

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 25-0575-A
FFF-LOT #7 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: I72043505 thru I72043523

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

North Carolina COA: C-0844



March 17, 2025

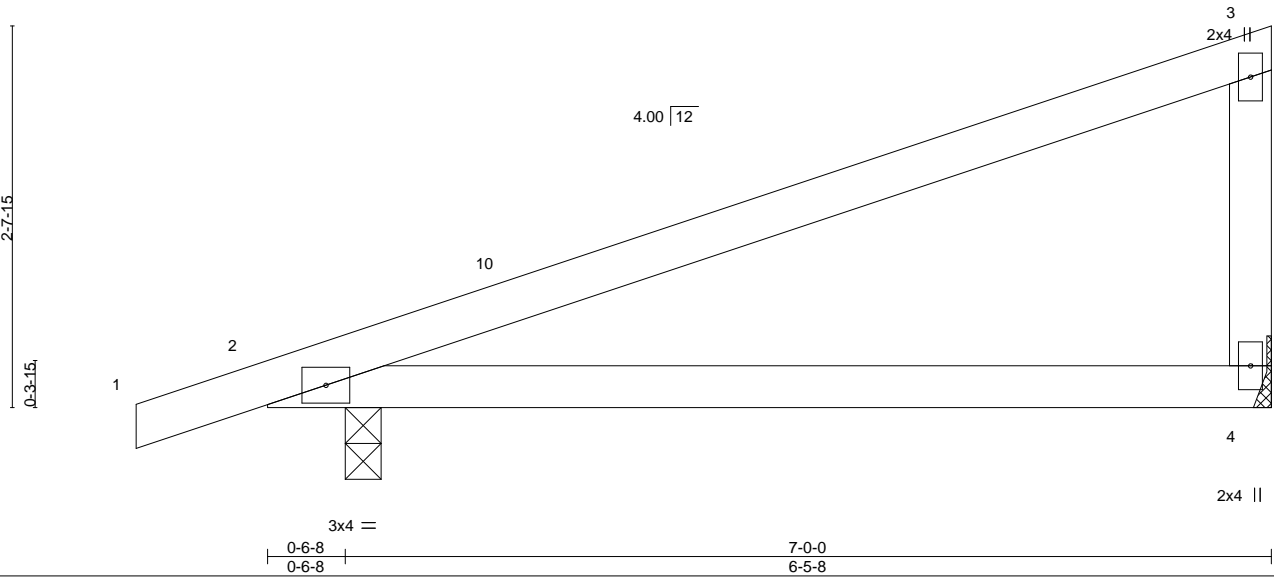
Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	172043505
25-0575-A	M01	MONOPITCH	8	1	Job Reference (optional)	

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

8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:24 2025 Page 1
ID:Bxl2MwYau_NHkbraGCmHloyOvst-Glnk7Brk20AzqyN4ywJ2_gGT5AtVnSAiVl3Xulzb2E5



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.65	Vert(LL) 0.08	4-9	>999	240	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.43	Vert(CT) -0.15	4-9	>535	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT) 0.00	2	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 26 lb	FT = 20%

LUMBER-

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

BRACING-

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

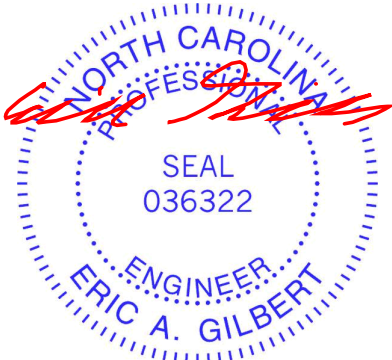
REACTIONS.

(size) 4=Mechanical, 2=0-3-0
Max Horz 2=85(LC 15)
Max Uplift 4=-13(LC 16), 2=-49(LC 16)
Max Grav 4=254(LC 21), 2=361(LC 2)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 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 17,2025

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

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	172043507
25-0575-A	M02	MONOPITCH STRUCTURAL	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC,

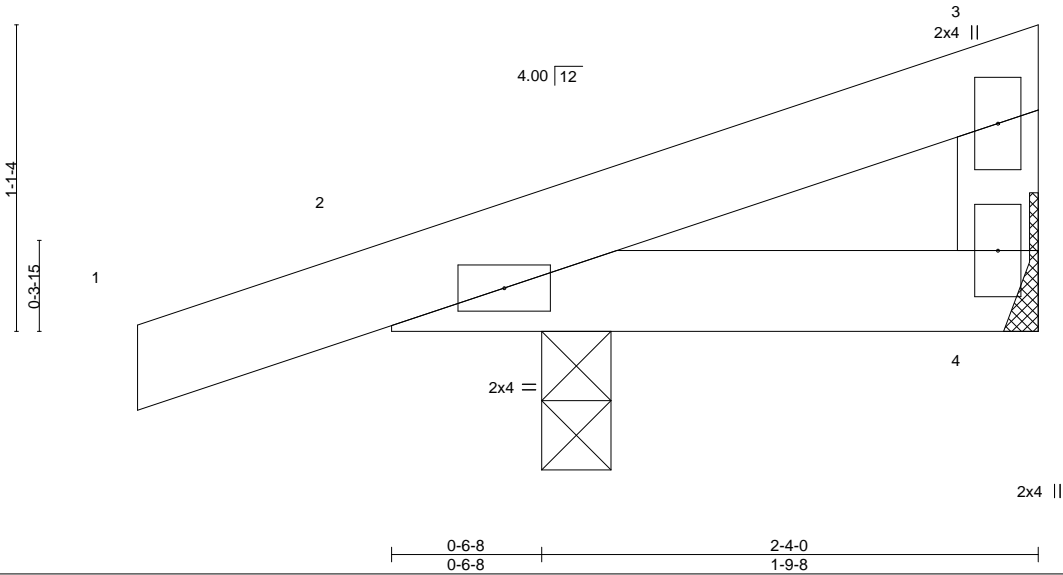
Danville, Va - 24541,

8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:25 2025 Page 1

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Scale = 1:8.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0		2-0-0	TC	0.07	in	(loc)				
Snow (Pf/Pg)	11.6/15.0	Plate Grip DOL	1.15	BC	0.06	Vert(LL)	-0.00	5	>999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	WB	0.00	Vert(CT)	-0.00	5	>999		
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-MP		Horz(CT)	0.00	4	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 9 lb	FT = 20%

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

REACTIONS. (size) 4=Mechanical, 2=0-3-0
 Max Horz 2=31(LC 15)
 Max Uplift 4=-1(LC 13), 2=-53(LC 16)
 Max Grav 4=33(LC 7), 2=205(LC 2)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - 6) Gable studs spaced at 2-0-0 oc.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 9) Refer to girder(s) for truss to truss connections.
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.



March 17,2025

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	172043508
25-0575-A	PB01	Piggyback	21	1	Job Reference (optional)	

Riverside Roof Truss, LLC,

Danville, Va - 24541,

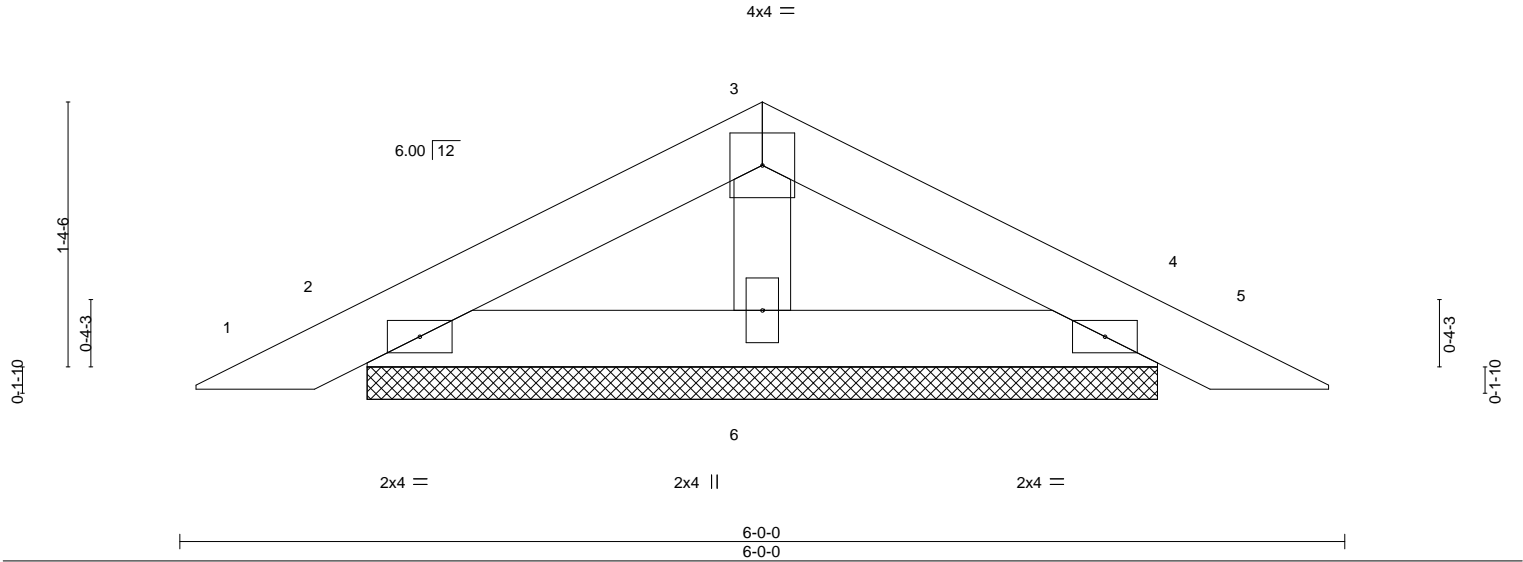
8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:26 2025 Page 1

