ENGINEERING BY TRENCO
A MiTek Affiliate

RE: 23-7317-A
RVF-LOT #27 ROOF

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: 23-7317-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 8.5
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 23 individual, dated Truss Design Drawings and 0 Additional Drawings.

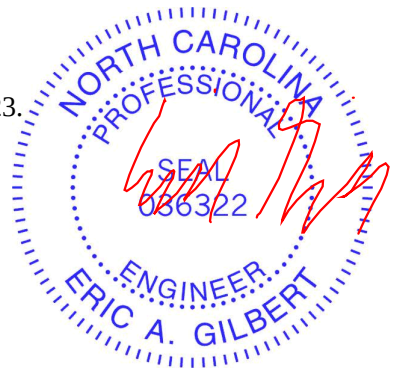
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I62245112	M01	11/30/2023	21	I62245132	V04	11/30/2023
2	I62245113	M01GE	11/30/2023	22	I62245133	V05	11/30/2023
3	I62245114	M02	11/30/2023	23	I62245134	V06	11/30/2023
4	I62245115	PB01	11/30/2023				
5	I62245116	T01	11/30/2023				
6	I62245117	T01GE	11/30/2023				
7	I62245118	T02	11/30/2023				
8	I62245119	T02G	11/30/2023				
9	I62245120	T02GE	11/30/2023				
10	I62245121	T03	11/30/2023				
11	I62245122	T03A	11/30/2023				
12	I62245123	T03AGE	11/30/2023				
13	I62245124	T03GE	11/30/2023				
14	I62245125	T04	11/30/2023				
15	I62245126	T04A	11/30/2023				
16	I62245127	T05	11/30/2023				
17	I62245128	T05GE	11/30/2023				
18	I62245129	V01	11/30/2023				
19	I62245130	V02	11/30/2023				
20	I62245131	V03	11/30/2023				

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, 2023.

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.

November 30, 2023

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	M01	Monopitch	8	1	I62245112
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:08 2023 Page 1
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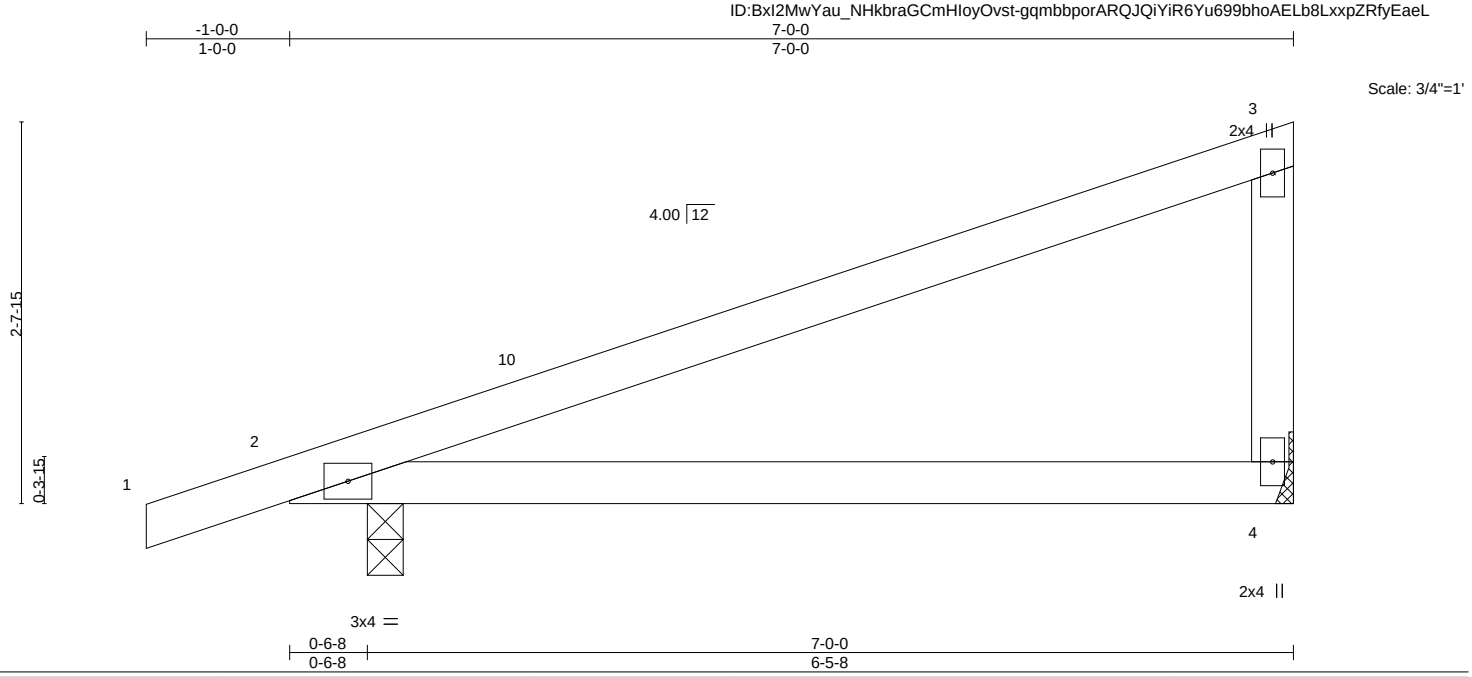

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	0.07	4-9	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.15	4-9	>538	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 26 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) 4=Mechanical, 2=0-3-0
Max Horz 2=86(LC 15)
Max Uplift 4=-12(LC 16), 2=-52(LC 16)
Max Grav 4=253(LC 21), 2=368(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) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 6-10-4 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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 4 and 52 lb uplift at joint 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.

November 30,2023

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

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

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	M01GE	Monopitch Structural Gable	1	1	I62245113

Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:10 2023 Page 1

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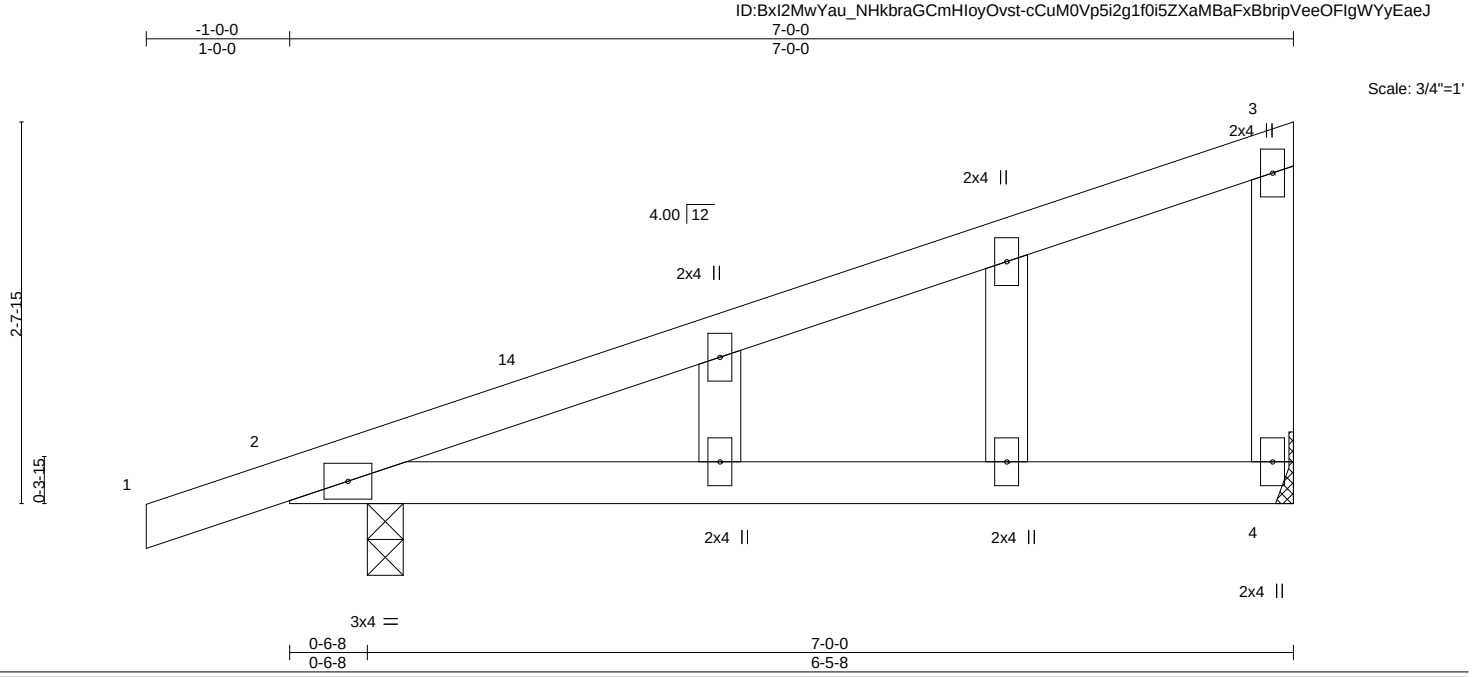

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	0.07	4-13	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.15	4-13	>538	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 29 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) 4=Mechanical, 2=0-3-0
Max Horz 2=86(LC 15)
Max Uplift 4=-12(LC 16), 2=-52(LC 16)
Max Grav 4=253(LC 21), 2=368(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) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 6-10-4 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) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 4 and 52 lb uplift at joint 2.
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.

November 30,2023

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818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	M02	Monopitch Structural Gable	1	1	I62245114

Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:11 2023 Page 1
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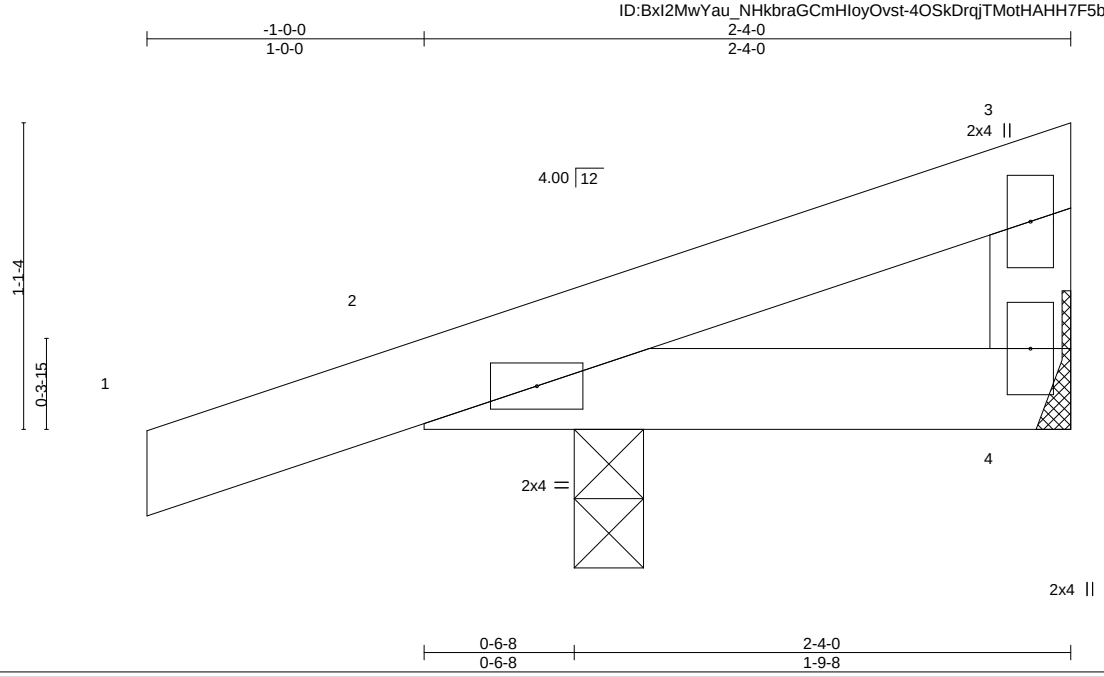

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	5	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%
BCDL	10.0											

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

REACTIONS. (size) 4=Mechanical, 2=0-3-0
Max Horz 2=31(LC 15)
Max Uplift 4=-1(LC 13), 2=-59(LC 16)
Max Grav 4=31(LC 7), 2=214(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) 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) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 4 and 59 lb uplift at joint 2.
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.

