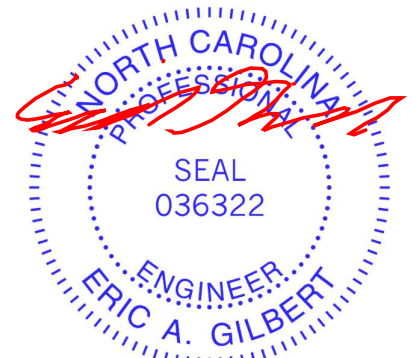
(size) 5=0-3-8, 4=Mechanical  
 Max Horz 5=127(LC 13)  
 Max Uplift 5=-37(LC 16), 4=-39(LC 13)  
 Max Grav 5=249(LC 2), 4=194(LC 21)

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

BOT CHORD 4-5=-282/173

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 4-7-0 zone; cantilever left and right exposed; 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
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346343
24-5542-A	M04	PIGGYBACK BASE	5	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

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Scale: 3/16"=1'

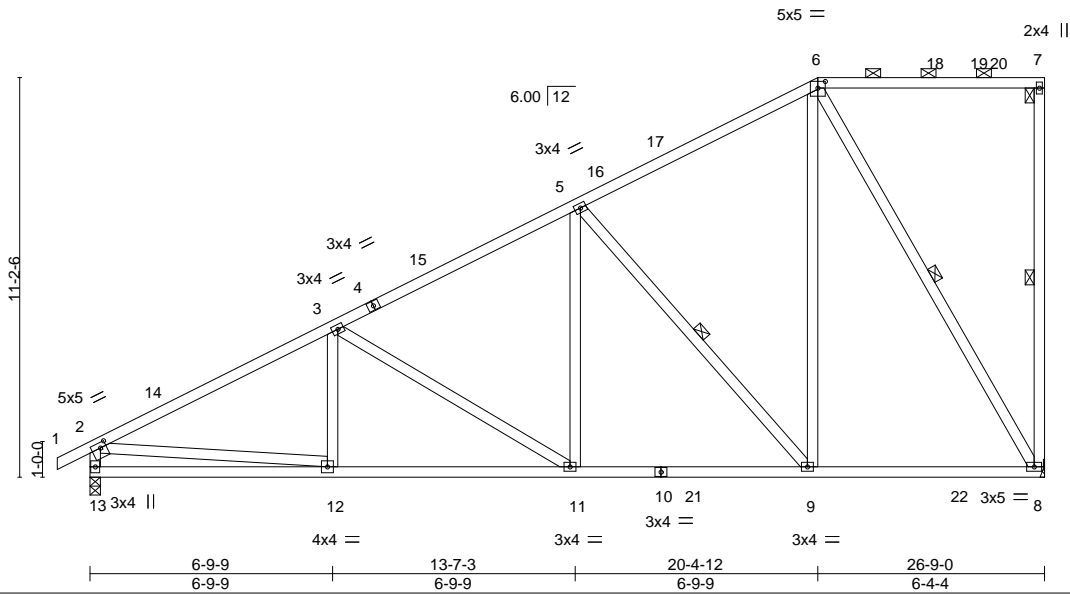


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [6:0-2-8,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.77	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.64	Vert(LL) -0.09 8-9 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.91	Vert(CT) -0.16 11-12 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 187 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-2-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.  
 BOT CHORD Rigid ceiling directly applied or 9-7-15 oc bracing.  
 WEBS 1 Row at midpt 7-8, 5-9, 6-8

**REACTIONS.**

(size) 8=Mechanical, 13=0-3-8  
 Max Horz 13=333(LC 16)  
 Max Uplift 8=-129(LC 16), 13=-33(LC 16)  
 Max Grav 8=1260(LC 28), 13=1267(LC 28)

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

TOP CHORD 2-3=-1817/15, 3-5=-1371/34, 5-6=-755/47, 2-13=-1157/100  
 BOT CHORD 12-13=-367/407, 11-12=-256/1604, 9-11=-175/1199, 8-9=-80/581  
 WEBS 3-11=-504/96, 5-11=0/527, 5-9=-920/144, 6-9=-20/999, 6-8=-1159/159, 2-12=0/1220

**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=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 20-4-12, Exterior(2R) 20-4-12 to 24-7-11, Interior(1) 24-7-11 to 26-7-4 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 8=129.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 6, 2024

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

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818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346344
24-5542-A	M04A	Piggyback Base	5	1	Job Reference (optional)	

Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:11 2024 Page 1

ID:DIJU\_rm8eUvAVtjXeNVKK9zicI6-vWtCuKBvjQRZi\_FdX24B2LUHwvalOXTALCEphzKFw2

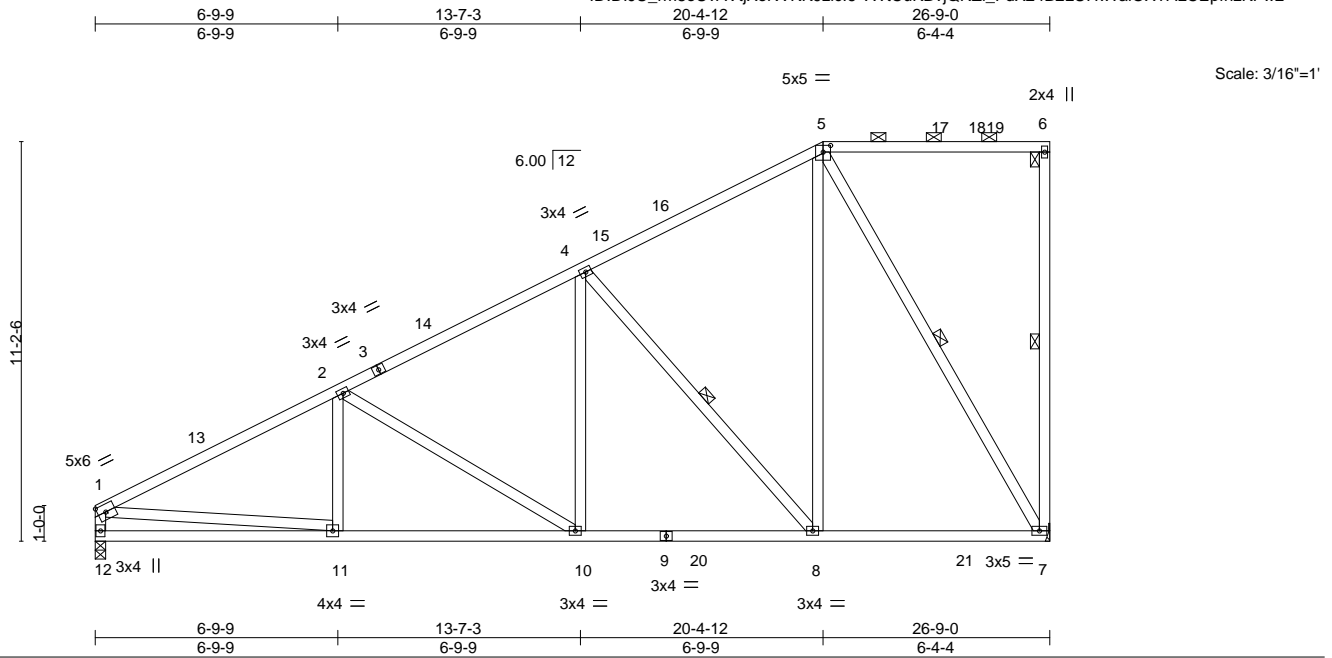


Plate Offsets (X,Y)-- [5:0-2-8,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.77	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.64	Vert(LL) -0.09 7-8 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.91	Vert(CT) -0.16 10-11 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 185 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-9-7 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-7, 4-8, 5-7

**REACTIONS.**

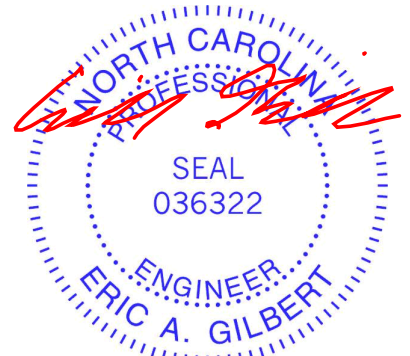
(size) 7=Mechanical, 12=0-3-8  
 Max Horz 12=310(LC 16)  
 Max Uplift 7=-129(LC 16)  
 Max Grav 7=1261(LC 27), 12=1212(LC 27)

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

TOP CHORD 1-2=-1821/19, 2-4=-1373/35, 4-5=-755/48, 1-12=-1101/55  
 BOT CHORD 11-12=-334/333, 10-11=-257/1615, 8-10=-175/1200, 7-8=-80/582  
 WEBS 2-10=-516/104, 4-10=0/533, 4-8=-921/143, 5-8=-20/999, 5-7=-1160/159, 1-11=0/1291

**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=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 20-4-12, Exterior(2R) 20-4-12 to 24-7-11, Interior(1) 24-7-11 to 26-7-4 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=129.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 6, 2024

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818 Soundside Road  
 Edenton, NC 27932

Job 24-5542-A	Truss M04GE	Truss Type PIGGYBACK BASE SUPPO	Qty 1	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346345
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Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:12 2024 Page 1

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-0-11-0  
0-11-0

20-4-12  
20-4-12

26-9-0  
6-4-4

3x4 = 3x4 =

Scale = 1:68.3

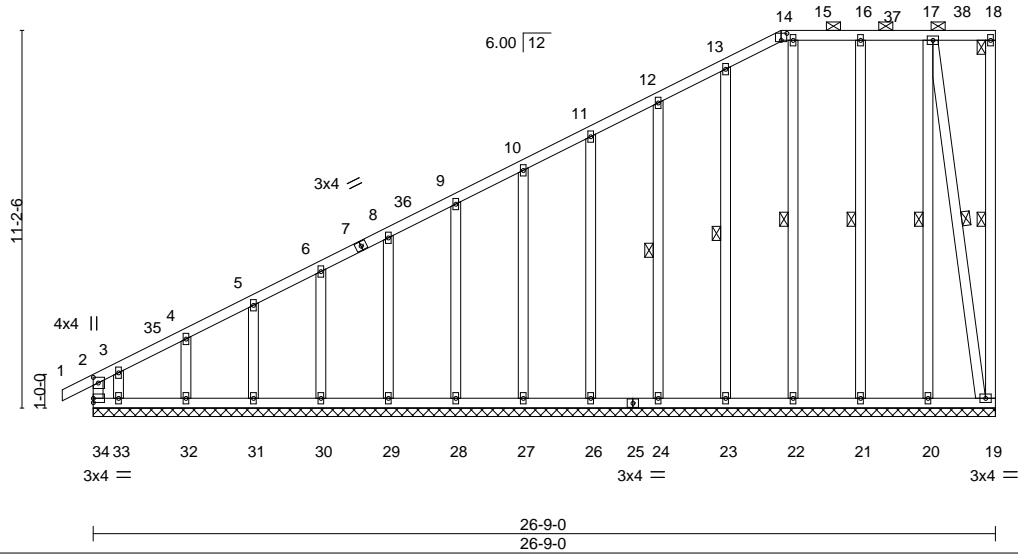


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [14:0-2-0,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.47	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.24	Vert(LL) 0.00 1 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.19	Vert(CT) -0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 19 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 244 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**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.): 14-18.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 18-19, 17-20, 16-21, 15-22, 13-23, 12-24, 17-19

**REACTIONS.**

All bearings 26-9-0.  
(lb) - Max Horz 34=333(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) 34, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32 except 19=104(LC 16), 33=413(LC 16)  
Max Grav All reactions 250 lb or less at joint(s) 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33 except 34=486(LC 16)

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

TOP CHORD 2-34=430/193, 2-3=558/224, 3-4=403/161, 4-5=354/143, 5-6=309/125, 6-8=264/106  
WEBS 3-33=164/340

**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=25ft; B=45ft; L=27ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 20-4-12, Corner(3R) 20-4-12 to 23-4-12, Exterior(2N) 23-4-12 to 26-7-4 zone; cantilever left and right exposed ; end vertical 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 34, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32 except (l=lb) 19=104, 33=413.



May 6, 2024

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

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818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346345
24-5542-A	M04GE	PIGGYBACK BASE SUPPO	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:12 2024 Page 2  
ID:DIJU\_rm8eUvAVtjXeNVKk9zic16-NiQa5gBYUjZQK8qq5mbQbY0XTJ1J7A?JZs\_MC8zKFw1

**NOTES-**

- 15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**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	RVF-LOT #16 ROOF	165346346
24-5542-A	M05A	Piggyback Base	2	1	Job Reference (optional)	

Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:13 2024 Page 1

ID:DIJU\_rm8eUvAvTjXeNVKK9zicI6-ru\_yJ0CAF1hHxIP0fT6f8mZc9jGlsRSToWjvkazKFw0

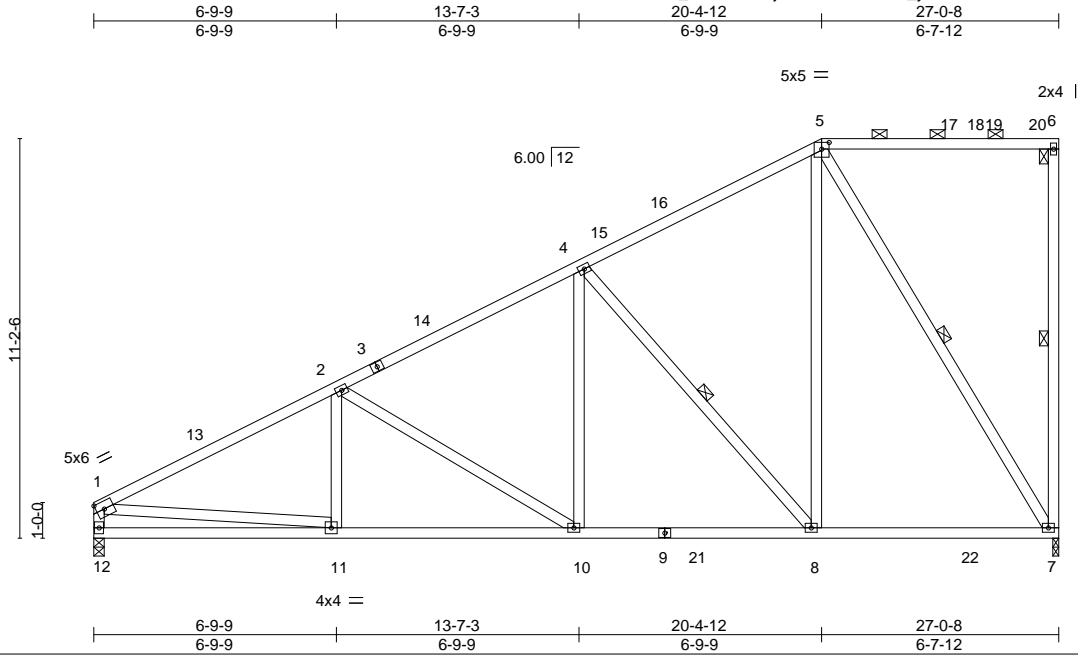


Plate Offsets (X,Y)-- [5:0-2-8,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.85	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.67	Vert(LL) -0.11 7-8 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.95	Vert(CT) -0.17 7-8 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 186 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-9-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-7, 4-8, 5-7

**REACTIONS.**

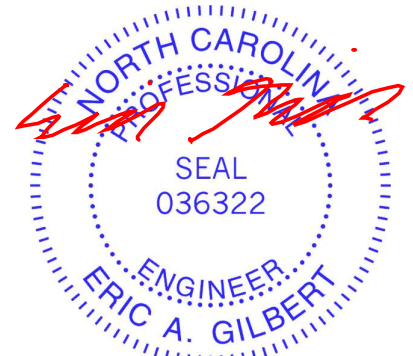
(size) 7=0-2-0, 12=0-3-8  
 Max Horz 12=310(LC 16)  
 Max Uplift 7=-129(LC 16), 12=-1(LC 16)  
 Max Grav 7=1275(LC 27), 12=1226(LC 27)

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

TOP CHORD 1-2=-1848/22, 2-4=-1400/38, 4-5=-784/51, 1-12=-1116/56  
 BOT CHORD 11-12=-334/334, 10-11=-260/1639, 8-10=-178/1224, 7-8=-83/610  
 WEBS 2-10=-514/103, 4-10=0/530, 4-8=-917/143, 5-8=-18/1006, 5-7=-1174/160, 1-11=0/1314

**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=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 20-4-12, Exterior(2R) 20-4-12 to 24-7-11, Interior(1) 24-7-11 to 26-10-12 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12 except (jt=lb) 7=129.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 6, 2024

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818 Soundside Road  
 Edenton, NC 27932

Job 24-5542-A	Truss M05S	Truss Type PIGGYBACK BASE	Qty 6	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346347
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Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:13 2024 Page 1

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Scale = 1:69.1

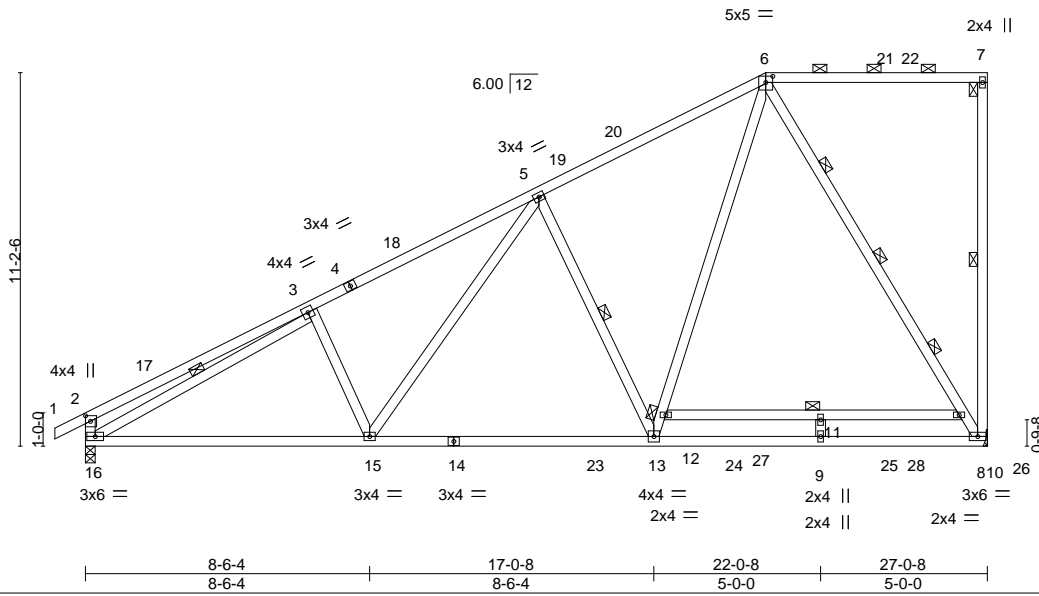


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [6:0-2-8,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.85	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.90	Vert(LL) -0.49 11-12 >660 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.89	Vert(CT) -0.77 11-12 >415 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.05 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 193 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-11-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 10-12  
 WEBS 1 Row at midpt 7-8, 5-13, 3-16  
 3 Rows at 1/4 pts 6-8