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6-0-0

3-0-0

Scale = 1:11.9



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

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

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

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCdL=6.0psf; BCdL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 17,2025

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	172043509
25-0575-A	T02	COMMON	2	1	Job Reference (optional)	

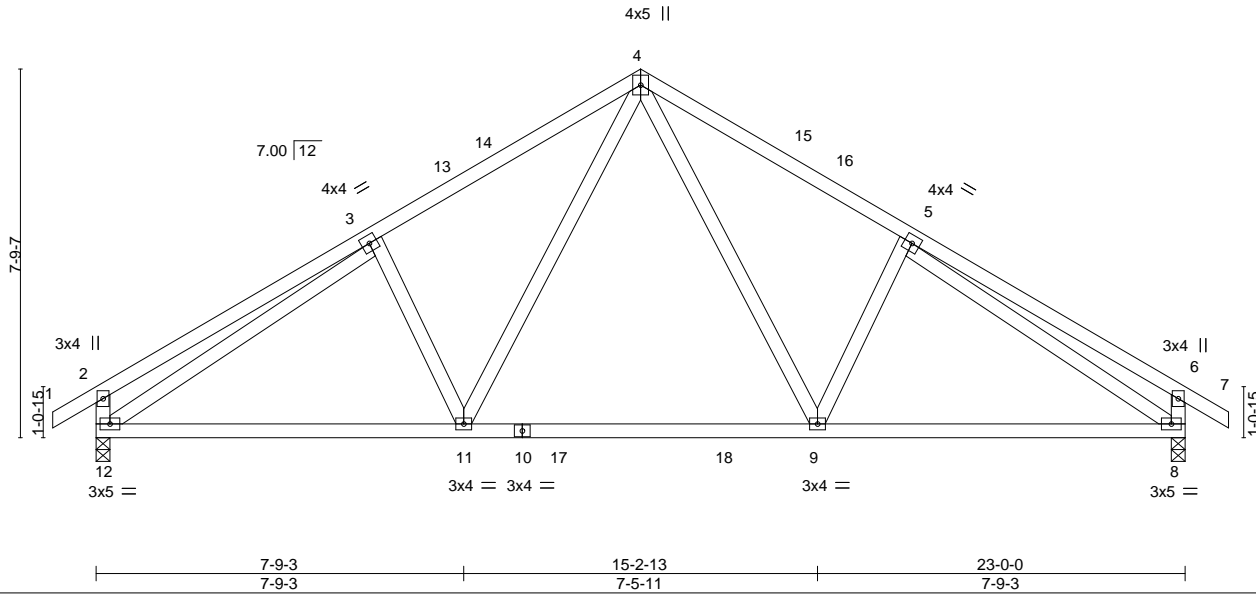
Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:27 2025 Page 1

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-0-11-0 5-10-12 11-6-0 17-1-4 23-0-0 23-11-0
0-11-0 5-10-12 5-7-4 5-7-4 5-10-12 0-11-0

Scale = 1:48.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.44	Vert(LL) -0.11	9-11	>999	240		MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.67	Vert(CT) -0.17	8-9	>999	180			
TCDL 10.0	Lumber DOL 1.15	WB 0.95	Horz(CT) 0.04	8	n/a	n/a			
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS							
BCDL 10.0	Code IRC2018/TPI2014								
								Weight: 136 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-1-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 12=0-3-8, 8=0-3-8
Max Horz 12=-172(LC 14)
Max Uplift 12=-88(LC 16), 8=-88(LC 16)
Max Grav 12=1075(LC 28), 8=1075(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-386/112, 3-4=-1236/180, 4-5=-1236/180, 5-6=-386/112, 2-12=-375/122, 6-8=-375/122
BOT CHORD 11-12=-56/1163, 9-11=0/824, 8-9=-45/1061
WEBS 4-9=-43/552, 4-11=-43/552, 3-12=-1028/47, 5-8=-1028/46

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 11-6-0, Exterior(2R) 11-6-0 to 14-6-0, Interior(1) 14-6-0 to 23-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 17, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 25-0575-A	Truss T02G	Truss Type COMMON GIRDER	Qty 1	Ply 3	FFF-LOT #7 Roof	I72043510
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Riverside Roof Truss, LLC,

Danville, Va - 24541,

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Scale = 1:52.4

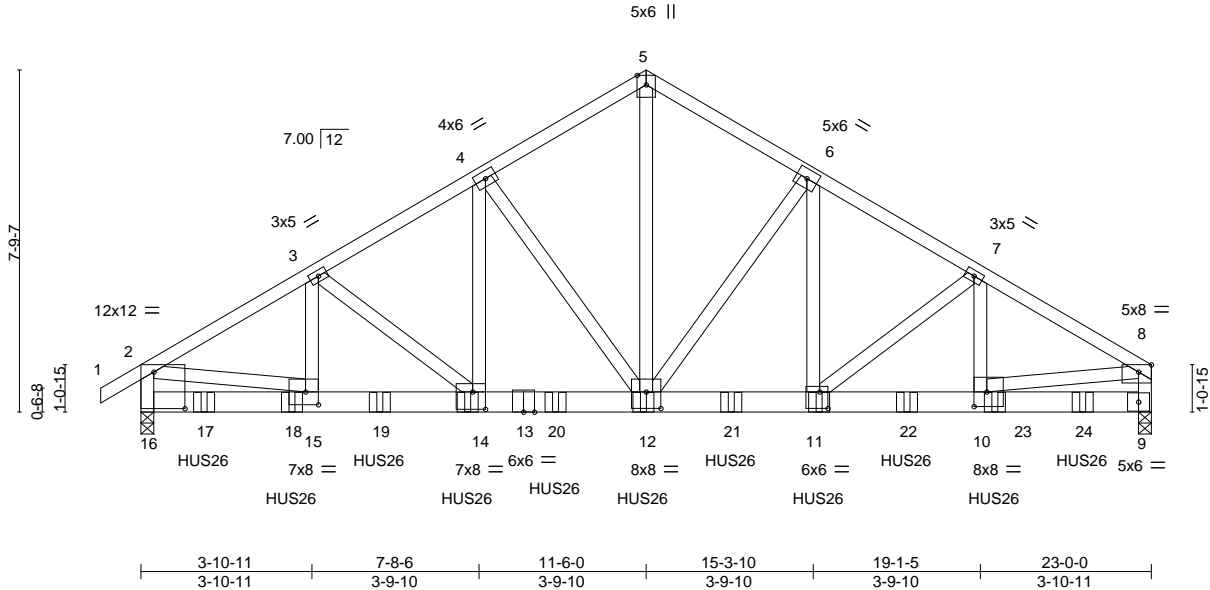


Plate Offsets (X,Y)-- [2:0-8-8,0-10-0], [8:0-3-8,Edge], [10:0-3-8,0-4-0], [11:0-2-4,0-4-8], [12:0-4-0,0-4-8], [14:0-3-8,0-4-12], [15:0-3-8,0-3-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.16 11-12	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.29 11-12	>947	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.98	Horz(CT)	0.05 9	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-MS						Weight: 512 lb	FT = 20%
BCDL	10.0										

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-4-9 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=166(LC 37)
 Max Uplift 16=554(LC 12), 9=371(LC 12)
 Max Grav 16=12532(LC 3), 9=12860(LC 3)

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

TOP CHORD 2-3=-16110/658, 3-4=-15067/569, 4-5=-12131/474, 5-6=-12130/474, 6-7=-15276/518, 7-8=-16649/508, 2-16=-10822/481, 8-9=-11112/347
 BOT CHORD 15-16=-173/1646, 14-15=-508/13819, 12-14=-370/12995, 11-12=-325/13172, 10-11=-381/14303, 9-10=-48/1629
 WEBS 5-12=-406/11943, 6-12=-4589/175, 6-11=-96/5102, 7-11=-1454/71, 7-10=-60/1513, 4-12=-4292/251, 4-14=-182/4749, 3-14=-1064/174, 3-15=-176/1144, 2-15=-430/12425, 8-10=-340/12936

NOTES-

- 1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
 Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-5-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 6) Unbalanced snow loads have been considered for this design.
- 7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Bearing at joint(s) 16, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.