November 30,2023

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Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	PB01	Piggyback	21	1	I62245115
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:12 2023 Page 1
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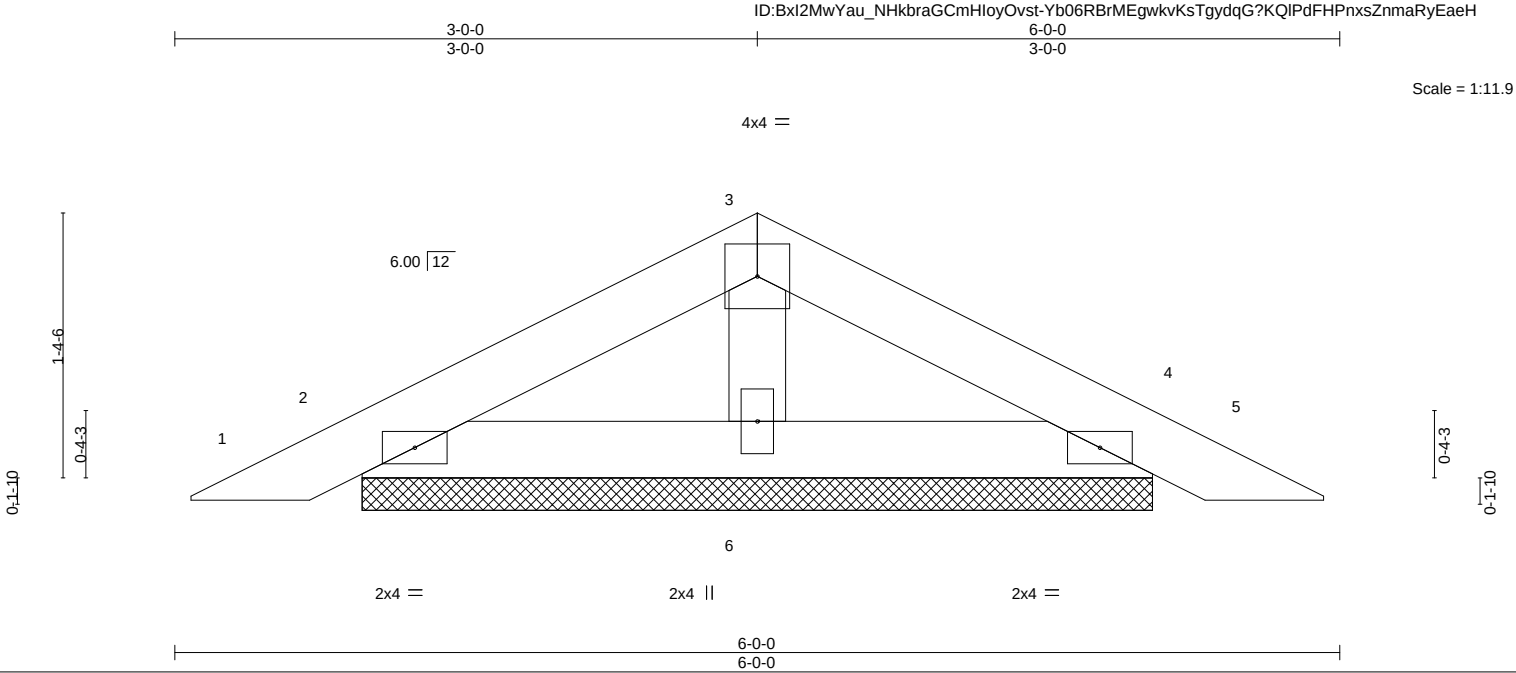

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	5	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 20%
BCDL	10.0											

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) 2=4-0-14, 4=4-0-14, 6=4-0-14
Max Horz 2=22(LC 15)
Max Uplift 2=-36(LC 16), 4=-36(LC 16)
Max Grav 2=121(LC 2), 4=121(LC 2), 6=152(LC 2)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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
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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 2 and 36 lb uplift at joint 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.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T01	Common	5	1	I62245116
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:13 2023 Page 1
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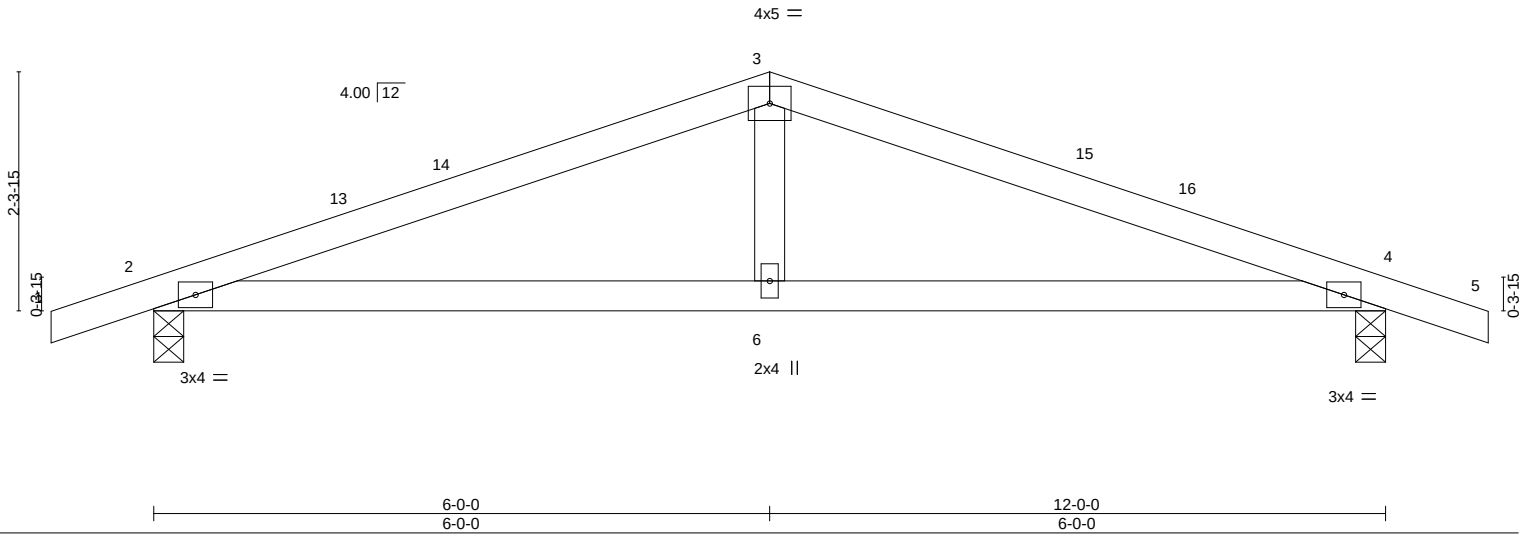

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.05	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.10	6-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS							Weight: 43 lb	FT = 20%
BCDL	10.0											

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 5-6-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=24(LC 15)
Max Uplift 2=-61(LC 16), 4=-61(LC 16)
Max Grav 2=540(LC 2), 4=540(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-888/291, 3-4=-888/291
BOT CHORD 2-6=-193/810, 4-6=-193/810
WEBS 3-6=0/276

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 13-0-0 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
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) 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 61 lb uplift at joint 2 and 61 lb uplift at joint 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.

November 30,2023

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

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T01GE	Common Structural Gable	1	1	I62245117

Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:14 2023 Page 1

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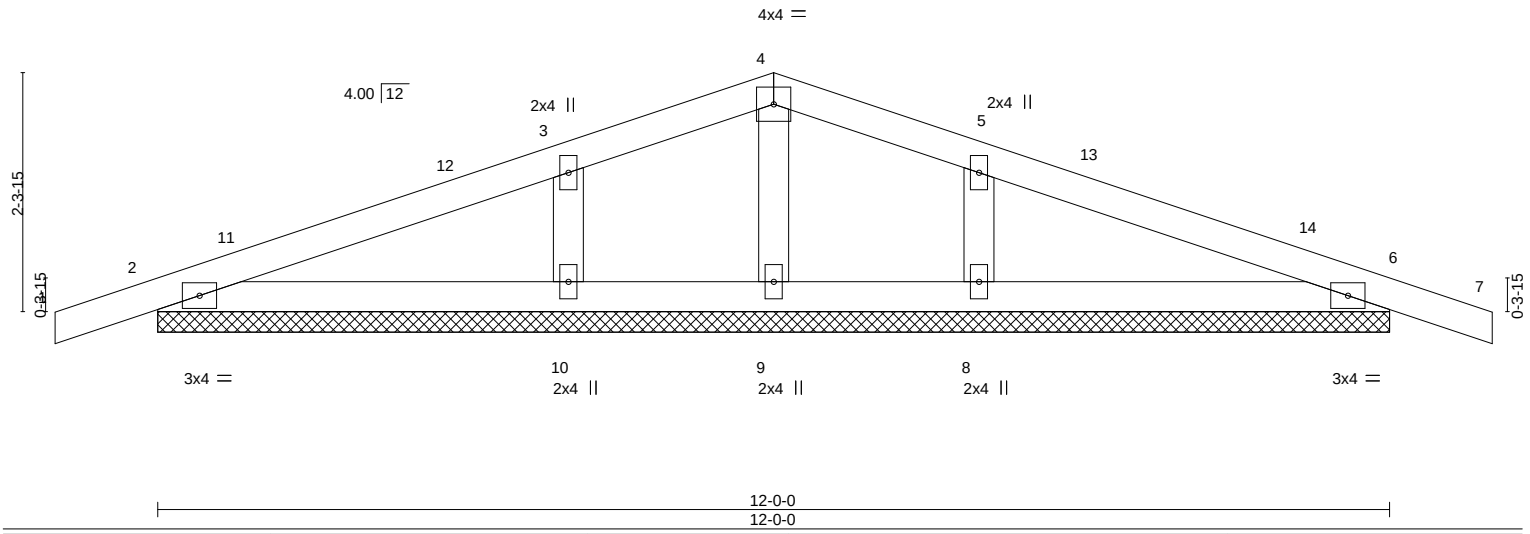

12-0-0

12-0-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	0.00	7	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	0.01	7	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 46 lb	FT = 20%
BCDL	10.0											

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 12-0-0.
(lb) - Max Horz 2=24(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 10=336(LC 21), 8=336(LC 22)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -1-0-0 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 13-0-0 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) 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
5) Unbalanced snow loads have been considered for this design.
6) 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.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 10, 8.
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.

