ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 25-0541-A
FFF-LOT #8 Roof

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

Pages or sheets covered by this seal: I72240639 thru I72240662

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

North Carolina COA: C-0844

March 25,2025

Johnson, Andrew

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	GE01	COMMON SUPPORTED GAB	1	1	I72240639
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:25:56 2025 Page 1
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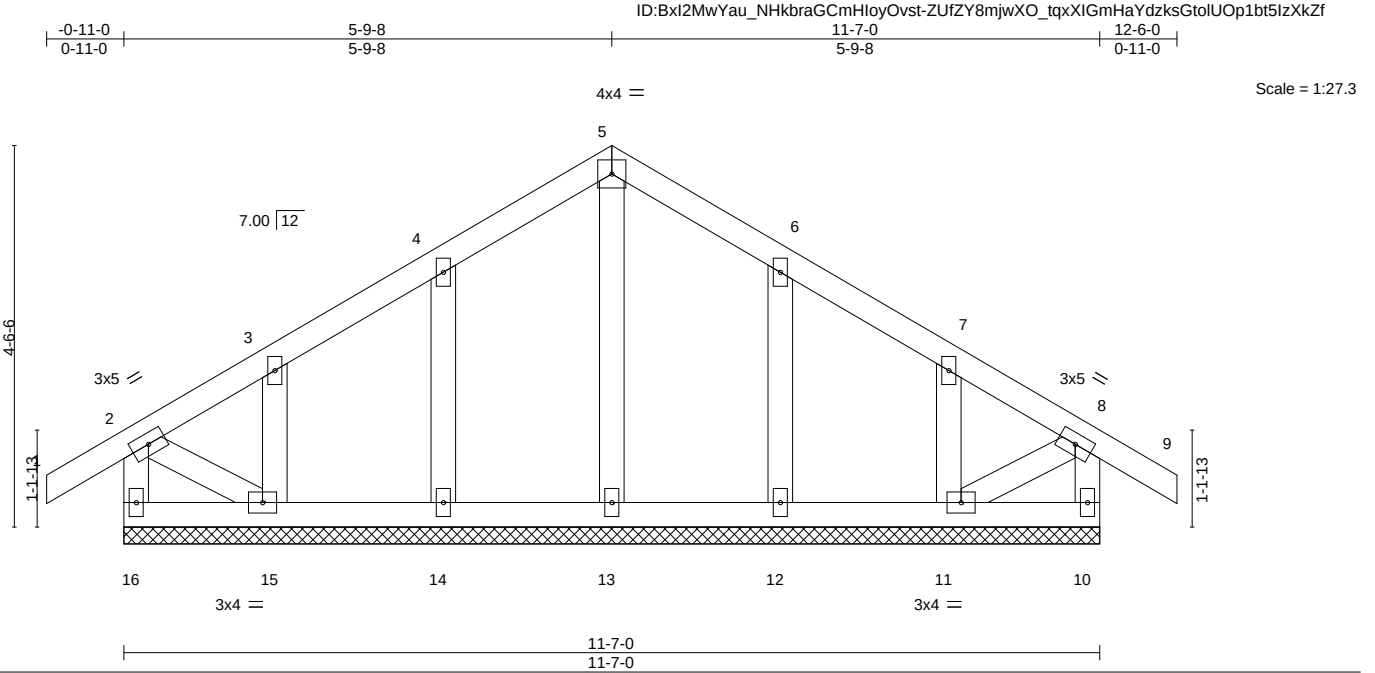

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	9	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	9	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 66 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 6-0-0 oc bracing.

REACTIONS. All bearings 11-7-0.
(lb) - Max Horz 16=-108(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

NOTES-

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) -0-11-0 to 1-9-8, Exterior(2N) 1-9-8 to 5-9-8, Corner(3R) 5-9-8 to 8-9-8, Exterior(2N) 8-9-8 to 12-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) 16, 10, 14, 15, 12, 11.
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.

March 25,2025

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Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	M01	MONOPITCH	6	1	I72240640
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:25:57 2025 Page 1
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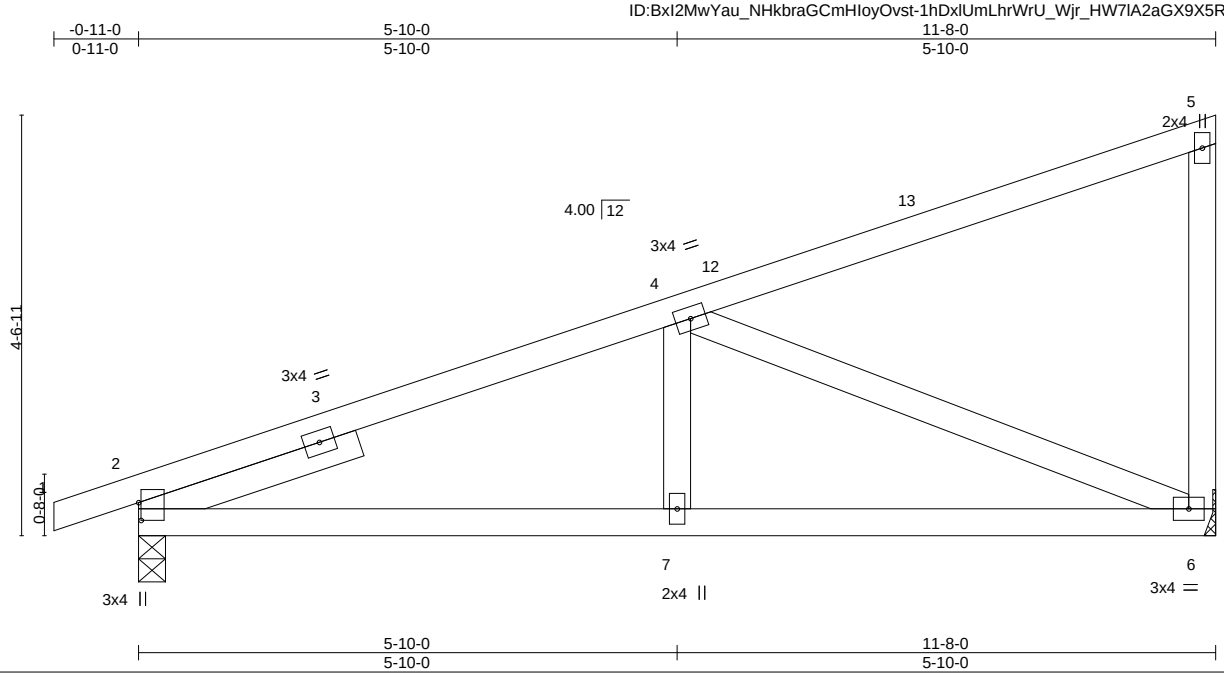

Plate Offsets (X,Y)-- [2:0-2-5,0-0-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.03	6-7	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.06	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS							Weight: 58 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 2=0-3-8, 6=Mechanical
Max Horz 2=148(LC 15)
Max Uplift 2=-53(LC 16), 6=-32(LC 16)
Max Grav 2=518(LC 2), 6=459(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-661/180
BOT CHORD 2-7=-274/668, 6-7=-274/668
WEBS 4-6=-700/233

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 11-6-4 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 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.

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Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	M01GE	MONOPITCH SUPPORTED	1	1	I72240641
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:25:57 2025 Page 1
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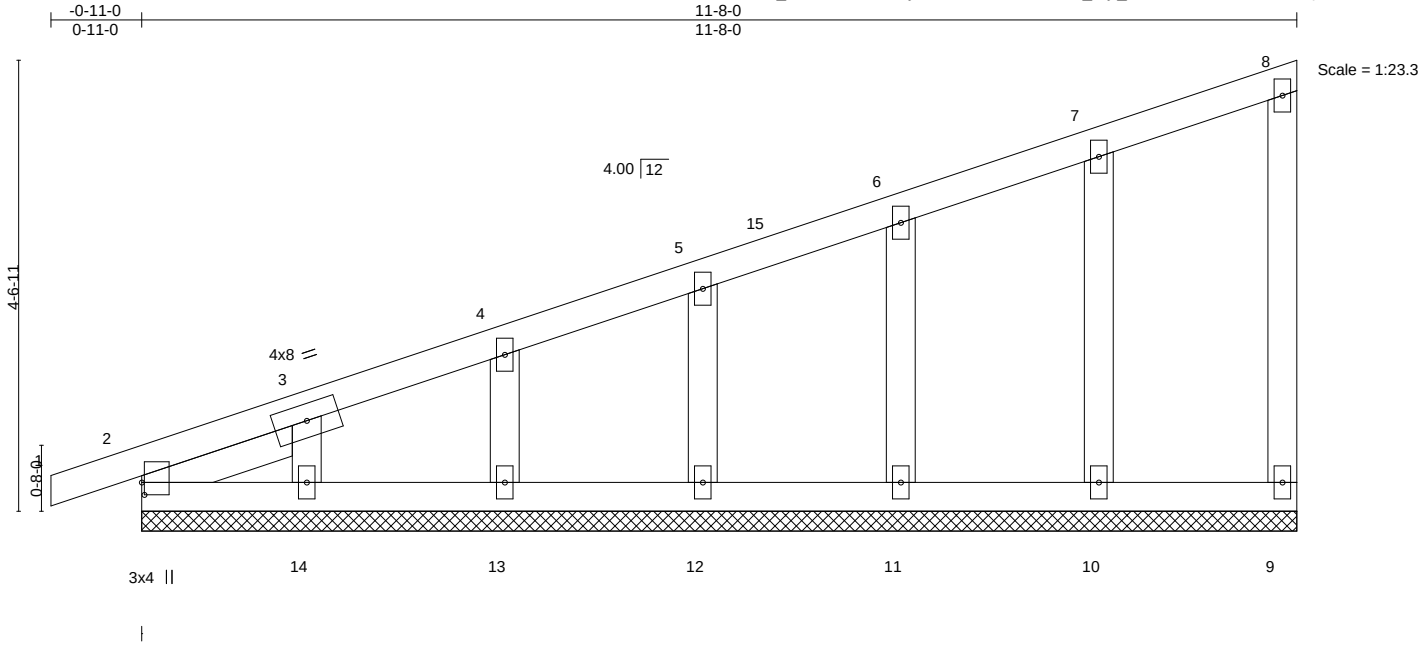

Plate Offsets (X,Y)-- [2:0-1-8,0-0-5]

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	0.24	Vert(LL)	0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 60 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
SLIDER	Left 2x4 SP No.3 1-7-8

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. All bearings 11-8-0.
(lb) - Max Horz 2=146(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 9, 2, 10, 11, 12, 13, 14
Max Grav All reactions 250 lb or less at joint(s) 9, 2, 10, 11, 12, 13, 14

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-342/173, 3-4=-261/141

NOTES-

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 11-6-4 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) All plates are 2x4 MT20 unless otherwise indicated.
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) 9, 2, 10, 11, 12, 13, 14.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
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.

March 25,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	M02	HALF HIP	3	1	I72240642
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:25:58 2025 Page 1
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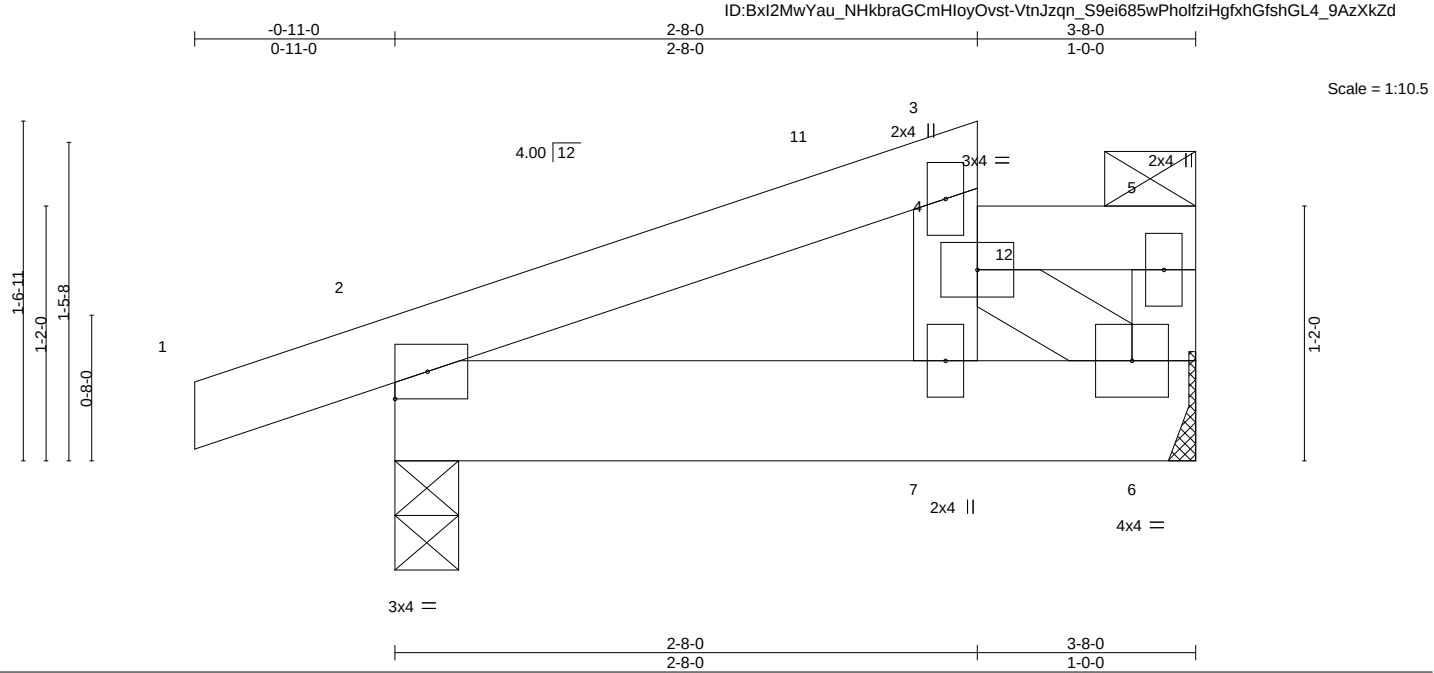


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.00	10	>999	240	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	7	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP							Weight: 19 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