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Continued on page 2

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818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof
25-0575-A	T02G	COMMON GIRDER	1	3	I72043510

- NOTES-**
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=554, 9=371.
 - 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 13) Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-5-4 from the left end to 21-5-4 to connect truss(es) to front face of bottom chord.
 - 14) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-43, 2-5=-43, 5-8=-43, 9-16=-20

Concentrated Loads (lb)

Vert: 12=-1818(F) 11=-1818(F) 14=-1818(F) 17=-1703(F) 18=-1703(F) 19=-1703(F) 20=-1818(F) 21=-1818(F) 22=-1818(F) 23=-1818(F) 24=-1818(F)

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	I72043511
25-0575-A	T02GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

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

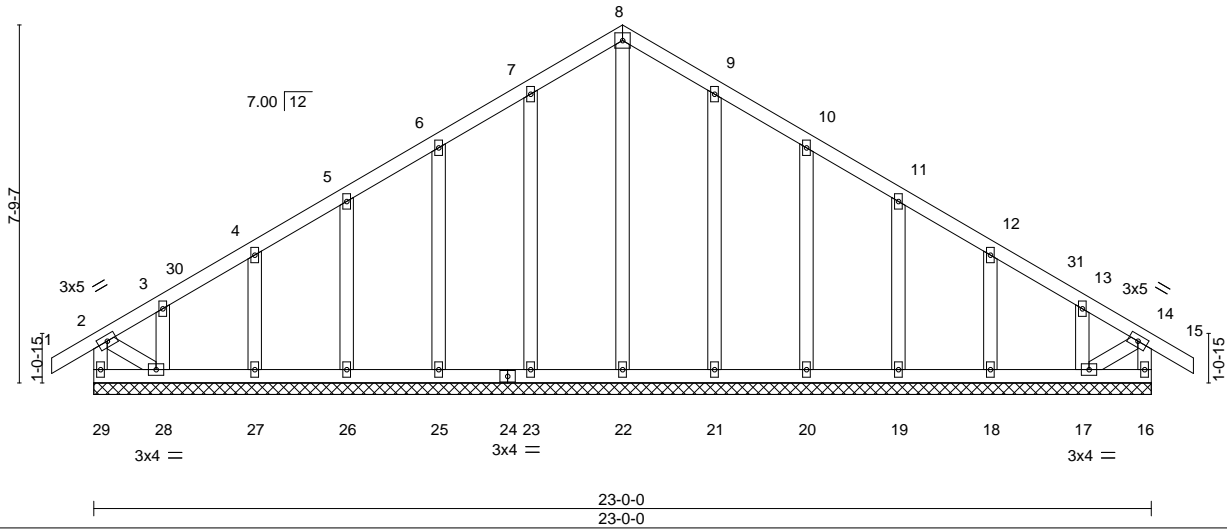
8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:29 2025 Page 1

ID:BxI2MwYau_NHkbraGCmHloyOvst-dGbdAvvtYpFwjF1ITvDhkzTqBgVsgNR2amlZWzb2E0

-0-11-0 11-6-0 23-0-0 23-11-0
0-11-0 11-6-0 11-6-0 0-11-0

4x4 =

Scale = 1:50.1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00 15 n/r 120	MT20		244/190	
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00 15 n/r 120				
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00 16 n/a n/a				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							
BCDL	10.0										
								Weight: 149 lb		FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 28-29,16-17.

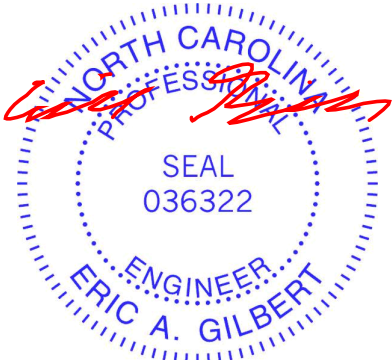
REACTIONS.

All bearings 23-0-0.
(lb) - Max Horz 29=172(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 29, 23, 25, 26, 27, 28, 21, 20, 19, 18, 17
Max Grav All reactions 250 lb or less at joint(s) 29, 16, 22, 23, 25, 26, 27, 28, 21, 20, 19, 18, 17

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 11-6-0, Corner(3R) 11-6-0 to 14-6-0, Exterior(2N) 14-6-0 to 23-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 23, 25, 26, 27, 28, 21, 20, 19, 18, 17.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 17,2025

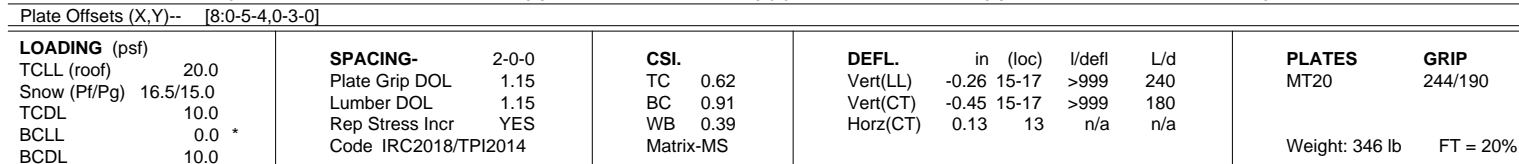
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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



818 Soundside Road
Edenton, NC 27932


Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:30 2025 Page 1
 ID:Bxl2MwYau_NHkbraGCmHloyOvst-5S9?OfwVesx6YtqEJBQSDxWW1boPB3abHEWvr5yb2E?
 -0-11-0 6-9-0 13-2-8 19-8-0 25-8-0 32-1-8 38-7-0 45-4-0 46-3-0
 0-11-0 6-9-0 6-5-8 6-5-8 6-0-0 6-5-8 6-5-8 6-9-0 0-11-0
 Scale = 1:78.7

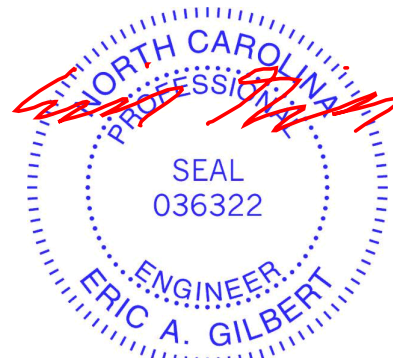


REACTIONS. (size) 2=0-3-8, 13=0-3-8
 Max Horz 2=202(LC 15)
 Max Uplift 2=-139(LC 16), 13=-139(LC 16)
 Max Grav 2=2131(LC 28), 13=2133(LC 29)

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

TOP CHORD	2-4=-3501/314, 4-6=-3339/316, 6-7=-2592/341, 7-8=-2263/341, 8-9=-2595/341, 9-11=-3345/316, 11-13=-3507/314
BOT CHORD	2-20=-188/3176, 18-20=-128/2870, 17-18=-28/2295, 15-17=-136/2726, 13-15=-196/3029
WEBS	6-20=0/511, 6-18=-826/160, 7-18=-31/883, 8-17=-29/942, 9-17=-830/159, 9-15=0/514

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCFLD=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 3-7-6, Interior(1) 3-7-6 to 19-8-0, Exterior(2E) 19-8-0 to 25-8-0, Exterior(2R) 25-8-0 to 32-1-8, Interior(1) 32-1-8 to 46-3-0 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) TCELL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - 6) Provide adequate drainage to prevent water ponding.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=139, 13=139.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 



