

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 28141  
Jonah Blakenship\Mrtyle Beach

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

Pages or sheets covered by this seal: I67205812 thru I67205877

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

North Carolina COA: C-0844



July 30, 2024

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Johnson, Andrew

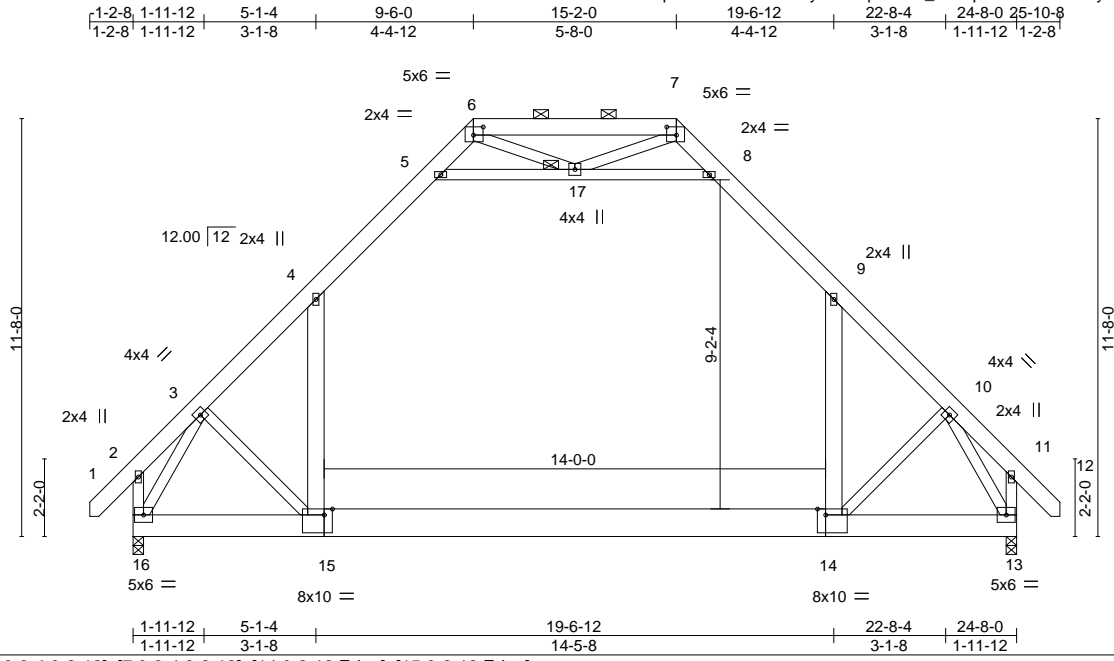
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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 28141	Truss AT1	Truss Type PIGGYBACK ATTIC	Qty 8	Ply 1	Jonah Blakenship\Mrlyte Beach Job Reference (optional)	167205812
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:34 2024 Page 1

ID:43FmfUEpnBwwW36Q?RCfByzursR-p2hvkla\_Sn6JpeecMKZC0ewyTtuKLiggTuA55ysus?



Scale: 3/16"=1'

Plate Offsets (X,Y)--	[6:0-3-4,0-2-12], [7:0-3-4,0-2-12], [14:0-2-12,Edge], [15:0-2-12,Edge]
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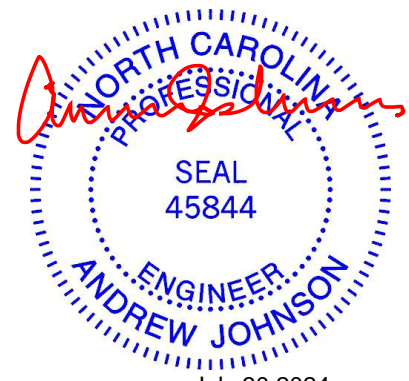
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.33	14-15	>887	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.44	14-15	>672		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.45	Horz(CT)	0.01	13	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	-0.08	15	>999		
								Weight: 248 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD 2x8 SP 2400F 2.0E *Except* 14-15: 2x10 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 4-15,9-14: 2x6 SP No.1, 5-8: 2x4 SP 2400F 2.0E	JOINTS 1 Brace at Jt(s): 17