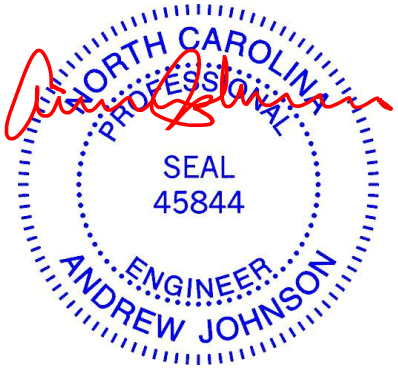
BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-7, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=Mechanical
Max Horz 2=42(LC 13)
Max Uplift 2=-5(LC 16)
Max Grav 2=256(LC 36), 6=326(LC 3)

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 3-6-4 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
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.
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.
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) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-43, 6-8=-20, 4-5=-83



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Edenton, NC 27932

LOAD CASE(S) Standard

Concentrated Loads (lb)
Vert: 12=-160

2) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 6-8=-20, 4-5=-90
Concentrated Loads (lb)
Vert: 12=-160

3) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-50, 6-8=-20, 4-5=-139
Concentrated Loads (lb)
Vert: 12=-160

4) Dead + 0.75 Snow (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-37, 6-8=-20, 4-5=-133
Concentrated Loads (lb)
Vert: 12=-160

5) Dead + 0.75 Snow (Unbal. Left) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-42, 6-8=-20, 4-5=-114
Concentrated Loads (lb)
Vert: 12=-160

6) Dead + 0.75 Snow (Unbal. Right) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-25, 6-8=-20, 4-5=-135
Concentrated Loads (lb)
Vert: 12=-160

7) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-20, 6-8=-40, 4-5=-50
Concentrated Loads (lb)
Vert: 12=-160

8) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=60, 2-11=50, 3-11=34, 6-8=-12, 4-5=16
Horz: 1-2=-72, 2-11=-62, 3-11=-46, 3-4=10, 5-6=38
Concentrated Loads (lb)
Vert: 12=-160

9) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=45, 2-3=50, 6-8=-12, 4-5=32
Horz: 1-2=-57, 2-3=-62, 3-4=-63, 5-6=-24
Concentrated Loads (lb)
Vert: 12=-160

10) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=1, 2-3=-46, 6-8=-20, 4-5=-64
Horz: 1-2=-21, 2-3=26, 3-4=31, 5-6=27
Concentrated Loads (lb)
Vert: 12=-160

11) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-41, 2-3=-46, 6-8=-20, 4-5=-64
Horz: 1-2=21, 2-3=26, 3-4=-42, 5-6=-35
Concentrated Loads (lb)
Vert: 12=-160

12) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=28, 2-3=13, 6-8=-12, 4-5=8
Horz: 1-2=-40, 2-3=-25, 3-4=-11, 5-6=18
Concentrated Loads (lb)
Vert: 12=-160

13) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=3, 2-3=8, 6-8=-12, 4-5=8
Horz: 1-2=-15, 2-3=-20, 3-4=-26, 5-6=-15
Concentrated Loads (lb)
Vert: 12=-160

14) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-16, 2-3=-21, 6-8=-20, 4-5=-39
Horz: 1-2=-4, 2-3=1, 3-4=31, 5-6=7
Concentrated Loads (lb)
Vert: 12=-160

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

Continued on page 3

LOAD CASE(S) Standard

Uniform Loads (plf)
Vert: 1-2=-5, 2-3=-10, 6-8=-20, 4-5=-39
Horz: 1-2=-15, 2-3=-10, 3-4=-4, 5-6=-25
Concentrated Loads (lb)
Vert: 12=-160

16) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=32, 2-3=17, 6-8=-12, 4-5=-1
Horz: 1-2=-44, 2-3=-29, 3-4=-34, 5-6=23
Concentrated Loads (lb)
Vert: 12=-160

17) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=21, 2-3=6, 6-8=-12, 4-5=-12
Horz: 1-2=-33, 2-3=-18, 3-4=-24, 5-6=23
Concentrated Loads (lb)
Vert: 12=-160

18) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-16, 2-3=-21, 6-8=-20, 4-5=-39
Horz: 1-2=-4, 2-3=1, 3-4=6, 5-6=12
Concentrated Loads (lb)
Vert: 12=-160

19) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-16, 2-3=-21, 6-8=-20, 4-5=-39
Horz: 1-2=-4, 2-3=1, 3-4=6, 5-6=12
Concentrated Loads (lb)
Vert: 12=-160

20) Dead + Snow on Overhangs: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-43, 2-3=-20, 6-8=-20, 4-5=-50
Concentrated Loads (lb)
Vert: 12=-160

21) Dead + Snow (Unbal. Left): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-49, 6-8=-20, 4-5=-57
Concentrated Loads (lb)
Vert: 12=-160

22) Dead + Snow (Unbal. Right): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-27, 6-8=-20, 4-5=-85
Concentrated Loads (lb)
Vert: 12=-160

23) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-3=-20, 6-8=-20, 4-5=-50
Concentrated Loads (lb)
Vert: 12=-160

24) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-34, 2-3=-38, 6-8=-20, 4-5=-124
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 12=-160

25) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-26, 2-3=-30, 6-8=-20, 4-5=-124
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 12=-160

26) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-34, 2-3=-38, 6-8=-20, 4-5=-124
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 12=-160

27) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-34, 2-3=-38, 6-8=-20, 4-5=-124
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 12=-160

Continued on page 4

LOAD CASE(S) Standard

28) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-47, 2-3=-51, 6-8=-20, 4-5=-129
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 12=-160

29) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-39, 2-3=-43, 6-8=-20, 4-5=-129
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 12=-160

30) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-47, 2-3=-51, 6-8=-20, 4-5=-129
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 12=-160

31) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-47, 2-3=-51, 6-8=-20, 4-5=-129
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 12=-160

32) Dead + Minimum Snow: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 6-8=-20, 4-5=-80
Concentrated Loads (lb)
Vert: 12=-160

33) Dead + 0.6 C-C Wind Min. Down: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=4, 2-3=-28, 6-8=-12, 4-5=-46
Horz: 1-2=-16, 2-3=16, 3-4=16, 5-6=16
Concentrated Loads (lb)
Vert: 12=-160

34) Dead + 0.6 C-C Wind Min. Upward: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=4, 6-8=-12, 4-5=-14
Horz: 1-3=-16, 3-4=16, 5-6=16
Concentrated Loads (lb)
Vert: 12=-160

35) 3rd Unbal.Dead + Snow (balanced) + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-27, 6-8=-20, 4-5=-100
Concentrated Loads (lb)
Vert: 12=-160

36) 4th Unbal.Dead + Snow (balanced) + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 6-8=-20, 4-5=-57
Concentrated Loads (lb)
Vert: 12=-160

37) 5th Unbal.Dead + 0.75 Snow (balanced) + 0.75 Attic Floor + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-25, 6-8=-20, 4-5=-146
Concentrated Loads (lb)
Vert: 12=-160

38) 6th Unbal.Dead + 0.75 Snow (balanced) + 0.75 Attic Floor + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-57, 6-8=-20, 4-5=-114
Concentrated Loads (lb)
Vert: 12=-160

39) 7th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-22, 2-3=-26, 6-8=-20, 4-5=-137
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 12=-160

40) 8th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-58, 6-8=-20, 4-5=-105
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 12=-160

Continued on page 5

LOAD CASE(S) Standard

41) 9th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-14, 2-3=-18, 6-8=-20, 4-5=-137
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 12=-160

42) 10th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-46, 2-3=-50, 6-8=-20, 4-5=-105
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 12=-160

43) 11th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-22, 2-3=-26, 6-8=-20, 4-5=-137
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 12=-160

44) 12th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-58, 6-8=-20, 4-5=-105
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 12=-160

45) 13th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-22, 2-3=-26, 6-8=-20, 4-5=-137
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 12=-160

46) 14th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-58, 6-8=-20, 4-5=-105
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 12=-160

47) 15th Unbal.Dead + Minimum Snow + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-27, 6-8=-20, 4-5=-100
Concentrated Loads (lb)
Vert: 12=-160

48) 16th Unbal.Dead + Minimum Snow + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 6-8=-20, 4-5=-57
Concentrated Loads (lb)
Vert: 12=-160

49) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 6-8=-20, 4-5=-50
Concentrated Loads (lb)
Vert: 12=-160

50) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 6-8=-20, 4-5=-90
Concentrated Loads (lb)
Vert: 12=-160

51) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-50, 6-8=-20, 4-5=-109
Concentrated Loads (lb)
Vert: 12=-160

52) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 6-8=-20, 4-5=-139
Concentrated Loads (lb)
Vert: 12=-160

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	M03	MONOPITCH	6	1	I72240643
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:25:58 2025 Page 1
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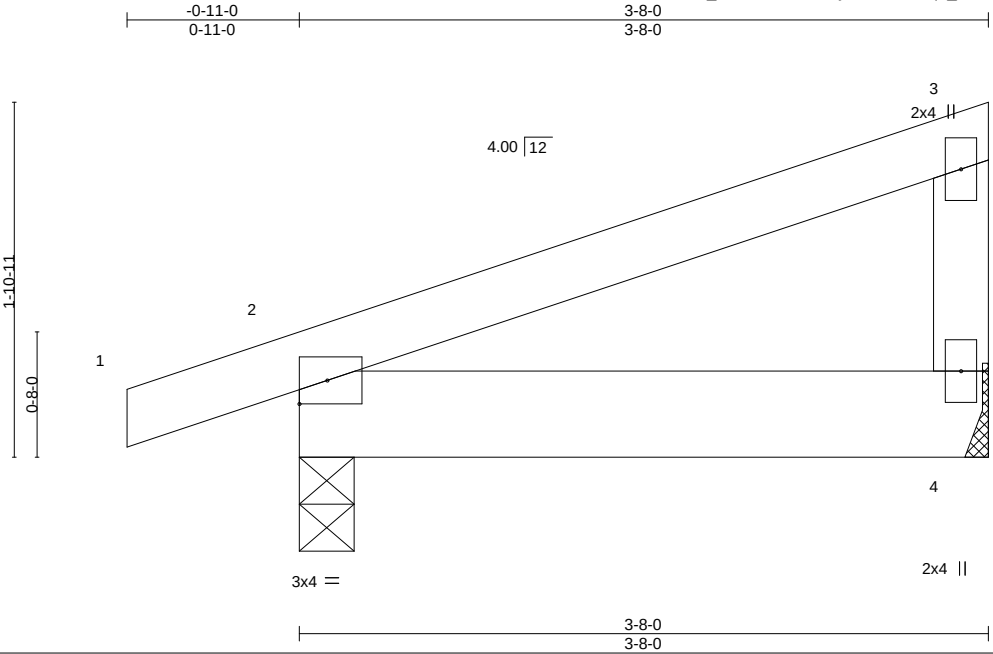

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP							Weight: 18 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=53(LC 15)
Max Uplift 4=-7(LC 16), 2=-39(LC 16)
Max Grav 4=137(LC 21), 2=208(LC 21)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 3-6-4 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 100 lb uplift at joint(s) 4, 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	M03GE	MONOPITCH SUPPORTED	1	1	I72240644
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:25:59 2025 Page 1
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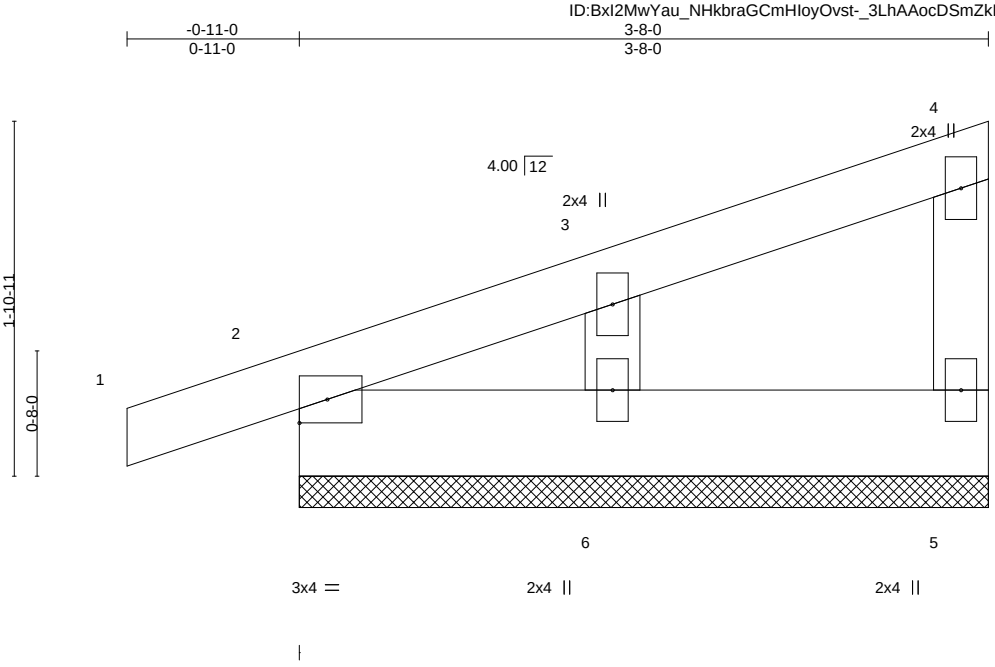

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	-0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-8-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=3-8-0, 2=3-8-0, 6=3-8-0
Max Horz 2=51(LC 13)
Max Uplift 5=-2(LC 13), 2=-34(LC 16), 6=-10(LC 16)
Max Grav 5=62(LC 21), 2=126(LC 21), 6=157(LC 21)

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

NOTES-

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 3-6-4 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 requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.
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.