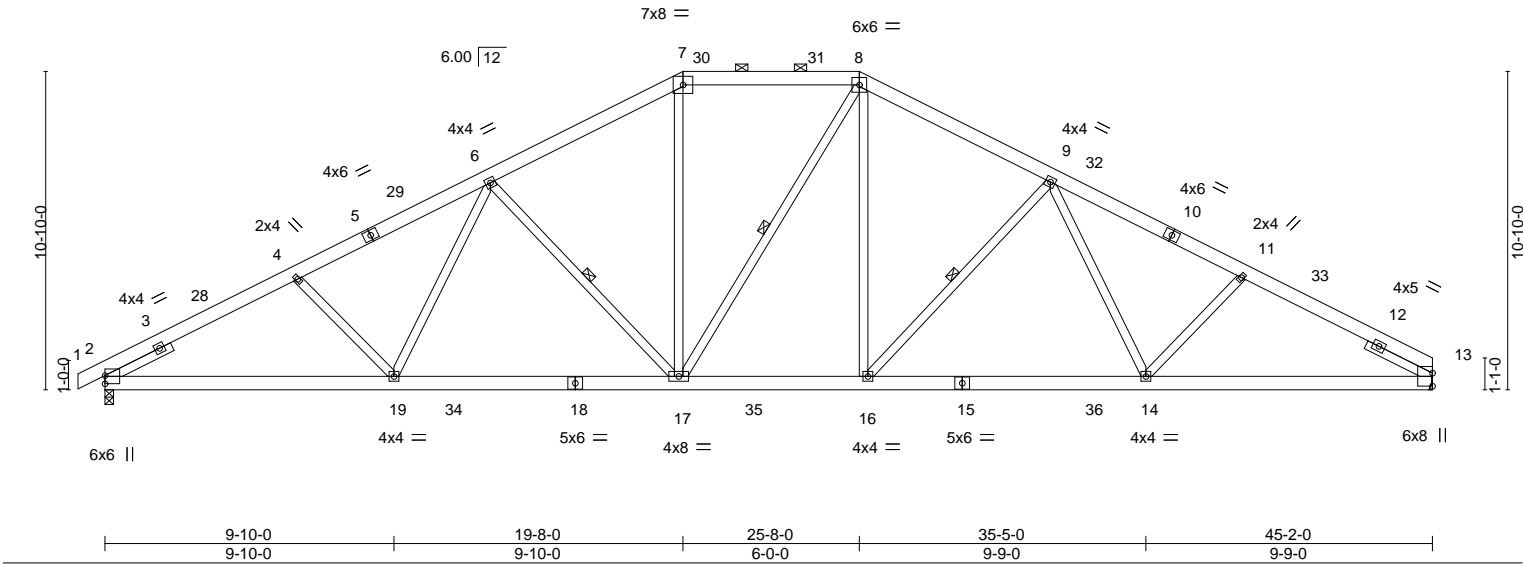
March 17, 2025

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	I72043513
25-0575-A	T03A	Piggyback Base	3	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:32 2025 Page 1
ID:Bxl2MwYau_NHkbraGcmHloyOvst-1rGmpwxiATBqnA_cQcSwJMbqyPTwf_MtlY?y9rbz2Dz

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

Scale = 1:78.4



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.72	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.97	Vert(LL) -0.26 14-16 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.37	Vert(CT) -0.44 14-16 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.14 13 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 342 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-8-1 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (4-8-14 max.): 7-8.
WEBS 2x4 SP No.3	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
SLIDER Left 2x4 SP No.3 2-6-0, Right 2x4 SP No.3 2-6-0	2-2-0 oc bracing: 13-14.
	WEBS 1 Row at midpt 6-17, 8-17, 9-16

REACTIONS.	(size) 2=0-3-8, 13=Mechanical
	Max Horz 2=199(LC 15)
	Max Uplift 2=138(LC 16), 13=109(LC 16)
	Max Grav 2=2129(LC 28), 13=2082(LC 29)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-3498/314, 4-6=-3340/316, 6-7=-2614/344, 7-8=-2257/344, 8-9=-2613/342,
	9-11=-3292/319, 11-13=-3438/318
BOT CHORD	2-19=-218/3168, 17-19=-158/2869, 16-17=-41/2278, 14-16=-148/2708, 13-14=-207/2957
WEBS	6-19=0/495, 6-17=-816/162, 7-17=-31/886, 8-16=-29/947, 9-16=-797/159, 9-14=0/450

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 3-7-3, Interior(1) 3-7-3 to 19-8-0, Exterior(2E) 19-8-0 to 25-8-0, Exterior(2R) 25-8-0 to 32-2-0, Interior(1) 32-2-0 to 45-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - 6) Provide adequate drainage to prevent water ponding.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 9) Refer to girder(s) for truss to truss connections.
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=138, 13=109.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 17, 2025

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	172043514
25-0575-A	T03AGE	PIGGYBACK BASE SUPPO	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:33 2025 Page 1
ID:BxI2MwYau_NHkbraGCMhloyOvst-V1q80GyNxnJhPKZo_Jz9ra89Dp2hOU21zCkWhHzb2Dy
-0-11-0 19-8-0 25-8-0 45-0-8
0-11-0 19-8-0 6-0-0 19-4-8
Scale = 1:78.1

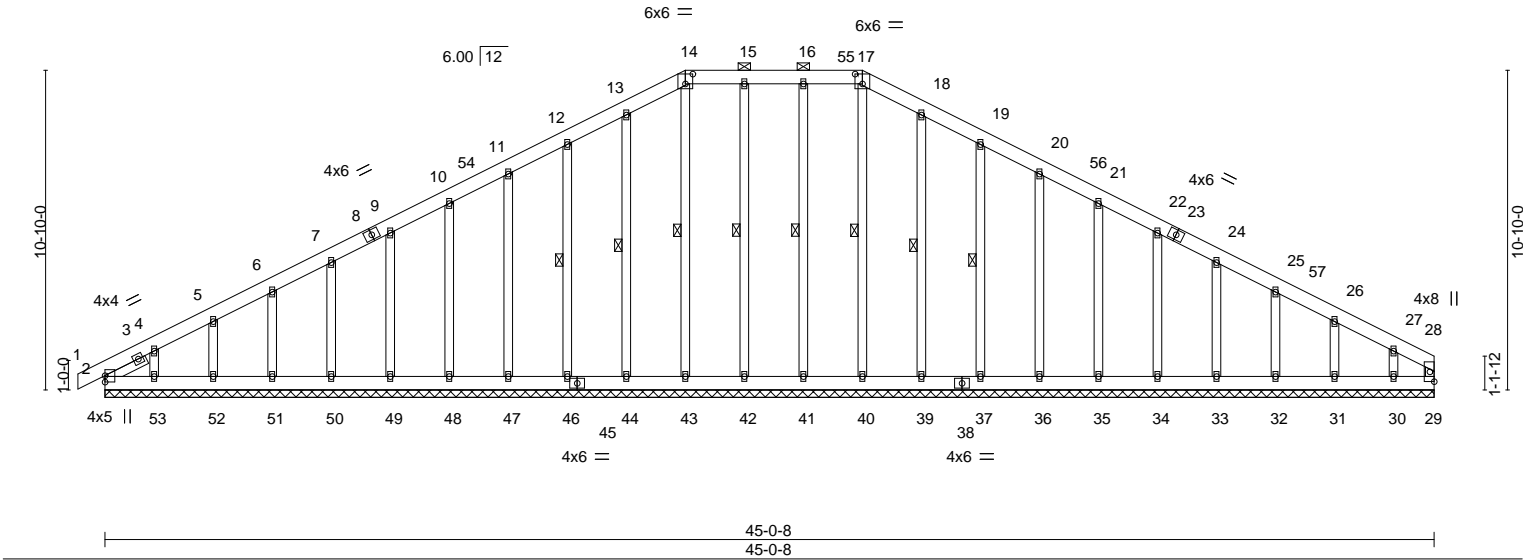


Plate Offsets (X,Y)-- [14:0-3-0,0-4-0], [17:0-3-0,0-4-0]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.00	1	n/r	120	MT20 244/190
Snow (Pf/Pg)	16.5/15.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	1	n/r	120	
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	29	n/a	n/a	
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S						Weight: 419 lb FT = 20%	
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 14-17.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 17-40, 16-41, 15-42, 14-43, 13-44, 12-46, 18-39, 19-37
OTHERS	2x4 SP No.3		
SLIDER	Left 2x4 SP No.3 1-6-5		