November 30,2023

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T02	Common	2	1	I62245118
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:16 2023 Page 1
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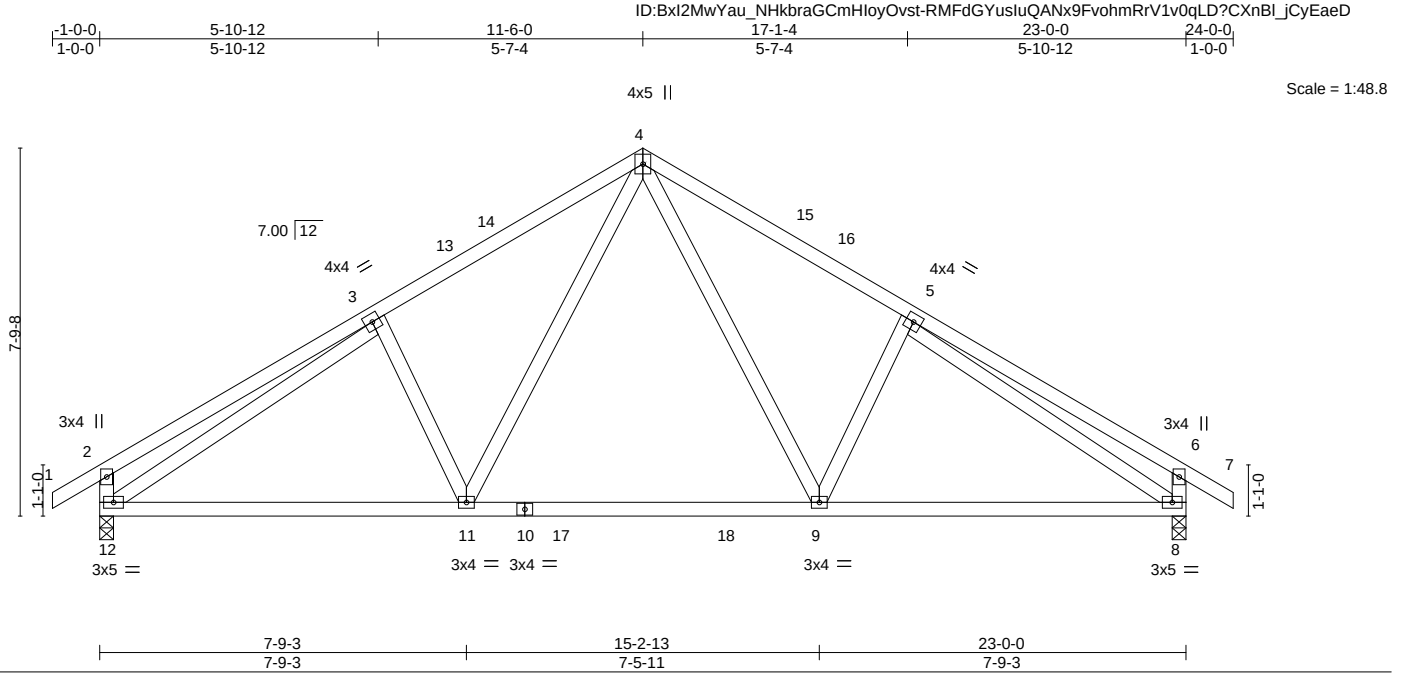

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.11	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.17	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 136 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 5-1-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 12=0-3-8, 8=0-3-8
Max Horz 12=-173(LC 14)
Max Uplift 12=-91(LC 16), 8=-91(LC 16)
Max Grav 12=1079(LC 28), 8=1079(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-379/112, 3-4=-1234/179, 4-5=-1234/179, 5-6=-379/112, 2-12=-377/124, 6-8=-376/124
BOT CHORD 11-12=-54/1161, 9-11=0/823, 8-9=-42/1059
WEBS 4-9=-43/551, 4-11=-42/551, 3-12=-1032/48, 5-8=-1031/48

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 11-6-0, Exterior(2R) 11-6-0 to 14-6-0, Interior(1) 14-6-0 to 24-0-0 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
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) 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, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 8.
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.

November 30,2023

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Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T02G	Common Girder	1	3	I62245119

Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:19 2023 Page 1
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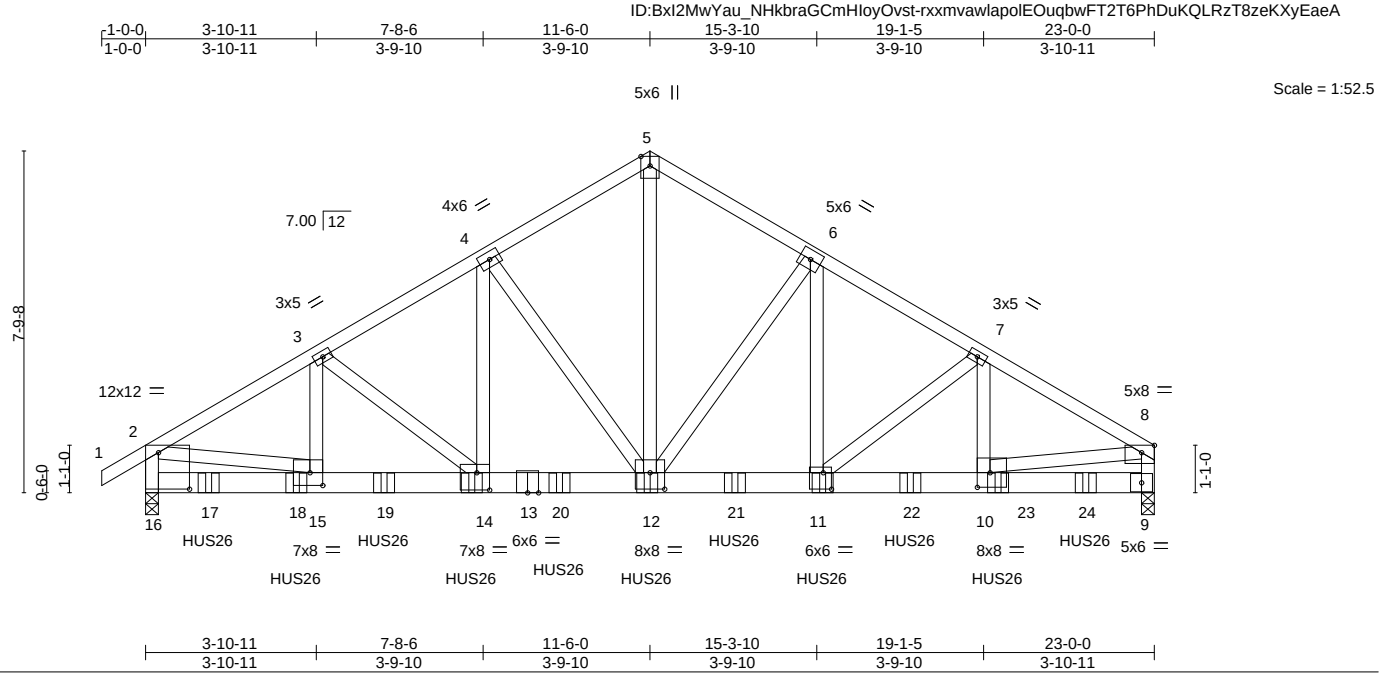

Plate Offsets (X,Y)-- [2:0-8-8,0-10-0], [8:0-3-8,Edge], [10:0-3-8,0-4-0], [11:0-2-4,0-4-8], [12:0-4-0,0-4-8], [14:0-3-8,0-4-12], [15:0-3-8,0-3-8]

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	0.92	Vert(LL)	-0.16	11-12	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.29	11-12	>937	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.99	Horz(CT)	0.05	9	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 513 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E
WEBS	2x4 SP No.3 *Except* 5-12,2-16: 2x4 SP No.2, 2-15,8-9,8-10: 2x4 SP No.1

BRACING-

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

REACTIONS. (size) 16=0-3-8, 9=0-3-8
Max Horz 16=167(LC 37)
Max Uplift 16=-525(LC 12), 9=-318(LC 12)
Max Grav 16=12624(LC 3), 9=13041(LC 3)

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

TOP CHORD	2-3=-16213/611, 3-4=-15221/515, 4-5=-12277/427, 5-6=-12276/427, 6-7=-15465/456, 7-8=-16852/439, 2-16=-10918/453, 8-9=-11268/302
BOT CHORD	15-16=-170/1628, 14-15=-467/13908, 12-14=-324/13128, 11-12=-272/13335, 10-11=-322/14478, 9-10=-41/1631
WEBS	5-12=-359/12089, 6-12=-4655/154, 6-11=-72/5178, 7-11=-1469/63, 7-10=-52/1531, 4-12=-4306/242, 4-14=-170/4766, 3-14=-1025/181, 3-15=-185/1086, 2-15=-396/12537, 8-10=-287/13116

NOTES-

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-7-0 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.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) 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
5) 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
6) Unbalanced snow loads have been considered for this design.
7) 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.
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) 16, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

November 30,2023

Continued on page 2

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Edenton, NC 27932

NOTES-

11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=525, 9=318.
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) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-5-4 from the left end to 5-5-4 to connect truss(es) to front face of bottom chord.
14) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 7-5-4 from the left end to 21-5-4 to connect truss(es) to front face of bottom chord.
15) 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: 1-2=-43, 2-5=-43, 5-8=-43, 9-16=-20
   Concentrated Loads (lb)
   Vert: 12=-1832(F) 11=-1832(F) 14=-1832(F) 17=-1700(F) 18=-1700(F) 19=-1700(F) 20=-1832(F) 21=-1832(F) 22=-1832(F) 23=-1832(F) 24=-1832(F)

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Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T02GE	Common Supported Gable	1	1	I62245120

Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:21 2023 Page 1
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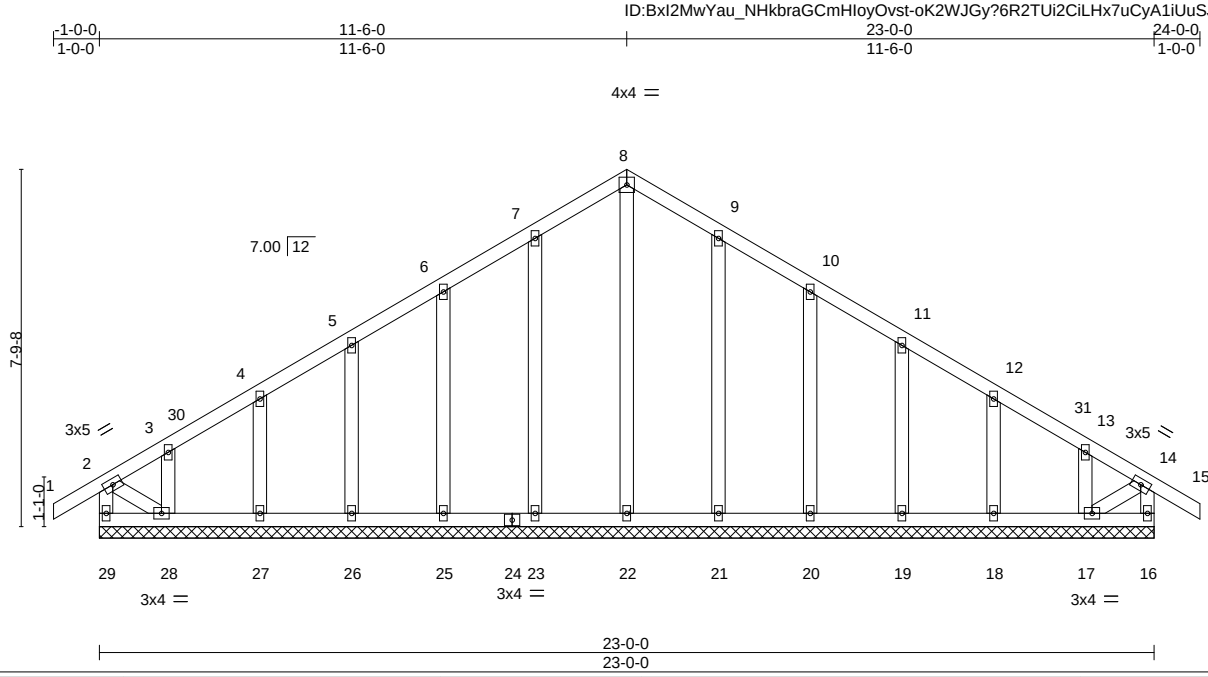

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	15	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	15	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	16	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 150 lb	FT = 20%
BCDL	10.0											

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: 28-29,16-17.