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	M04	HALF HIP	3	1	I72240645
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:25:59 2025 Page 1
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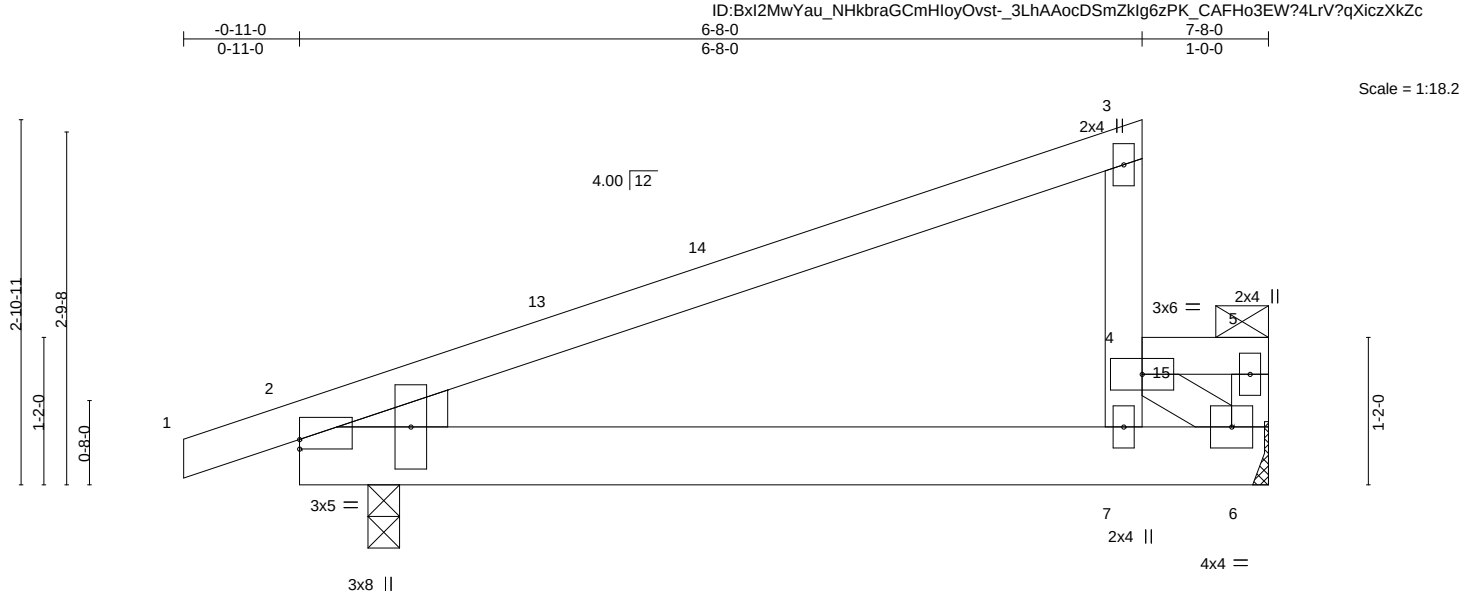


Plate Offsets (X,Y)-- [2:0-0-0,0-0-14]

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	0.86	Vert(LL)	-0.03	7-12	>999	240	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.06	7-12	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP							Weight: 38 lb	FT = 20%
BCDL	10.0											

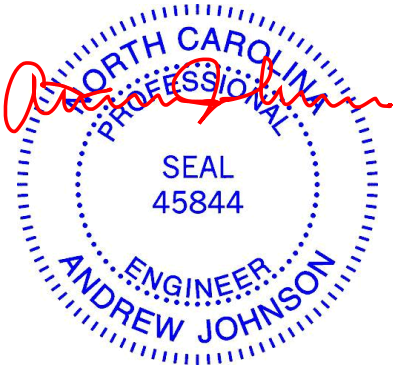
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-7, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 2=0-3-0
Max Horz 2=115(LC 16)
Max Uplift 2=-13(LC 16)
Max Grav 6=467(LC 28), 2=449(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 6-7=-150/385
WEBS 4-6=-488/179

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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) C-C wind load user defined.
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) 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) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
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) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
15) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



March 25,2025

Continued on page 2

LOAD CASE(S)

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818 Soundside Road
Edenton, NC 27932

LOAD CASE(S)

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-43, 4-5=-83(F=-30), 6-8=-20
   Concentrated Loads (lb)
   Vert: 15=-160
2) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 4-5=-90(F=-30), 6-8=-20
   Concentrated Loads (lb)
   Vert: 15=-160
3) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-50, 4-5=-139(F=-89), 6-8=-20
   Concentrated Loads (lb)
   Vert: 15=-160
4) Dead + 0.75 Snow (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-37, 4-5=-133(F=-89), 6-8=-20
   Concentrated Loads (lb)
   Vert: 15=-160
5) Dead + 0.75 Snow (Unbal. Left) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-14=-37, 3-14=-42, 4-5=-114(F=-89), 6-8=-20
   Concentrated Loads (lb)
   Vert: 15=-160
6) Dead + 0.75 Snow (Unbal. Right) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-25, 4-5=-137(F=-89), 6-8=-20
   Concentrated Loads (lb)
   Vert: 15=-160
7) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-3=-20, 4-5=-50(F=-30), 6-8=-40
   Concentrated Loads (lb)
   Vert: 15=-160
8) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=58, 2-13=45, 3-13=34, 4-5=16(F=-18), 6-8=-12
   Horz: 1-2=-70, 2-13=-57, 3-13=-46, 3-4=10, 5-6=38
   Concentrated Loads (lb)
   Vert: 15=-160
9) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=29, 2-13=34, 3-13=45, 4-5=27(F=-18), 6-8=-12
   Horz: 1-2=-41, 2-13=-46, 3-13=-57, 3-4=-63, 5-6=-24
   Concentrated Loads (lb)
   Vert: 15=-160
10) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-3, 2-3=-42, 4-5=-60(F=-18), 6-8=-20
   Horz: 1-2=-17, 2-3=22, 3-4=31, 5-6=27
   Concentrated Loads (lb)
   Vert: 15=-160
11) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-37, 2-3=-42, 4-5=-60(F=-18), 6-8=-20
   Horz: 1-2=17, 2-3=22, 3-4=-42, 5-6=-35
   Concentrated Loads (lb)
   Vert: 15=-160
12) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=28, 2-3=13, 4-5=8(F=-18), 6-8=-12
   Horz: 1-2=-40, 2-3=-25, 3-4=-11, 5-6=18
   Concentrated Loads (lb)
   Vert: 15=-160
13) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=3, 2-3=8, 4-5=8(F=-18), 6-8=-12
   Horz: 1-2=-15, 2-3=-20, 3-4=-26, 5-6=-15
   Concentrated Loads (lb)
   Vert: 15=-160
14) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-16, 2-3=-21, 4-5=-39(F=-18), 6-8=-20
   Horz: 1-2=-4, 2-3=1, 3-4=31, 5-6=7

Continued on page 3

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Edenton, NC 27932

LOAD CASE(S)

Concentrated Loads (lb)
Vert: 15=-160

15) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-5, 2-3=-10, 4-5=-39(F=-18), 6-8=-20
Horz: 1-2=-15, 2-3=-10, 3-4=-4, 5-6=-25
Concentrated Loads (lb)
Vert: 15=-160

16) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=32, 2-3=17, 4-5=-1(F=-18), 6-8=-12
Horz: 1-2=-44, 2-3=-29, 3-4=-34, 5-6=23
Concentrated Loads (lb)
Vert: 15=-160

17) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=21, 2-3=6, 4-5=-12(F=-18), 6-8=-12
Horz: 1-2=-33, 2-3=-18, 3-4=-24, 5-6=23
Concentrated Loads (lb)
Vert: 15=-160

18) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-16, 2-3=-21, 4-5=-39(F=-18), 6-8=-20
Horz: 1-2=-4, 2-3=1, 3-4=6, 5-6=12
Concentrated Loads (lb)
Vert: 15=-160

19) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-16, 2-3=-21, 4-5=-39(F=-18), 6-8=-20
Horz: 1-2=-4, 2-3=1, 3-4=6, 5-6=12
Concentrated Loads (lb)
Vert: 15=-160

20) Dead + Snow on Overhangs: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-43, 2-3=-20, 4-5=-50(F=-30), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

21) Dead + Snow (Unbal. Left): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-14=-43, 3-14=-49, 4-5=-57(F=-30), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

22) Dead + Snow (Unbal. Right): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-27, 4-5=-88(F=-30), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

23) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-3=-20, 4-5=-50(F=-30), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

24) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-34, 2-3=-38, 4-5=-124(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 15=-160

25) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-26, 2-3=-30, 4-5=-124(F=-79), 6-8=-20
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 15=-160

26) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-34, 2-3=-38, 4-5=-124(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 15=-160

27) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60

Continued on page 4

LOAD CASE(S)

Uniform Loads (plf)
Vert: 1-2=-34, 2-3=-38, 4-5=-124(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 15=-160

28) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-47, 2-3=-51, 4-5=-129(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 15=-160

29) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-39, 2-3=-43, 4-5=-129(F=-79), 6-8=-20
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 15=-160

30) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-47, 2-3=-51, 4-5=-129(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 15=-160

31) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-47, 2-3=-51, 4-5=-129(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 15=-160

32) Dead + Minimum Snow: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 4-5=-80(F=-30), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

33) Dead + 0.6 C-C Wind Min. Down: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=4, 2-3=-28, 4-5=-46(F=-18), 6-8=-12
Horz: 1-2=-16, 2-3=16, 3-4=16, 5-6=16
Concentrated Loads (lb)
Vert: 15=-160

34) Dead + 0.6 C-C Wind Min. Upward: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=4, 4-5=-14(F=-18), 6-8=-12
Horz: 1-3=-16, 3-4=16, 5-6=16
Concentrated Loads (lb)
Vert: 15=-160

35) 3rd Unbal.Dead + Snow (balanced) + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-27, 4-5=-100(F=-30), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

36) 4th Unbal.Dead + Snow (balanced) + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 4-5=-57(F=-30), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

37) 5th Unbal.Dead + 0.75 Snow (balanced) + 0.75 Attic Floor + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-25, 4-5=-146(F=-89), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

38) 6th Unbal.Dead + 0.75 Snow (balanced) + 0.75 Attic Floor + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-57, 4-5=-114(F=-89), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

39) 7th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-22, 2-3=-26, 4-5=-137(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 15=-160

Continued on page 5

LOAD CASE(S)

40) 8th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-58, 4-5=-105(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 15=-160

41) 9th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-14, 2-3=-18, 4-5=-137(F=-79), 6-8=-20
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 15=-160

42) 10th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-46, 2-3=-50, 4-5=-105(F=-79), 6-8=-20
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 15=-160

43) 11th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-22, 2-3=-26, 4-5=-137(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 15=-160

44) 12th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-58, 4-5=-105(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 15=-160

45) 13th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-22, 2-3=-26, 4-5=-137(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 15=-160

46) 14th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-58, 4-5=-105(F=-79), 6-8=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 15=-160

47) 15th Unbal.Dead + Minimum Snow + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-27, 4-5=-100(F=-30), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

48) 16th Unbal.Dead + Minimum Snow + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 4-5=-57(F=-30), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

49) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 4-5=-50(F=-30), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

50) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 4-5=-90(F=-30), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

51) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-50, 4-5=-109(F=-89), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

52) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 4-5=-139(F=-89), 6-8=-20
Concentrated Loads (lb)
Vert: 15=-160

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	M04SGE	GABLE	1	1	I72240646
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:00 2025 Page 1
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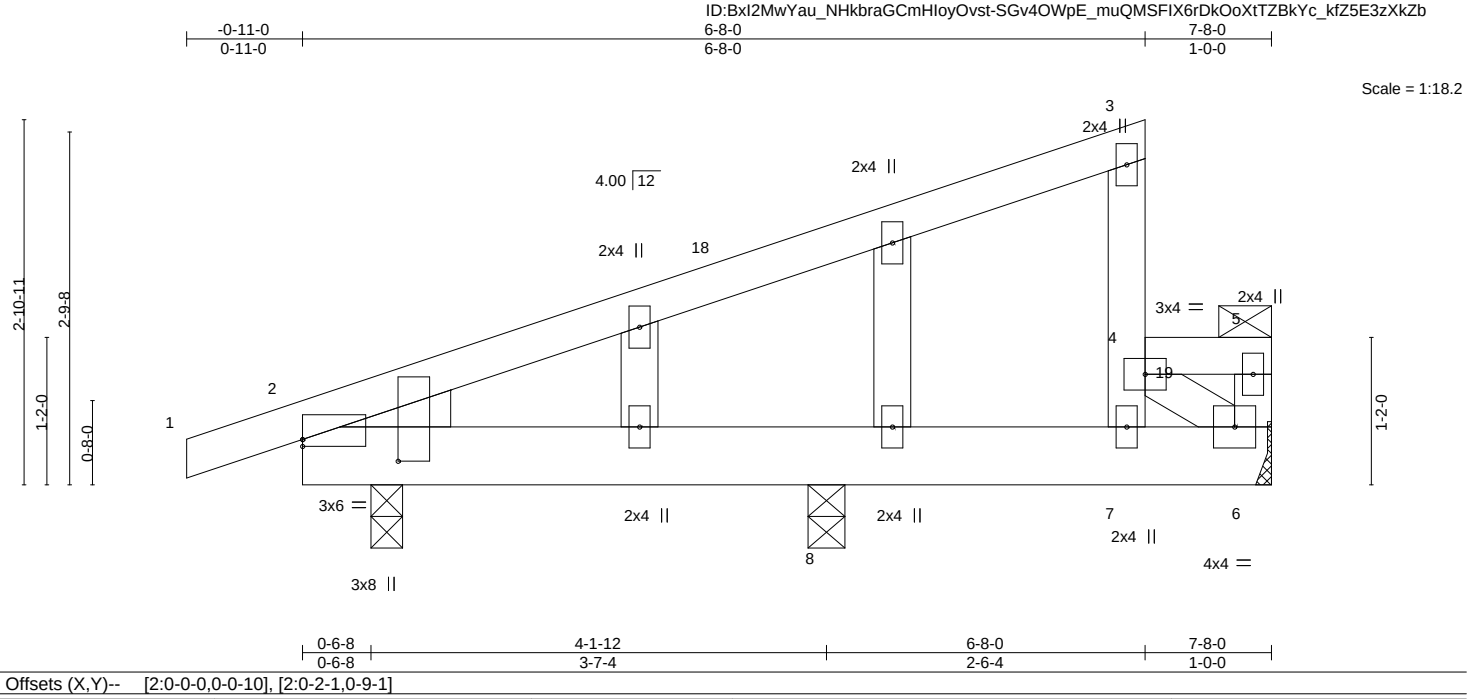