**REACTIONS.**

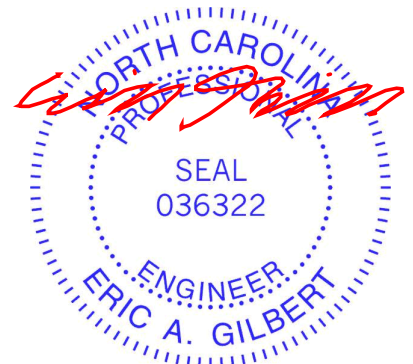
(size) 8=Mechanical, 16=0-3-8  
 Max Horz 16=333(LC 16)  
 Max Uplift 8=40(LC 16), 16=14(LC 16)  
 Max Grav 8=1612(LC 28), 16=1377(LC 28)

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

TOP CHORD 2-3=-562/117, 3-5=-1901/35, 5-6=-1295/32, 2-16=-458/148  
 BOT CHORD 15-16=-242/1745, 13-15=-147/1366, 9-13=-52/809, 8-9=-52/809  
 WEBS 5-15=-55/576, 5-13=-707/193, 12-13=-41/1185, 6-12=0/1386, 6-10=-1268/139,  
 8-10=-1475/93, 3-16=-1493/0

**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=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 20-4-12, Exterior(2R) 20-4-12 to 24-7-11, Interior(1) 24-7-11 to 26-10-12 zone; cantilever left and right exposed ; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 6, 2024

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

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



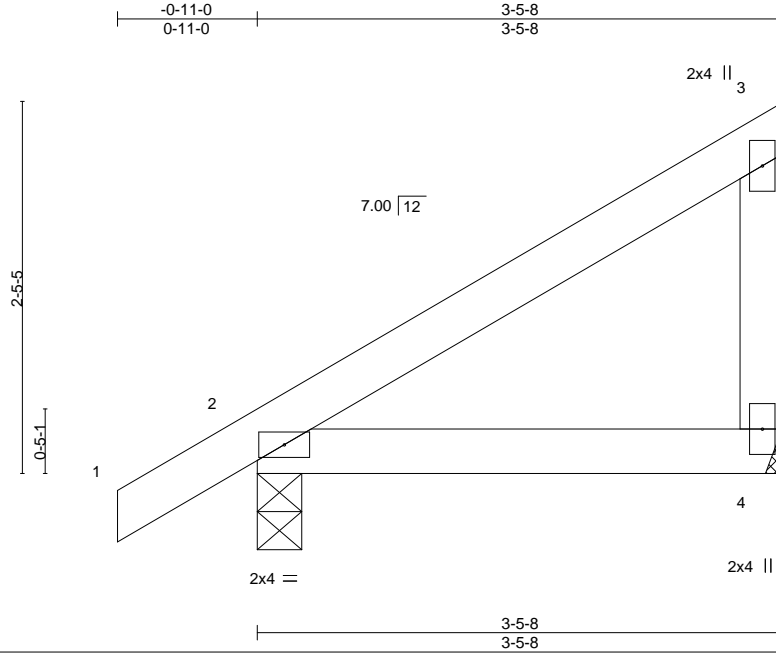
818 Soundside Road  
 Edenton, NC 27932

Job 24-5542-A	Truss M06	Truss Type Monopitch	Qty 8	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	I65346348
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Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:14 2024 Page 1

ID:DIJU\_rm8eUvAVtjXeNVKK9zic16-J4YLWMD0Lp8ZR\_CCBdugz6yi71bb5Tc1ATTG0zKFw?



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.16	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.12	Vert(LL) -0.01 4-7 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.01 4-7 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.00 2 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 16 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-5-8 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8  
 Max Horz 2=78(LC 15)  
 Max Uplift 4=-15(LC 13), 2=-38(LC 16)  
 Max Grav 4=139(LC 21), 2=195(LC 2)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 3-3-12 zone; cantilever left and right exposed; 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
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TP1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MITEK Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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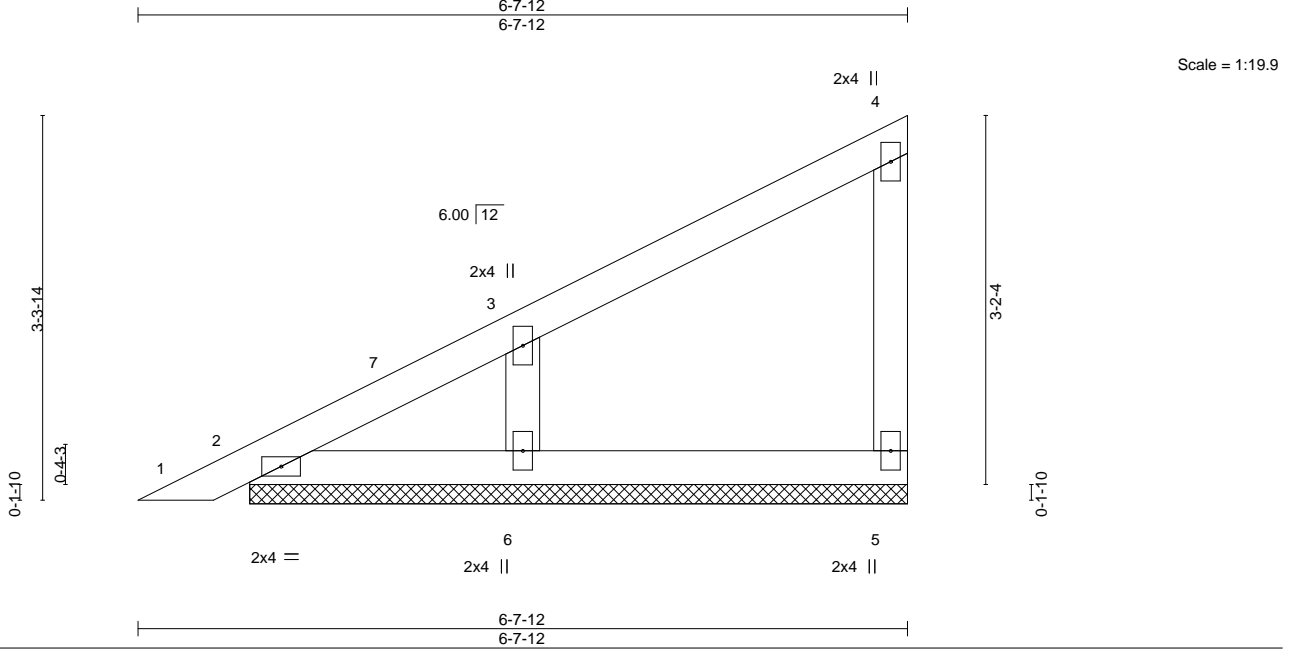
Job 24-5542-A	Truss PB01	Truss Type Piggyback	Qty 6	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346349
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Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:14 2024 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.14	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.08	Vert(LL) 0.00 1 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) 0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 25 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**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.

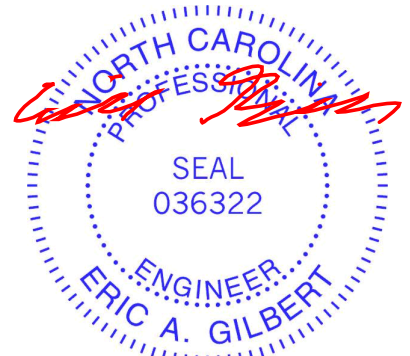
**REACTIONS.**

(size) 5=5-8-3, 2=5-8-3, 6=5-8-3  
 Max Horz 2=102(LC 13)  
 Max Uplift 5=-12(LC 13), 2=-9(LC 16), 6=-38(LC 16)  
 Max Grav 5=114(LC 21), 2=105(LC 2), 6=292(LC 21)

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

**NOTES-**

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-15 to 3-3-14, Interior(1) 3-3-14 to 6-6-0 zone; cantilever left and right exposed ; 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



May 6, 2024

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

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



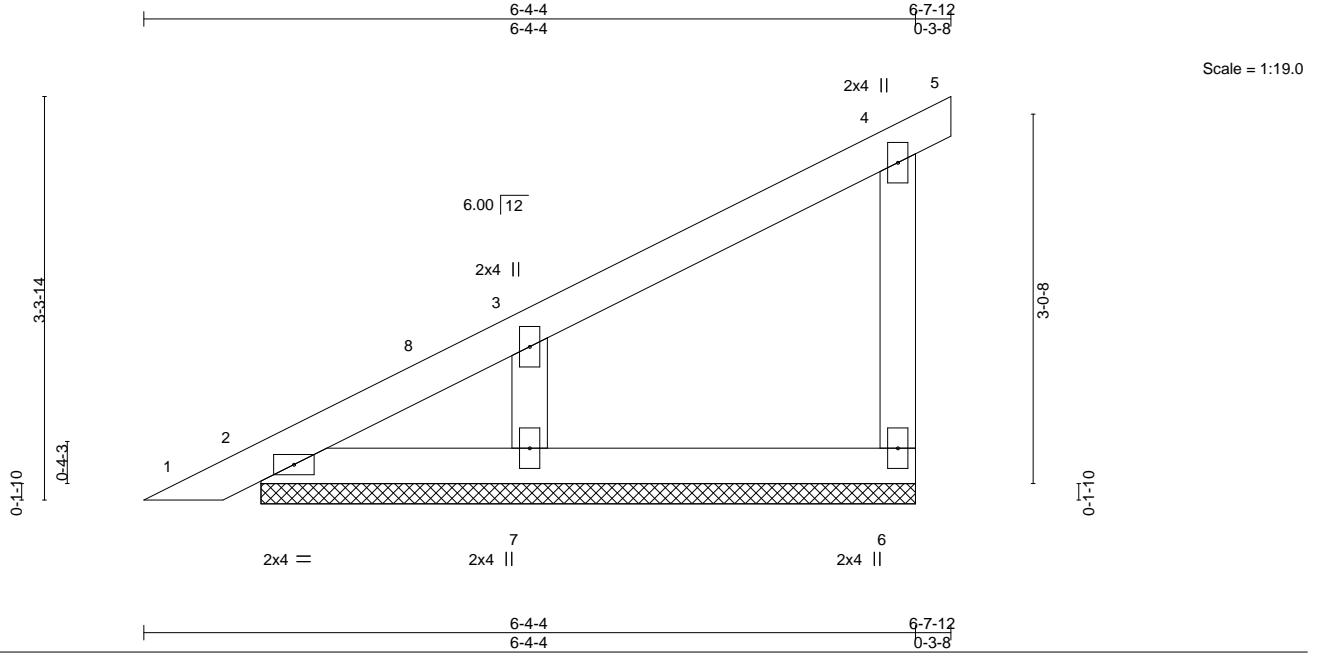
818 Soundside Road  
 Edenton, NC 27932

Job 24-5542-A	Truss PB02	Truss Type PIGGYBACK	Qty 10	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346350
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Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:15 2024 Page 1  
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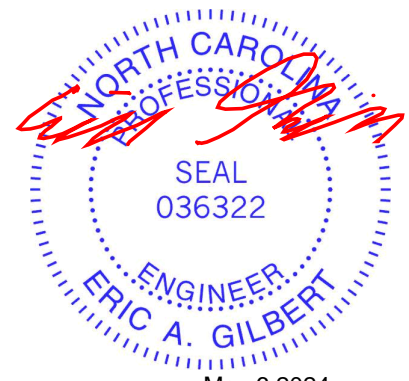
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.12	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) -0.00 4 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.00 5 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 24 lb	FT = 20%

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

**REACTIONS.** (size) 6=5-4-11, 2=5-4-11, 7=5-4-11  
 Max Horz 2=105(LC 13)  
 Max Uplift 6=-27(LC 13), 2=-5(LC 16), 7=-34(LC 16)  
 Max Grav 6=142(LC 21), 2=101(LC 2), 7=269(LC 21)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-15 to 3-2-2, Interior(1) 3-2-2 to 6-7-12 zone; cantilever left and right exposed ; 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
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 5) Gable requires continuous bottom chord bearing.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2, 7.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



May 6, 2024

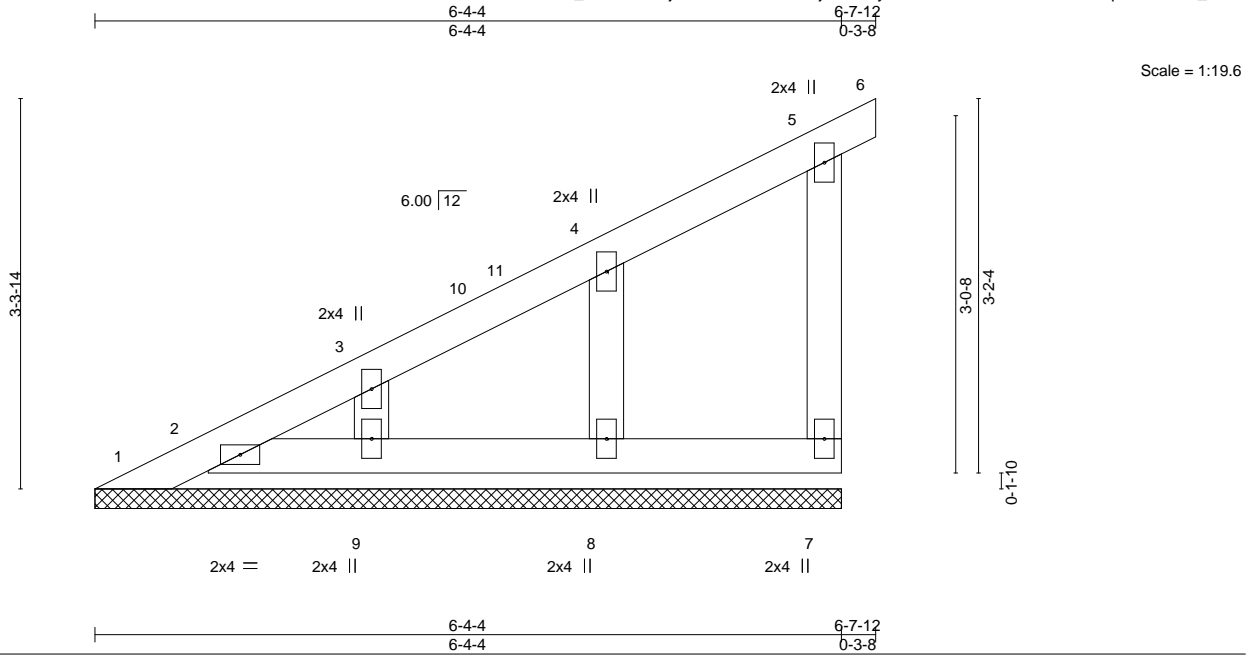


Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346351
24-5542-A	PB02GE	GABLE	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:15 2024 Page 1  
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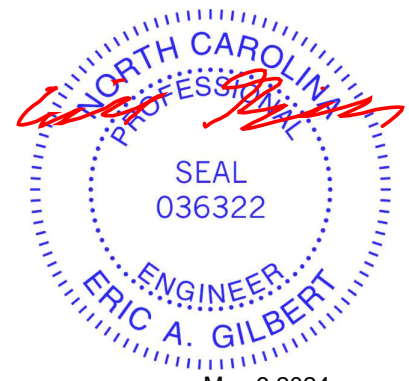
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.15	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) 0.00 5 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.00 5 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) -0.00 7 n/a n/a	Weight: 26 lb	FT = 20%
BCDL 10.0	Code IRC2018/TPI2014				

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

**REACTIONS.** All bearings 6-4-4.  
(lb) - Max Horz 1=106(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 2, 8, 9  
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 8, 9

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-353/186, 2-3=-285/124

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-3-15 to 3-3-15, Exterior(2N) 3-3-15 to 6-7-12 zone; cantilever left and right exposed ; 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
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Gable studs spaced at 2-0-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 10) Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 2, 8, 9.
  - 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.





Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346352
24-5542-A	PB03	GABLE	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:16 2024 Page 1  
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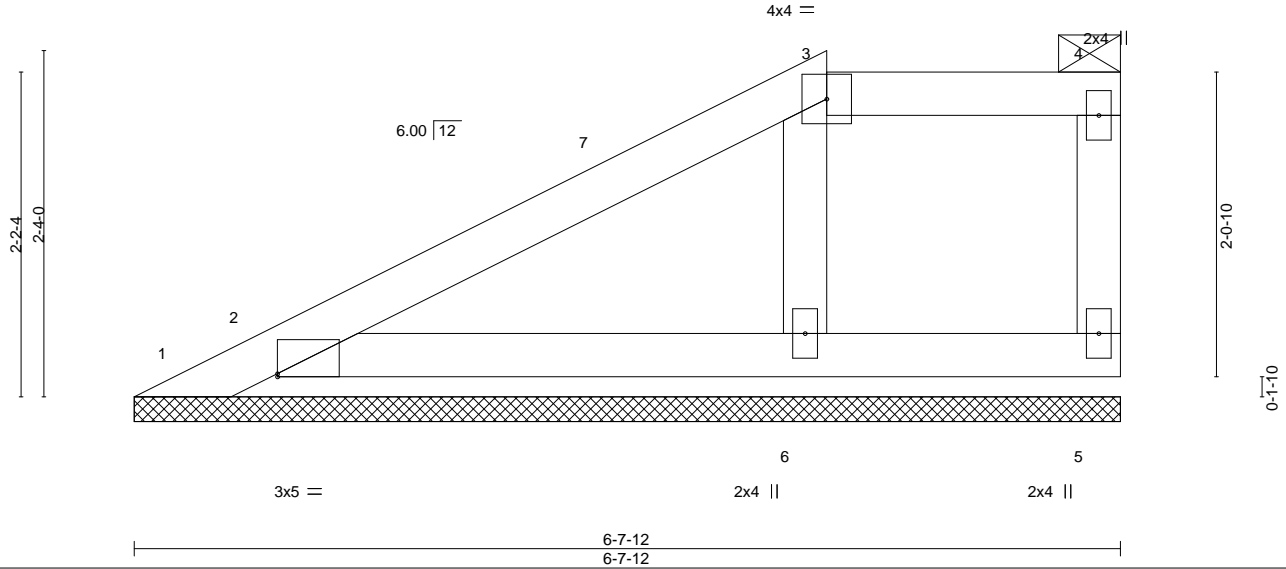


Plate Offsets (X,Y)-- [2:Edge,0-0-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.25	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Horz(CT)	-0.00	5	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P					Weight: 24 lb	FT = 20%
BCDL 10.0	Code IRC2018/TPI2014							

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.**

All bearings 6-7-12.