REACTIONS. All bearings 23-0-0.
(lb) - Max Horz 29=-173(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 29, 23, 25, 26, 27, 28, 21, 20, 19, 18, 17
Max Grav All reactions 250 lb or less at joint(s) 29, 16, 22, 23, 25, 26, 27, 28, 21, 20, 19, 18, 17

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 11-6-0, Corner(3R) 11-6-0 to 14-6-0, Exterior(2N) 14-6-0 to 24-0-0 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) 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
5) Unbalanced snow loads have been considered for this design.
6) 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.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * 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.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 23, 25, 26, 27, 28, 21, 20, 19, 18, 17.
14) 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.

November 30,2023

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

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T03	PIGGYBACK BASE	7	1	I62245121
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:23 2023 Page 1
ID:BxI2MwYau_NHkbraGCmHIoyOvst-kiAGkx_Fe2JBj0BbqmJPDJHAIr9DMInZOmxsTIyEae6

-1-0-0 6-9-0 13-2-8 19-8-0 25-8-0 32-1-8 38-7-0 45-4-0 46-4-0
1-0-0 6-9-0 6-5-8 6-5-8 6-0-0 6-5-8 6-5-8 6-9-0 1-0-0

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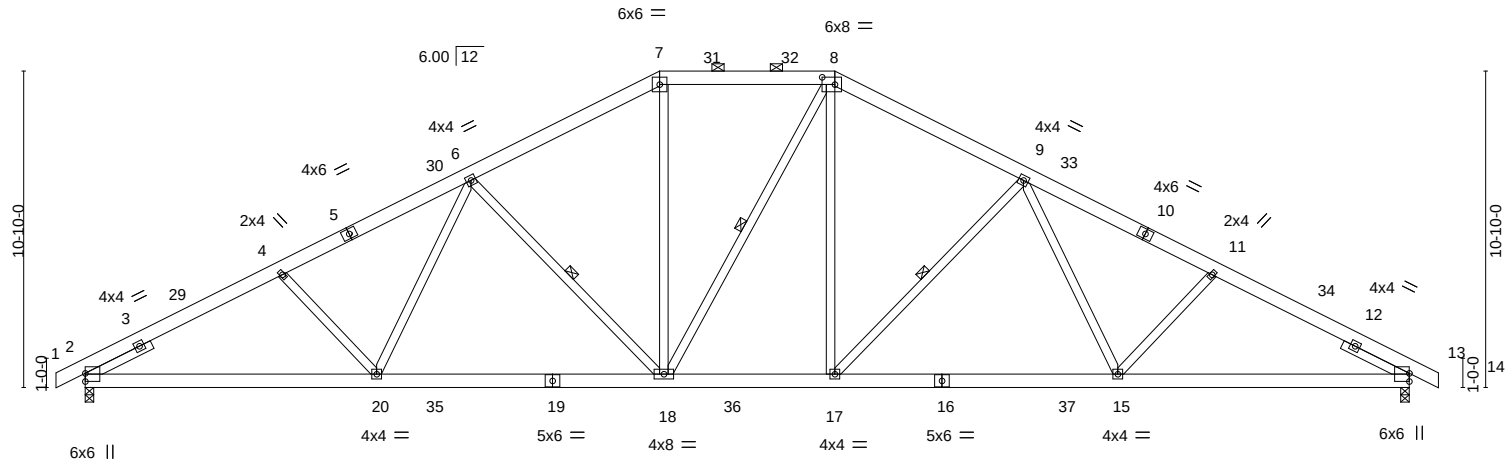

9-11-12 19-8-0 25-8-0 35-4-4 45-4-0
9-11-12 9-8-4 6-0-0 9-8-4 9-11-12

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.26	15-17	>999	240	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.45	15-17	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.13	13	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS							Weight: 346 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 2-6-0, Right 2x4 SP No.3 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-0-2 oc purlins, except 2-0-0 oc purlins (4-8-12 max.): 7-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-18, 8-18, 9-17

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=-203(LC 14)
Max Uplift 2=-141(LC 16), 13=-141(LC 16)
Max Grav 2=2135(LC 28), 13=2138(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3500/313, 4-6=-3338/316, 6-7=-2592/340, 7-8=-2263/341, 8-9=-2595/340, 9-11=-3344/316, 11-13=-3506/313
BOT CHORD 2-20=-185/3175, 18-20=-126/2871, 17-18=-27/2295, 15-17=-135/2725, 13-15=-194/3028
WEBS 6-20=0/510, 6-18=-825/159, 7-18=-31/883, 8-17=-29/942, 9-17=-830/159, 9-15=0/513

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-0-0 to 3-6-6, Interior(1) 3-6-6 to 19-8-0, Exterior(2E) 19-8-0 to 25-8-0, Exterior(2R) 25-8-0 to 32-1-8, Interior(1) 32-1-8 to 46-4-0 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
3) 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.
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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=141, 13=141.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 30,2023

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

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T03A	Piggyback Base	3	1	I62245122
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:25 2023 Page 1
ID:BxI2MwYau_NHkbraGCmHIoyOvst-g5I19d?VAfZuzJLzxBLtlkMTVeu2qCKsr4QyYAyEae4

-1-0-0 6-9-0 13-2-8 19-8-0 25-8-0 32-1-8 38-7-0 45-0-8
1-0-0 6-9-0 6-5-8 6-5-8 6-0-0 6-5-8 6-5-8 6-5-8

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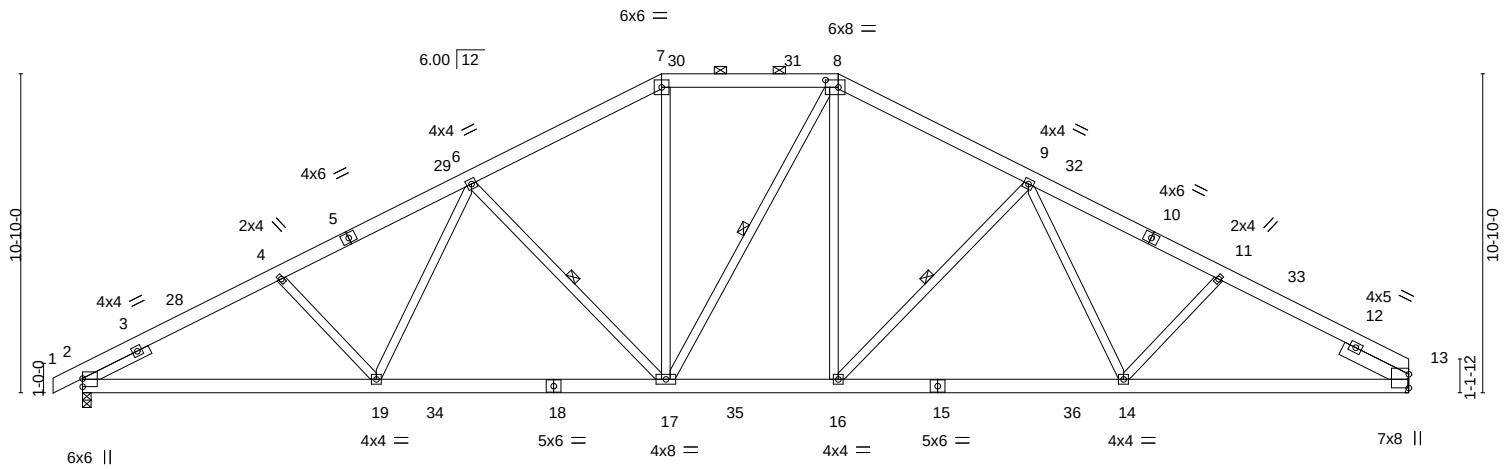

9-11-12 19-8-0 25-8-0 35-4-4 45-0-8
9-11-12 9-8-4 6-0-0 9-8-4 9-8-4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.23	14-16	>999	240	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.41	14-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.11	13	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 344 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except*
	15-18: 2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 2-6-0, Right 2x6 SP No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-5-3 oc purlins, except 2-0-0 oc purlins (4-9-0 max.): 7-8.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 6-17, 8-17, 9-16

REACTIONS. (size) 2=0-3-8, 13=Mechanical
Max Horz 2=199(LC 15)
Max Uplift 2=-141(LC 16), 13=-109(LC 16)
Max Grav 2=2125(LC 28), 13=2073(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3482/310, 4-6=-3316/315, 6-7=-2567/341, 7-8=-2240/341, 8-9=-2565/340, 9-11=-3236/315, 11-13=-3376/313
BOT CHORD 2-19=-217/3158, 17-19=-156/2841, 16-17=-41/2261, 14-16=-146/2670, 13-14=-203/2897
WEBS 6-19=0/515, 6-17=-823/158, 7-17=-30/870, 8-16=-28/922, 9-16=-789/155, 9-14=0/428

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-0-0 to 3-6-1, Interior(1) 3-6-1 to 19-8-0, Exterior(2E) 19-8-0 to 25-8-0, Exterior(2R) 25-8-0 to 32-1-8, Interior(1) 32-1-8 to 45-0-8 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
3) 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.
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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=141, 13=109.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 30,2023

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T03AGE	Piggyback Base Supported Gable	1	1	I62245123
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:29 2023 Page 1
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1-0-0 19-8-0 6-0-0 19-4-8

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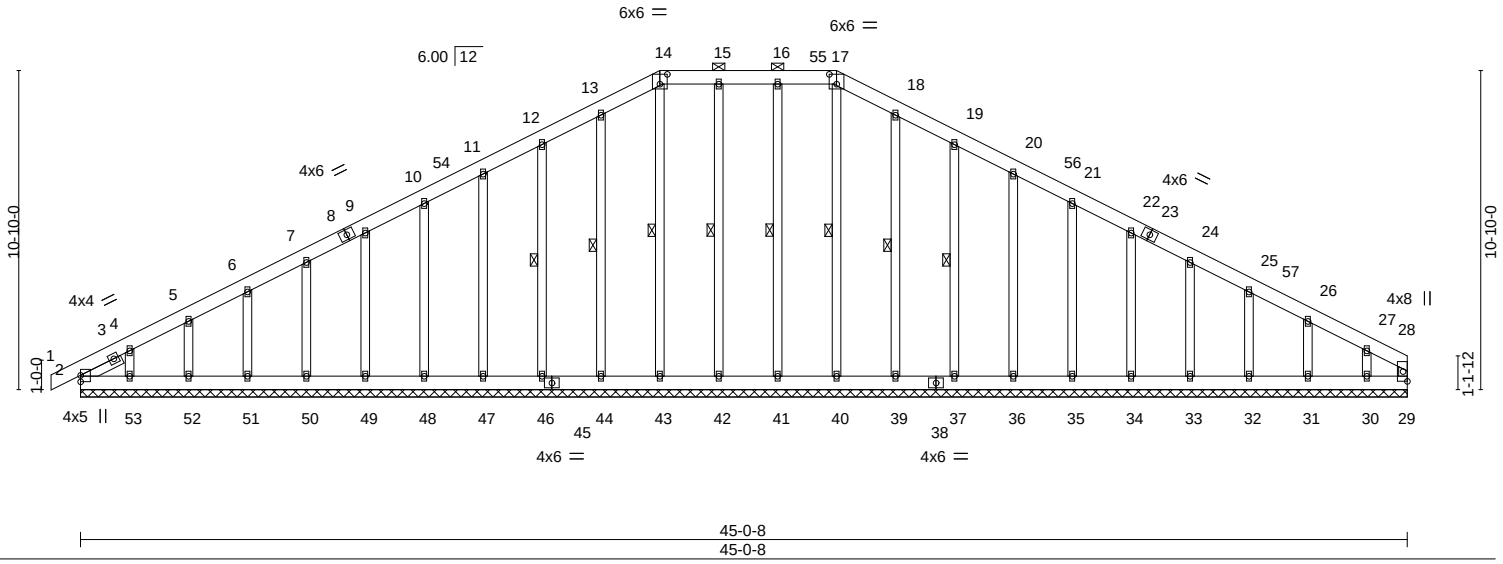