Plate Offsets (X,Y)-- [2:0-0-0,0-0-10], [2:0-2-1,0-9-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.01	8-17	>999	240	MT20	244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.01	8-17	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP							Weight: 41 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-7, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 2=0-3-0, 8=0-3-8
Max Horz 2=115(LC 16)
Max Uplift 2=-25(LC 16)
Max Grav 6=337(LC 28), 2=310(LC 36), 8=289(LC 36)

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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) C-C wind load user defined.
4) 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.
5) 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.
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) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
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) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
16) Graphical representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 25,2025

Continued on page 2

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

LOAD CASE(S)

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-43, 4-5=-83, 6-13=-20
   Concentrated Loads (lb)
   Vert: 19=-160
2) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 4-5=-90, 6-13=-20
   Concentrated Loads (lb)
   Vert: 19=-160
3) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-50, 4-5=-139, 6-13=-20
   Concentrated Loads (lb)
   Vert: 19=-160
4) Dead + 0.75 Snow (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-37, 4-5=-133, 6-13=-20
   Concentrated Loads (lb)
   Vert: 19=-160
5) Dead + 0.75 Snow (Unbal. Left) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-18=-37, 3-18=-42, 4-5=-114, 6-13=-20
   Concentrated Loads (lb)
   Vert: 19=-160
6) Dead + 0.75 Snow (Unbal. Right) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-25, 4-5=-137, 6-13=-20
   Concentrated Loads (lb)
   Vert: 19=-160
7) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-3=-20, 4-5=-50, 6-13=-40
   Concentrated Loads (lb)
   Vert: 19=-160
8) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=61, 2-3=52, 4-5=34, 6-13=-12
   Horz: 1-2=-73, 2-3=-64, 3-4=10, 5-6=38
   Concentrated Loads (lb)
   Vert: 19=-160
9) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=47, 2-3=52, 4-5=34, 6-13=-12
   Horz: 1-2=-59, 2-3=-64, 3-4=-69, 5-6=-24
   Concentrated Loads (lb)
   Vert: 19=-160
10) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-3, 2-3=-42, 4-5=-60, 6-13=-20
   Horz: 1-2=-17, 2-3=22, 3-4=31, 5-6=27
   Concentrated Loads (lb)
   Vert: 19=-160
11) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-37, 2-3=-42, 4-5=-60, 6-13=-20
   Horz: 1-2=17, 2-3=22, 3-4=-48, 5-6=-35
   Concentrated Loads (lb)
   Vert: 19=-160
12) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=28, 2-3=13, 4-5=8, 6-13=-12
   Horz: 1-2=-40, 2-3=-25, 3-4=-11, 5-6=18
   Concentrated Loads (lb)
   Vert: 19=-160
13) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=3, 2-3=8, 4-5=8, 6-13=-12
   Horz: 1-2=-15, 2-3=-20, 3-4=-26, 5-6=-15
   Concentrated Loads (lb)
   Vert: 19=-160
14) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-16, 2-3=-21, 4-5=-39, 6-13=-20
   Horz: 1-2=-4, 2-3=1, 3-4=31, 5-6=7

Continued on page 3

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LOAD CASE(S)

Concentrated Loads (lb)
Vert: 19=-160

15) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-5, 2-3=-10, 4-5=-39, 6-13=-20
Horz: 1-2=-15, 2-3=-10, 3-4=-4, 5-6=-25
Concentrated Loads (lb)
Vert: 19=-160

16) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=32, 2-3=17, 4-5=-1, 6-13=-12
Horz: 1-2=-44, 2-3=-29, 3-4=-34, 5-6=23
Concentrated Loads (lb)
Vert: 19=-160

17) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=21, 2-3=6, 4-5=-12, 6-13=-12
Horz: 1-2=-33, 2-3=-18, 3-4=-24, 5-6=23
Concentrated Loads (lb)
Vert: 19=-160

18) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-16, 2-3=-21, 4-5=-39, 6-13=-20
Horz: 1-2=-4, 2-3=1, 3-4=6, 5-6=12
Concentrated Loads (lb)
Vert: 19=-160

19) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-16, 2-3=-21, 4-5=-39, 6-13=-20
Horz: 1-2=-4, 2-3=1, 3-4=6, 5-6=12
Concentrated Loads (lb)
Vert: 19=-160

20) Dead + Snow on Overhangs: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-43, 2-3=-20, 4-5=-50, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

21) Dead + Snow (Unbal. Left): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-18=-43, 3-18=-49, 4-5=-57, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

22) Dead + Snow (Unbal. Right): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-27, 4-5=-88, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

23) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-3=-20, 4-5=-50, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

24) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-34, 2-3=-38, 4-5=-124, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 19=-160

25) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-26, 2-3=-30, 4-5=-124, 6-13=-20
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 19=-160

26) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-34, 2-3=-38, 4-5=-124, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 19=-160

27) Dead + 0.75 Snow (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60

Continued on page 4

LOAD CASE(S)

Uniform Loads (plf)
Vert: 1-2=-34, 2-3=-38, 4-5=-124, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 19=-160

28) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-47, 2-3=-51, 4-5=-129, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 19=-160

29) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-39, 2-3=-43, 4-5=-129, 6-13=-20
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 19=-160

30) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-47, 2-3=-51, 4-5=-129, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 19=-160

31) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-47, 2-3=-51, 4-5=-129, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 19=-160

32) Dead + Minimum Snow: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 4-5=-80, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

33) Dead + 0.6 C-C Wind Min. Down: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=4, 2-3=-28, 4-5=-46, 6-13=-12
Horz: 1-2=-16, 2-3=16, 3-4=16, 5-6=16
Concentrated Loads (lb)
Vert: 19=-160

34) Dead + 0.6 C-C Wind Min. Upward: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-3=4, 4-5=-14, 6-13=-12
Horz: 1-3=-16, 3-4=16, 5-6=16
Concentrated Loads (lb)
Vert: 19=-160

35) 3rd Unbal.Dead + Snow (balanced) + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-27, 4-5=-100, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

36) 4th Unbal.Dead + Snow (balanced) + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 4-5=-57, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

37) 5th Unbal.Dead + 0.75 Snow (balanced) + 0.75 Attic Floor + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-25, 4-5=-146, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

38) 6th Unbal.Dead + 0.75 Snow (balanced) + 0.75 Attic Floor + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-57, 4-5=-114, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

39) 7th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-22, 2-3=-26, 4-5=-137, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 19=-160

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LOAD CASE(S)

40) 8th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-58, 4-5=-105, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=23, 5-6=5
Concentrated Loads (lb)
Vert: 19=-160

41) 9th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-14, 2-3=-18, 4-5=-137, 6-13=-20
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 19=-160

42) 10th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right) + Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-46, 2-3=-50, 4-5=-105, 6-13=-20
Horz: 1-2=-11, 2-3=-7, 3-4=-3, 5-6=-19
Concentrated Loads (lb)
Vert: 19=-160

43) 11th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-22, 2-3=-26, 4-5=-137, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 19=-160

44) 12th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-58, 4-5=-105, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 19=-160

45) 13th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-22, 2-3=-26, 4-5=-137, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 19=-160

46) 14th Unbal.Dead + 0.75 Snow (unbal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-58, 4-5=-105, 6-13=-20
Horz: 1-2=-3, 2-3=1, 3-4=5, 5-6=9
Concentrated Loads (lb)
Vert: 19=-160

47) 15th Unbal.Dead + Minimum Snow + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-27, 4-5=-100, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

48) 16th Unbal.Dead + Minimum Snow + Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 4-5=-57, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

49) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 4-5=-50, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

50) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 4-5=-90, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

51) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-50, 4-5=-109, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

52) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 4-5=-139, 6-13=-20
Concentrated Loads (lb)
Vert: 19=-160

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	T02	COMMON	1	1	I72240647
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:01 2025 Page 1
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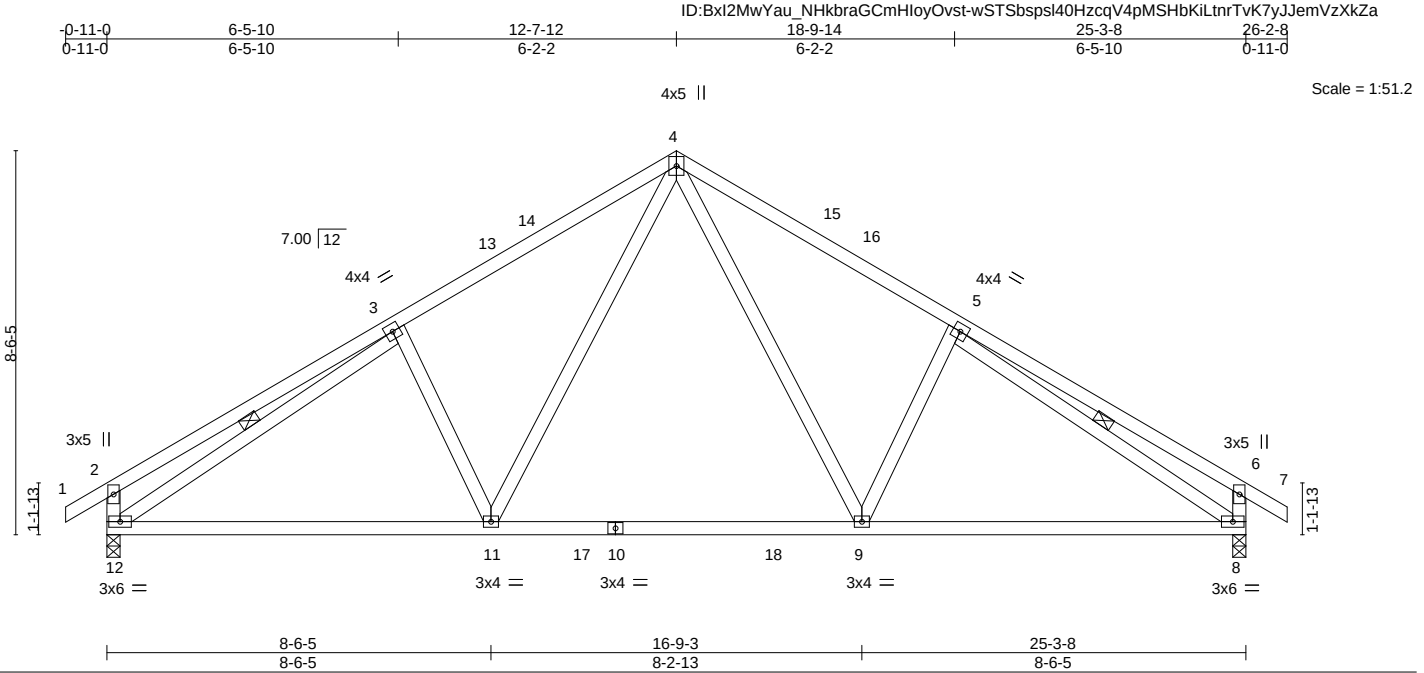

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.16	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.25	11-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS							Weight: 149 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 4-7-7 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 3-12, 5-8

REACTIONS. (size) 12=0-3-8, 8=0-3-8
Max Horz 12=-188(LC 14)
Max Uplift 12=-94(LC 16), 8=-94(LC 16)
Max Grav 12=1181(LC 28), 8=1181(LC 29)

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

TOP CHORD	2-3=-425/126, 3-4=-1373/197, 4-5=-1373/197, 5-6=-425/126, 2-12=-406/133, 6-8=-406/133
BOT CHORD	11-12=-62/1290, 9-11=0/912, 8-9=-52/1178
WEBS	4-9=-46/616, 5-9=-267/162, 4-11=-46/616, 3-11=-267/162, 3-12=-1146/47, 5-8=-1145/47

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=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 12-7-12, Exterior(2R) 12-7-12 to 15-7-12, Interior(1) 15-7-12 to 26-2-8 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) 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.

March 25,2025

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	T02G	COMMON GIRDER	1	3	I72240648
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:02 2025 Page 1
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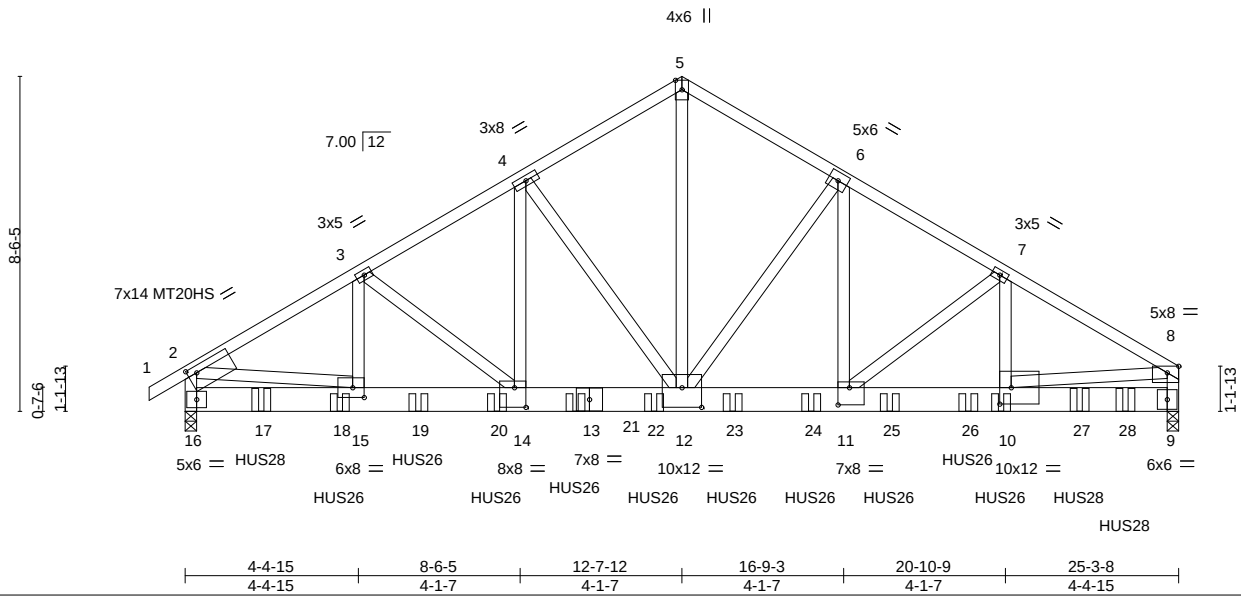

Plate Offsets (X,Y)-- [2:0-2-12,0-2-0], [8:0-3-8,Edge], [10:0-3-8,0-5-0], [11:0-3-8,0-5-4], [12:0-6-0,0-6-0], [14:0-3-8,0-6-0], [15:0-3-8,0-3-0]

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	0.95	Vert(LL)	-0.16	11-12	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.30	11-12	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS							Weight: 617 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP DSS
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 4-4-9 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=180(LC 37)
Max Uplift 16=-528(LC 12), 9=-479(LC 12)
Max Grav 16=11302(LC 3), 9=13265(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-15159/662, 3-4=-14125/590, 4-5=-11481/506, 5-6=-11481/505, 6-7=-14688/564, 7-8=-16944/596, 2-16=-9873/472, 8-9=-10925/394
BOT CHORD 15-16=-169/1722, 14-15=-506/13002, 12-14=-376/12177, 11-12=-352/12661, 10-11=-452/14558, 9-10=-83/2006
WEBS 5-12=-433/11285, 6-12=-4720/205, 6-11=-124/5227, 7-11=-2440/127, 7-10=-120/2551, 4-12=-3896/245, 4-14=-167/4275, 3-14=-1076/166, 3-15=-159/1112, 2-15=-412/11461, 8-10=-375/12752

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: 2x8 - 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=25ft; 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) All plates are MT20 plates unless otherwise indicated.
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) 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.