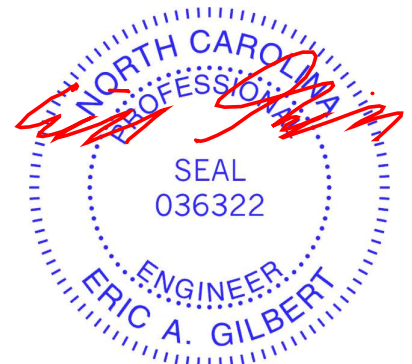
- (lb) - Max Horz 1=66(LC 13)
- Max Uplift All uplift 100 lb or less at joint(s) 5, 2, 6 except 1=144(LC 36)
- Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=400(LC 36)

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

TOP CHORD 1-2=285/175

**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=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-3-15 to 3-3-15, Exterior(2N) 3-3-15 to 4-8-0, Corner(3E) 4-8-0 to 6-6-0 zone; cantilever left and right exposed ; 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
- 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6 except (jt=lb) 1=144.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 6, 2024

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

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



818 Soundside Road  
Edenton, NC 27932

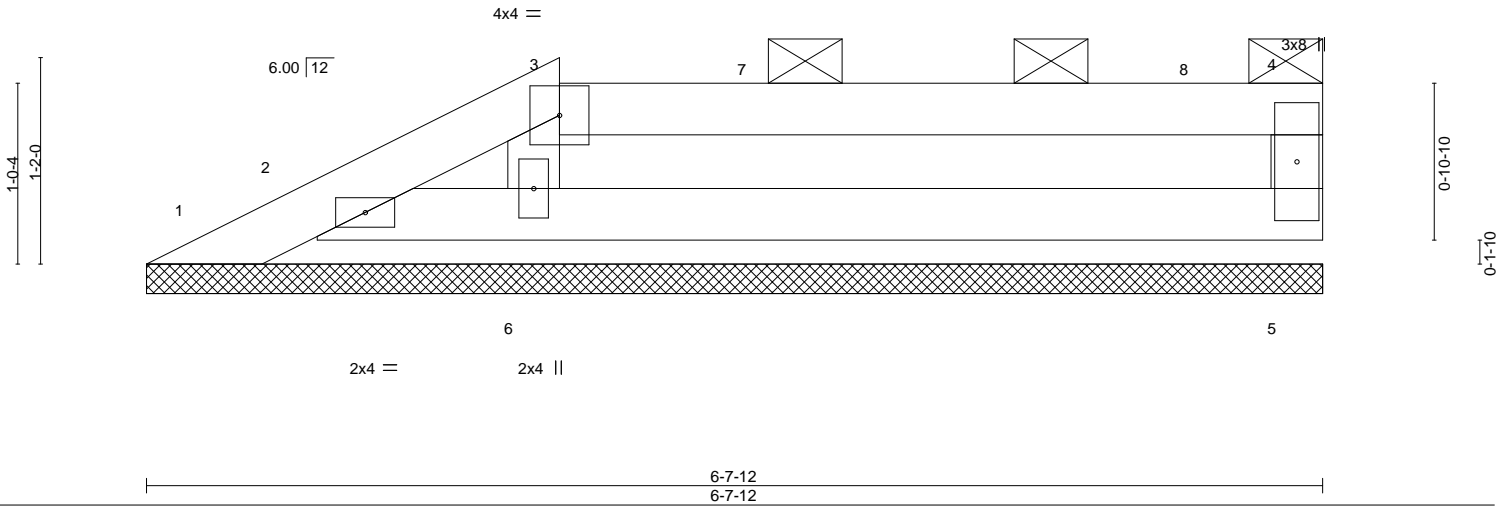
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346353
24-5542-A	PB04	GABLE	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:17 2024 Page 1  
ID:DIJU\_rm8eUvAVtjXeNVKK9zic16-jfET8OFgJGCjQvinuJBb1ckPiKIs0RA2j8h7sLzKFvy



Scale = 1:13.0



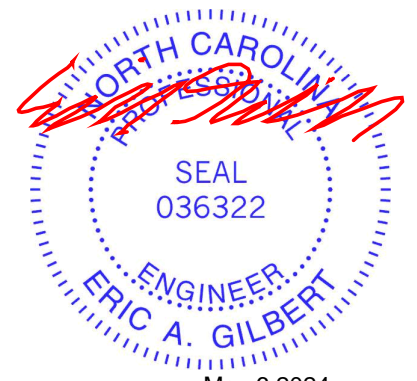
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.43	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.15	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) -0.00 5 n/a n/a	Weight: 20 lb	FT = 20%
BCDL 10.0	Code IRC2018/TPI2014				

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-7-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 6-7-12.  
(lb) - Max Horz 1=25(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 5, 2, 6  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2 except 6=286(LC 35)

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

- 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=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-3-15 to 2-4-0, Corner(3R) 2-4-0 to 5-4-0, Exterior(2N) 5-4-0 to 6-6-0 zone; cantilever left and right exposed ; 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
  - 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.
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - Provide adequate drainage to prevent water ponding.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



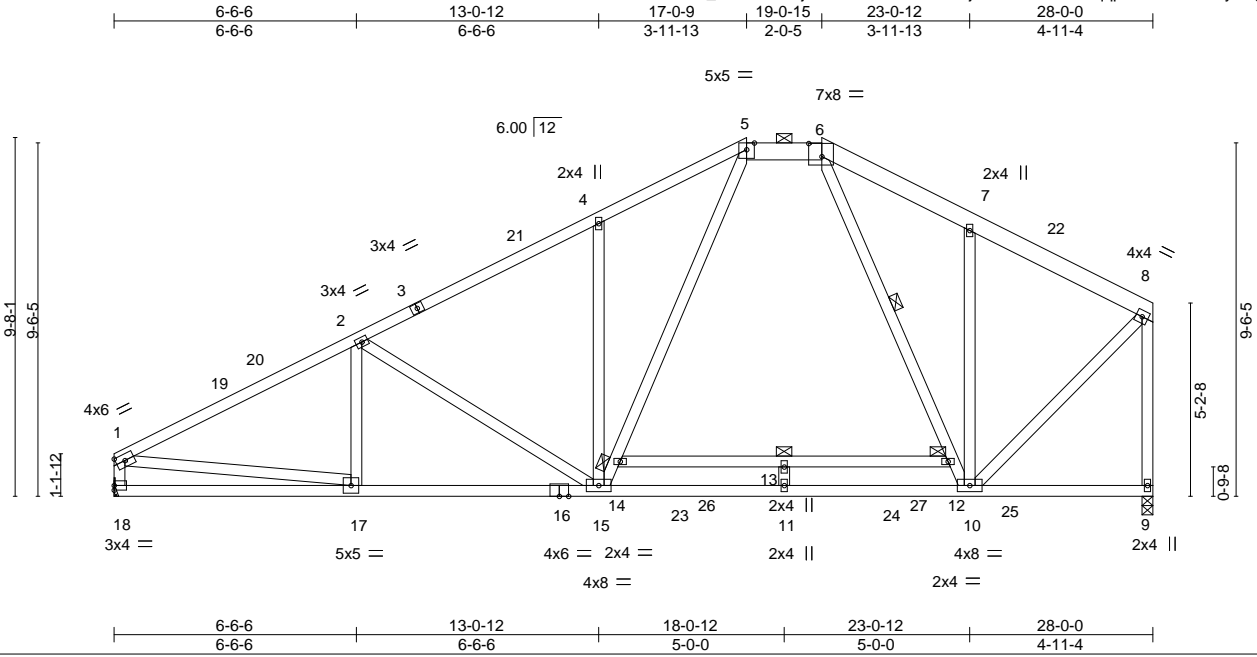
Job 24-5542-A	Truss SD01	Truss Type Hip	Qty 1	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	I65346354
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Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:18 2024 Page 1

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Scale = 1:62.1

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

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.90	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.89	Vert(LL) -0.49 11-15 >681 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.76	Vert(CT) -0.78 11-15 >427 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.03 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 206 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2 \*Except\*  
5-6,6-8: 2x6 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
9-16: 2x4 SP DSS  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-6-12 oc purlins, except end verticals, and 2-0-0 oc purlins (5-9-0 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.  
WEBS 6-0-0 oc bracing: 12-14  
1 Row at midpt 6-12

**REACTIONS.**

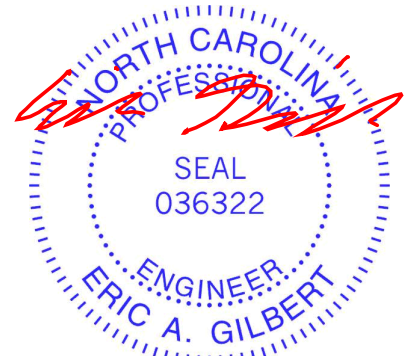
(size) 18=Mechanical, 9=0-3-8  
Max Horz 18=244(LC 15)  
Max Uplift 18=-26(LC 16)  
Max Grav 18=1395(LC 46), 9=1607(LC 50)

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

TOP CHORD 1-2=-2113/100, 2-4=-1849/108, 4-5=-1867/184, 5-6=-1108/170, 6-7=-1106/175, 7-8=-1164/99, 1-18=-1277/98, 8-9=-1627/55  
BOT CHORD 17-18=-259/339, 15-17=-224/1946, 11-15=-87/1157, 10-11=-87/1157  
WEBS 2-15=-364/113, 4-15=-480/153, 14-15=-96/1166, 5-14=-52/1304, 6-12=-419/75, 10-12=-512/31, 1-17=-10/1655, 8-10=-25/1398

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 17-0-9, Exterior(2E) 17-0-9 to 19-0-15, Exterior(2R) 19-0-15 to 23-0-12, Interior(1) 23-0-12 to 27-10-4 zone; cantilever left and right exposed; 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 6, 2024

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

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

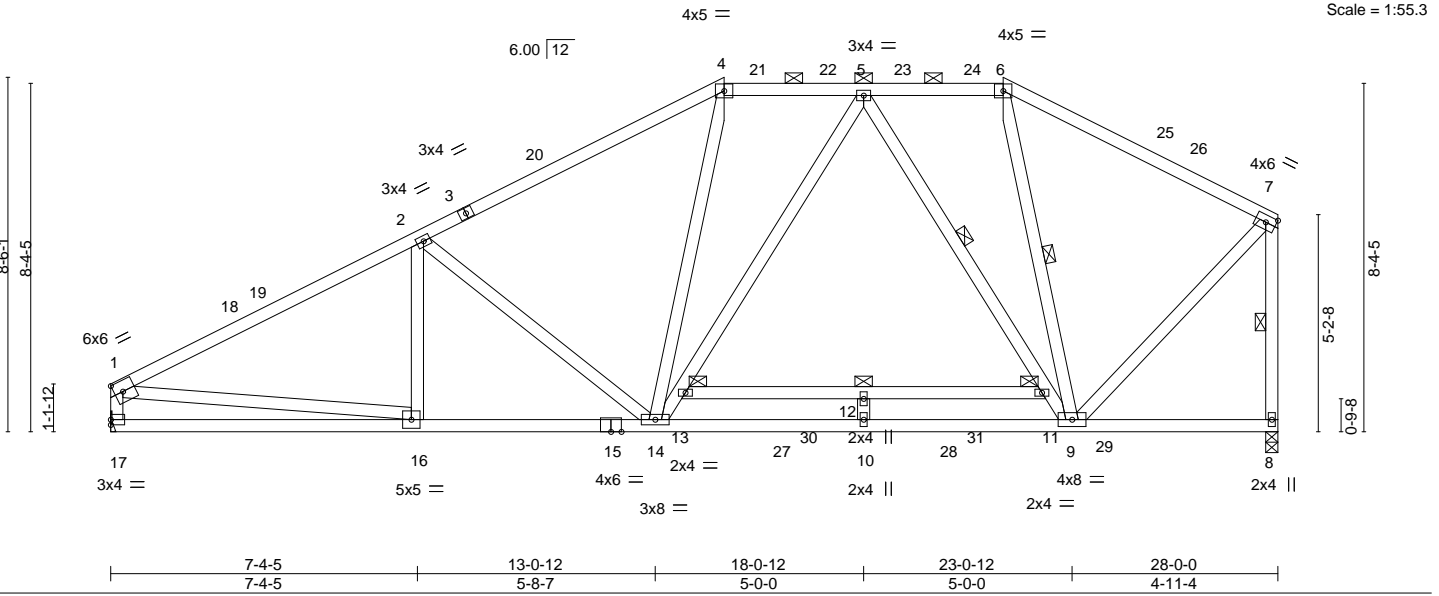


818 Soundside Road  
Edenton, NC 27932

Job 24-5542-A	Truss SD02	Truss Type Hip	Qty 1	Ply 1	RVF-LOT #16 ROOF	I65346355
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Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:19 2024 Page 1  
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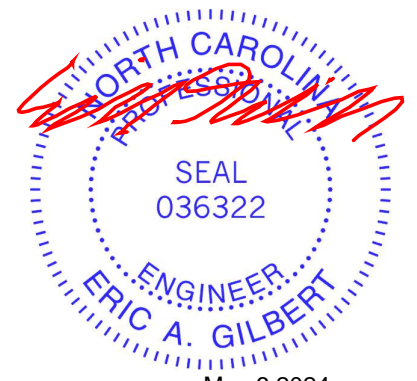
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.85	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 1.00	Vert(LL) -0.46 10 >718 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.63	Vert(CT) -0.76 10 >436 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 197 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-10-11 max.): 4-6.
BOT CHORD 2x4 SP No.2 *Except* 8-15: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 4-7-0 oc bracing: 11-13
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-11, 6-9, 7-8

**REACTIONS.** (size) 17=Mechanical, 8=0-3-8  
 Max Horz 17=226(LC 15)  
 Max Uplift 17=-27(LC 16), 8=-1(LC 16)  
 Max Grav 17=1372(LC 27), 8=1469(LC 29)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2056/113, 2-4=-1700/126, 4-5=-1359/152, 5-6=-854/152, 6-7=-1043/113,  
 1-17=-1239/108, 7-8=-1465/64  
 BOT CHORD 16-17=-263/370, 14-16=-241/1870, 10-14=-104/1274, 9-10=-104/1274  
 WEBS 2-14=-504/145, 4-14=0/484, 13-14=-73/340, 5-13=-22/511, 5-11=-618/73, 9-11=-790/22,  
 6-9=-31/256, 1-16=-12/1531, 7-9=0/1251

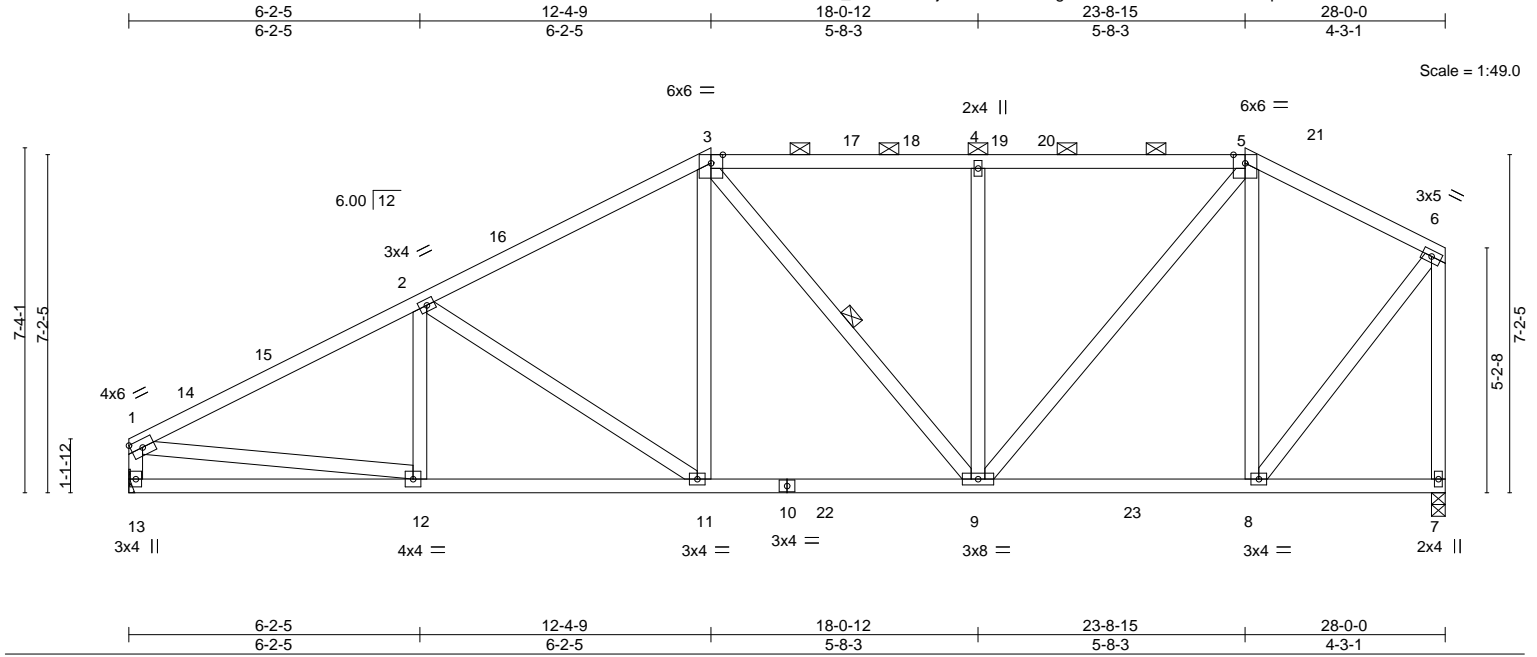
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 14-8-9, Exterior(2R) 14-8-9 to 18-11-8, Interior(1) 18-11-8 to 21-4-15, Exterior(2R) 21-4-15 to 25-7-13, Interior(1) 25-7-13 to 27-10-4 zone; cantilever left and right exposed ; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 8.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job 24-5542-A	Truss SD03	Truss Type Hip	Qty 1	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346356
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Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:19 2024 Page 1  
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.62	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.58	Vert(LL) -0.08 9-11 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.57	Vert(CT) -0.14 9-11 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.03 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 183 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-10 oc purlins, except end verticals, and 2-0-0 oc purlins (4-11-13 max.): 3-5.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 3-9

**REACTIONS.** (size) 13=Mechanical, 7=0-3-8  
 Max Horz 13=206(LC 15)  
 Max Uplift 13=-64(LC 16), 7=-70(LC 16)  
 Max Grav 13=1248(LC 27), 7=1240(LC 29)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1825/167, 2-3=-1487/198, 3-4=-1181/205, 4-5=-1181/205, 5-6=-771/162,  
 1-13=-1147/134, 6-7=-1188/145  
 BOT CHORD 12-13=-265/314, 11-12=-303/1646, 9-11=-220/1307, 8-9=-136/678  
 WEBS 2-11=-486/100, 3-11=0/504, 4-9=-517/144, 5-9=-95/872, 5-8=-589/160, 1-12=-71/1395,  
 6-8=-112/1024

- 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=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12 to 12-4-9, Exterior(2R) 12-4-9 to 16-7-8, Interior(1) 16-7-8 to 23-8-15, Exterior(2E) 23-8-15 to 27-10-4 zone; cantilever left and right exposed; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 7.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



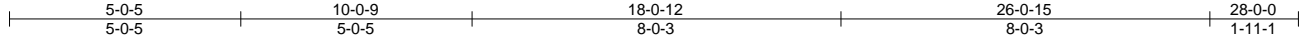


Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346357
24-5542-A	SD04	Hip	1	1	Job Reference (optional)	