Plate Offsets (X,Y)-- [14:0-3-0,0-4-0], [17:0-3-0,0-4-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	29	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 419 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 1-6-5

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.): 14-17.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 17-40, 16-41, 15-42, 14-43, 13-44, 12-46, 18-39, 19-37

REACTIONS. All bearings 45-0-8.
(lb) - Max Horz 2=214(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 29, 2, 41, 42, 44, 46, 47, 48, 49, 50, 51, 52, 53, 39, 37, 36, 35, 34, 33, 32, 31, 30
Max Grav All reactions 250 lb or less at joint(s) 29, 2, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 39, 37, 36, 35, 34, 33, 32, 31, 30

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-118/281, 13-14=-132/320, 14-15=-118/307, 15-16=-118/307, 16-17=-118/307, 17-18=-132/320, 18-19=-118/281

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -1-0-0 to 3-8-0, Exterior(2N) 3-8-0 to 19-8-0, Corner(3R) 19-8-0 to 24-2-1, Exterior(2N) 24-2-1 to 25-8-0, Corner(3R) 25-8-0 to 30-2-1, Exterior(2N) 30-2-1 to 44-10-12 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) 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.
5) Unbalanced snow loads have been considered for this design.
6) 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.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * 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.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 2, 41, 42, 44, 46, 47, 48, 49, 50, 51, 52, 53, 39, 37, 36, 35, 34, 33, 32, 31, 30.

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

November 30,2023

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

NOTES-

14) 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.
15) 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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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T03GE	Piggyback Base Supported Gable	1	1	I62245124

Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:33 2023 Page 1

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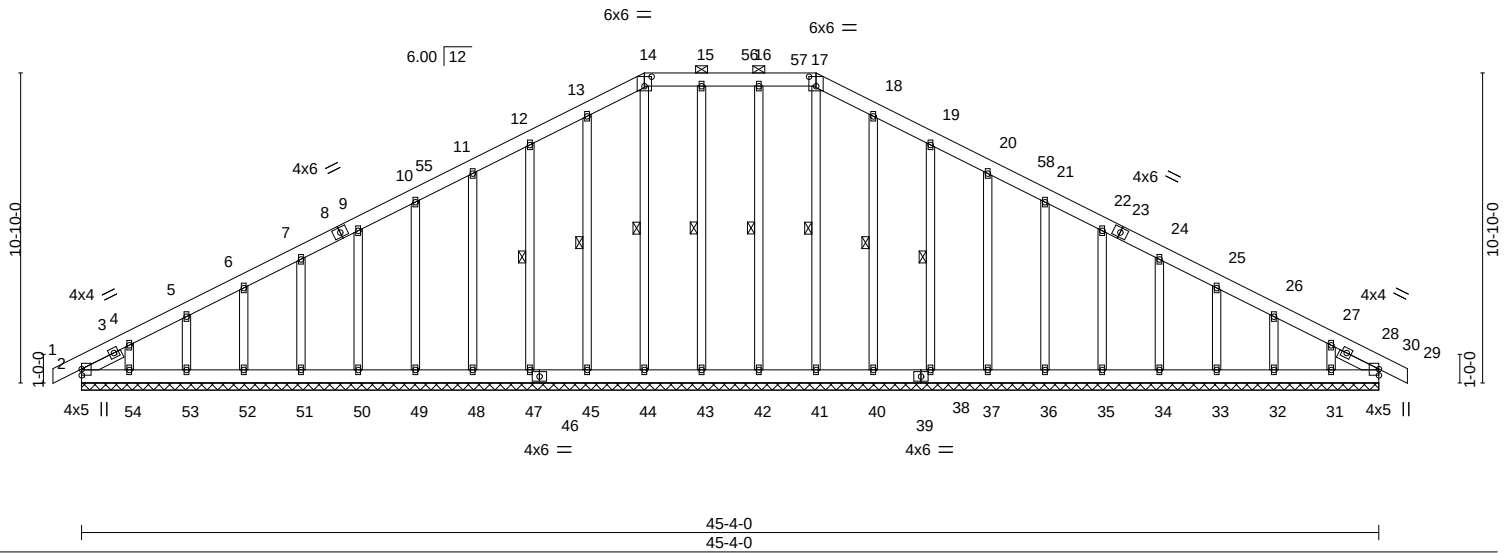

Plate Offsets (X,Y)-- [14:0-3-0,0-4-0], [17:0-3-0,0-4-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	29	n/r	120	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	29	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	29	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 425 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
OTHERS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 1-6-5, Right 2x4 SP No.3 1-6-5

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 14-17.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 17-41, 16-42, 15-43, 14-44, 13-45, 12-47, 18-40, 19-38

REACTIONS. All bearings 45-4-0.

(lb) - Max Horz 2=-203(LC 14)

Max Uplift All uplift 100 lb or less at joint(s) 2, 42, 45, 47, 48, 49, 50, 51, 52, 53, 54, 40, 38, 37, 36, 35, 34, 33, 32, 31

Max Grav All reactions 250 lb or less at joint(s) 2, 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 40, 38, 37, 36, 35, 34, 33, 32, 31, 29

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

TOP CHORD 12-13=-109/267, 13-14=-125/306, 14-15=-117/294, 15-16=-117/294, 16-17=-117/294, 17-18=-125/306, 18-19=-109/267

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -1-0-0 to 3-8-0, Exterior(2N) 3-8-0 to 19-8-0, Corner(3R) 19-8-0 to 24-2-6, Exterior(2N) 24-2-6 to 25-8-0, Corner(3R) 25-8-0 to 30-2-6, Exterior(2N) 30-2-6 to 46-4-0 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) 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.
5) Unbalanced snow loads have been considered for this design.
6) 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.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * 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.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 42, 45, 47, 48, 49, 50, 51, 52, 53, 54, 40, 38, 37, 36, 35, 34, 33, 32, 31.

Continued on page 2

November 30,2023

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NOTES-

14) 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.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T04	Piggyback Base	1	1	I62245125
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:36 2023 Page 1
ID:BxI2MwYau_NHkbraGCmHIoyOvst-rCSBTO8Pa2xKn0h54?2SE2KO24bRvAxTNIb2Q2yEadv

-1-0-0 6-6-11 13-1-5 19-8-0 25-8-0 32-2-11 38-9-5 45-4-0
1-0-0 6-6-11 6-6-11 6-6-11 6-0-0 6-6-11 6-6-11 6-6-11

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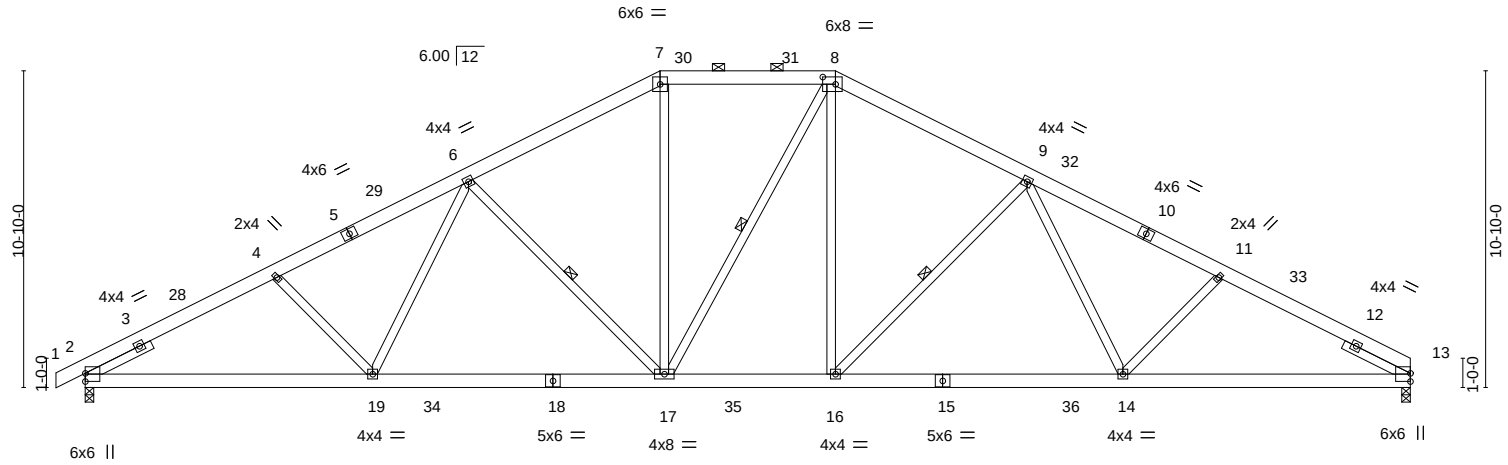

9-10-0 19-8-0 25-8-0 35-6-0 45-4-0
9-10-0 9-10-0 6-0-0 9-10-0 9-10-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.26	14-16	>999	240	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.46	14-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.13	13	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 344 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 2-6-0, Right 2x4 SP No.3 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-0-3 oc purlins, except 2-0-0 oc purlins (4-8-12 max.): 7-8.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 6-17, 8-17, 9-16

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=201(LC 15)
Max Uplift 2=-141(LC 16), 13=-110(LC 16)
Max Grav 2=2137(LC 28), 13=2085(LC 29)

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

TOP CHORD	2-4=-3508/313, 4-6=-3350/316, 6-7=-2597/342, 7-8=-2266/343, 8-9=-2600/341, 9-11=-3361/322, 11-13=-3519/324
BOT CHORD	2-19=-216/3176, 17-19=-157/2876, 16-17=-39/2293, 14-16=-149/2737, 13-14=-211/3042
WEBS	6-19=0/502, 6-17=-827/161, 7-17=-31/882, 8-16=-28/941, 9-16=-833/162, 9-14=0/509

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-0-0 to 3-6-6, Interior(1) 3-6-6 to 19-8-0, Exterior(2E) 19-8-0 to 25-8-0, Exterior(2R) 25-8-0 to 32-2-11, Interior(1) 32-2-11 to 45-4-0 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
3) 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.
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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=141, 13=110.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 30,2023

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Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T04A	Piggyback Base	8	1	I62245126
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:39 2023 Page 1
ID:BxI2MwYau_NHkbraGCmHIoyOvst-Gn8K5QAItzKveTQgm7c9shxu2Hhi6TCw3Gpi1MyEads