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Continued on page 2

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Edenton, NC 27932

NOTES-

12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=528, 9=479.
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.
14) Use Simpson Strong-Tie HUS28 (22-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 20-10-0 oc max. starting at 1-11-4 from the left end to 23-11-4 to connect truss(es) to front face of bottom chord.
15) Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 3-11-4 from the left end to 20-9-4 to connect truss(es) to front face of bottom chord.
16) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-43, 2-5=-43, 5-8=-43, 9-16=-20
   Concentrated Loads (lb)
   Vert: 10=-1258(F) 17=-1170(F) 18=-1170(F) 19=-1170(F) 20=-1258(F) 21=-1258(F) 22=-1258(F) 23=-1258(F) 24=-1258(F) 25=-1258(F) 26=-1258(F) 27=-1258(F) 28=-1170(F)

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	T02SGE	COMMON STRUCTURAL GA	1	1	I72240649
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:02 2025 Page 1
ID:BxI2MwYau_NHkbraGCmHIoyOvst-Oe1qoBqUWN88blPheXthqptuUHALCL7HBz2BIxzXkZZ

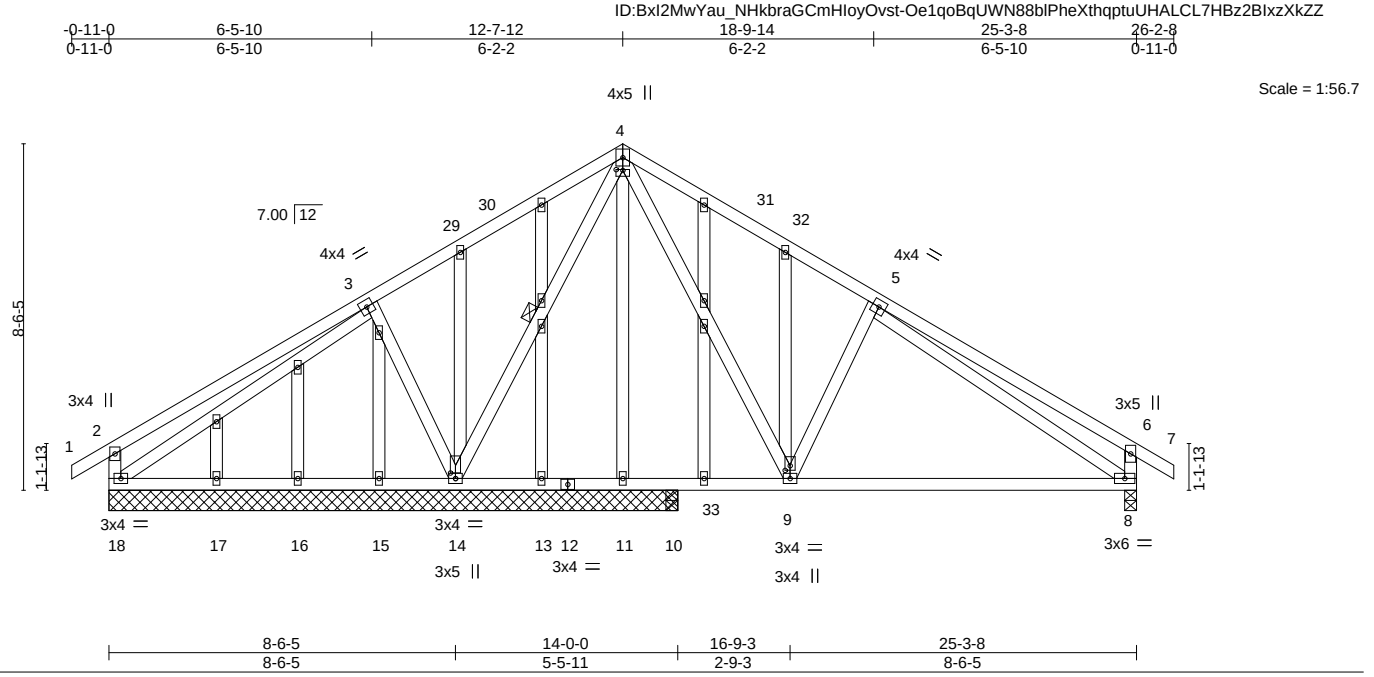

Plate Offsets (X,Y)-- [4:0-2-0,0-0-4], [9:0-1-6,0-1-8], [14:0-1-10,0-1-8]

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	0.51	Vert(LL)	-0.13	8-9	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.26	8-9	>528	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS							Weight: 209 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 6-0-0 oc bracing.
WEBS	1 Row at midpt 4-14

REACTIONS. All bearings 14-0-0 except (jt=length) 8=0-3-8, 10=0-3-8.
(lb) - Max Horz 18=-188(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 18, 8, 10 except 14=-123(LC 16)
Max Grav All reactions 250 lb or less at joint(s) 11, 13, 15, 16, 17, 10 except 18=322(LC 34), 8=765(LC 29), 14=933(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-666/168, 5-6=-404/123, 2-18=-305/148, 6-8=-392/131
BOT CHORD 13-14=0/255, 11-13=0/255, 10-11=0/255, 9-10=0/255, 8-9=-21/577
WEBS 4-9=-51/616, 5-9=-316/165, 4-14=-633/24, 3-14=-375/174, 5-8=-420/12

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=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 12-7-12, Exterior(2R) 12-7-12 to 15-7-12, Interior(1) 15-7-12 to 26-2-8 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) 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 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, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 8, 10 except (jt=lb) 14=123.
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.

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	T03	COMMON	6	1	I72240650
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:03 2025 Page 1
ID:BxI2MwYau_NHkbraGCmHIoyOvst-sraC0Xr6HhG?DvztCEOwM0P_vgS1xksQQdolrOzXkZY

-0-11-0 6-7-0 12-10-8 19-2-0 25-5-8 31-9-0 38-4-0 39-3-0
0-11-0 6-7-0 6-3-8 6-3-8 6-3-8 6-3-8 6-7-0 0-11-0

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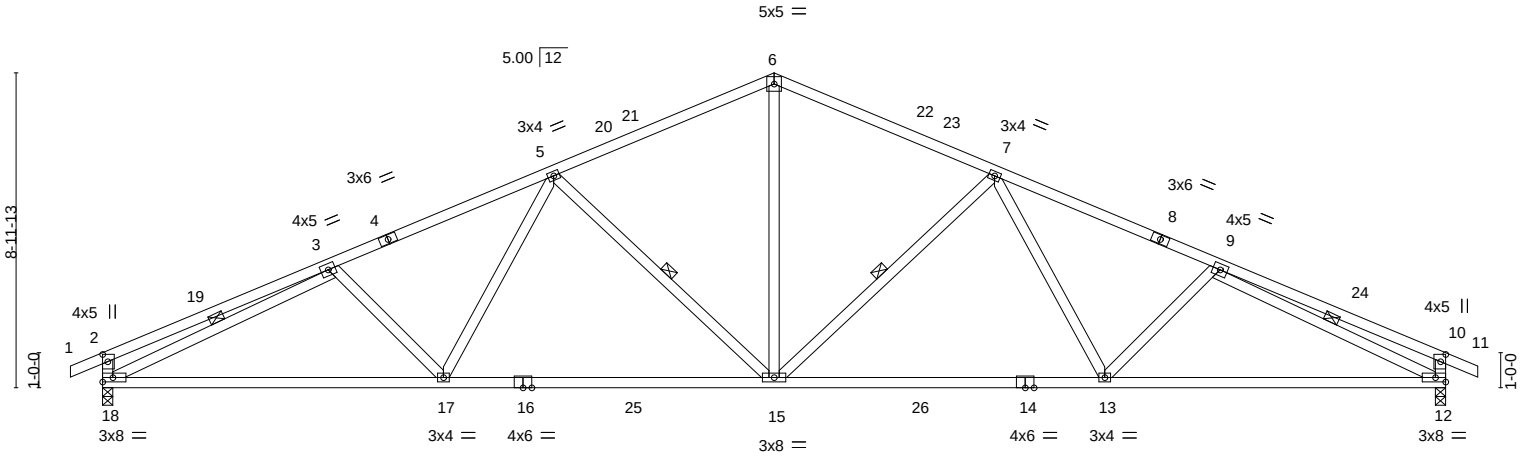

9-8-12 19-2-0 28-7-4 38-4-0
9-8-12 9-5-4 9-5-4 9-8-12

Plate Offsets (X,Y)-- [2:0-2-8,0-1-12], [10:0-2-8,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.29	13-15	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.52	13-15	>885	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.13	12	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS							Weight: 215 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-15, 5-15, 3-18, 9-12

REACTIONS. (size) 18=0-3-8, 12=0-3-8
Max Horz 18=159(LC 15)
Max Uplift 18=-126(LC 16), 12=-126(LC 16)
Max Grav 18=1739(LC 28), 12=1739(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-616/102, 3-5=-2860/257, 5-6=-2123/272, 6-7=-2123/272, 7-9=-2860/257, 9-10=-616/102, 2-18=-455/144, 10-12=-454/145
BOT CHORD 17-18=-189/2716, 15-17=-129/2441, 13-15=-114/2383, 12-13=-179/2622
WEBS 6-15=-66/1294, 7-15=-723/136, 7-13=0/483, 5-15=-723/136, 5-17=0/483, 3-18=-2425/184, 9-12=-2425/183

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=38ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-11-0, Interior(1) 2-11-0 to 19-2-0, Exterior(2R) 19-2-0 to 23-0-0, Interior(1) 23-0-0 to 39-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) except (jt=lb) 18=126, 12=126.
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.

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	T03A	COMMON	4	1	I72240651
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:04 2025 Page 1
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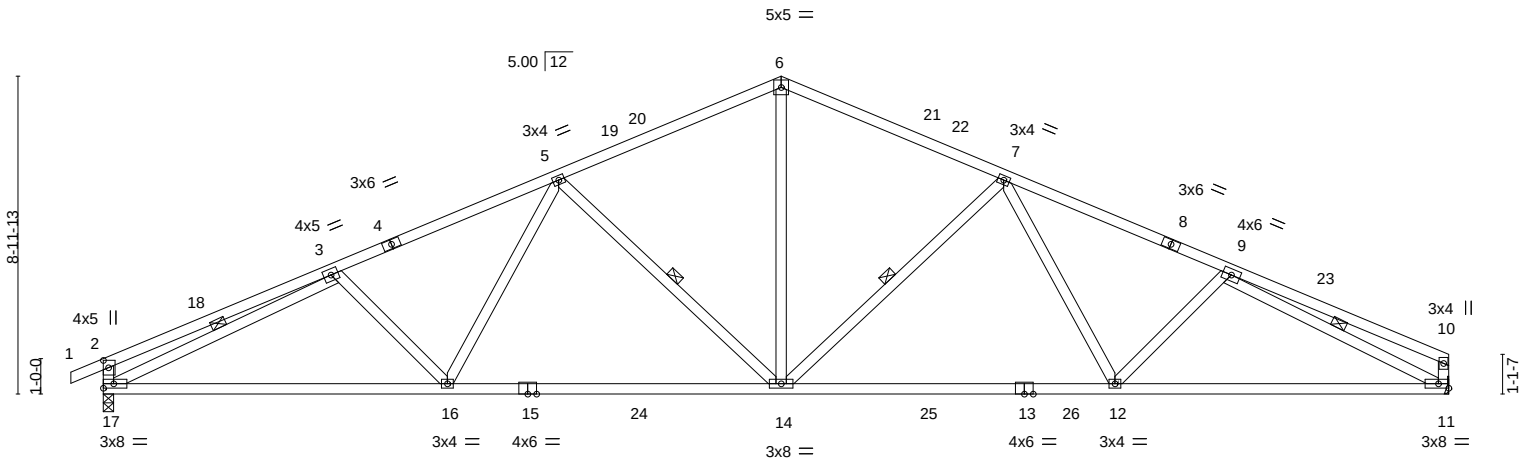
-0-11-0 6-7-0 12-10-8 19-2-0 25-5-8 31-9-0 38-0-8
0-11-0 6-7-0 6-3-8 6-3-8 6-3-8 6-3-8 6-3-8

Scale = 1:65.1



9-8-12 19-2-0 28-7-4 38-0-8
9-8-12 9-5-4 9-5-4 9-5-4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.29	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.51	12-14	>883	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.13	11	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS							Weight: 212 lb	FT = 20%
BCDL	10.0											

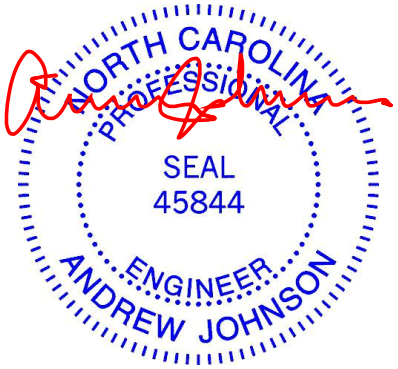
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-14, 7-14, 3-17, 9-11

REACTIONS. (size) 17=0-3-8, 11=Mechanical
Max Horz 17=161(LC 15)
Max Uplift 17=-125(LC 16), 11=-91(LC 16)
Max Grav 17=1728(LC 28), 11=1673(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-614/102, 3-5=-2835/255, 5-6=-2097/269, 6-7=-2097/271, 7-9=-2787/259, 9-10=-408/64, 2-17=-454/144, 10-11=-295/75
BOT CHORD 16-17=-218/2690, 14-16=-159/2413, 12-14=-143/2334, 11-12=-210/2518
WEBS 5-16=0/484, 5-14=-723/136, 6-14=-66/1273, 7-14=-688/134, 7-12=0/441, 3-17=-2403/182, 9-11=-2536/222

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=38ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-10-10, Interior(1) 2-10-10 to 19-2-0, Exterior(2R) 19-2-0 to 22-11-10, Interior(1) 22-11-10 to 37-10-12 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) 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) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 17=125.
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.