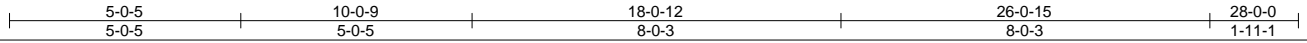
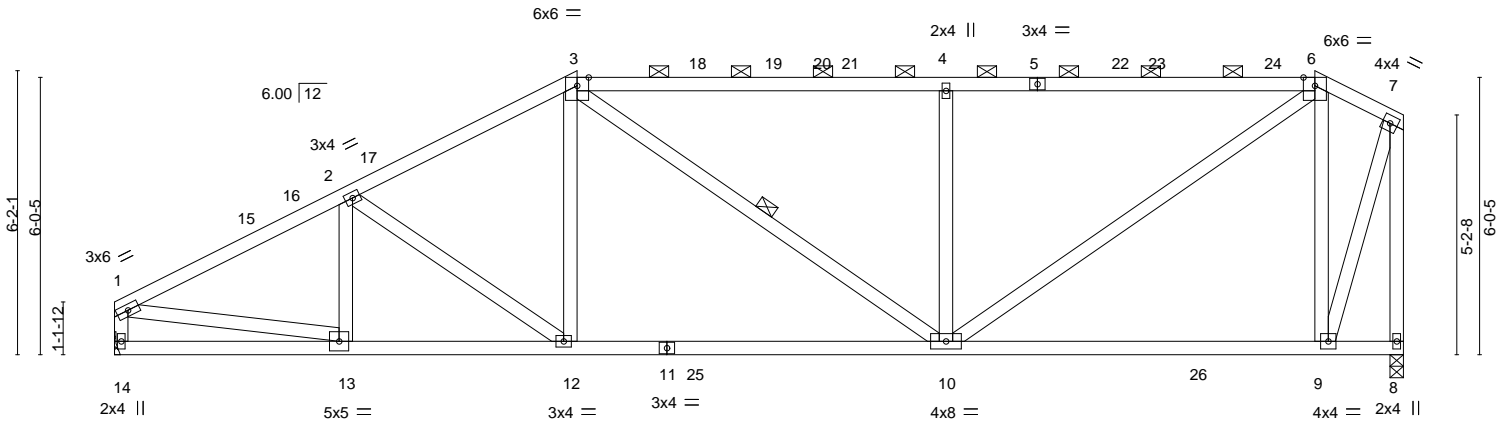
Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:20 2024 Page 1

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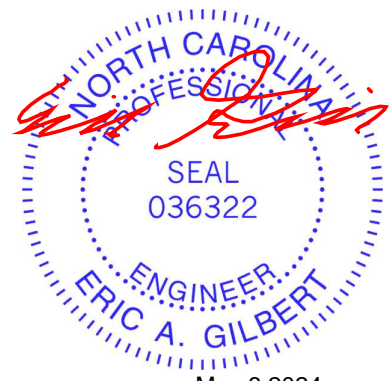
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.89	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.80	Vert(LL) -0.14 10-12 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.62	Vert(CT) -0.27 10-12 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 174 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 3-5,5-6: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-3-5 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-5 max.): 3-6.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 3-10

**REACTIONS.** (size) 14=Mechanical, 8=0-3-8  
 Max Horz 14=185(LC 15)  
 Max Uplift 14=-64(LC 16), 8=-86(LC 13)  
 Max Grav 14=1248(LC 27), 8=1278(LC 49)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1776/160, 2-3=-1644/187, 3-4=-1540/201, 4-6=-1538/201, 6-7=-463/129,  
 1-14=-1157/128, 7-8=-1345/86  
 BOT CHORD 13-14=-263/289, 12-13=-311/1597, 10-12=-243/1459, 9-10=-103/449  
 WEBS 2-12=-278/84, 3-12=0/429, 4-10=-724/194, 6-10=-137/1394, 6-9=-942/220,  
 1-13=-83/1409, 7-9=-116/1287

- 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=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-0-9, Exterior(2R) 10-0-9 to 14-3-8, Interior(1) 14-3-8 to 26-0-15, Exterior(2E) 26-0-15 to 27-10-4 zone; cantilever left and right exposed; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 8.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 6, 2024

Job 24-5542-A	Truss SD05	Truss Type Half Hip	Qty 1	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346358
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Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:21 2024 Page 1  
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Scale: 1/4"=1'

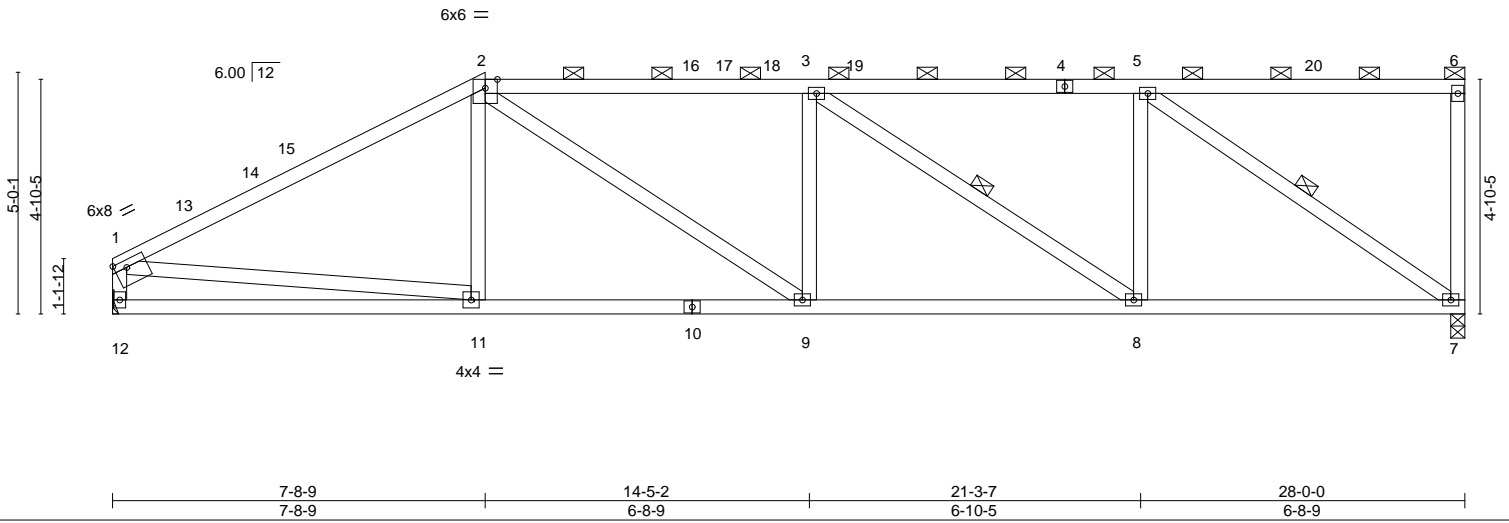


Plate Offsets (X,Y)-- [1:Edge,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.95	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.61	Vert(LL) -0.09 9 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.63	Vert(CT) -0.19 8-9 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.06 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 157 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 1-2: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 2-6.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 3-8, 5-7

**REACTIONS.** (size) 7=0-3-8, 12=Mechanical  
Max Horz 12=158(LC 15)  
Max Uplift 7=-121(LC 13), 12=-65(LC 16)  
Max Grav 7=1275(LC 34), 12=1108(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-1628/159, 2-3=-1945/211, 3-5=-1467/170, 1-12=-1037/142  
BOT CHORD 11-12=-299/379, 9-11=-254/1400, 8-9=-239/1943, 7-8=-175/1467  
WEBS 2-9=-54/660, 3-8=-572/77, 5-8=0/518, 5-7=-1752/155, 1-11=-14/1246

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-8-9, Exterior(2R) 7-8-9 to 11-11-8, Interior(1) 11-11-8 to 27-10-4 zone; cantilever left and right exposed; 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12 except (jt=lb) 7=121.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 6, 2024

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

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



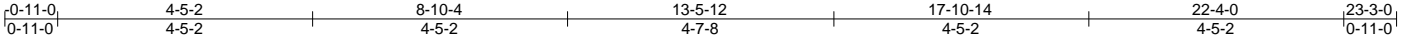
818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346359
24-5542-A	SD06	Hip	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:22 2024 Page 1

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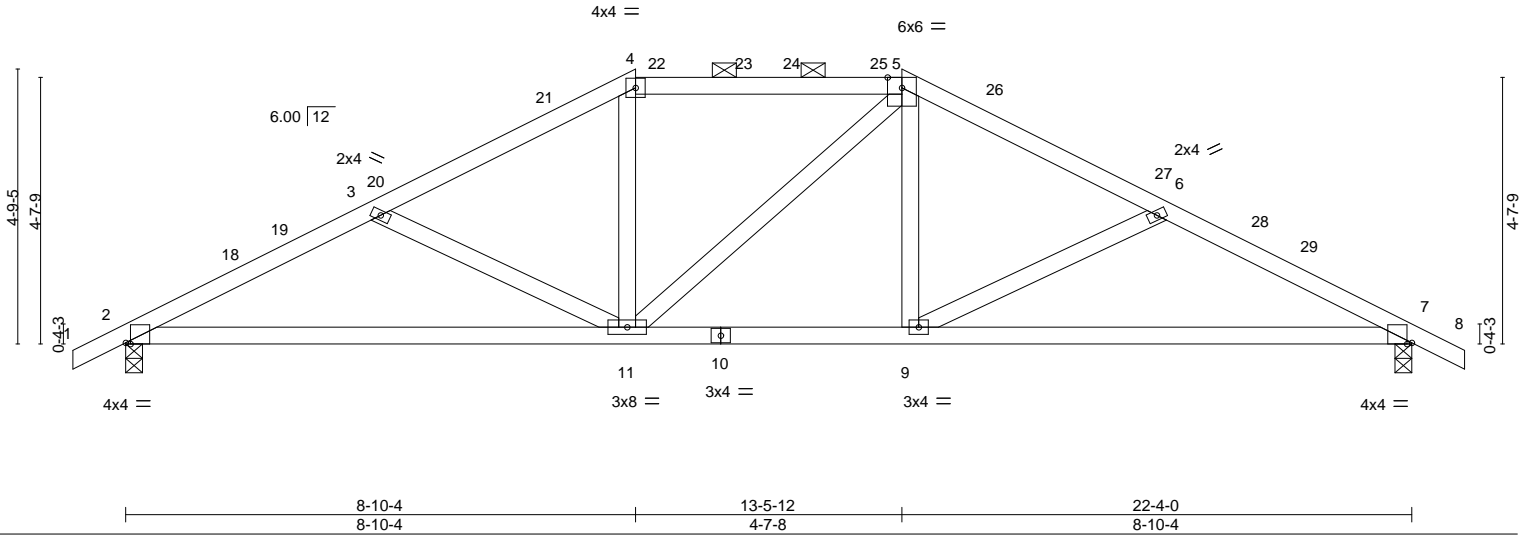


Plate Offsets (X,Y)-- [2:0-1-0,Edge], [7:0-1-0,Edge]

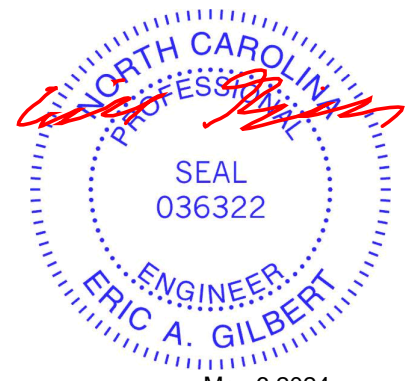
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.43	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.68	Vert(LL) -0.13 9-17 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.20	Vert(CT) -0.28 9-17 >948 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.05 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 108 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-2-7 oc purlins, except
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins (5-1-6 max.); 4-5.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 7=0-3-8  
 Max Horz 2=80(LC 14)  
 Max Uplift 2=83(LC 16), 7=83(LC 16)  
 Max Grav 2=1025(LC 39), 7=1025(LC 39)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1688/232, 3-4=-1313/181, 4-5=-1113/193, 5-6=-1313/181, 6-7=-1688/232  
 BOT CHORD 2-11=-142/1488, 9-11=-41/1113, 7-9=-150/1488  
 WEBS 3-11=-426/122, 4-11=0/339, 5-9=0/339, 6-9=-427/122

- 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=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 8-10-4, Exterior(2R) 8-10-4 to 13-1-3, Interior(1) 13-1-3 to 13-5-12, Exterior(2R) 13-5-12 to 17-8-11, Interior(1) 17-8-11 to 23-3-0 zone; cantilever left and right exposed; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



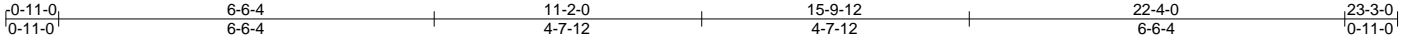
May 6, 2024

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346360
24-5542-A	SD07	Hip	1	1	Job Reference (optional)	

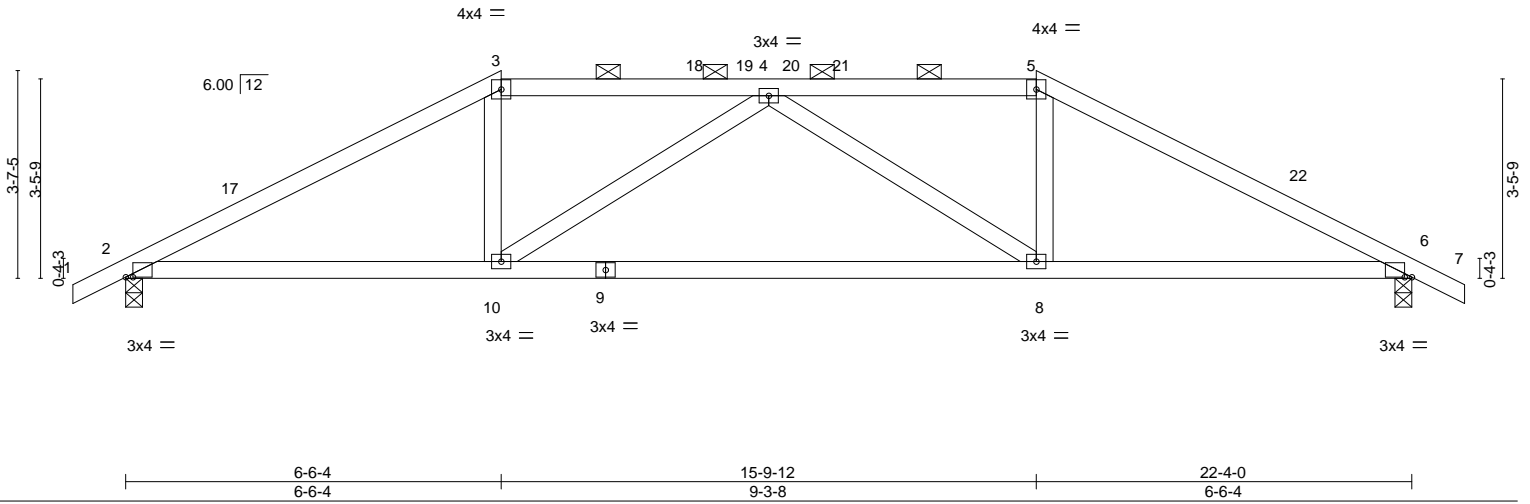
Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:23 2024 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.76	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.82	Vert(LL) -0.19 8-10 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.25	Vert(CT) -0.40 8-10 >676 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.05 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 97 lb	FT = 20%

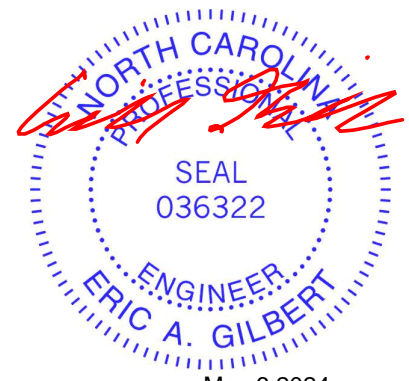
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-11-15 oc purlins, except 2-0-0 oc purlins (4-10-15 max.); 3-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=60(LC 15)  
 Max Uplift 2=-83(LC 16), 6=-83(LC 16)  
 Max Grav 2=948(LC 2), 6=948(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1581/157, 3-4=-1336/180, 4-5=-1336/179, 5-6=-1581/156  
 BOT CHORD 2-10=-51/1350, 8-10=-125/1569, 6-8=-59/1350  
 WEBS 3-10=0/416, 4-10=-384/98, 4-8=-384/98, 5-8=0/416

- 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=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-6-4, Exterior(2R) 6-6-4 to 10-9-3, Interior(1) 10-9-3 to 15-9-12, Exterior(2R) 15-9-12 to 20-0-11, Interior(1) 20-0-11 to 23-3-0 zone; cantilever left and right exposed; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 6, 2024

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346361
24-5542-A	SM01	HALF HIP	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC,

Danville, Va - 24541,

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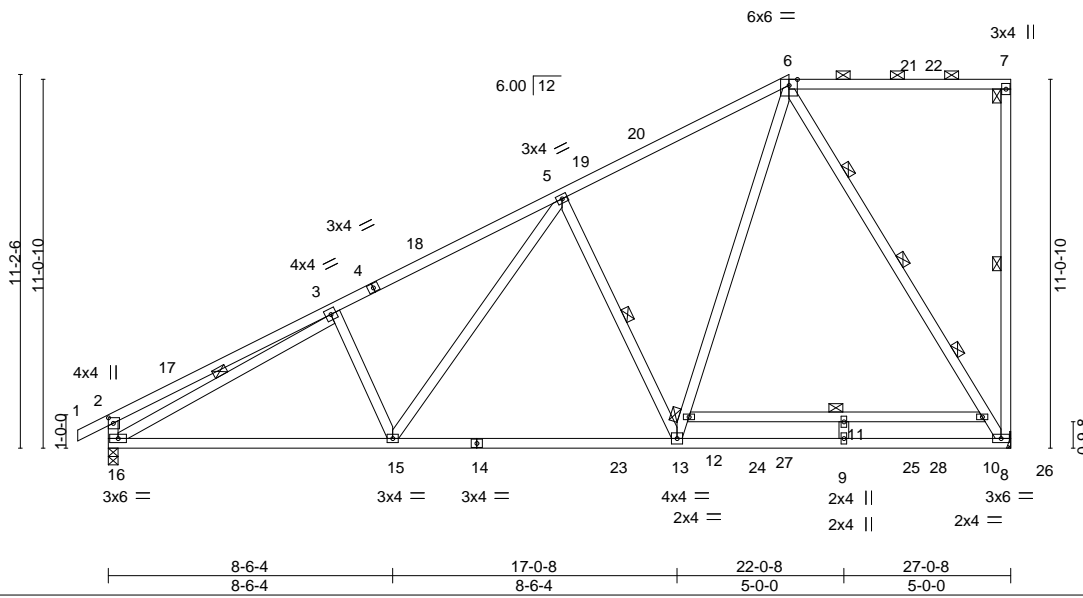


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 1.00	Vert(LL) -0.53 11-12 >608 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.89	Vert(CT) -0.84 11-12 >382 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.05 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 193 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1 \*Except\*  
14-16: 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-11-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing. Except: 5-3-0 oc bracing: 10-12  
WEBS 1 Row at midpt 7-8, 5-13, 3-16  
3 Rows at 1/4 pts 6-8

**REACTIONS.** (size) 8=Mechanical, 16=0-3-8  
Max Horz 16=329(LC 16)  
Max Uplift 8=-38(LC 16), 16=-15(LC 16)  
Max Grav 8=1611(LC 28), 16=1378(LC 28)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-560/117, 3-5=-1902/39, 5-6=-1290/35, 2-16=-458/148  
BOT CHORD 15-16=-240/1746, 13-15=-146/1364, 9-13=-51/818, 8-9=-51/818  
WEBS 5-15=-54/580, 5-13=-696/191, 12-13=-44/1160, 6-12=0/1370, 6-10=-1266/138, 8-10=-1483/89, 3-16=-1497/0

- 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=25ft; B=45ft; L=27ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 20-4-12, Exterior(2R) 20-4-12 to 24-7-11, Interior(1) 24-7-11 to 26-10-12 zone; cantilever left and right exposed ; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 16.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 6, 2024

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

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818 Soundside Road  
Edenton, NC 27932

Job 24-5542-A	Truss SM02GE	Truss Type HALF HIP SUPPORTED	Qty 1	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346362
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Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:25 2024 Page 1  
ID:DIJU\_rm8eUvAvjXeNVKK9zicI6-UCjVq7LhQjCaN8KJM\_KTdl3mYYTqg2pEZNdY8uzkFvq



Scale: 3/16"=1'

Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [13:0-2-0,0-2-8], [27:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.44	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.21	Vert(LL) 0.00 1 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 19 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 241 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**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.): 13-18.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 18-19, 17-20, 16-21, 15-22, 14-23, 12-24, 11-25, 17-19

**REACTIONS.**

All bearings 27-0-8.  
(lb) - Max Horz 33=310(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) 33, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 except 19=113(LC 16), 32=282(LC 16)  
Max Grav All reactions 250 lb or less at joint(s) 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32 except 33=333(LC 16)

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

TOP CHORD 2-33=-318/142, 2-3=-475/189, 3-4=-351/141, 4-5=-307/124, 5-7=-261/105  
WEBS 3-32=-132/267

**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=25ft; B=45ft; L=27ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 18-9-8, Corner(3R) 18-9-8 to 21-9-8, Exterior(2N) 21-9-8 to 26-10-12 zone; cantilever left and right exposed ; end vertical 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 except (jt=lb) 19=113, 32=282.