-1-0-0 6-9-0 13-2-8 19-8-0 25-8-0 32-1-8 38-7-0 45-0-8
1-0-0 6-9-0 6-5-8 6-5-8 6-0-0 6-5-8 6-5-8 6-5-8

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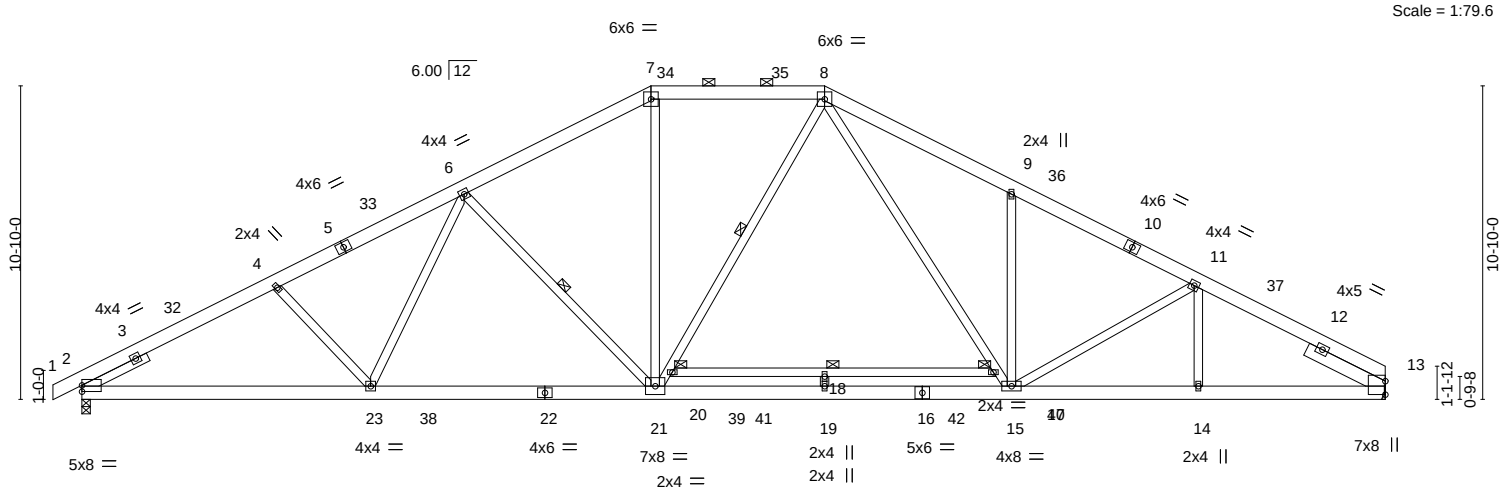

9-11-12 19-8-0 25-8-0 32-1-8 38-7-0 45-0-8
9-11-12 9-8-4 6-0-0 6-5-8 6-5-8 6-5-8

Plate Offsets (X,Y)-- [2:0-0-0,0-2-10]

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	0.70	Vert(LL)	-0.43	17-18	>999	240	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.74	17-18	>733	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.11	13	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 360 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except* 17-20: 2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 2-6-0, Right 2x6 SP No.2 3-0-0

REACTIONS. (size) 2=0-3-8, 13=Mechanical
Max Horz 2=199(LC 15)
Max Uplift 2=-83(LC 16), 13=-30(LC 16)
Max Grav 2=2334(LC 28), 13=2343(LC 29)

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-7-13 oc purlins, except 2-0-0 oc purlins (4-4-0 max.): 7-8.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 17-20
WEBS	1 Row at midpt 6-21, 8-20

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

TOP CHORD	2-4=-3862/204, 4-6=-3699/208, 6-7=-3076/201, 7-8=-2697/216, 8-9=-3872/256, 9-11=-3764/135, 11-13=-3780/161
BOT CHORD	2-23=-123/3493, 21-23=-46/3239, 19-21=0/2638, 15-19=0/2638, 14-15=-70/3267, 13-14=-70/3267
WEBS	6-23=0/383, 6-21=-742/179, 7-21=0/1103, 20-21=-142/273, 8-20=-94/377, 8-17=-45/1535, 15-17=-84/1422, 9-15=-582/194, 18-19=-336/0

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-0-0 to 3-6-1, Interior(1) 3-6-1 to 19-8-0, Exterior(2E) 19-8-0 to 25-8-0, Exterior(2R) 25-8-0 to 32-1-8, Interior(1) 32-1-8 to 45-0-8 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
3) 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.
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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 13.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 30,2023

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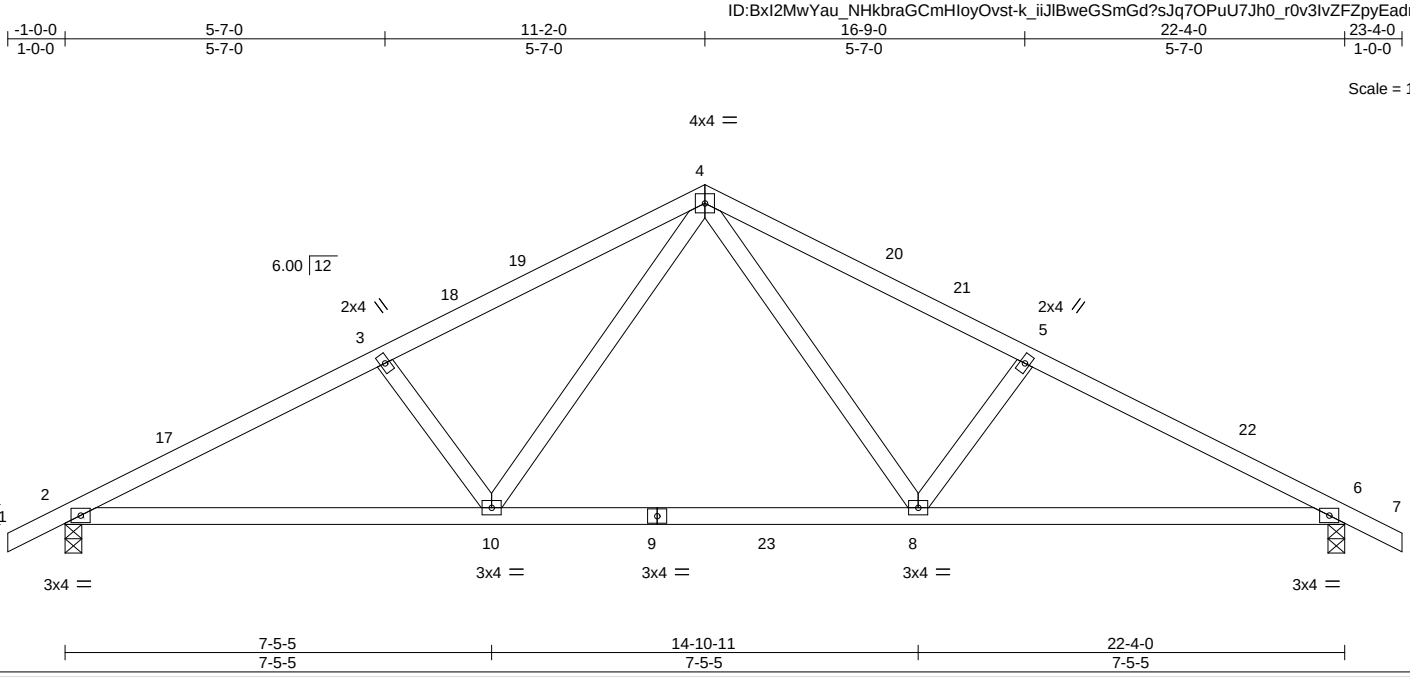
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T05	Common	5	1	I62245127
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:40 2023 Page 1
ID:BxI2MwYau_NHkbraGCmHIoyOvst-k_iiJlBweGSmGd?sJq7OPuU7Jh0_r0v3IvZFZpyEadr



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	0.41	Vert(LL)	-0.11	8-10	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.20	8-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS							Weight: 103 lb	FT = 20%
BCDL	10.0											

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.
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=-101(LC 14)
Max Uplift 2=-86(LC 16), 6=-86(LC 16)
Max Grav 2=1029(LC 28), 6=1029(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1689/241, 3-4=-1546/249, 4-5=-1547/249, 5-6=-1689/241
BOT CHORD 2-10=-135/1552, 8-10=-20/991, 6-8=-143/1489
WEBS 4-8=-55/675, 5-8=-347/162, 4-10=-55/673, 3-10=-347/162

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 11-2-0, Exterior(2R) 11-2-0 to 14-2-0, Interior(1) 14-2-0 to 23-4-0 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
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) 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, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
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.

November 30,2023

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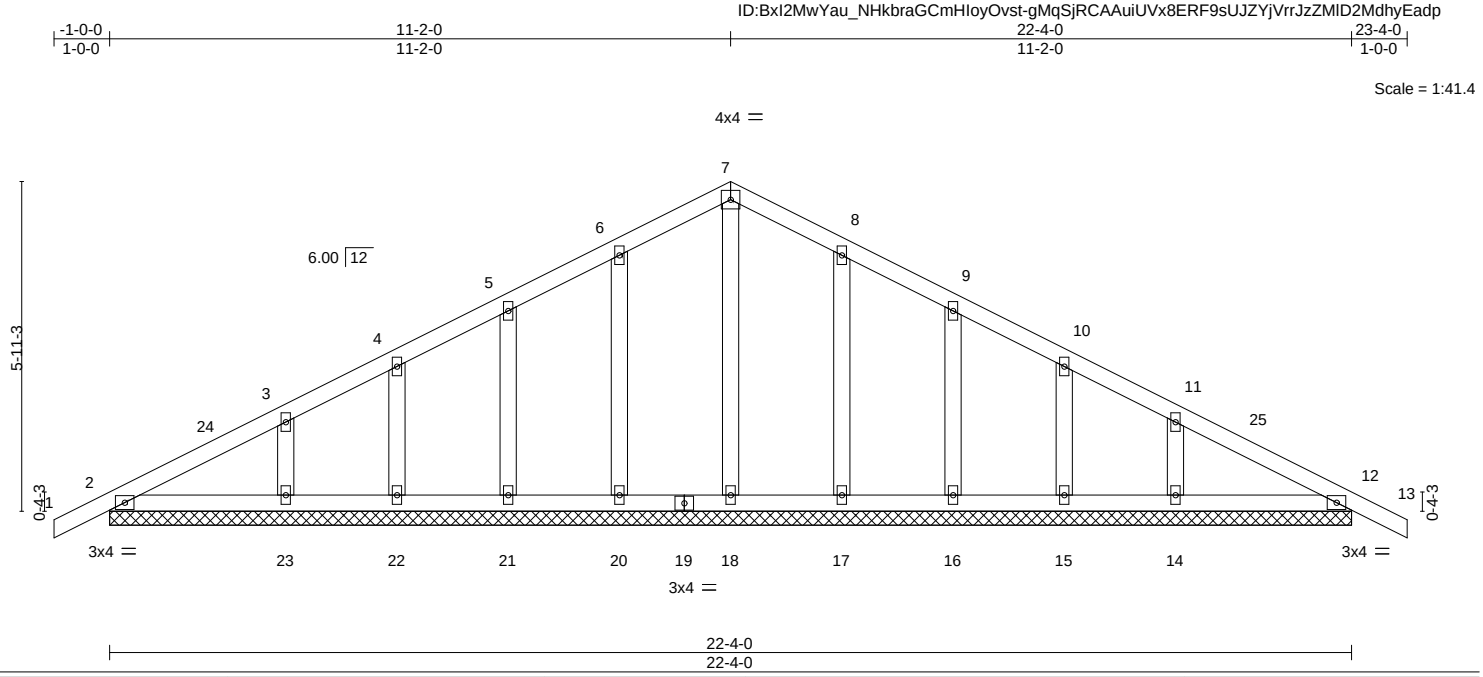
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	T05GE	Common Supported Gable	1	1	I62245128
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:42 2023 Page 1
ID:BxI2MwYau_NHkbraGCmHIoyOvst-gMqSjRCAAuiUVx8ERF9sUJZYjVrrJzZMlD2MdhyEadp



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	13	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	13	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-S								
BCDL	10.0										Weight: 116 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 22-4-0.
(lb) - Max Horz 2=-101(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 23, 17, 16, 15, 14, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 18, 20, 21, 22, 23, 17, 16, 15, 14, 12

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 11-2-0, Corner(3R) 11-2-0 to 14-2-0, Exterior(2N) 14-2-0 to 23-4-0 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) 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
5) Unbalanced snow loads have been considered for this design.
6) 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.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 23, 17, 16, 15, 14, 12.
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.