REACTIONS.	
All bearings 45-0-8.	
(lb) - Max Horz	2=213(LC 15)
Max Uplift	All uplift 100 lb or less at joint(s) 29, 2, 41, 42, 44, 46, 47, 48, 49, 50, 51, 52, 53, 39, 37, 36, 35, 34, 33, 32, 31, 30
Max Grav	All reactions 250 lb or less at joint(s) 29, 2, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 39, 37, 36, 35, 34, 33, 32, 31, 30

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 3-8-0, Exterior(2N) 3-8-0 to 19-8-0, Corner(3R) 19-8-0 to 24-2-1, Exterior(2N) 24-2-1 to 25-8-0, Corner(3R) 25-8-0 to 30-2-1, Exterior(2N) 30-2-1 to 44-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - 5) Unbalanced snow loads have been considered for this design.
 - 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - 7) Provide adequate drainage to prevent water ponding.
 - 8) All plates are 2x4 MT20 unless otherwise indicated.
 - 9) Gable requires continuous bottom chord bearing.
 - 10) Gable studs spaced at 2-0-0 oc.
 - 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 2, 41, 42, 44, 46, 47, 48, 49, 50, 51, 52, 53, 39, 37, 36, 35, 34, 33, 32, 31, 30.



March 17,2025

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof
25-0575-A	T03AGE	PIGGYBACK BASE SUPPO	1	1	I72043514
Job Reference (optional)					

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

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

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



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	172043515
25-0575-A	T03GE	PIGGYBACK BASE SUPPO	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:36 2025 Page 1

ID:Bxl2MwYau_NHkbraGcmHloyOvst-wcWGeL_GDihGGoHNfRXsTCmgU03hbroTfAzAlczb2Dv

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0-11-0

19-8-0

19-8-0

25-8-0

6-0-0

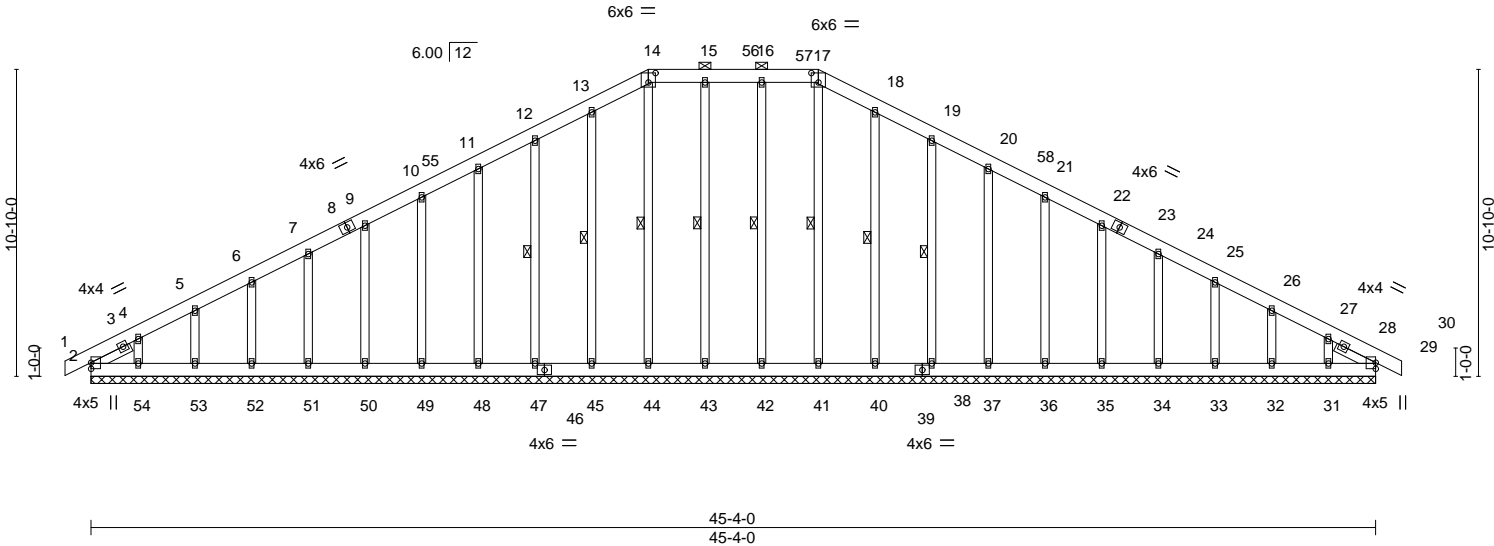
45-4-0

19-8-0

46-3-0

0-11-0

Scale = 1:81.3



LOADING (psf)		SPACING-		CSI.	DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0			in	(loc)	l/defl	L/d		
Snow (Pf/Pg)	16.5/15.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	29	n/r	120
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	29	n/r	120
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	29	n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S						
Weight: 424 lb										FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD	2x6 SP No.2		2-0-0 oc purlins (6-0-0 max.): 14-17.
OTHERS	2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER	Left 2x4 SP No.3 1-6-5, Right 2x4 SP No.3 1-6-5	WEBS	1 Row at midpt 17-41, 16-42, 15-43, 14-44, 13-45, 12-47, 18-40, 19-38

REACTIONS. All bearings 45-4-0.
(lb) - Max Horz 2=202(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 2, 42, 45, 47, 48, 49, 50, 51, 52, 53, 54, 40, 38, 37, 36, 35, 34, 33, 32, 31
Max Grav All reactions 250 lb or less at joint(s) 2, 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 40, 38, 37, 36, 35, 34, 33, 32, 31, 29

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-109/266, 13-14=-125/305, 14-15=-117/293, 15-16=-117/293, 16-17=-117/293, 17-18=-125/305, 18-19=-109/266

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 3-8-0, Exterior(2N) 3-8-0 to 19-8-0, Corner(3R) 19-8-0 to 24-2-6, Exterior(2N) 24-2-6 to 25-8-0, Corner(3R) 25-8-0 to 30-2-6, Exterior(2N) 30-2-6 to 46-3-0 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
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 42, 45, 47, 48, 49, 50, 51, 52, 53, 54, 40, 38, 37, 36, 35, 34, 33, 32, 31.



March 17,2025

Continued on page 2

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

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

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	I72043515
25-0575-A	T03GE	PIGGYBACK BASE SUPPO	1	1	Job Reference (optional)	

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

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

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	172043516
25-0575-A	T04	PIGGYBACK BASE	1	1	Job Reference (optional)	

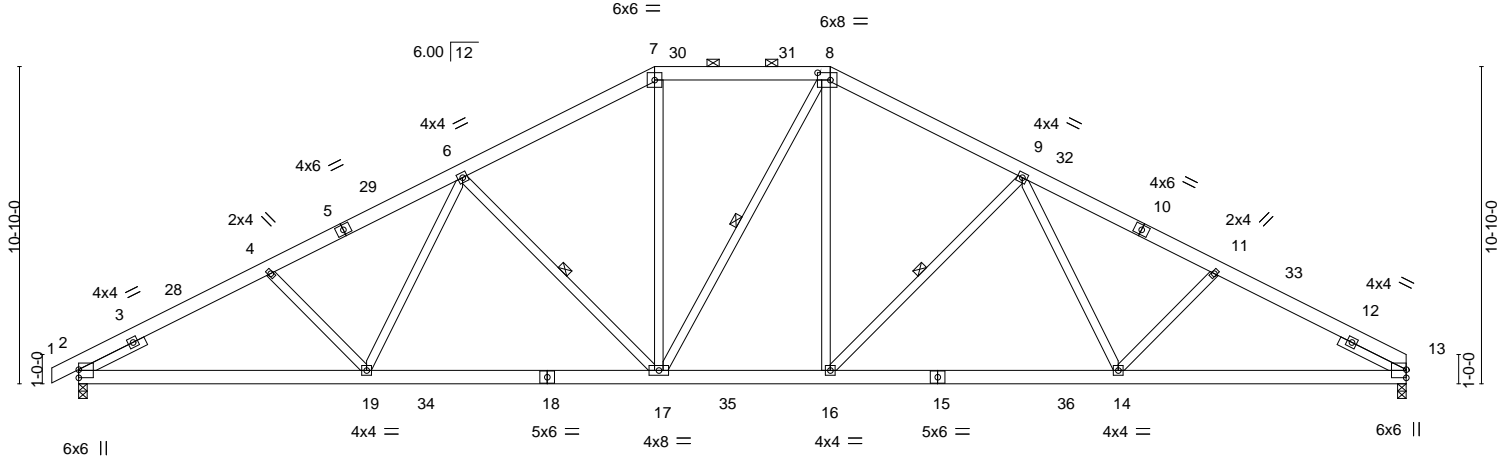
Riverside Roof Truss, LLC, Danville, Va - 24541,