REACTIONS.	(size)
16=0-3-8, 13=0-3-8	
Max Horz 16=-331(LC 6)	
Max Uplift 16=-74(LC 8), 13=-74(LC 8)	
Max Grav 16=1438(LC 14), 13=1438(LC 15)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	3-4=-1533/81, 4-5=-951/158, 5-6=-256/349, 7-8=-256/349, 8-9=-951/158, 9-10=-1532/81, 6-7=-106/541
BOT CHORD	15-16=-78/929, 14-15=0/975, 13-14=0/785
WEBS	4-15=0/831, 9-14=0/831, 5-17=-1370/219, 8-17=-1370/219, 3-16=-1671/0, 10-13=-1670/0

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Ceiling dead load (5.0 psf) on member(s). 4-5, 8-9, 5-17, 8-17
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-15
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Attic room checked for L/360 deflection.



July 30, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MITEK Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 28141	Truss AT2	Truss Type PIGGYBACK ATTIC	Qty 4	Ply 1	Jonah Blakenship/Mrlyte Beach	167205813
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:35 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-HEEHy5acD4EARoDq94rokDB?itBl3oRqv7djdXysus\_

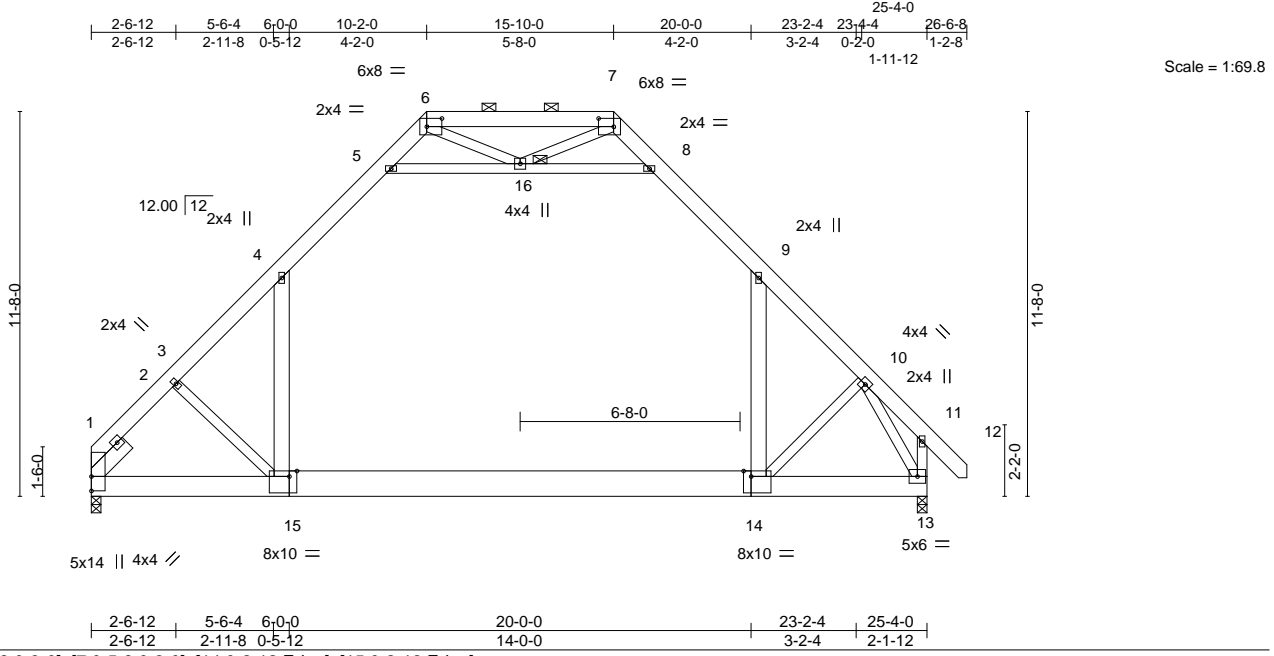


Plate Offsets (X,Y)--	[6:0-5-8,0-3-0], [7:0-5-8,0-3-0], [14:0-2-12,Edge], [15:0-2-12,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.40	Vert(LL) -0.38 14-15 >800 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.48	Vert(CT) -0.51 14-15 >590 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.03 1 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) -0.09 15 >999 240	Weight: 246 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD 2x8 SP 2400F 2.0E *Except* 14-15: 2x10 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	JOINTS 1 Brace at Jt(s): 16
SLIDER Left 2x6 SP No.1 1-6-0	