November 30,2023

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

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

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	V01	Valley	1	1	I62245129
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:43 2023 Page 1
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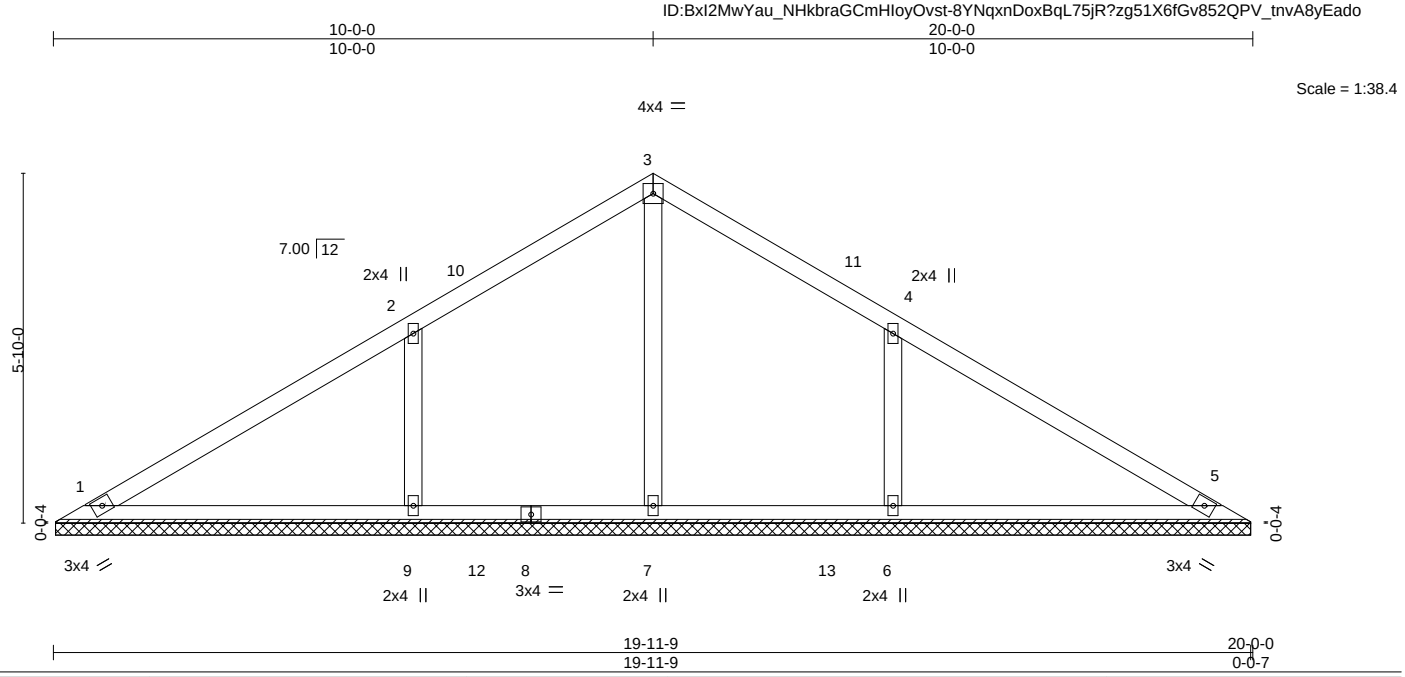

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 79 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 19-11-2.
(lb) - Max Horz 1=-110(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 except 7=295(LC 27), 9=575(LC 27), 6=575(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-350/157, 4-6=-350/157

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 19-5-8 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
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) 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, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6.
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.

November 30,2023

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

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	V02	Valley	1	1	I62245130
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:44 2023 Page 1
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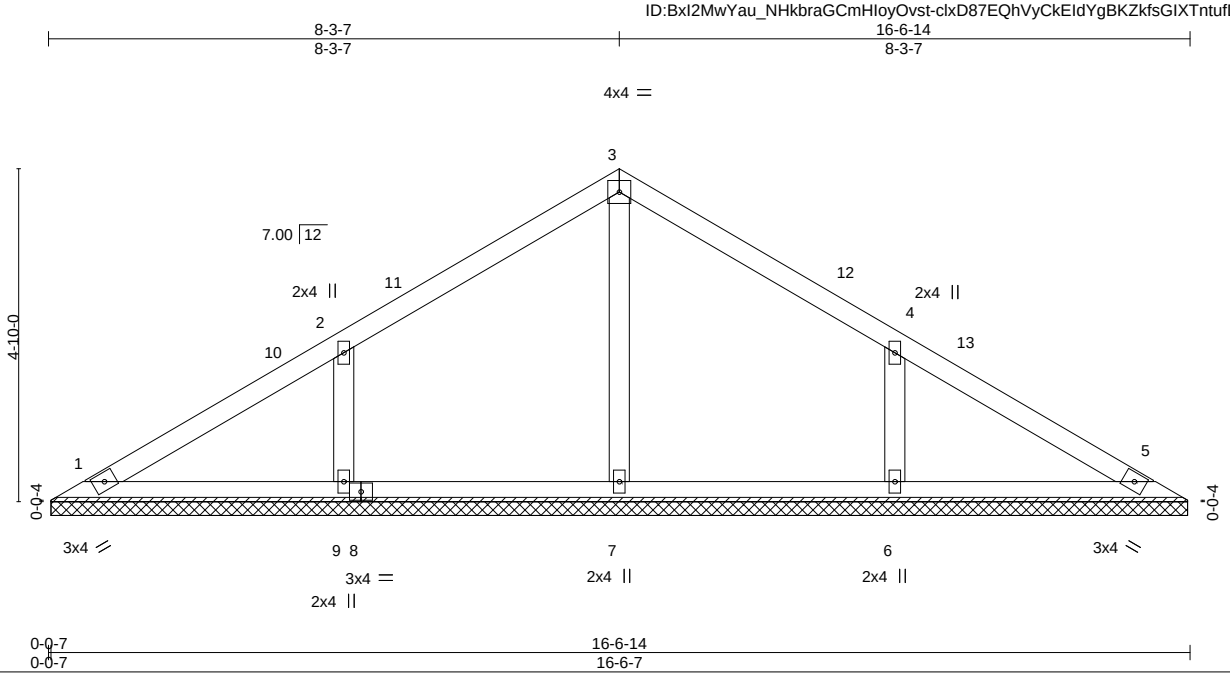

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 63 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 16-6-0.
(lb) - Max Horz 1=-90(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 except 7=253(LC 2), 9=368(LC 33), 6=368(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-275/134, 4-6=-275/134

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 8-3-7, Exterior(2R) 8-3-7 to 11-3-7, Interior(1) 11-3-7 to 16-0-6 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
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) 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) 9, 6.
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.

November 30,2023

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	V03	Valley	1	1	I62245131
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:45 2023 Page 1
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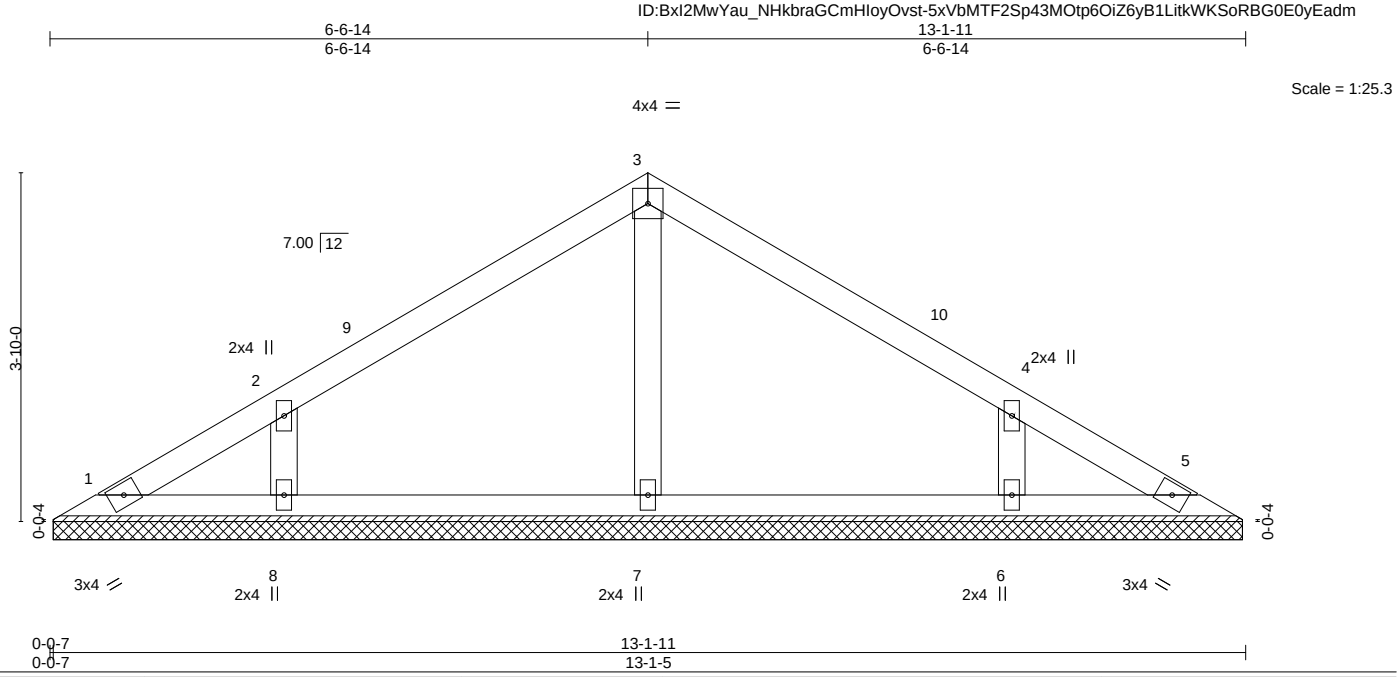

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 48 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 13-0-14.
(lb) - Max Horz 1=-70(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=277(LC 2), 8=307(LC 20), 6=307(LC 21)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 6-6-14, Exterior(2R) 6-6-14 to 9-6-14, Interior(1) 9-6-14 to 12-7-3 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
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) 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) 8, 6.
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.