May 6, 2024

Continued on page 2

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346362
24-5542-A	SM02GE	HALF HIP SUPPORTED	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:25 2024 Page 2  
 ID:DIJU\_rm8eUvAVtjXeNVKK9zicI6-UCjVq7LhQjCaN8KJM\_KTdI3mYYTqg2pEZNdY8uzKFvq

**NOTES-**

- 15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**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 24-5542-A	Truss SM03G	Truss Type Half Hip Girder	Qty 2	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	I65346363
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Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:26 2024 Page 1  
ID:DIJU\_rm8eUvAVtjXeNVKK9zic6-yOht1SMKB1KR?HvWvir9Vb0ryspPX3Nn1N5gKzKFvp

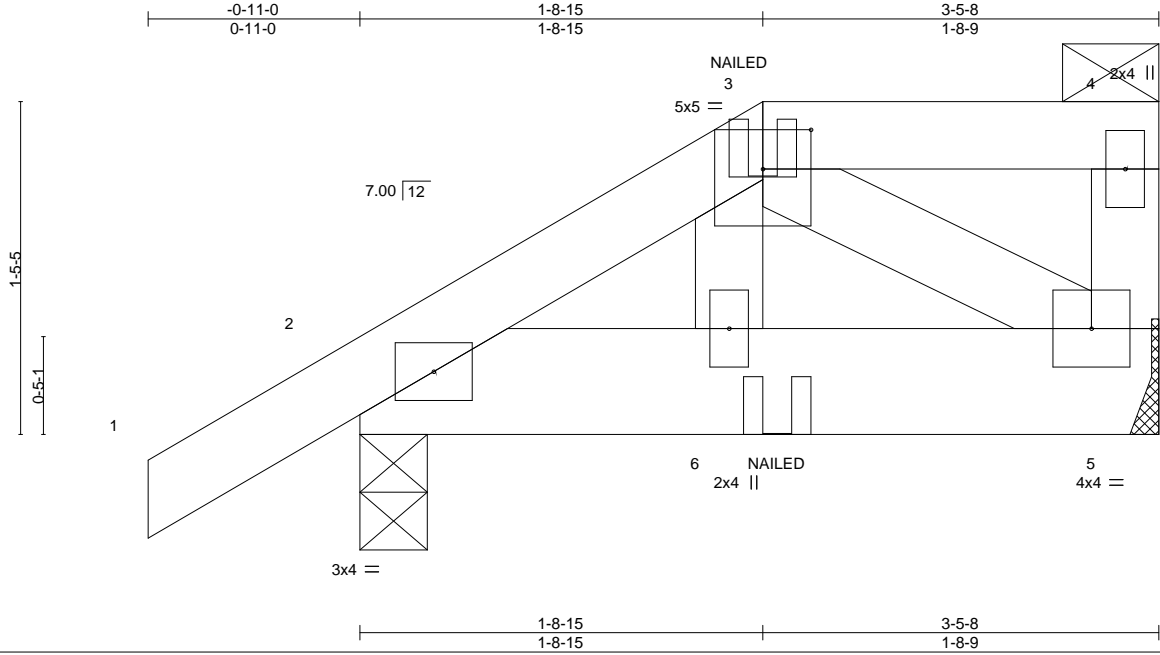


Plate Offsets (X,Y)-- [3:0-2-8,0-2-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.09	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 9 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.02	Vert(CT) -0.00 9 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MP	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 20 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-5-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 2=0-3-8, 5=Mechanical  
 Max Horz 2=45(LC 11)  
 Max Uplift 2=-42(LC 12), 5=-20(LC 9)  
 Max Grav 2=228(LC 32), 5=138(LC 31)

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

- 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=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-43, 3-4=-53, 5-7=-20



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Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346363
24-5542-A	SM03G	Half Hip Girder	2	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:26 2024 Page 2  
 ID:DIJU\_rm8eUvAVtjXeNVKK9zic6-yOht1SMKB1KR?HvWviri9Vb0ryspPX3Nn1N5gKzKFvp

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 6=-6(F) 3=-3(F)

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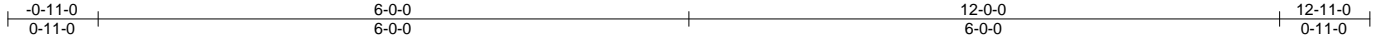
818 Soundside Road  
 Edenton, NC 27932



Job 24-5542-A	Truss T01	Truss Type Common	Qty 5	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346364
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Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:26 2024 Page 1  
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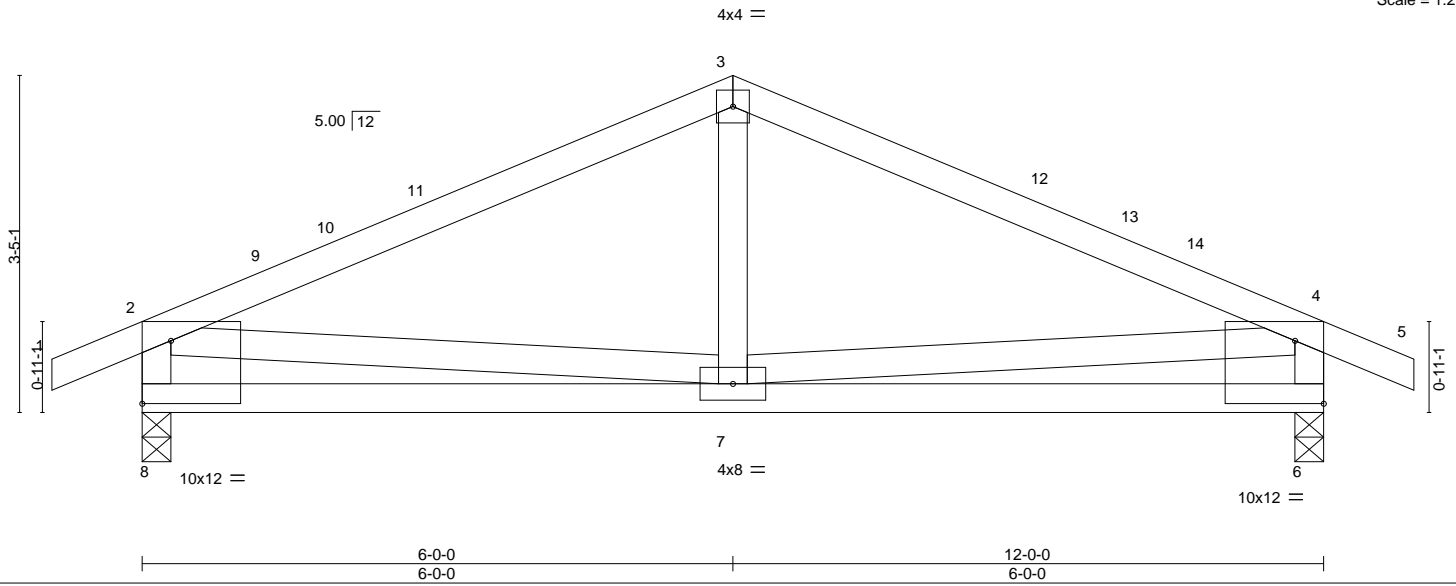


Plate Offsets (X,Y)-- [6:Edge,0-7-11], [8:Edge,0-7-11]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.63	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.31	Vert(LL) -0.03 7-8 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.05 7-8 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.01 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 63 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**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.**

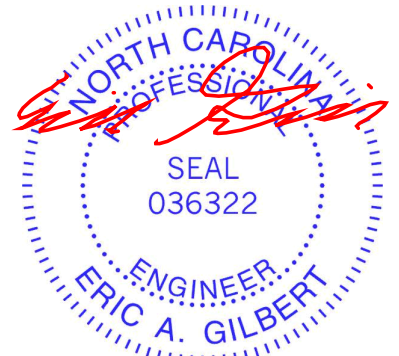
(size) 8=0-3-8, 6=0-3-8  
Max Horz 8=-59(LC 14)  
Max Uplift 8=-62(LC 16), 6=-62(LC 16)  
Max Grav 8=532(LC 2), 6=532(LC 2)

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

TOP CHORD 2-3=-592/186, 3-4=-592/186, 2-8=-479/227, 4-6=-479/227  
BOT CHORD 7-8=-169/293, 6-7=-130/293  
WEBS 2-7=0/269, 4-7=0/269

**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=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 zone; cantilever left and right exposed; 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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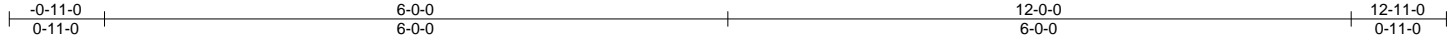


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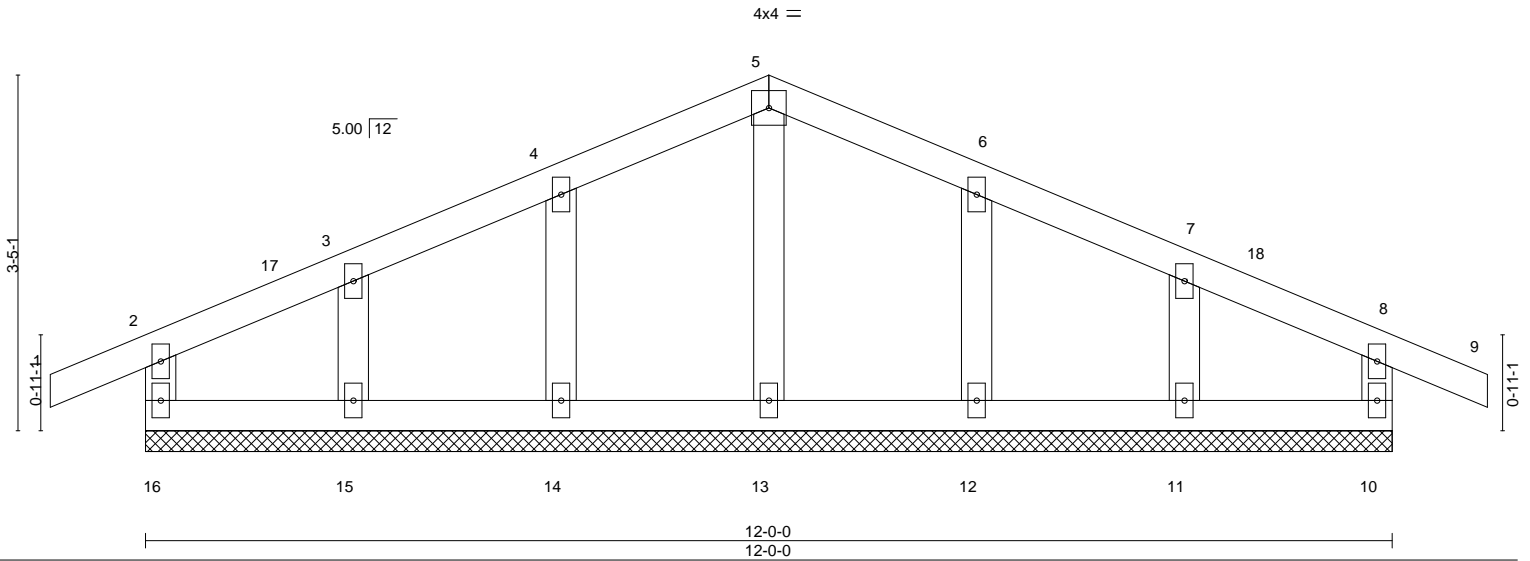
Job 24-5542-A	Truss T01GE	Truss Type Common Supported Gable	Qty 1	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346365
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Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:27 2024 Page 1  
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Scale = 1:22.2



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.08	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 9 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Vert(CT) -0.00 9 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 56 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**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.**

All bearings 12-0-0.  
(lb) - Max Horz 16=-59(LC 14)  
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11  
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-0-0, Exterior(2N) 2-0-0 to 6-0-0, Corner(3R) 6-0-0 to 9-0-0, Exterior(2N) 9-0-0 to 12-11-0 zone; cantilever left and right exposed; 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
- 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10, 14, 15, 12, 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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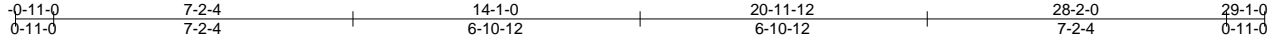


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346366
24-5542-A	T02	COMMON	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:28 2024 Page 1  
 ID:DIJU\_rm8eUvAVtjXeNVKK9zicI6-vnOdS8Oajea9Eb2u17tAEwhDwmI5tKkgFLsCICzKfVn



Scale = 1:55.3

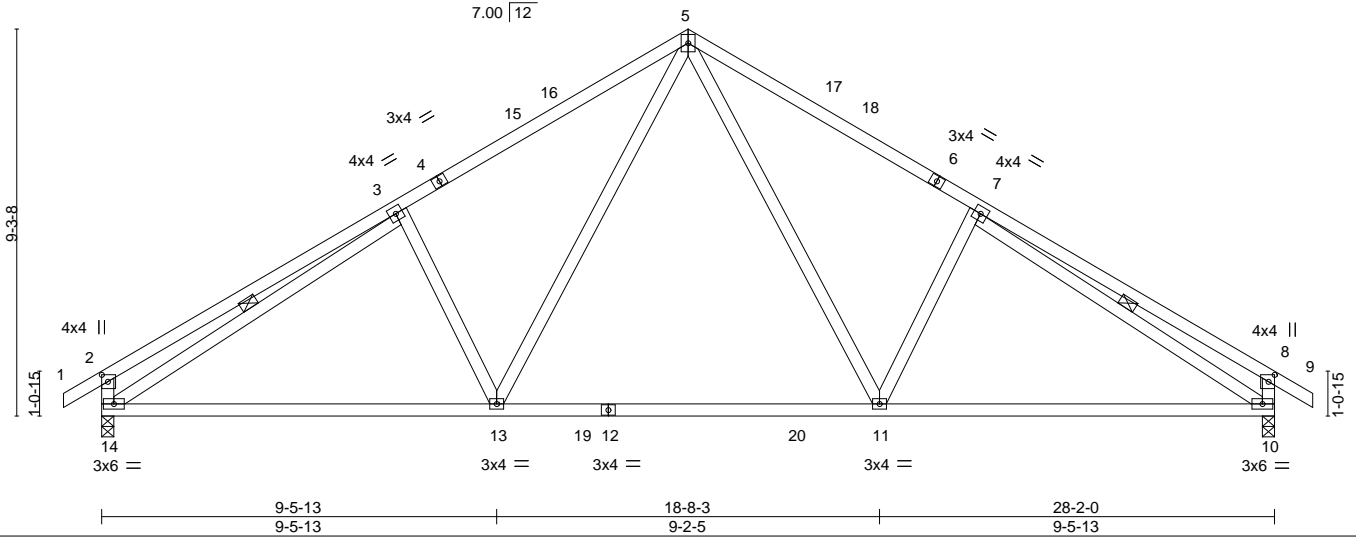


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [8:0-2-0,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.69	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 1.00	Vert(LL) -0.26 11-13 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.49	Vert(CT) -0.37 10-11 >907 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.06 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 165 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-9-1 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.  
 WEBS 1 Row at midpt 3-14, 7-10

**REACTIONS.**

(size) 14=0-3-8, 10=0-3-8  
 Max Horz 14=202(LC 15)  
 Max Uplift 14=-101(LC 16), 10=-101(LC 16)  
 Max Grav 14=1314(LC 28), 10=1314(LC 29)

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

TOP CHORD 2-3=-553/144, 3-5=-1579/218, 5-7=-1580/218, 7-8=-553/144, 2-14=-486/146, 8-10=-486/146  
 BOT CHORD 13-14=-67/1492, 11-13=0/1038, 10-11=-58/1367  
 WEBS 5-11=-49/717, 7-11=-317/180, 5-13=-49/717, 3-13=-317/179, 3-14=-1253/44, 7-10=-1252/44

**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=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 14-1-0, Exterior(2R) 14-1-0 to 17-1-0, Interior(1) 17-1-0 to 29-1-0 zone; cantilever left and right exposed; 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=101, 10=101.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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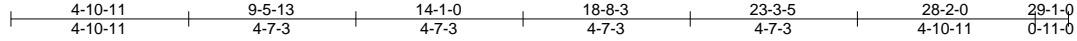


818 Soundside Road  
 Edenton, NC 27932

Job 24-5542-A	Truss T02G	Truss Type COMMON GIRDER	Qty 1	Ply 3	RVF-LOT #16 ROOF Job Reference (optional)	165346367
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Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:29 2024 Page 1