March 25,2025

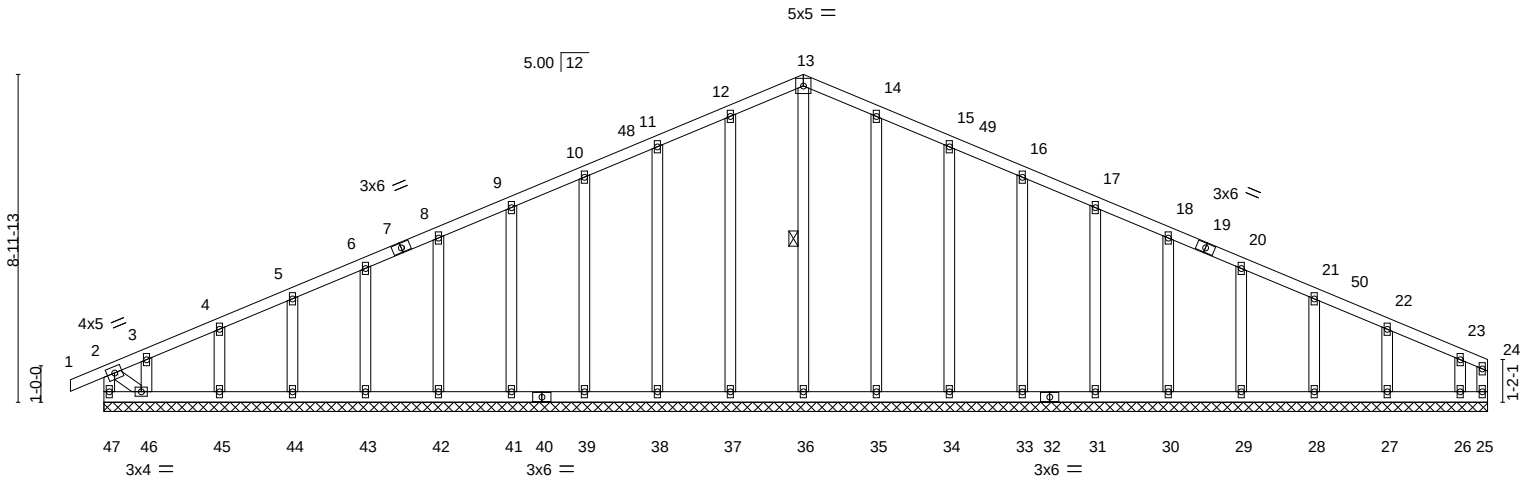
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	T03AGE	COMMON SUPPORTED GAB	1	1	I72240652
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:05 2025 Page 1
ID:BxI2MwYau_NHkbraGCmHIoyOvst-oDiyRDtNpIWiSD7GJfRORRVVJUKPPngjtxHsvGzXkZW

-0-11-0 19-2-0 37-11-0
0-11-0 19-2-0 18-9-0

Scale = 1:63.1



37-11-0
37-11-0

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	0.09	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	25	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 249 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: 46-47.
WEBS	1 Row at midpt 13-36

REACTIONS. All bearings 37-11-0.
(lb) - Max Horz 47=162(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 47, 25, 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26
Max Grav All reactions 250 lb or less at joint(s) 47, 25, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-113/279, 13-14=-113/279

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=38ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 3-2-0, Exterior(2N) 3-2-0 to 19-2-0, Corner(3R) 19-2-0 to 23-2-0, Exterior(2N) 23-2-0 to 37-9-4 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
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) 47, 25, 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26.
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.

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	T03GE	COMMON SUPPORTED GAB	1	1	I72240653
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:06 2025 Page 1
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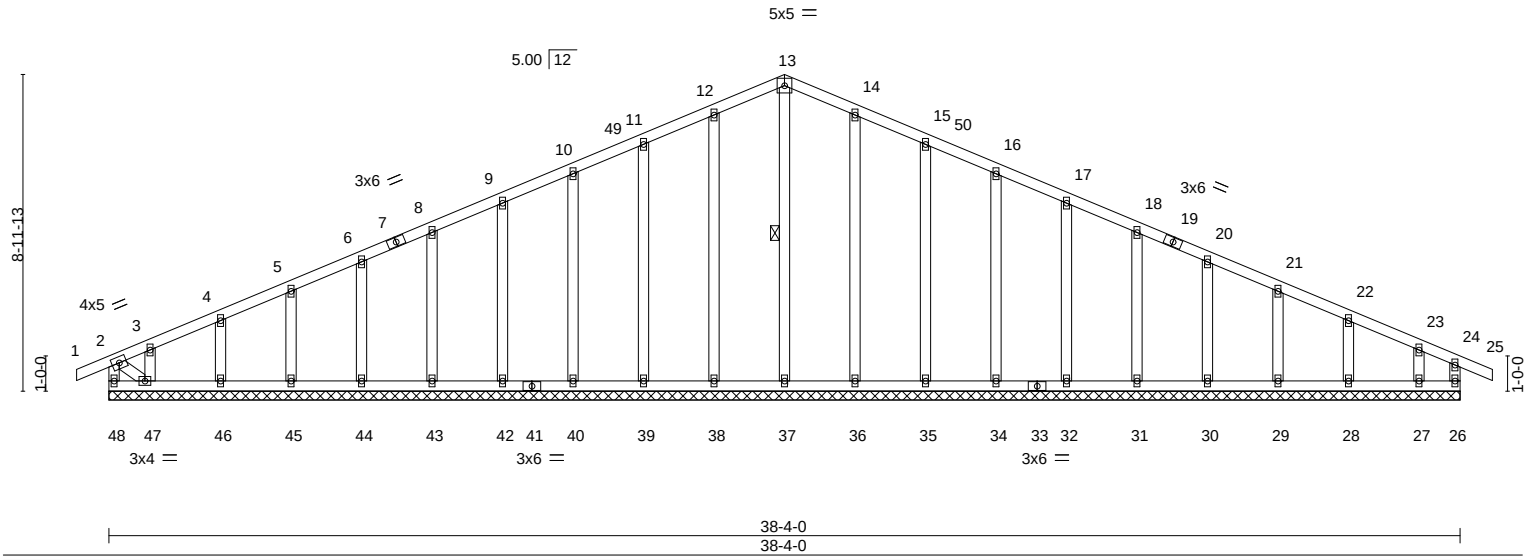

38-4-0
38-4-0

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	0.13	Vert(LL)	-0.00	25	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	25	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	26	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 252 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 6-0-0 oc bracing.
WEBS	1 Row at midpt 13-37

REACTIONS. All bearings 38-4-0.
(lb) - Max Horz 48=-159(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 48, 38, 39, 40, 42, 43, 44, 45, 46, 47, 36, 35, 34, 32, 31, 30, 29, 28, 27
Max Grav All reactions 250 lb or less at joint(s) 48, 26, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 36, 35, 34, 32, 31, 30, 29, 28, 27

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-106/276, 13-14=-106/276

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=38ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 3-2-0, Exterior(2N) 3-2-0 to 19-2-0, Corner(3R) 19-2-0 to 23-2-0, Exterior(2N) 23-2-0 to 39-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) 48, 38, 39, 40, 42, 43, 44, 45, 46, 47, 36, 35, 34, 32, 31, 30, 29, 28, 27.
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.

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	T04	COMMON	9	1	I72240654
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:07 2025 Page 1
ID:BxI2MwYau_NHkbraGCmHIoyOvst-lcqjsvudKwmQhXHeR4TsXsahUIoVtZk0LFmy_9zXkZU

-0-11-0 7-1-0 14-2-0 19-2-0 24-2-0 31-3-0 38-0-8
0-11-0 7-1-0 7-1-0 5-0-0 5-0-0 7-1-0 6-9-8

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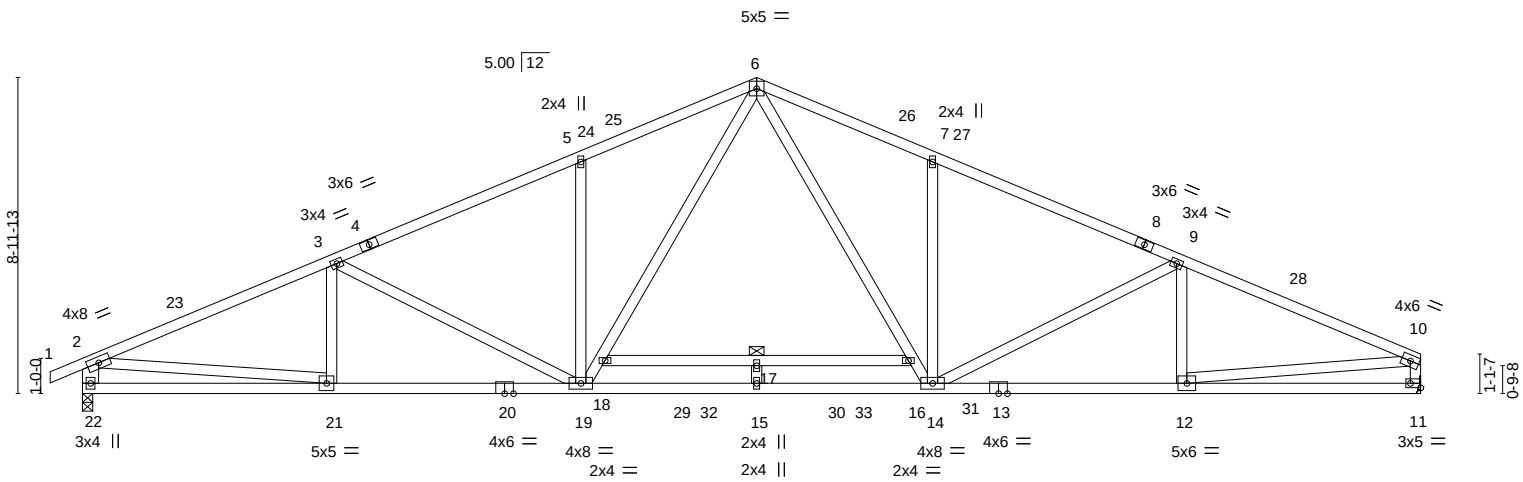

7-1-0 14-2-0 19-2-0 24-2-0 31-3-0 38-0-8
7-1-0 7-1-0 5-0-0 5-0-0 7-1-0 6-9-8

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

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	0.75	Vert(LL)	-0.53	17	>859	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.92	17	>492	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.09	11	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MS							Weight: 235 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
13-20: 2x4 SP DSS
WEBS 2x4 SP No.3 *Except*
2-22: 2x6 SP No.2, 2-21,10-12: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 12-14.
6-0-0 oc bracing: 16-18

REACTIONS. (size) 22=0-3-8, 11=Mechanical
Max Horz 22=161(LC 15)
Max Uplift 22=-74(LC 16), 11=-37(LC 16)
Max Grav 22=1904(LC 28), 11=1845(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3269/132, 3-5=-2988/130, 5-6=-2979/212, 6-7=-2962/209, 7-9=-2974/134, 9-10=-3198/139, 2-22=-1773/169, 10-11=-1719/118
BOT CHORD 21-22=-105/560, 19-21=-95/3046, 15-19=0/2107, 14-15=0/2107, 12-14=-92/2903, 11-12=-38/273
WEBS 3-19=-385/104, 5-19=-395/164, 18-19=-96/1143, 6-18=-48/1248, 6-16=-47/1217, 14-16=-94/1112, 7-14=-388/162, 9-14=-355/108, 2-21=-8/2530, 10-12=-55/2652

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=38ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-10-10, Interior(1) 2-10-10 to 19-2-0, Exterior(2R) 19-2-0 to 22-11-10, Interior(1) 22-11-10 to 37-10-12 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) 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) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 22, 11.
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.