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ID:BxI2MwYau_NHkbraGCmHloyOvst-Oo4ese?u_0p7uxsaD9250QJilQBCKEFcuqjjq2zb2Du

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

Scale = 1:78.7



	9-10-0	19-8-0	25-8-0	35-6-0	45-4-0
Plate Offsets (X,Y)--	9-10-0	9-10-0	6-0-0	9-10-0	9-10-0
	[8:0-5-4,0-3-0]				

LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.62	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.90	Vert(LL) -0.26 14-16 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.39	Vert(CT) -0.46 14-16 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.13 13 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 343 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-0-3 oc purlins, except 2-0-0 oc purlins (4-8-12 max.): 7-8.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-17, 8-17, 9-16
SLIDER Left 2x4 SP No.3 2-6-0, Right 2x4 SP No.3 2-6-0	

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=200(LC 15)
Max Uplift 2=139(LC 16), 13=110(LC 16)
Max Grav 2=2133(LC 28), 13=2086(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3509/314, 4-6=-3351/316, 6-7=-2597/343, 7-8=-2267/343, 8-9=-2600/342, 9-11=-3361/322, 11-13=-3520/324
BOT CHORD 2-19=-216/3177, 17-19=-157/2876, 16-17=-39/2293, 14-16=-150/2737, 13-14=-211/3042
WEBS 6-19=0/503, 6-17=-827/162, 7-17=-31/882, 8-16=-28/941, 9-16=-833/162, 9-14=0/509

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 3-7-6, Interior(1) 3-7-6 to 19-8-0, Exterior(2E) 19-8-0 to 25-8-0, Exterior(2R) 25-8-0 to 32-2-11, Interior(1) 32-2-11 to 45-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=139, 13=110.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 17, 2025

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818 Soundside Road
Edenton, NC 27932

8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:38 2025 Page 1

Job Reference (optional)

Scale = 1:79.7



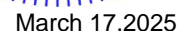
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-4=-3854/211, 4-6=-3695/213, 6-7=-3067/215, 7-8=-2659/230, 8-9=-3661/274,
9-11=-3594/164, 11-13=-3820/180

BOT CHORD 2-23=-129/3486, 21-23=-54/3229, 17-21=0/2597, 16-17=0/2597, 14-16=-80/3312,
13-14=-80/3312

WEBS 6-23=0/392, 6-21=-749/177, 7-21=0/1086, 8-20=-124/317, 8-18=-58/1487,
16-18=-89/1413, 9-16=-556/185, 11-16=-296/141, 17-19=-305/0

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=45ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 3-7-3, Interior(1) 3-7-3 to 19-8-0, Exterior(2E) 19-8-0 to 25-8-0, Exterior(2R) 25-8-0 to 32-0-10, Interior(1) 32-0-10 to 45-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 13.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

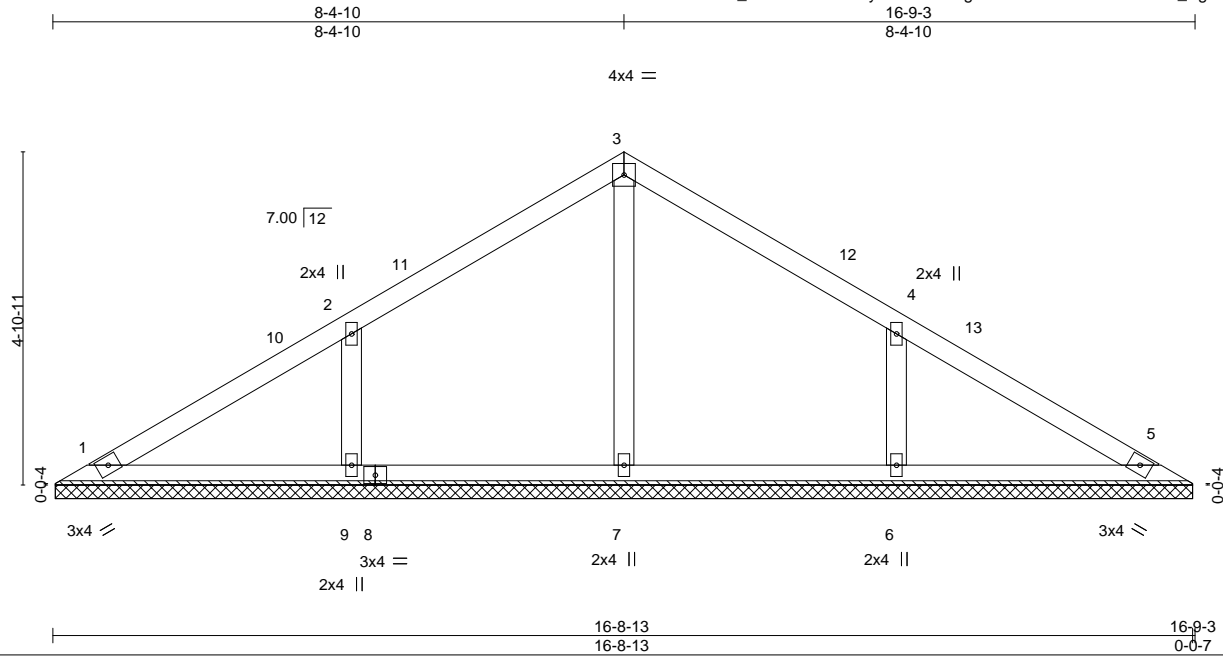
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	172043519
25-0575-A	V02	Valley	1	1	Job Reference (optional)	

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

8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:40 2025 Page 1

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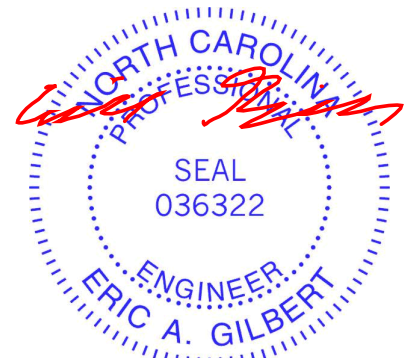
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	MT20	244/190		
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							
BCDL	10.0										

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

REACTIONS. All bearings 16-8-6.
 (lb) - Max Horz 1=91(LC 14)
 Max Uplift All uplift 100 lb or less at joint(s) 9, 6
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=251(LC 2), 9=373(LC 33), 6=373(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-279/134, 4-6=-279/134

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 8-4-10, Exterior(2R) 8-4-10 to 11-4-10, Interior(1) 11-4-10 to 16-2-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 17, 2025

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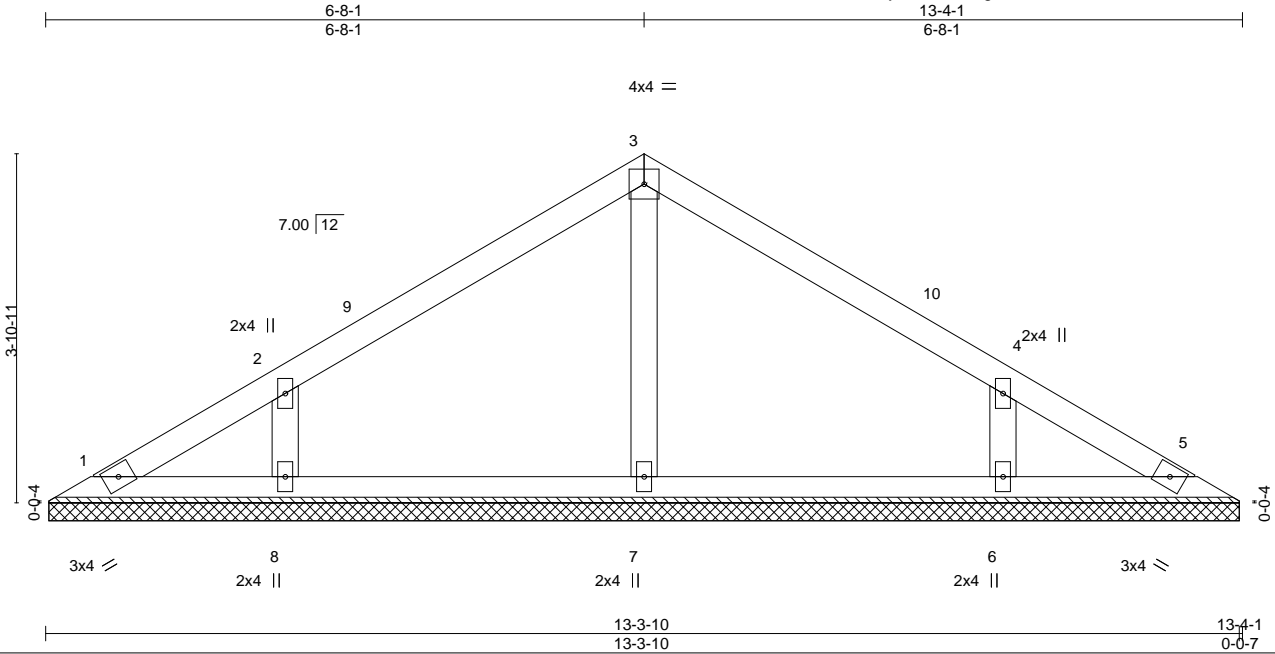
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	172043520
25-0575-A	V03	Valley	1	1	Job Reference (optional)	