ID:DIJU\_rm8eUvAVtjXeNVKK9zic16-Nzy0gUOCUyi0sl5bqOPn8DLVAKmcbpU?bmHfzKfWm



5x6 ||

Scale: 3/16"=1'

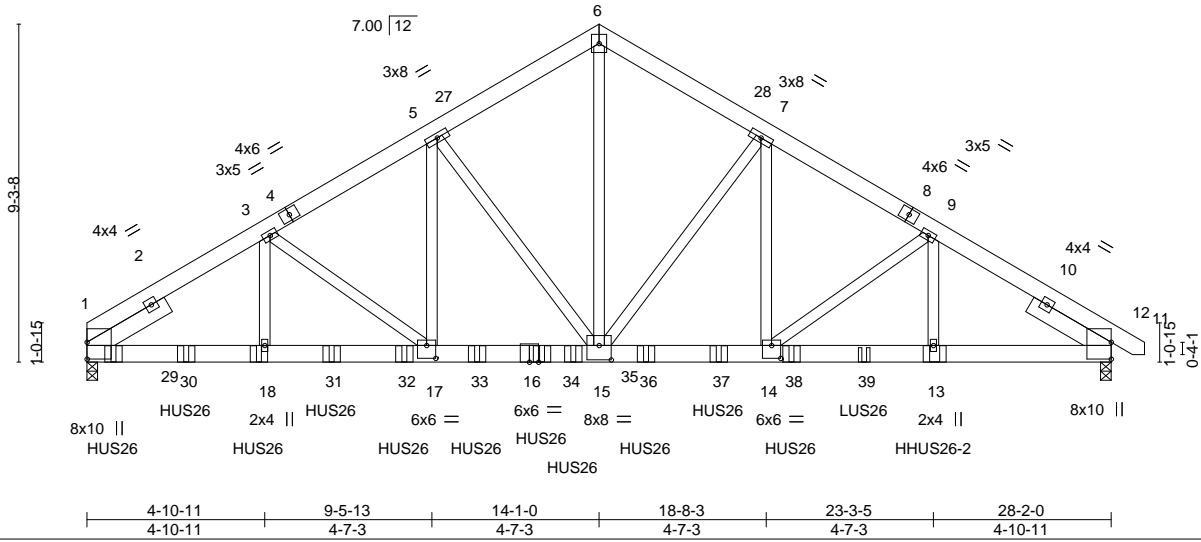


Plate Offsets (X,Y)-- [14:0-3-0,0-4-4], [15:0-4-0,0-4-12], [17:0-3-0,0-4-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.89	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.62	Vert(LL) -0.15 15-17 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.81	Vert(CT) -0.29 15-17 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.09 11 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 697 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\*  
 6-15: 2x4 SP No.2  
 SLIDER Left 2x6 SP No.2 2-6-0, Right 2x6 SP No.2 2-6-0

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-10-1 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=0-3-8, 11=0-3-8  
 Max Horz 1=171(LC 10)  
 Max Uplift 1=450(LC 12), 11=696(LC 12)  
 Max Grav 1=10699(LC 3), 11=8342(LC 3)

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

TOP CHORD 1-3=-14544/670, 3-5=-12919/678, 5-6=-10098/638, 6-7=-10100/639, 7-9=-12258/835, 9-11=-13200/1095  
 BOT CHORD 1-18=-491/12161, 17-18=-491/12161, 15-17=-437/11216, 14-15=-579/10652, 13-14=-839/10965, 11-13=-839/10965  
 WEBS 6-15=-558/9848, 7-15=-3460/431, 7-14=-344/3449, 9-14=-924/324, 9-13=-344/1925, 5-15=-4224/194, 5-17=-89/4410, 3-17=-1208/67, 3-18=-21/2178

**NOTES-**

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-5-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=450, 11=696.



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Continued on page 2

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346367
24-5542-A	T02G	COMMON GIRDER	1	3	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:29 2024 Page 2  
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**NOTES-**

- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-8-12 from the left end to 2-8-12 to connect truss(es) to front face of bottom chord.
- 13) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 4-8-12 from the left end to 19-4-8 to connect truss(es) to front face of bottom chord.
- 14) Use Simpson Strong-Tie LUS26 (4-SD9112 Girder, 4-SD9212 Truss, Single Ply Girder) or equivalent at 21-4-8 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
- 15) Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 23-3-12 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
- 16) Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-6=-43, 6-12=-43, 19-23=-20

Concentrated Loads (lb)

Vert: 13=-2219(F) 18=-935(F) 29=-938(F) 30=-935(F) 31=-935(F) 32=-935(F) 33=-935(F) 34=-935(F) 35=-1161(F) 36=-1141(F) 37=-1067(F) 38=-1029(F) 39=-987(F)

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818 Soundside Road  
Edenton, NC 27932



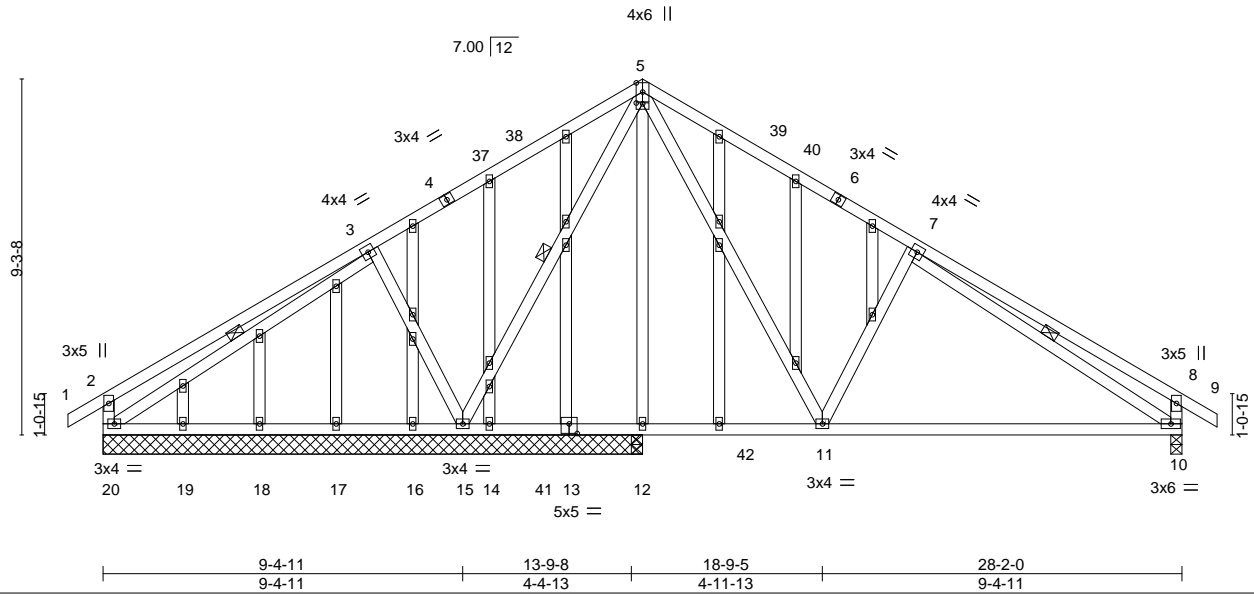
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346368
24-5542-A	T02SGE	COMMON STRUCTURAL GA	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

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ID:DIJU\_rm8eUvAVtjXeNVKk9zic6-r9W0tqPqFFqtUvCH8YweKLMzWZ2pKGRzifLJp5zKFvl

0-11-0 7-0-8 14-1-0 21-1-8 28-2-0 29-1-0  
 0-11-0 7-0-8 7-0-8 7-0-8 7-0-8 0-11-0



Scale = 1:60.2

Plate Offsets (X,Y)-- [5:0-2-0,0-0-4], [13:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.66	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.73	Vert(LL) -0.19 10-11 >897 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.38	Vert(CT) -0.38 10-11 >441 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.02 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 238 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**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.  
 WEBS 1 Row at midpt 5-15, 3-20, 7-10

**REACTIONS.**

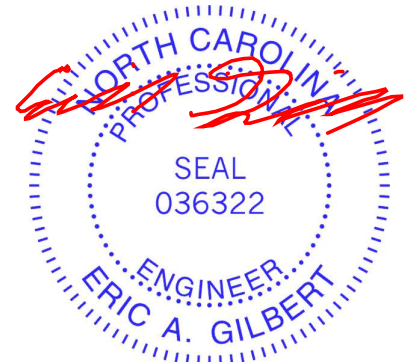
All bearings 14-1-0 except (jt=length) 10=0-3-8, 12=0-3-8, 12=0-3-8.  
 (lb) - Max Horz 20=202(LC 15)  
 Max Uplift All uplift 100 lb or less at joint(s) 20, 10 except 15=-200(LC 16)  
 Max Grav All reactions 250 lb or less at joint(s) 14, 16, 17, 18, 19, 12, 12 except 15=957(LC 2), 20=339(LC 34), 10=850(LC 29)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-272/173, 5-7=-773/190, 7-8=-503/130, 2-20=-337/160, 8-10=-451/138  
 BOT CHORD 14-15=0/292, 12-14=0/292, 11-12=0/292, 10-11=-32/680  
 WEBS 5-11=-63/701, 7-11=-362/181, 5-15=-718/38, 3-15=-417/191, 7-10=-459/25

**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=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 14-1-0, Exterior(2R) 14-1-0 to 17-1-0, Interior(1) 17-1-0 to 29-1-0 zone; cantilever left and right exposed ; 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
- 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 10 except (jt=lb) 15=200.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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818 Soundside Road  
 Edenton, NC 27932



Job 24-5542-A	Truss T03	Truss Type COMMON	Qty 5	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346369
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Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:30 2024 Page 1

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Scale = 1:58.7

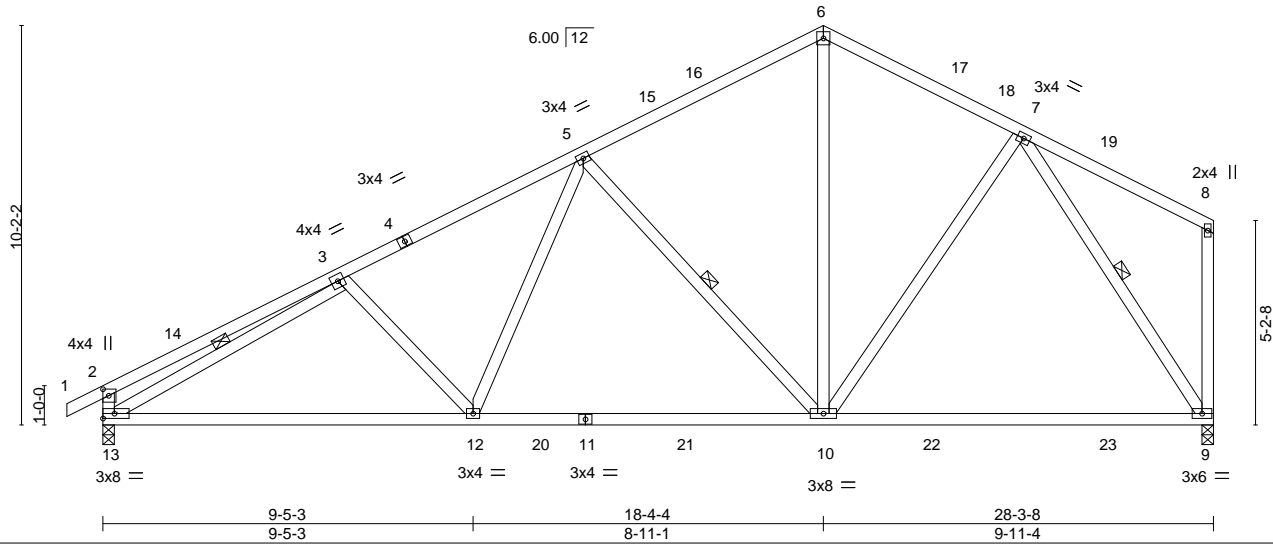


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.70	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.96	Vert(LL) -0.37 9-10 >917 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.48	Vert(CT) -0.59 9-10 >566 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.05 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 179 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 9-11: 2x4 SP No.1  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-3-7 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 5-10, 3-13, 7-9

**REACTIONS.**

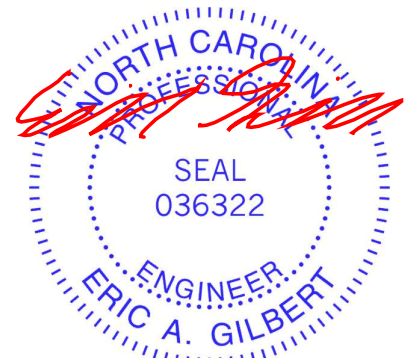
(size) 13=0-3-8, 9=0-3-8  
 Max Horz 13=265(LC 15)  
 Max Uplift 13=-99(LC 16), 9=-70(LC 16)  
 Max Grav 13=1324(LC 28), 9=1283(LC 30)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-522/98, 3-5=-1739/209, 5-6=-1039/221, 6-7=-1028/213, 2-13=-428/138  
 BOT CHORD 12-13=-332/1696, 10-12=-247/1392, 9-10=-162/698  
 WEBS 5-12=0/510, 5-10=-704/156, 6-10=-69/607, 7-10=0/414, 3-13=-1400/131, 7-9=-1181/198

**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=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 18-4-4, Exterior(2R) 18-4-4 to 21-4-4, Interior(1) 21-4-4 to 28-1-12 zone; cantilever left and right exposed; 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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

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

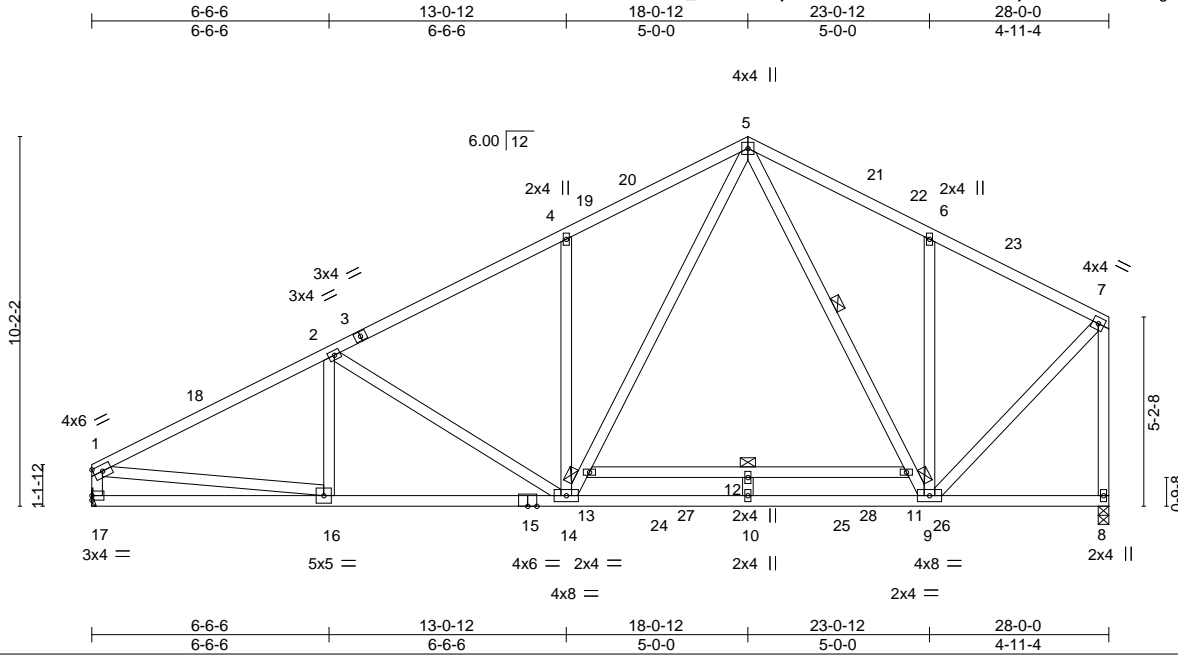


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346370
24-5542-A	T03AS	Common	7	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:31 2024 Page 1

ID:DIJU\_rm8eUvAVtjXeNVKK9zic16-JM4m5AQS0Zzj53nTIFRtsZJhuzMg3e46xJ4sMXzKFvk



Scale: 3/16"=1'

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.88	Vert(LL) -0.46 10 >728 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.68	Vert(CT) -0.73 10 >454 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.03 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 199 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-7-8 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except* 8-15: 2x4 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 8-9. 6-0-0 oc bracing: 11-13
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-11

**REACTIONS.** (size) 17=Mechanical, 8=0-3-8  
 Max Horz 17=256(LC 15)  
 Max Uplift 17=-26(LC 16)  
 Max Grav 17=1377(LC 27), 8=1492(LC 29)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2032/122, 2-4=-1724/129, 4-5=-1731/221, 5-6=-1105/202, 6-7=-1071/109,  
 1-17=-1257/111, 7-8=-1497/68  
 BOT CHORD 16-17=-278/347, 14-16=-248/1865, 10-14=-90/1028, 9-10=-90/1028  
 WEBS 2-14=-364/118, 4-14=-365/166, 13-14=-119/1100, 5-13=-73/1236, 9-11=-289/27,  
 6-9=-342/153, 1-16=-27/1533, 7-9=-35/1320

- 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=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 18-0-12, Exterior(2R) 18-0-12 to 21-0-12, Interior(1) 21-0-12 to 27-10-4 zone; cantilever left and right exposed ; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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

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

Job 24-5542-A	Truss T03GE	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346371
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Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:32 2024 Page 1  
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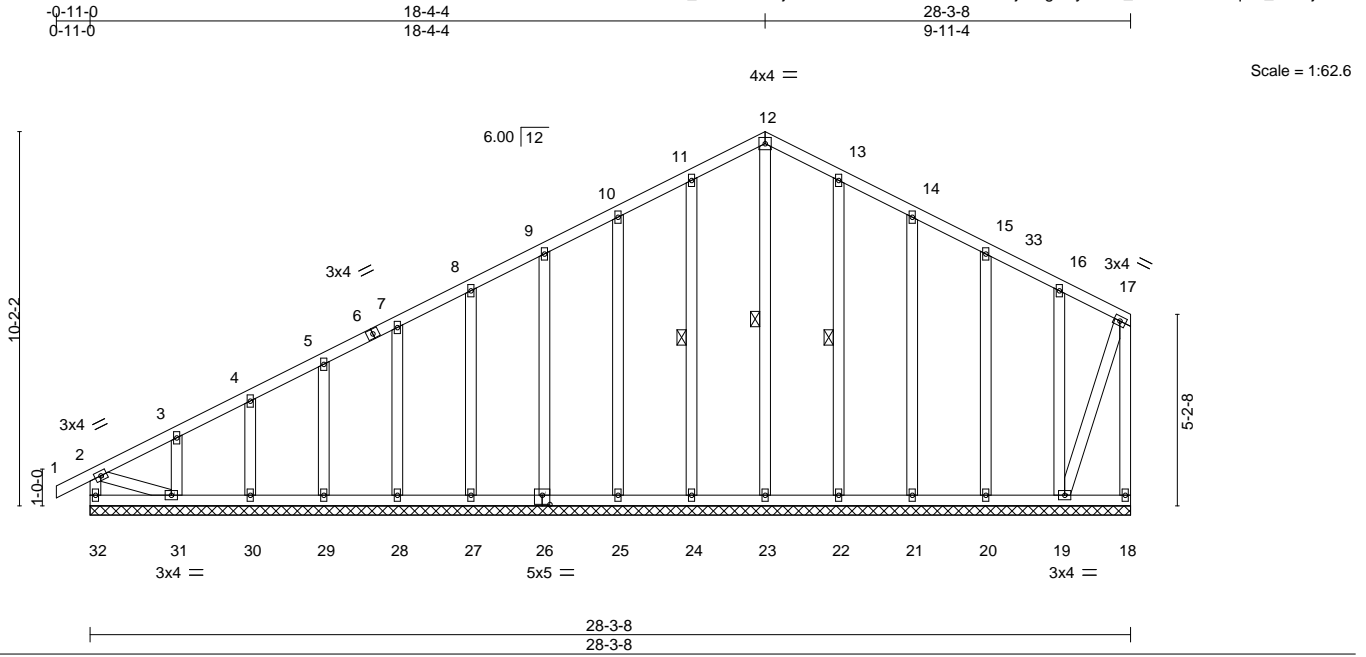