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	V01	Valley	1	1	I72240655
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:07 2025 Page 1
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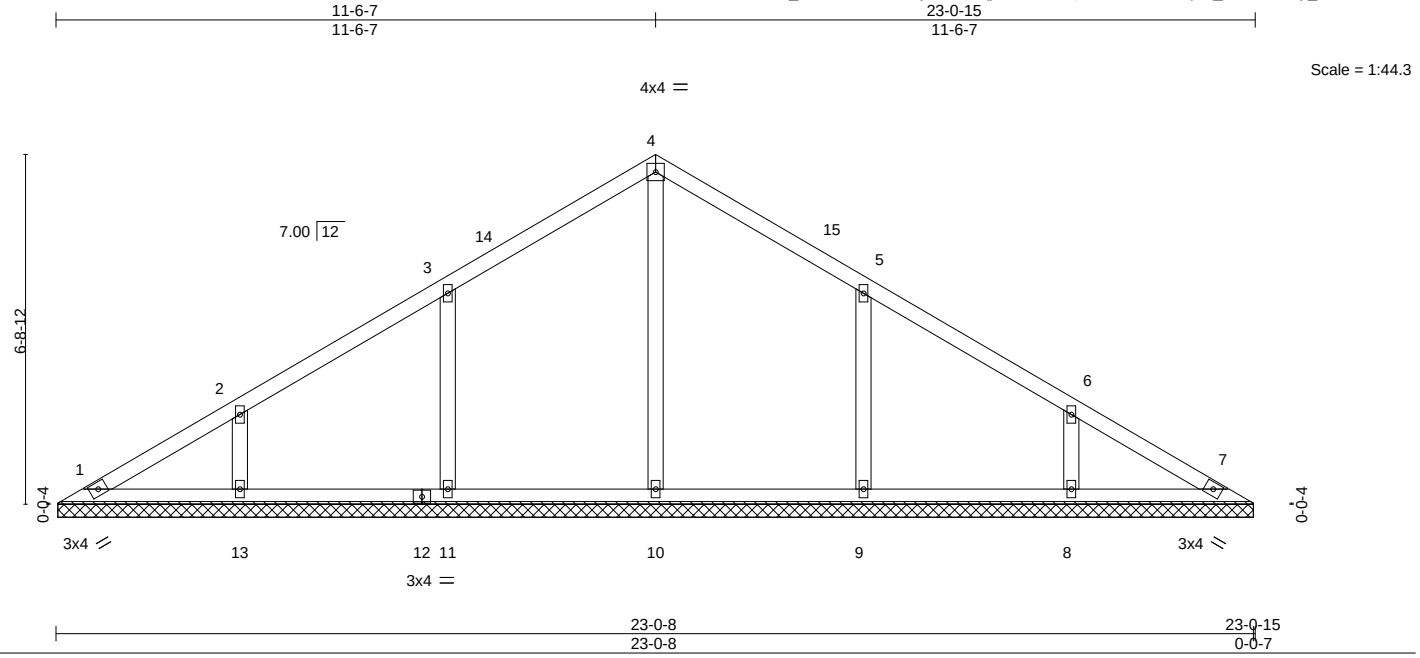

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 97 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 23-0-1.
(lb) - Max Horz 1=-128(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 11, 13, 9, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=379(LC 27), 11=432(LC 27), 13=361(LC 27), 9=432(LC 28), 8=361(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-11=-263/125, 5-9=-263/125

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 3-6-7, Interior(1) 3-6-7 to 11-6-7, Exterior(2R) 11-6-7 to 14-6-7, Interior(1) 14-6-7 to 22-6-7 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) All plates are 2x4 MT20 unless otherwise indicated.
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, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 13, 9, 8.
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.

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	V02	Valley	1	1	I72240656
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:08 2025 Page 1
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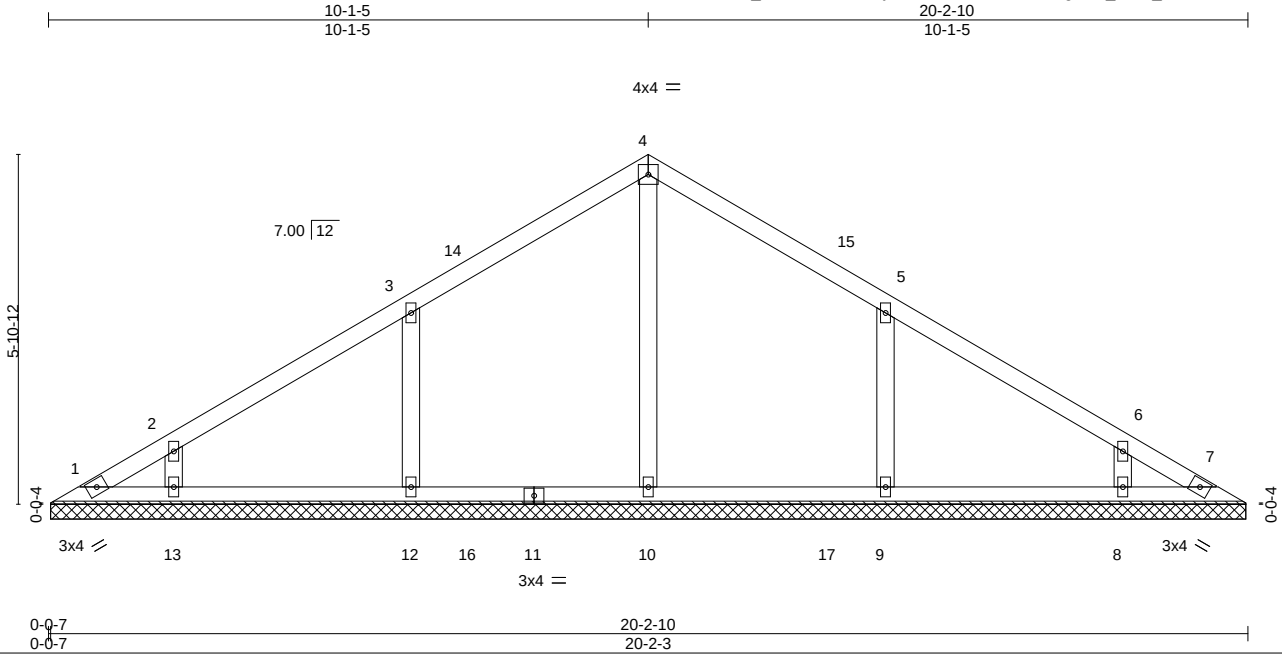

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 82 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 20-1-13.
(lb) - Max Horz 1=-111(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 12, 13, 9, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=369(LC 27), 12=428(LC 27), 13=307(LC 27), 9=427(LC 28), 8=307(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-12=-268/127, 5-9=-268/127

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 10-1-5, Exterior(2R) 10-1-5 to 13-1-5, Interior(1) 13-1-5 to 19-8-2 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) All plates are 2x4 MT20 unless otherwise indicated.
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, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 12, 13, 9, 8.
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.

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	V03	Valley	1	1	I72240657
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:08 2025 Page 1
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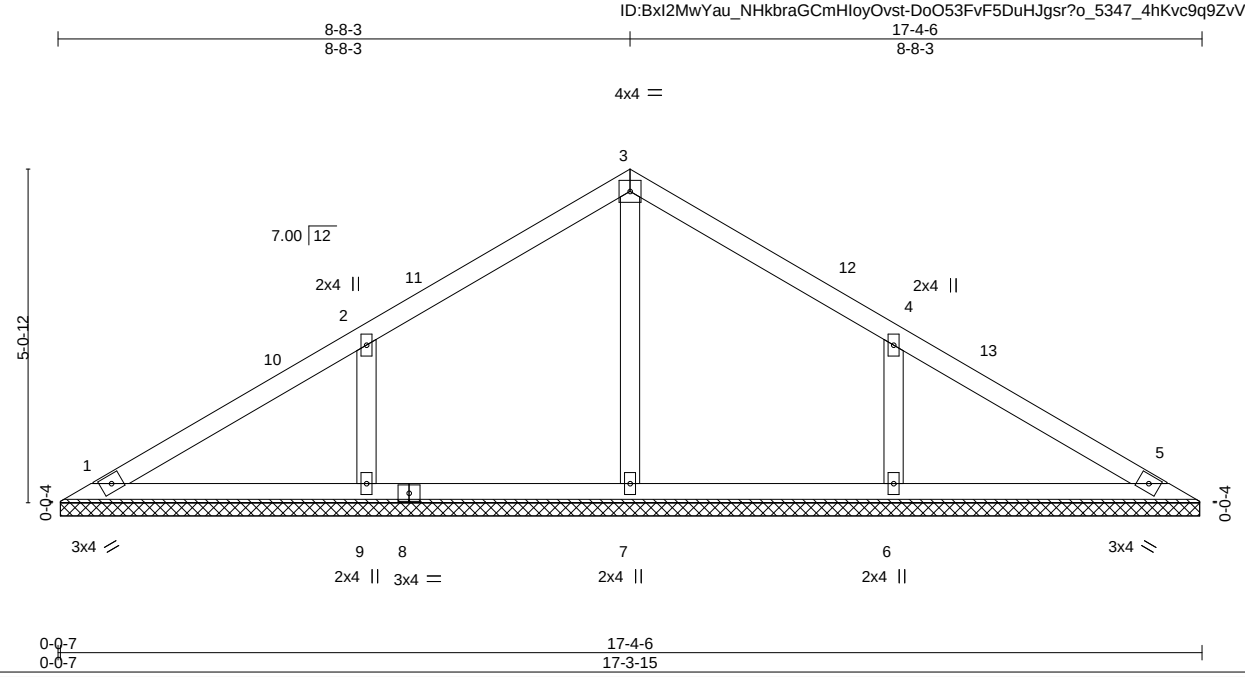


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 67 lb	FT = 20%
BCDL	10.0											

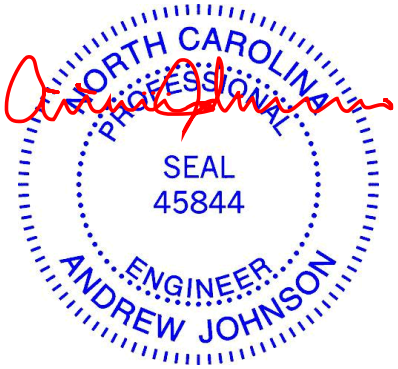
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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 17-3-8.
(lb) - Max Horz 1=-95(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 9, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 9=390(LC 33), 6=390(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-290/134, 4-6=-290/134

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 8-8-3, Exterior(2R) 8-8-3 to 11-8-3, Interior(1) 11-8-3 to 16-9-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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.



March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	V04	Valley	1	1	I72240658
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:09 2025 Page 1
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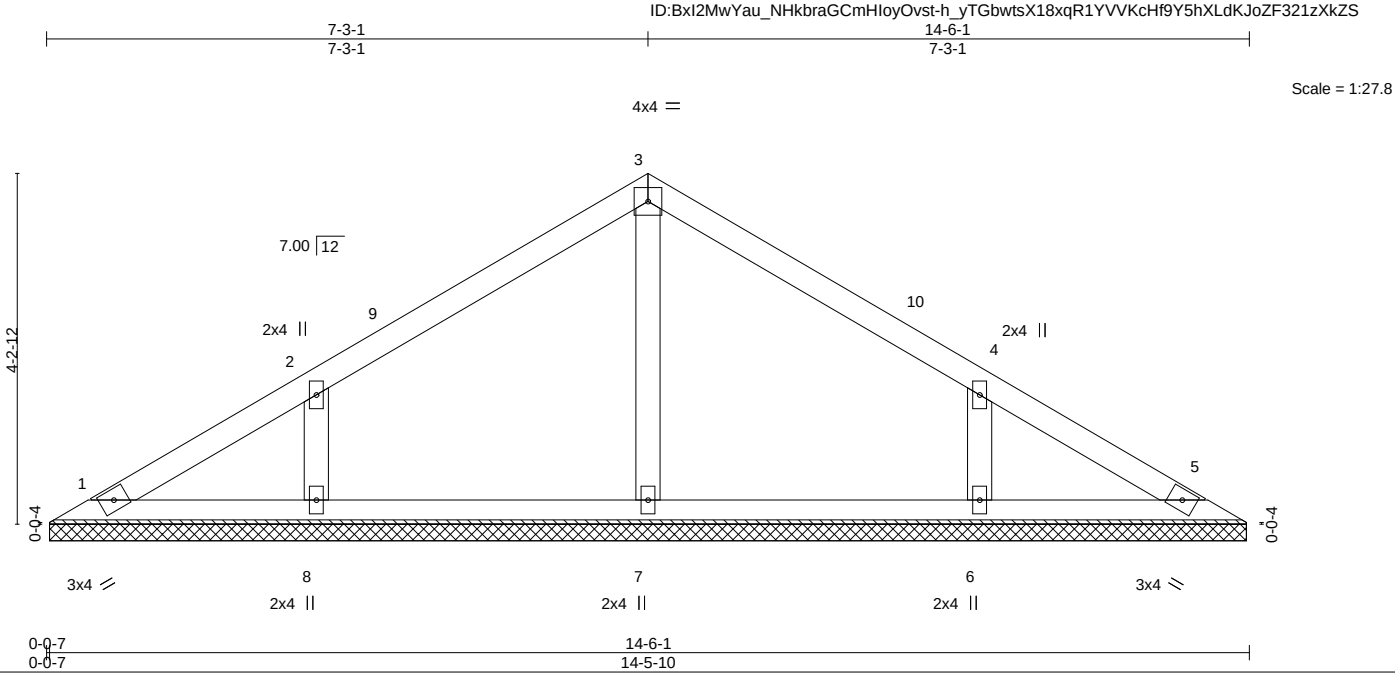


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 54 lb	FT = 20%
BCDL	10.0											

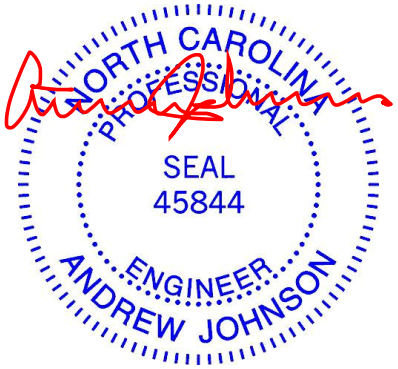
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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 14-5-3.
(lb) - Max Horz 1=-78(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=272(LC 2), 8=320(LC 33), 6=320(LC 34)

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 3-3-1, Interior(1) 3-3-1 to 7-3-1, Exterior(2R) 7-3-1 to 10-3-1, Interior(1) 10-3-1 to 13-11-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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.