November 30,2023

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	V04	Valley	1	1	I62245132
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:47 2023 Page 1
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4-10-5 4-10-5

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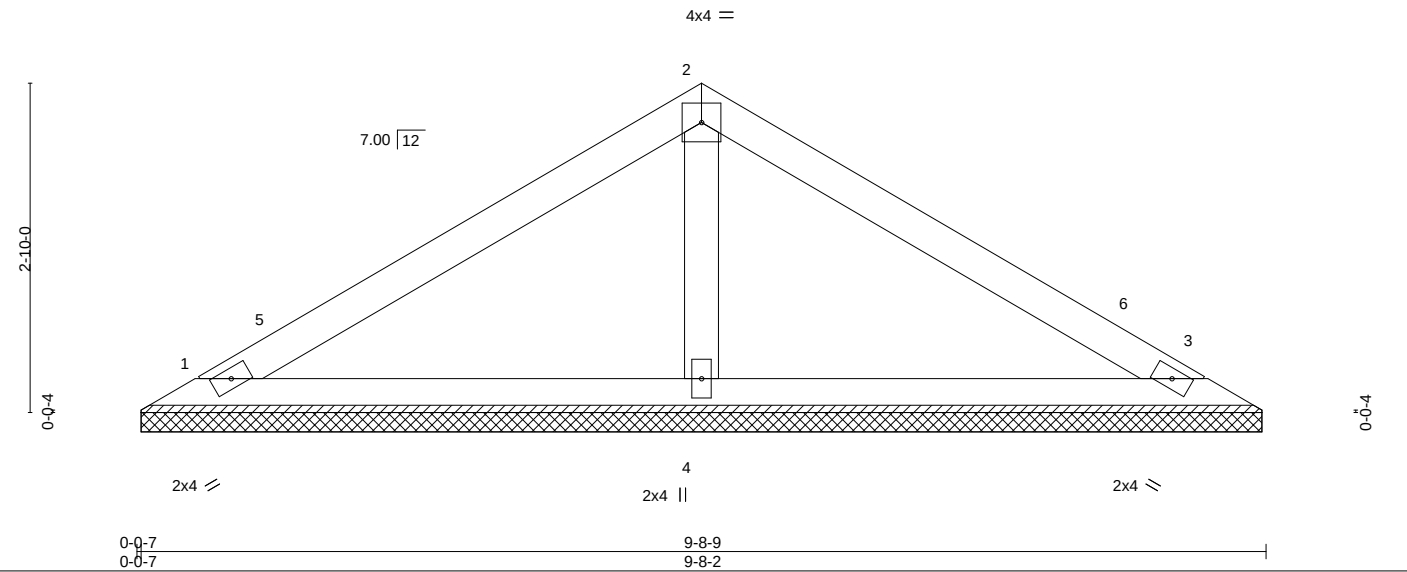

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 33 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=9-7-11, 3=9-7-11, 4=9-7-11
Max Horz 1=50(LC 15)
Max Uplift 1=-21(LC 16), 3=-21(LC 16)
Max Grav 1=163(LC 2), 3=163(LC 2), 4=364(LC 2)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 4-10-5, Exterior(2R) 4-10-5 to 7-10-5, Interior(1) 7-10-5 to 9-2-1 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
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) 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) 1, 3.
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.

November 30,2023

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	V05	Valley	1	1	I62245133
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:48 2023 Page 1
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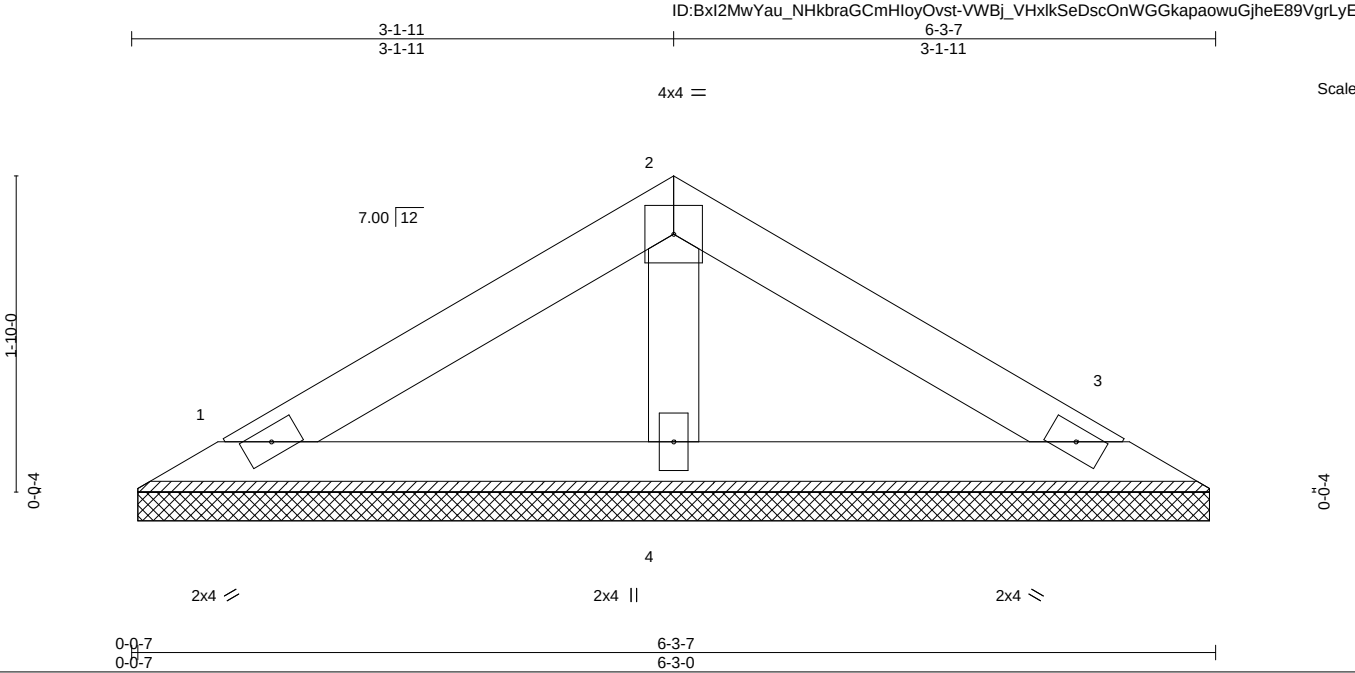

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 20 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=6-2-9, 3=6-2-9, 4=6-2-9
Max Horz 1=-30(LC 14)
Max Uplift 1=-18(LC 16), 3=-18(LC 16)
Max Grav 1=109(LC 2), 3=109(LC 2), 4=199(LC 2)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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
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) 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) 1, 3.
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.

November 30,2023

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

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

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #27 ROOF
23-7317-A	V06	Valley	1	1	I62245134
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Nov 28 17:36:49 2023 Page 1
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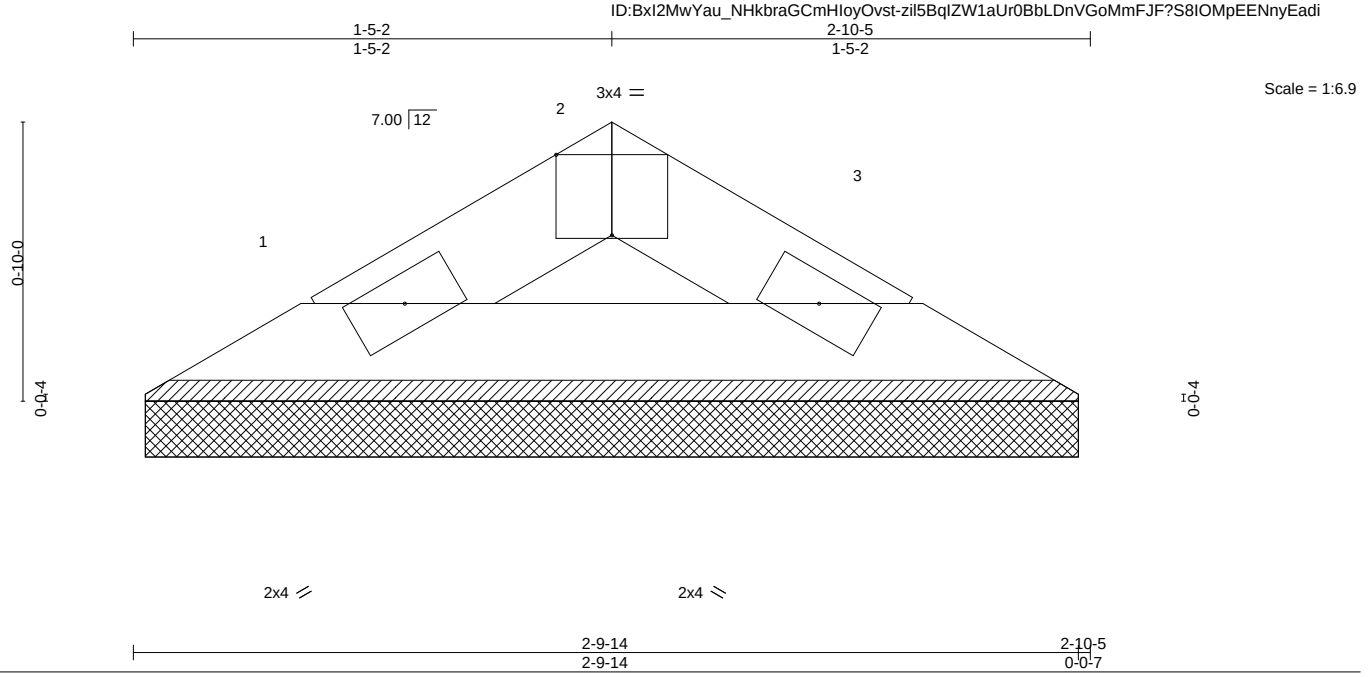

Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-10-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-9-7, 3=2-9-7
Max Horz 1=10(LC 15)
Max Uplift 1=-4(LC 16), 3=-4(LC 16)
Max Grav 1=71(LC 2), 3=71(LC 2)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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
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) 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) 1, 3.
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.

November 30,2023

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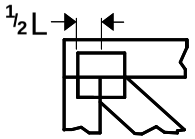
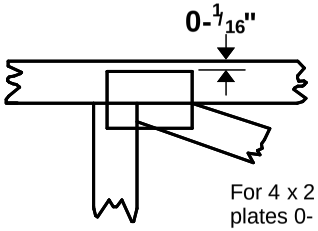
Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

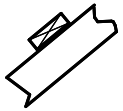
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

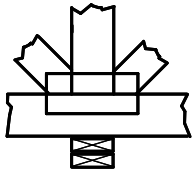
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

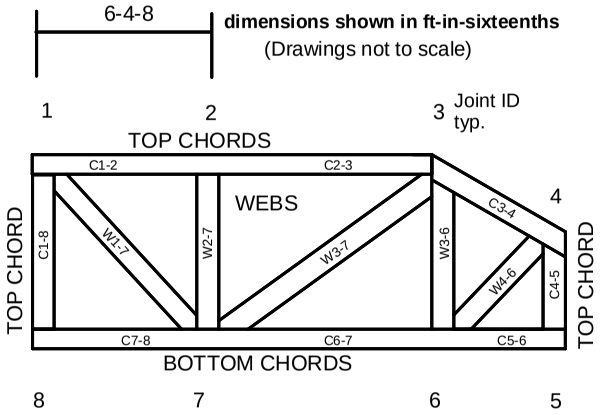


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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