Plate Offsets (X,Y)-- [26:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.34	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.10	Vert(LL) 0.00 1 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.14	Vert(CT) -0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 18 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 227 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 31-32.  
WEBS 1 Row at midpt 12-23, 11-24, 13-22

**REACTIONS.**

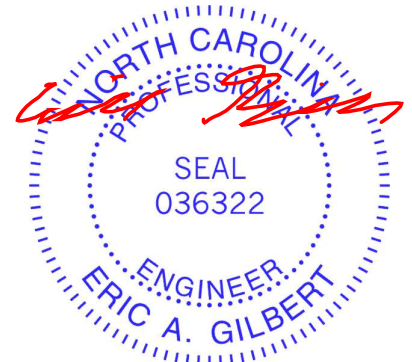
All bearings 28-3-8.  
(lb) - Max Horz 32=265(LC 15)  
Max Uplift All uplift 100 lb or less at joint(s) 32, 18, 24, 25, 26, 27, 28, 29, 30, 31, 22, 21, 20, 19  
Max Grav All reactions 250 lb or less at joint(s) 32, 18, 23, 24, 25, 26, 27, 28, 29, 30, 31, 22, 21, 20, 19

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

TOP CHORD 11-12=-146/283, 12-13=-146/283  
BOT CHORD 31-32=-274/243

**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=25ft; B=45ft; L=28ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-4-4, Exterior(2N) 2-4-4 to 18-4-4, Corner(3R) 18-4-4 to 21-4-4, Exterior(2N) 21-4-4 to 28-1-12 zone; cantilever left and right exposed; 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
- 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 32, 18, 24, 25, 26, 27, 28, 29, 30, 31, 22, 21, 20, 19.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

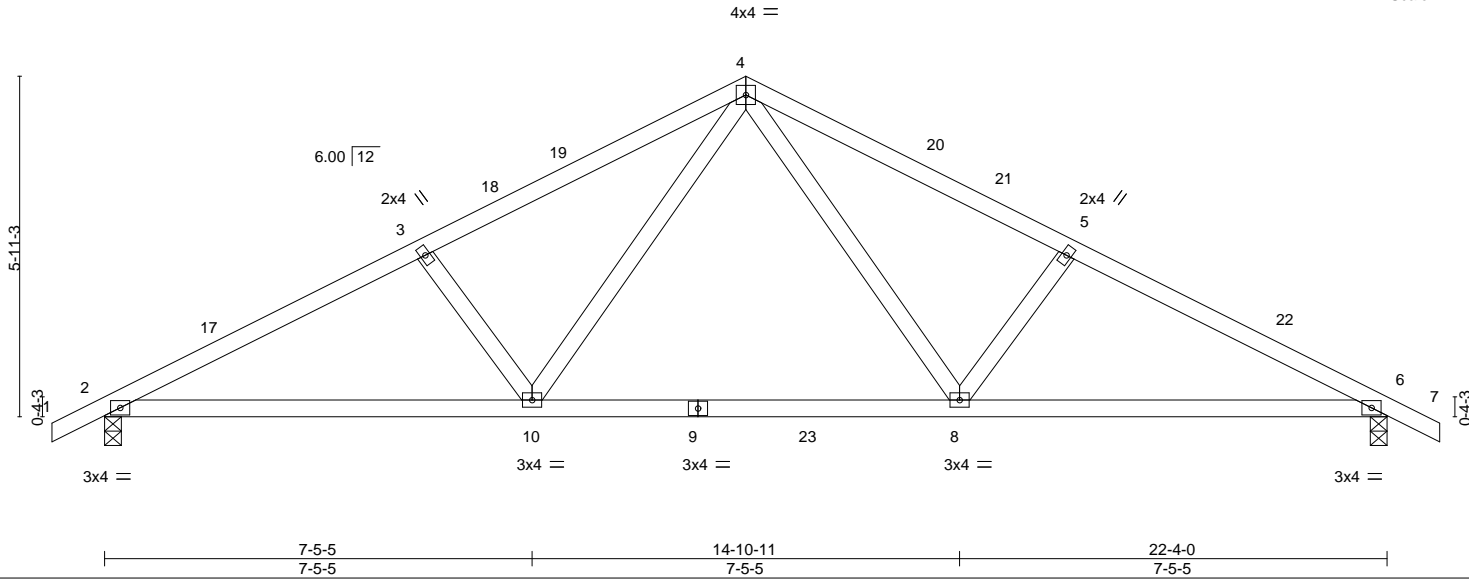
Job 24-5542-A	Truss T04	Truss Type Common	Qty 1	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	165346372
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Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:33 2024 Page 1

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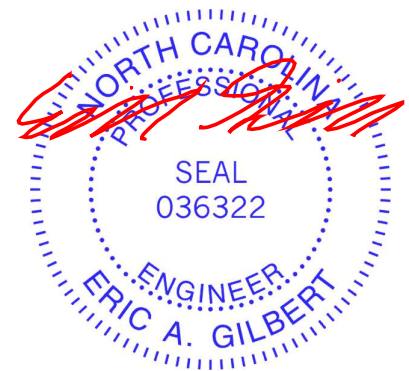
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.41	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.74	Vert(LL) -0.11 8-10 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.20 8-10 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 102 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-1-15 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=100(LC 14)  
 Max Uplift 2=83(LC 16), 6=83(LC 16)  
 Max Grav 2=1025(LC 28), 6=1025(LC 29)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1690/242, 3-4=-1547/250, 4-5=-1548/250, 5-6=-1691/242  
 BOT CHORD 2-10=-138/1553, 8-10=-22/991, 6-8=-145/1490  
 WEBS 4-8=-55/676, 5-8=-348/163, 4-10=-55/674, 3-10=-348/163

- 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=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 11-2-0, Exterior(2R) 11-2-0 to 14-2-0, Interior(1) 14-2-0 to 23-3-0 zone; cantilever left and right exposed; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
  - 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

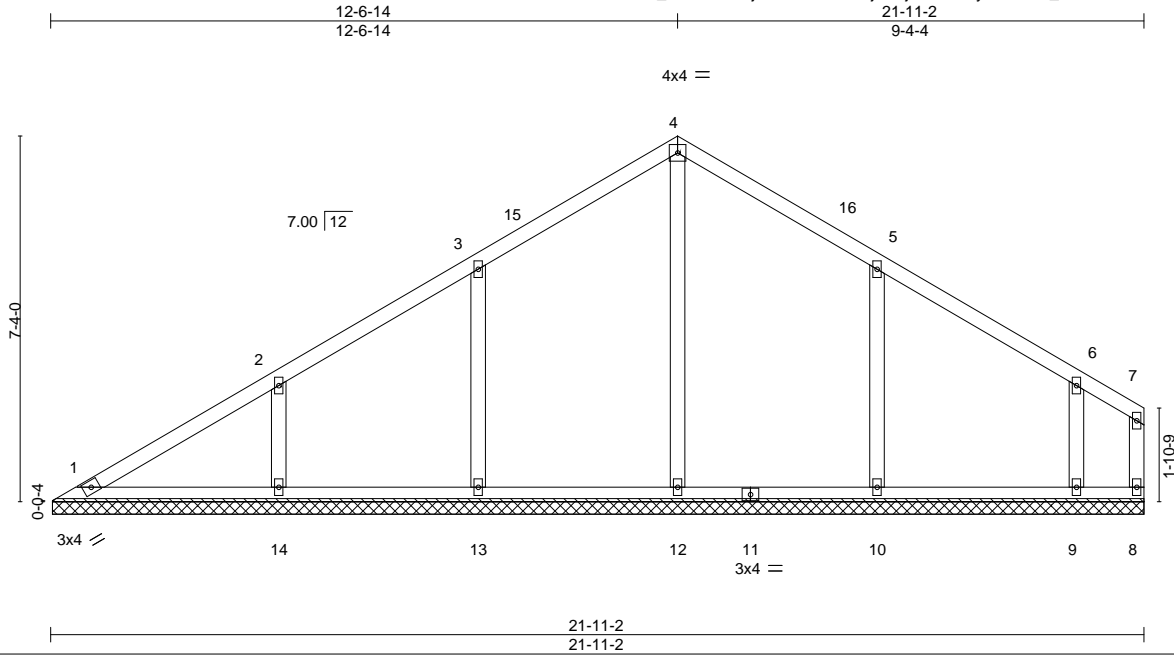


May 6, 2024

Job 24-5542-A	Truss V01	Truss Type Valley	Qty 1	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	I65346373
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Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:34 2024 Page 1  
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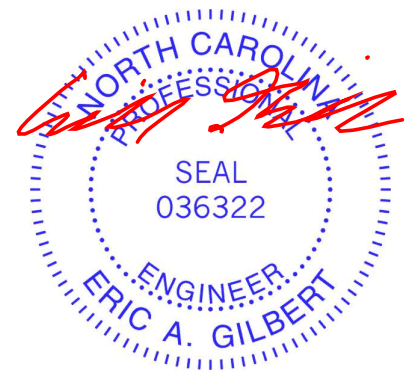
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.22	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.17	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.21	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 101 lb	FT = 20%

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

**REACTIONS.** All bearings 21-10-11.  
 (lb) - Max Horz 1=165(LC 15)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 13, 14, 10, 9  
 Max Grav All reactions 250 lb or less at joint(s) 1, 8 except 12=432(LC 27), 13=414(LC 27), 14=427(LC 27), 10=439(LC 28), 9=315(LC 28)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-13=253/121, 2-14=266/114, 5-10=268/126

- 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=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 12-6-14, Exterior(2R) 12-6-14 to 15-6-14, Interior(1) 15-6-14 to 21-9-6 zone; cantilever left and right exposed; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 13, 14, 10, 9.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



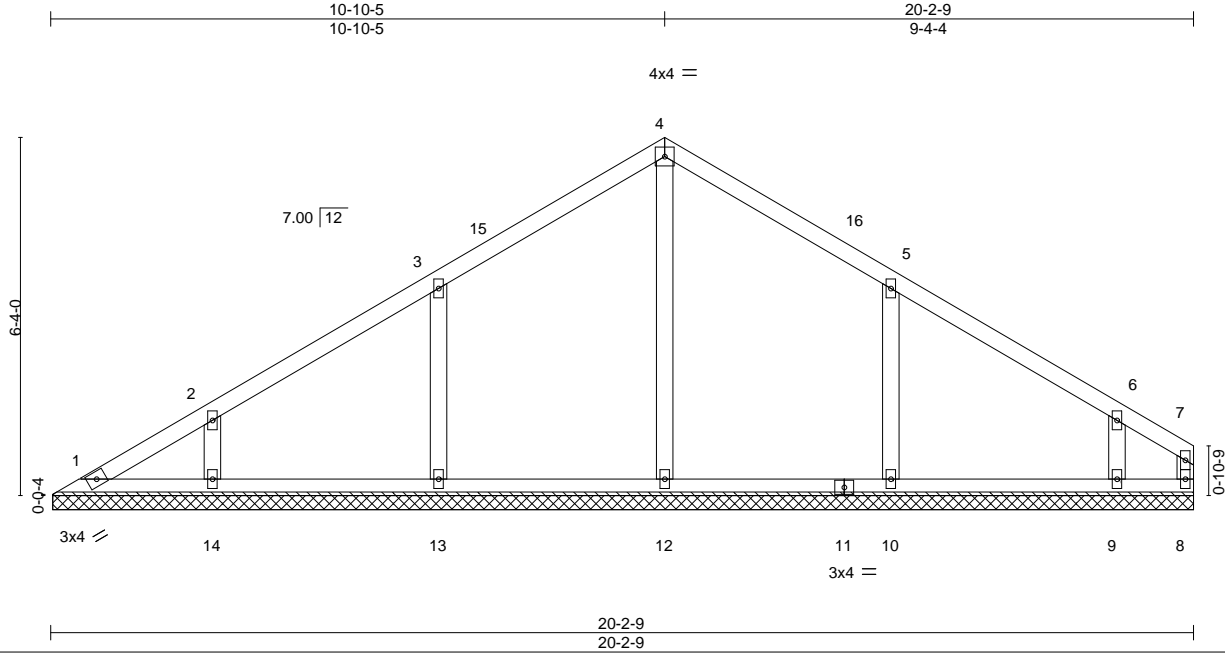


Job 24-5542-A	Truss V02	Truss Type Valley	Qty 1	Ply 1	RVF-LOT #16 ROOF Job Reference (optional)	I65346374
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Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:34 2024 Page 1

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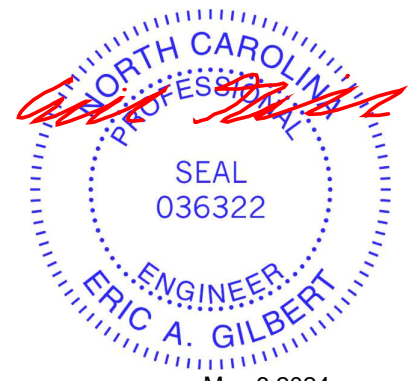
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.17	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.14	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 87 lb	FT = 20%

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

**REACTIONS.** All bearings 20-2-2.  
 (lb) - Max Horz 1=130(LC 15)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 13, 14, 10, 9  
 Max Grav All reactions 250 lb or less at joint(s) 1, 8 except 12=397(LC 27), 13=439(LC 27), 14=327(LC 27), 10=440(LC 28), 9=313(LC 28)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-13=267/127, 5-10=268/126

- 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=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 10-10-5, Exterior(2R) 10-10-5 to 13-10-5, Interior(1) 13-10-5 to 20-0-13 zone; cantilever left and right exposed; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 13, 14, 10, 9.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

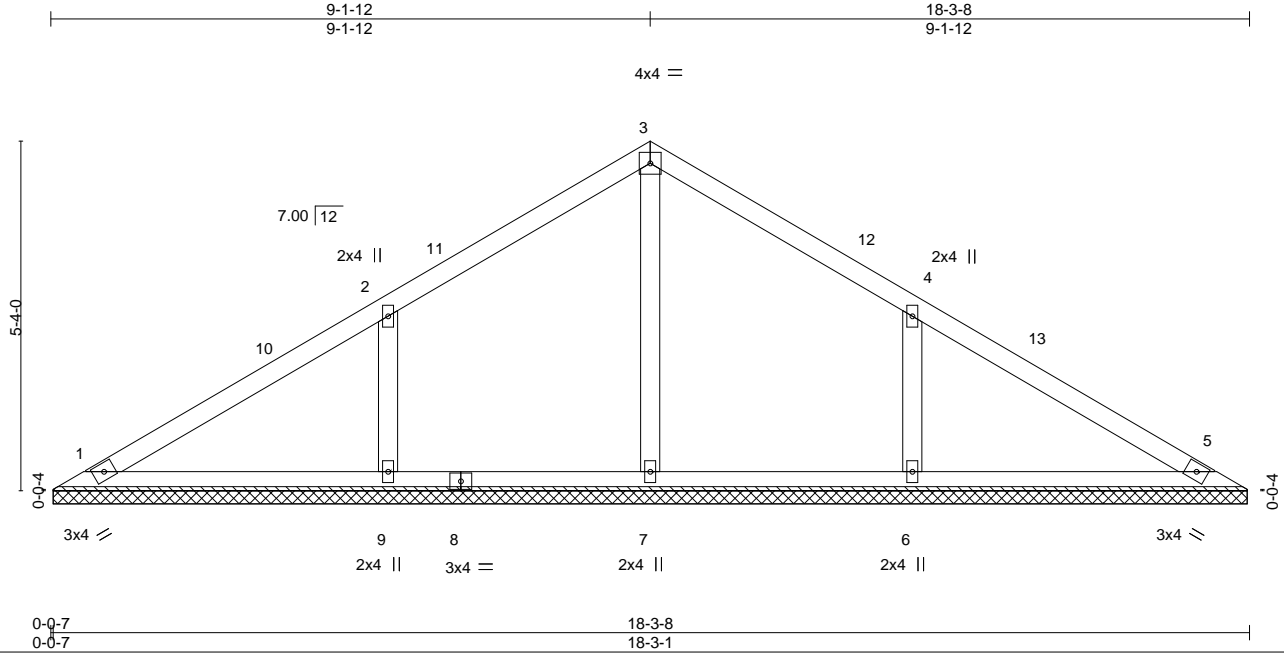




Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346375
24-5542-A	V03	Valley	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:35 2024 Page 1  
ID:DIJU\_rm8eUvAVtjXeNVKK9zicI6-C7JHwXTz4oT9ag5Ex5Vp1PTWXaun?aNisx24VlzKFvg



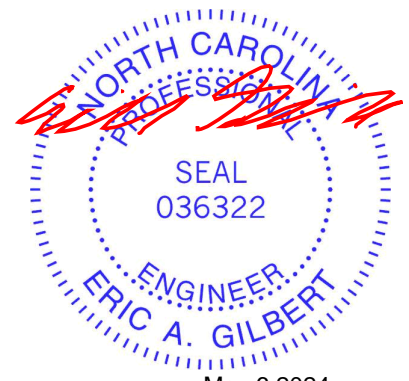
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.17	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.08	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 71 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 18-2-10.  
 (lb) - Max Horz 1=100(LC 14)  
 Max Uplift All uplift 100 lb or less at joint(s) 9, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 9=418(LC 27), 6=418(LC 34)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-9=-309/142, 4-6=-309/142

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 9-1-12, Exterior(2R) 9-1-12 to 12-1-12, Interior(1) 12-1-12 to 17-9-0 zone; cantilever left and right exposed; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