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

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ID:BxI2MwYau_NHkbraGCmHloyOvst-oNlnUg1mHxBhIPb9uHbod2xJ8dP5XhF3aoxNRNzb2Dr



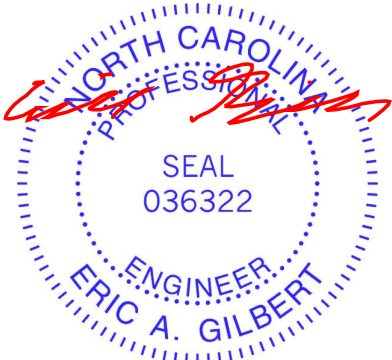
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.20	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	11.6/15.0	Plate Grip DOL	1.15	BC	0.12	n/a	-	n/a			
TCDL	10.0	Lumber DOL	1.15	WB	0.06	n/a	-	n/a			
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-S		0.00	5	n/a			
BCDL	10.0	Code IRC2018/TPI2014									
										Weight: 49 lb	FT = 20%

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

REACTIONS. All bearings 13-3-3.
(lb) - Max Horz 1=71(LC 15)
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=276(LC 2), 8=307(LC 20), 6=307(LC 21)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 6-8-1, Exterior(2R) 6-8-1 to 9-8-1, Interior(1) 9-8-1 to 12-9-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

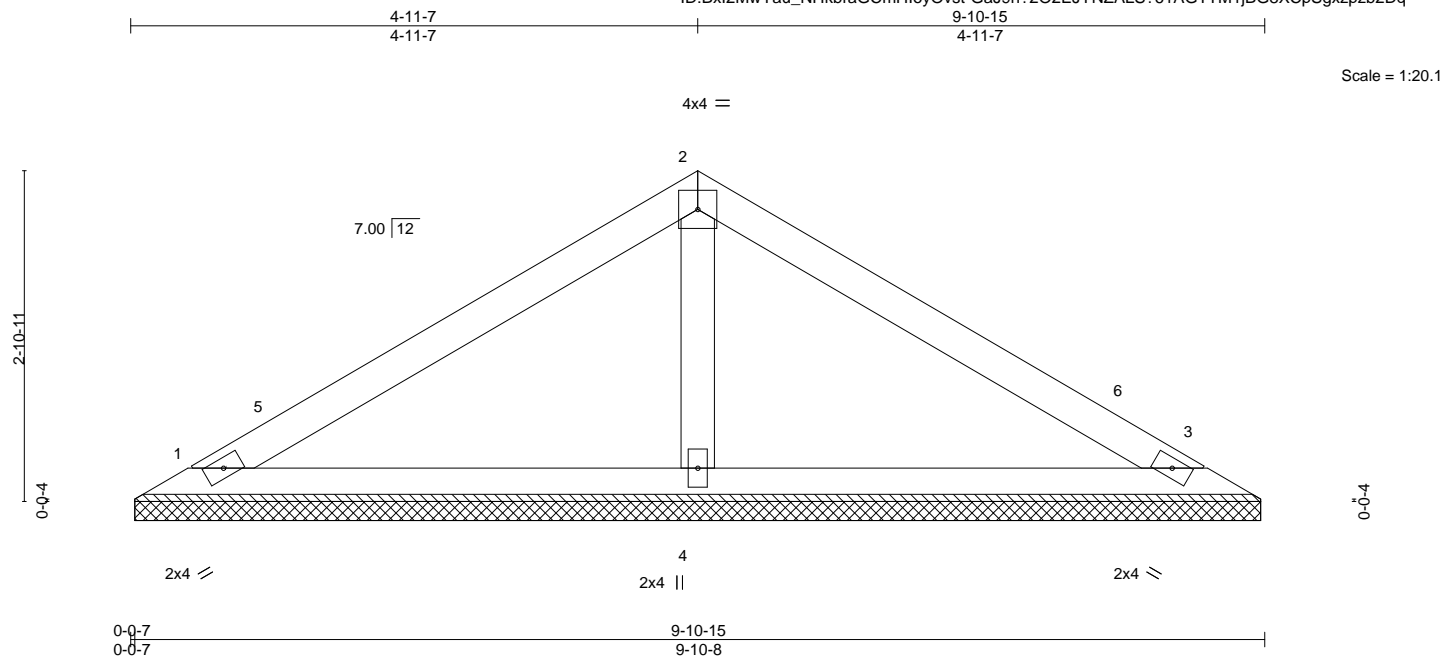


March 17,2025

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

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

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



LOADING (psf)		SPACING- 2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	TC 0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	BC 0.19	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	WB 0.05	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014	Matrix-S						Weight: 33 lb	FT = 20%
BCDL	10.0									

NOTES-
1) Unbalanced
2) Wind: A
II; Exp f
7-11-7,
forces &
3) TCLL: A
DOL=1.
4) Unbalanced

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

BRACING-

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

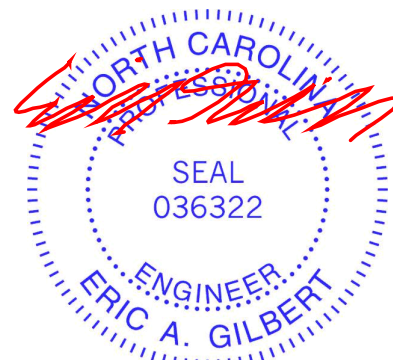
REACTIONS.

(size) 1=9-10-1, 3=9-10-1, 4=9-10-1
 max Horz 1=51(LC 15)
 max Uplift 1=21(LC 16), 3=21(LC 16)
 max Grav 1=167(LC 2), 3=167(LC 2), 4=372(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 4-11-7, Exterior(2R) 4-11-7 to 7-11-7, Interior(1) 7-11-7 to 9-4-7 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) 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 17, 2025

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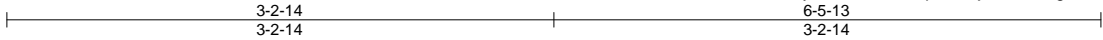
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FFF-LOT #7 Roof	172043522
25-0575-A	V05	Valley	1	1	Job Reference (optional)	