March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	V05	Valley	1	1	I72240659
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:09 2025 Page 1
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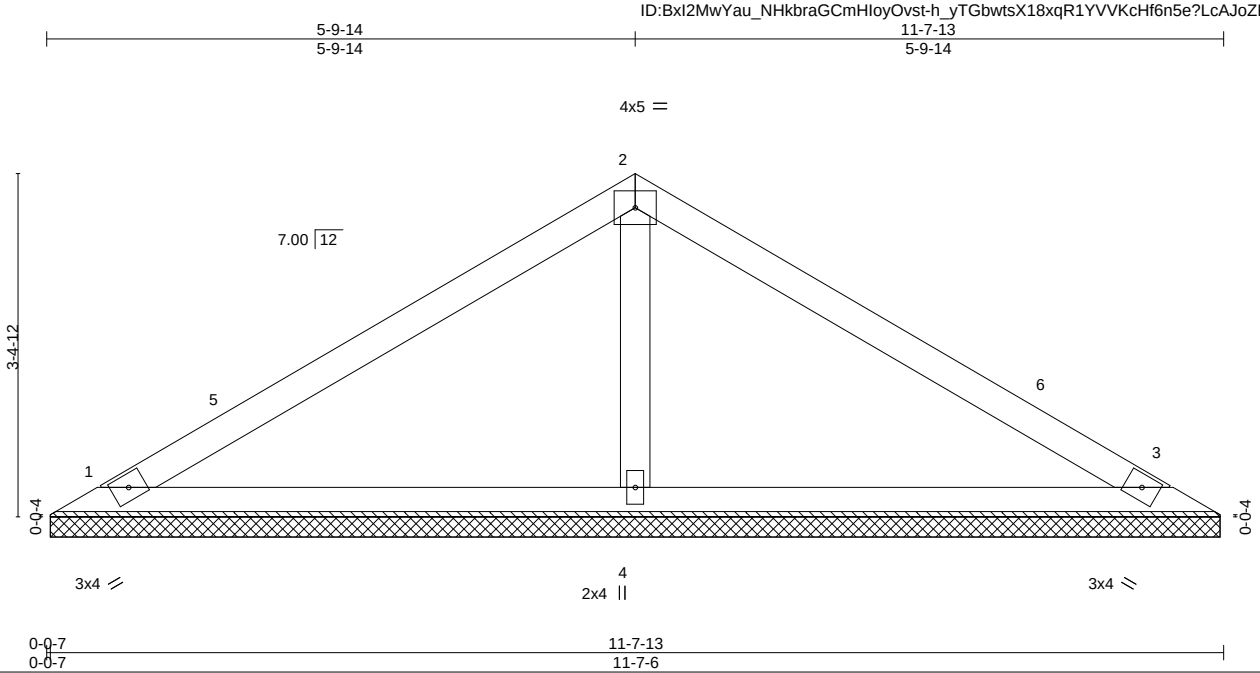


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S							Weight: 40 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) 1=11-6-15, 3=11-6-15, 4=11-6-15
Max Horz 1=-62(LC 14)
Max Uplift 1=-25(LC 16), 3=-25(LC 16)
Max Grav 1=200(LC 2), 3=200(LC 2), 4=445(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-290/106

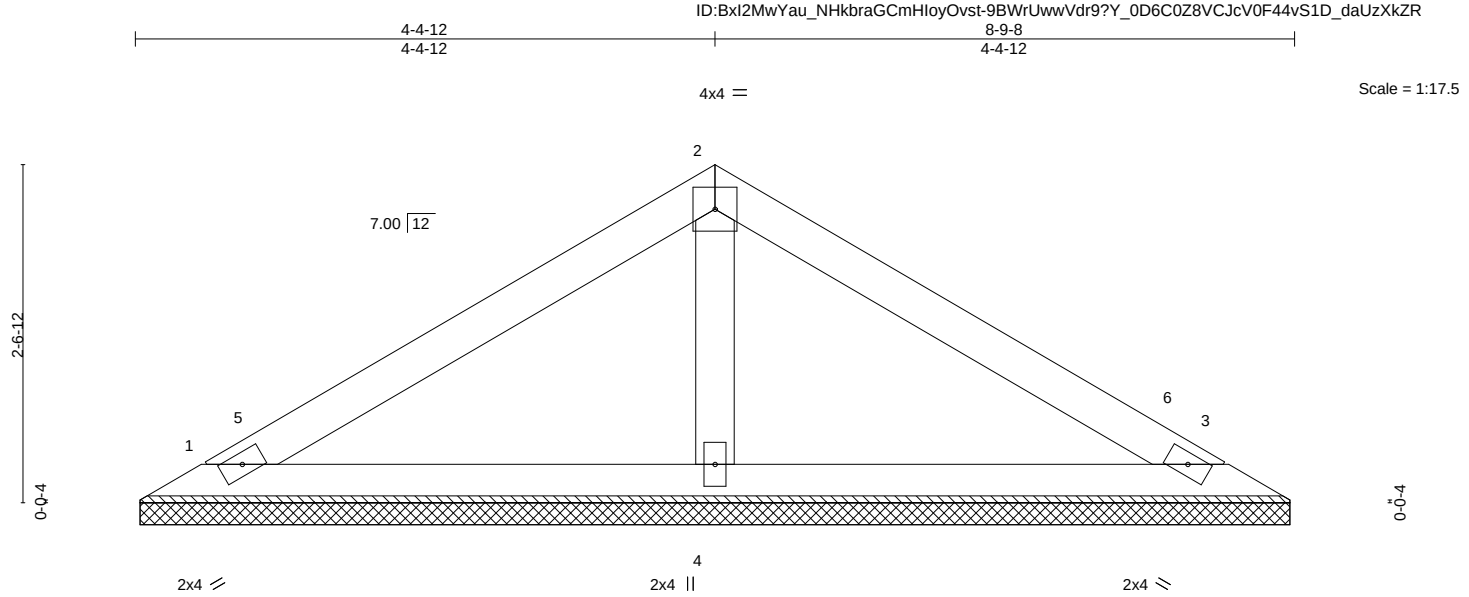
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 5-9-14, Exterior(2R) 5-9-14 to 8-9-14, Interior(1) 8-9-14 to 11-1-5 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.

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	V06	Valley	1	1	I72240660
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:10 2025 Page 1
ID:BxI2MwYau_NHkbraGCmHloyOvst-9BWrUwwVdr9?Y_0D6C0Z8VCJcV0F44vS1D_daUzXkZR



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	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-P							Weight: 29 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) 1=8-8-10, 3=8-8-10, 4=8-8-10
Max Horz 1=45(LC 15)
Max Uplift 1=-26(LC 16), 3=-26(LC 16)
Max Grav 1=161(LC 2), 3=161(LC 2), 4=294(LC 2)

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

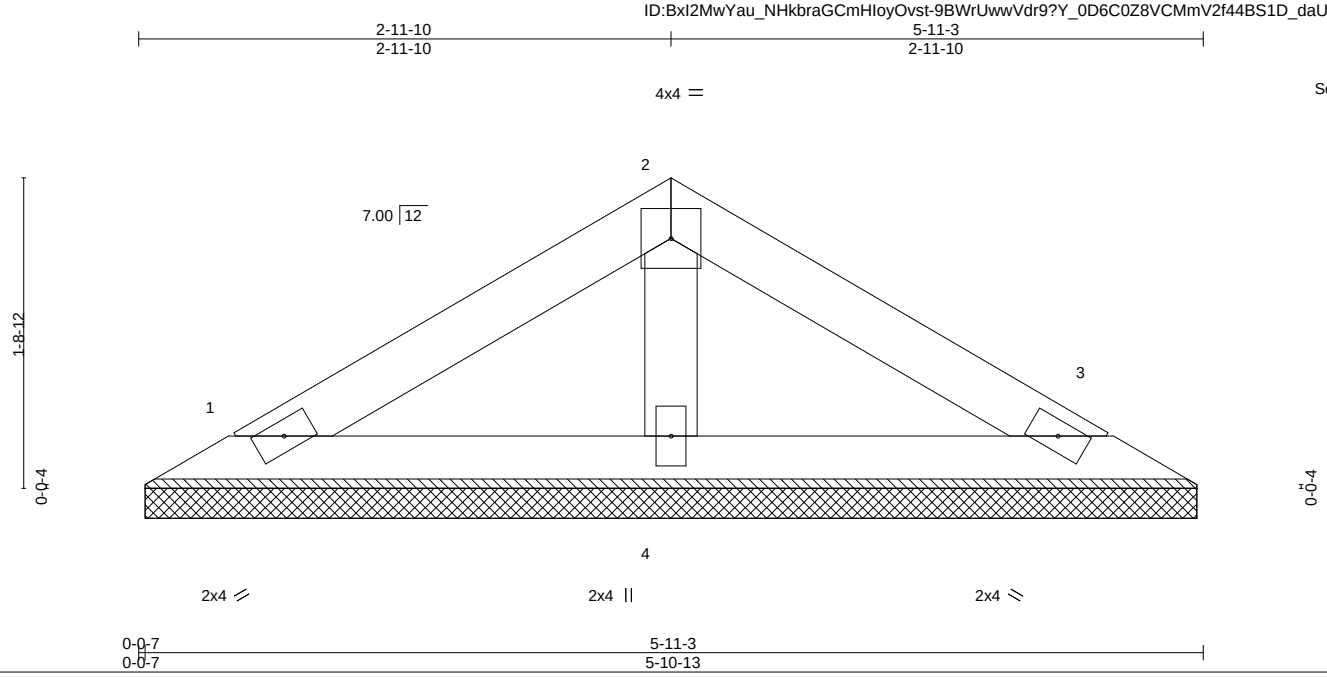
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 4-4-12, Exterior(2R) 4-4-12 to 7-4-12, Interior(1) 7-4-12 to 8-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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.

March 25,2025

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	V07	Valley	1	1	I72240661
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:10 2025 Page 1
ID:BxI2MwYau_NHkbraGCmHIoyOvst-9BWrUwwVdr9?Y_0D6C0Z8VCMmV2f44BS1D_daUzXkZR



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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 19 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 5-11-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-10-6, 3=5-10-6, 4=5-10-6
Max Horz 1=-28(LC 14)
Max Uplift 1=-16(LC 16), 3=-16(LC 16)
Max Grav 1=101(LC 2), 3=101(LC 2), 4=185(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.

March 25,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #8 Roof
25-0541-A	V08	Valley	1	1	I72240662
					Job Reference (optional)

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Mon Mar 24 11:26:11 2025 Page 1
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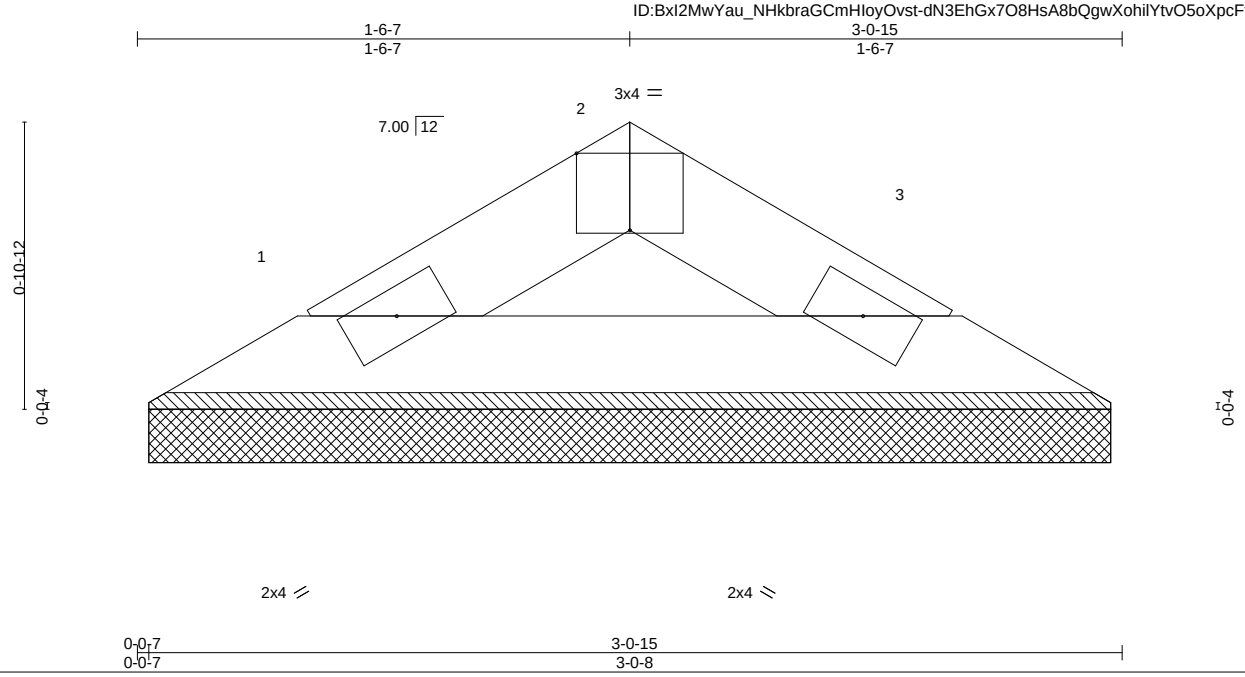

Plate Offsets (X,Y)-- [2:0-2-0,Edge]

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	0.05	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: 8 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 3-0-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-0-1, 3=3-0-1
Max Horz 1=12(LC 15)
Max Uplift 1=-5(LC 16), 3=-5(LC 16)
Max Grav 1=80(LC 2), 3=80(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.

March 25,2025

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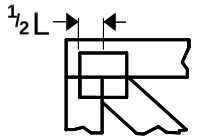
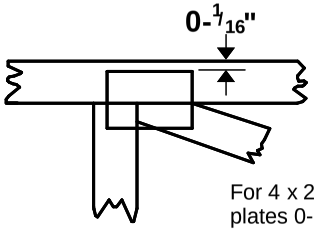
Edenton, NC 27932

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.

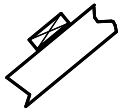
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

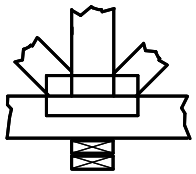
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

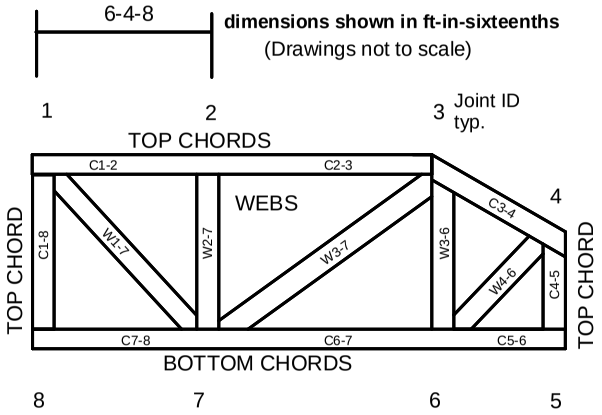


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

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.