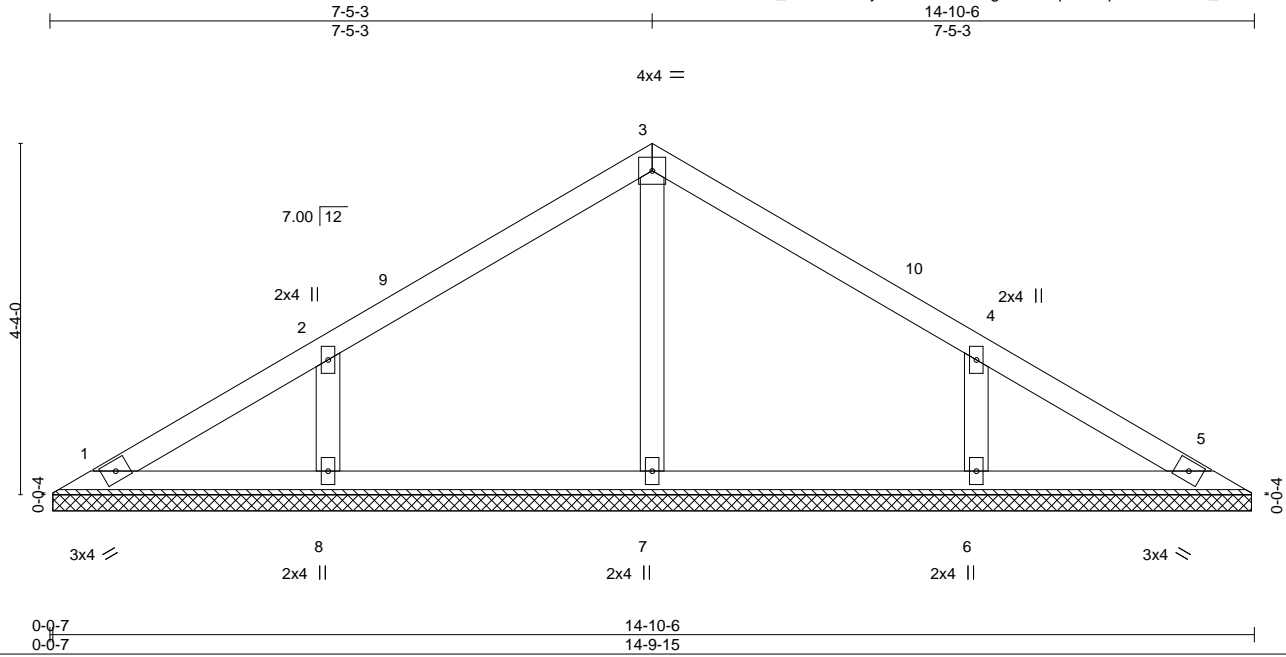


May 6, 2024

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346376
24-5542-A	V04	Valley	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:36 2024 Page 1  
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Scale = 1:28.4

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.11	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 56 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING-**

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

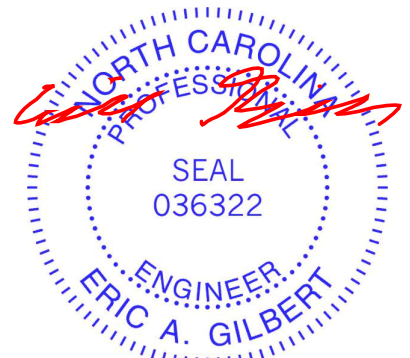
**REACTIONS.**

All bearings 14-9-8.  
(lb) - Max Horz 1=80(LC 14)  
Max Uplift All uplift 100 lb or less at joint(s) 8, 6  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=270(LC 2), 8=327(LC 33), 6=327(LC 34)

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

**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=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-5-3, Interior(1) 3-5-3 to 7-5-3, Exterior(2R) 7-5-3 to 10-5-3, Interior(1) 10-5-3 to 14-3-14 zone; cantilever left and right exposed ; 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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

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

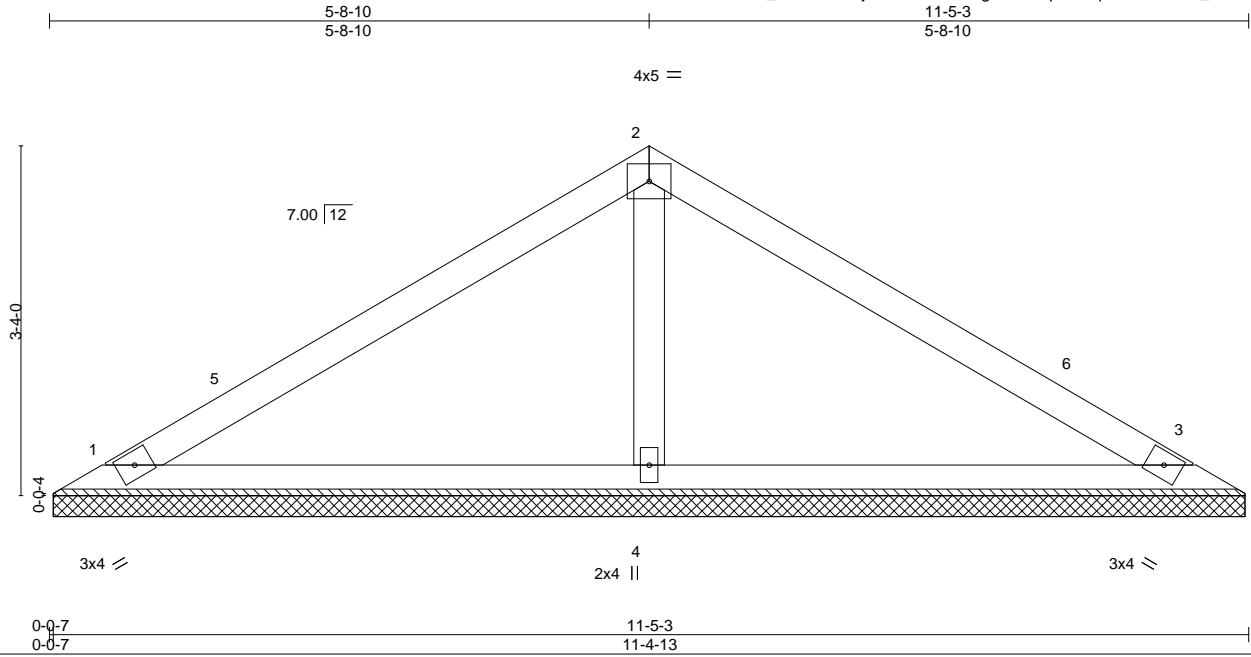


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346377
24-5542-A	V05	Valley	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:36 2024 Page 1  
ID:DIJU\_rm8eUvAVtjXeNVKK9zic16-gJtf8tUqb5b0CqfRV0o2Zc0f4\_CUk1or5bod1zKFvf



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.42	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.27	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 39 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 1=11-4-6, 3=11-4-6, 4=11-4-6  
 Max Horz 1=-60(LC 14)  
 Max Uplift 1=-25(LC 16), 3=-25(LC 16)  
 Max Grav 1=196(LC 2), 3=196(LC 2), 4=436(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-4=-284/106

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 5-8-10, Exterior(2R) 5-8-10 to 8-8-10, Interior(1) 8-8-10 to 10-10-11 zone; cantilever left and right exposed ; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

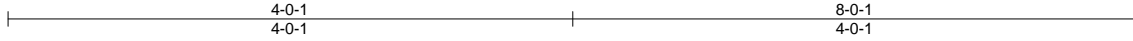


May 6, 2024

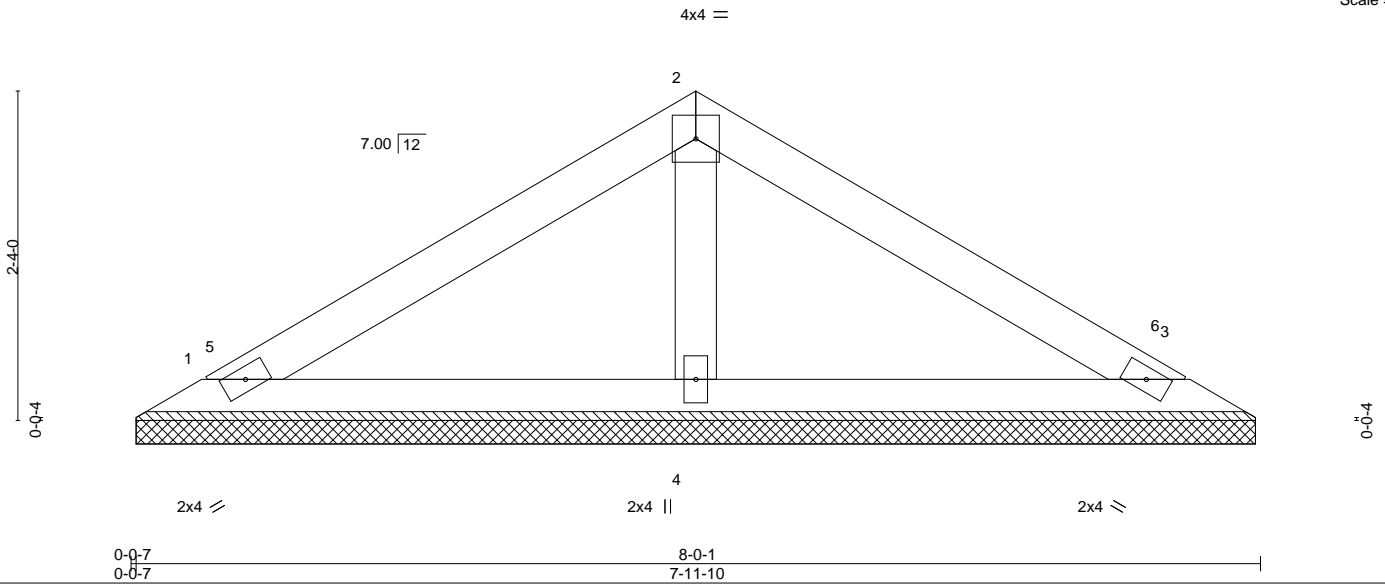
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346378
24-5542-A	V06	Valley	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:37 2024 Page 1  
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Scale = 1:16.3



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.24	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.12	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 26 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

(size) 1=7-11-3, 3=7-11-3, 4=7-11-3  
Max Horz 1=40(LC 14)  
Max Uplift 1=-23(LC 16), 3=-23(LC 16)  
Max Grav 1=145(LC 2), 3=145(LC 2), 4=264(LC 2)

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

**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=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 4-0-1, Exterior(2R) 4-0-1 to 7-0-1, Interior(1) 7-0-1 to 7-5-9 zone; cantilever left and right exposed; 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024

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

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



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	165346379
24-5542-A	V07	Valley	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:37 2024 Page 1

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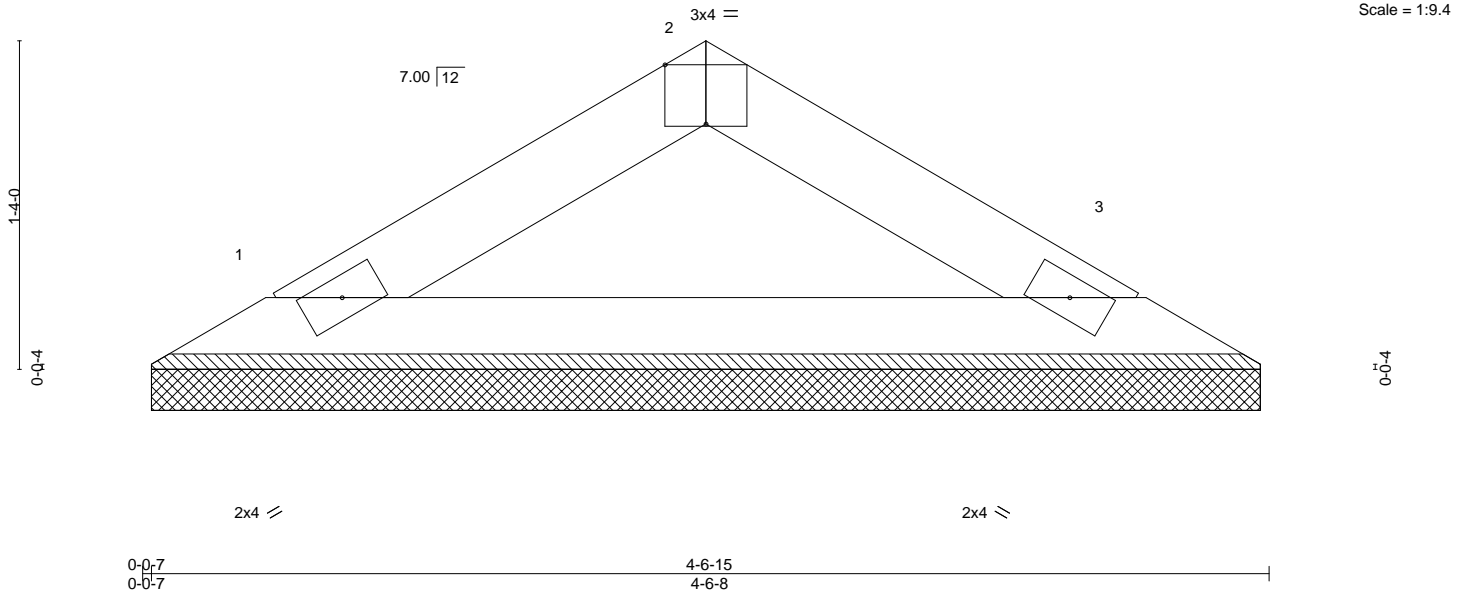
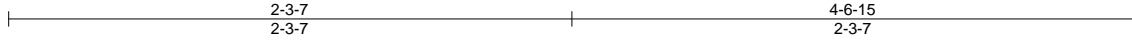


Plate Offsets (X,Y)--	[2:0-2:0,Edge]
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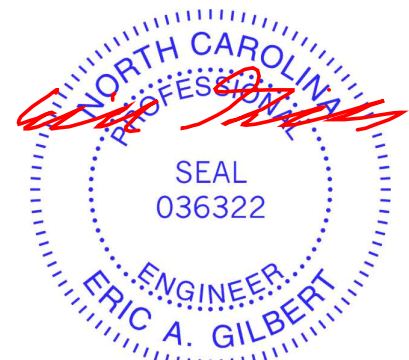
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.05	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.15	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 13 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-6-15 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=4-6-1, 3=4-6-1  
 Max Horz 1=-20(LC 14)  
 Max Uplift 1=-8(LC 16), 3=-8(LC 16)  
 Max Grav 1=140(LC 2), 3=140(LC 2)

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

- 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=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

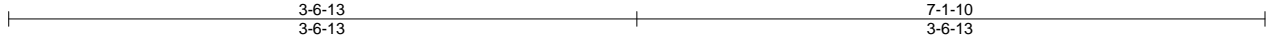


May 6, 2024

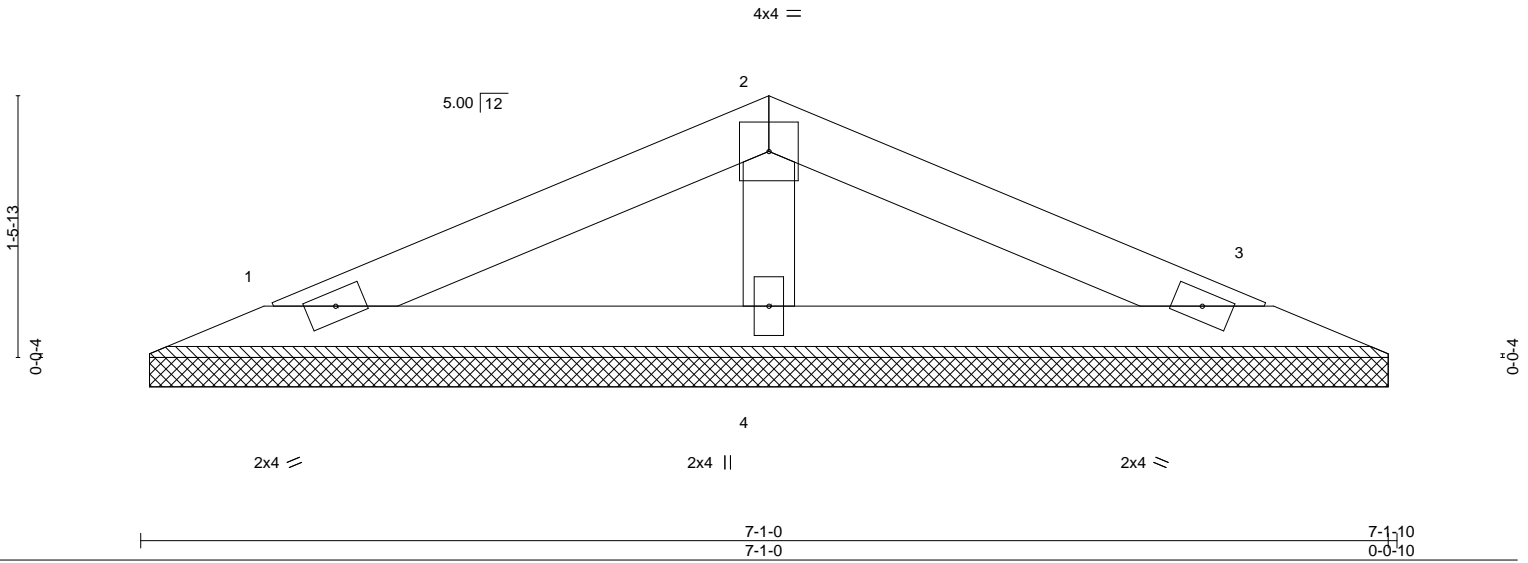
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #16 ROOF	I65346380
24-5542-A	V08	Valley	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Apr 25 2024 MiTek Industries, Inc. Fri May 3 08:56:38 2024 Page 1  
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Scale = 1:13.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.14	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.08	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 21 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 1=7-0-6, 3=7-0-6, 4=7-0-6  
 Max Horz 1=15(LC 14)  
 Max Uplift 1=16(LC 16), 3=16(LC 16)  
 Max Grav 1=111(LC 2), 3=111(LC 2), 4=228(LC 2)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; 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
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 6, 2024



# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16\" from outside edge of truss.



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

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

## PLATE SIZE

4 X 4

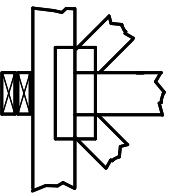
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

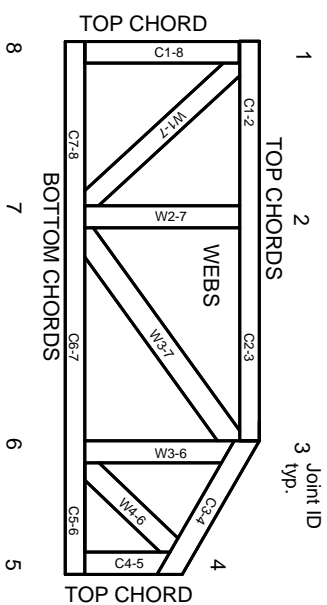


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System



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

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

# Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

# Design General Notes

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

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

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ENGINEERING BY  
**TRENGO**  
A MITek Affiliate

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

# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor 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.