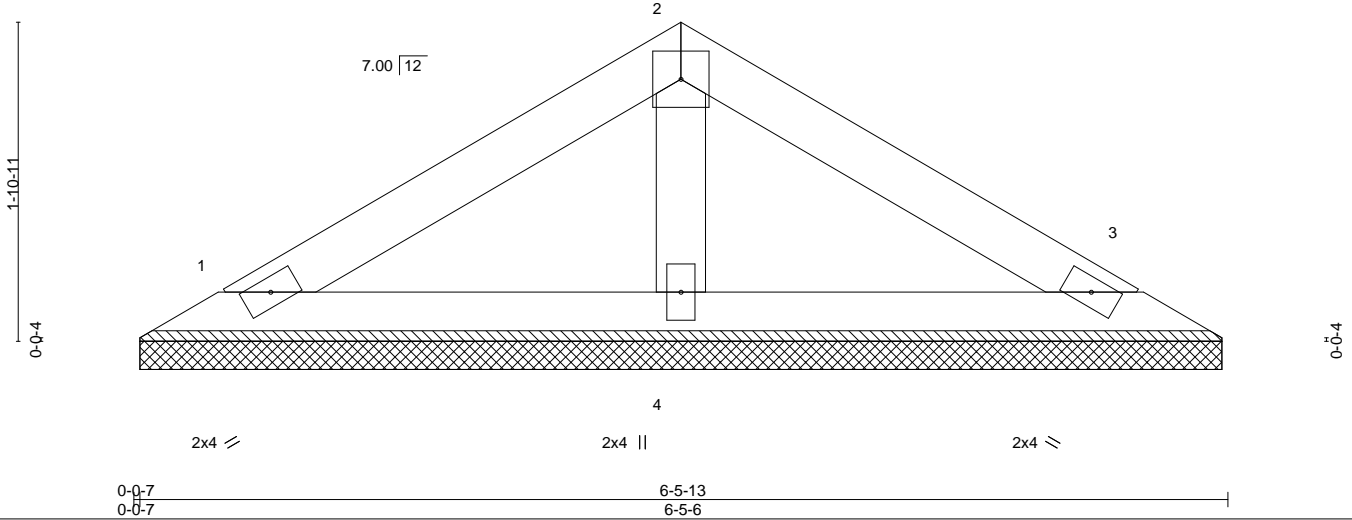
Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:42 2025 Page 1

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Scale = 1:13.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.07	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 21 lb	FT = 20%

LUMBER-

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

BRACING-

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

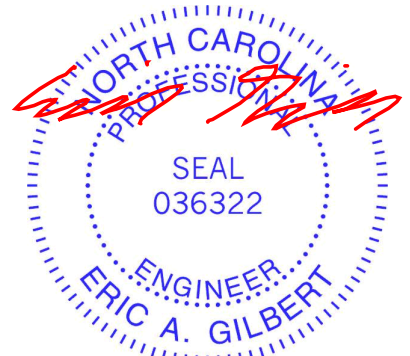
REACTIONS.

(size) 1=6-4-15, 3=6-4-15, 4=6-4-15
Max Horz 1=31(LC 15)
Max Uplift 1=-18(LC 16), 3=-18(LC 16)
Max Grav 1=113(LC 20), 3=113(LC 21), 4=206(LC 2)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 17, 2025

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TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 25-0575-A	Truss V06	Truss Type Valley	Qty 1	Ply 1	FFF-LOT #7 Roof Job Reference (optional)	I72043523
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Riverside Roof Truss, LLC,

Danville, Va - 24541,

8.730 s Feb 19 2025 MiTek Industries, Inc. Fri Mar 14 10:36:42 2025 Page 1

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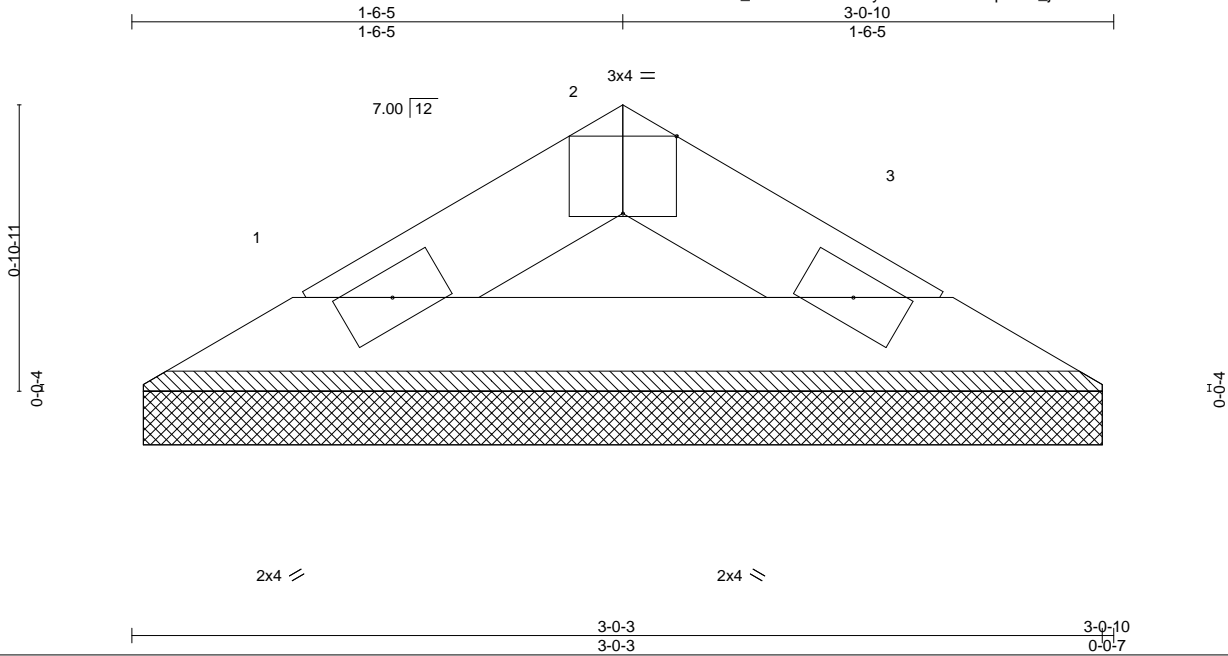


Plate Offsets (X,Y)-- [2:0-2-0,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P							Weight: 8 lb	FT = 20%
BCDL	10.0											

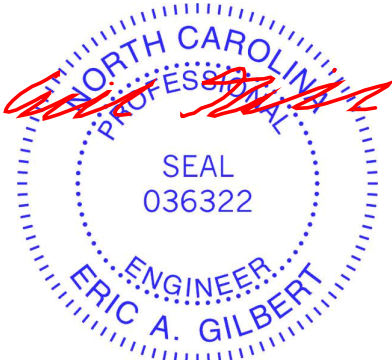
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

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

REACTIONS. (size) 1=2-11-13, 3=2-11-13
Max Horz 1=11(LC 15)
Max Uplift 1=-5(LC 16), 3=-5(LC 16)
Max Grav 1=79(LC 2), 3=79(LC 2)

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

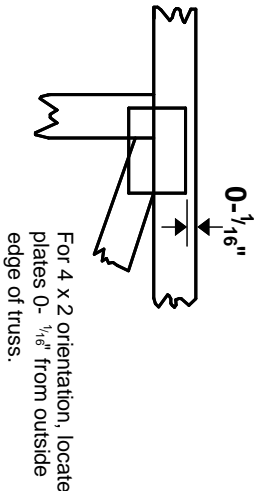
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
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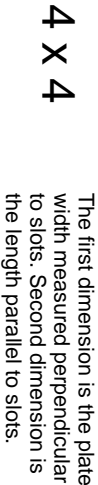
Symbols

PLATE LOCATION AND ORIENTATION

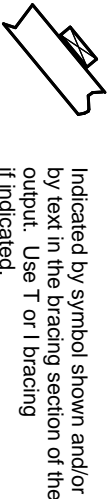


* Plate location details available in MITek software or upon request.

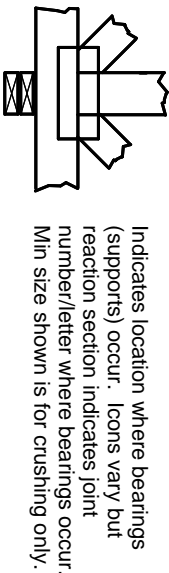
PLATE SIZE



LATERAL BRACING LOCATION

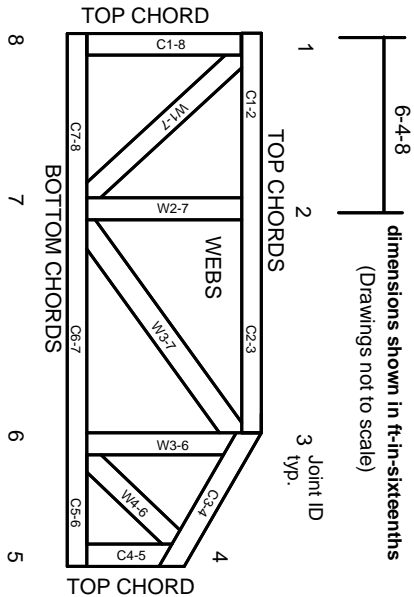


BEARING



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

Numbering System



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

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

Product Code Approvals

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

Design General Notes

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

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

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