REACTIONS.
(size) 1=0-3-8, 13=0-3-8
Max Horz 1=308(LC 7)
Max Uplift 1=-37(LC 8), 13=-73(LC 8)
Max Grav 1=1389(LC 14), 13=1485(LC 15)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1680/59, 3-4=-1613/78, 4-5=-990/156, 5-6=-253/312, 7-8=-256/317, 8-9=-997/156, 9-10=-1625/79, 6-7=-100/495
BOT CHORD 1-15=-56/1240, 14-15=0/1038, 13-14=0/829
WEBS 5-16=-1377/200, 8-16=-1397/199, 3-15=-302/145, 9-14=0/877, 10-14=-56/253, 10-13=-1791/0, 4-15=0/857

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 6) Ceiling dead load (5.0 psf) on member(s). 4-5, 8-9, 5-16, 8-16
  - 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-15
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 13.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 12) Attic room checked for L/360 deflection.



July 30, 2024

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Job	Truss	Truss Type	Qty	Ply	Jonah Blakenship\Mrtyle Beach	I67205814
28141	CJ1	Diagonal Hip Girder	1	1		

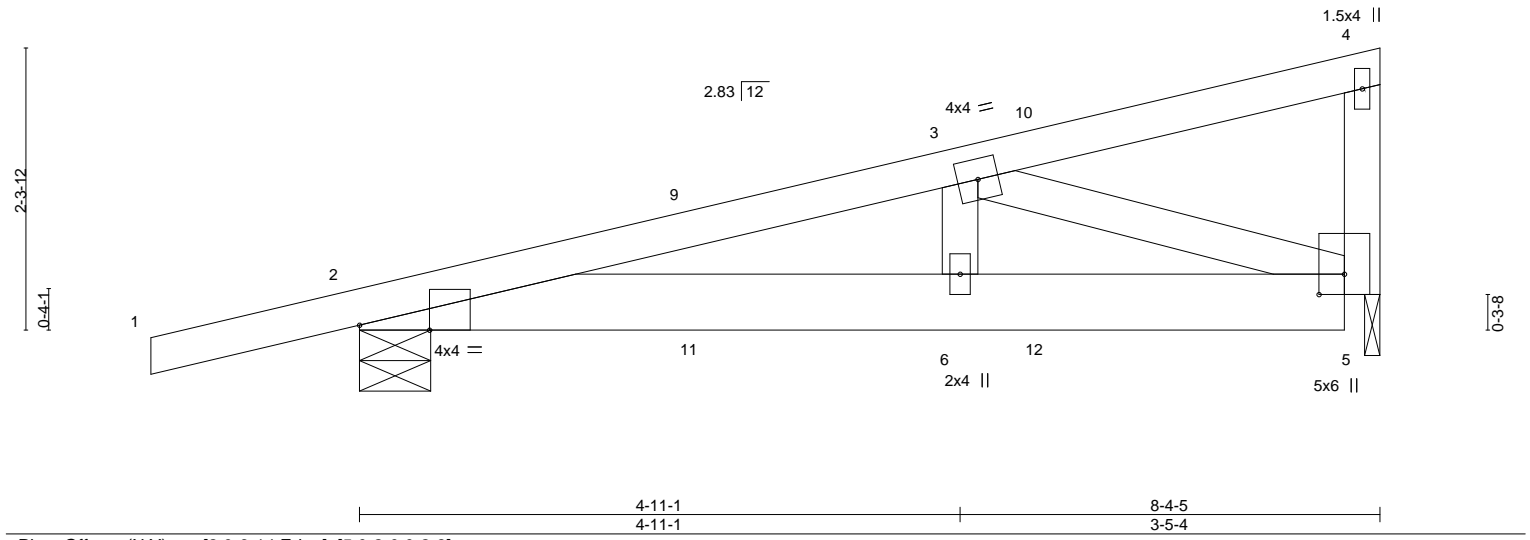
C&R Truss, Autryville, NC - 28318,

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Scale = 1:18.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.23	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.21	Vert(LL) -0.02 6-8 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.20	Vert(CT) -0.03 6-8 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MP	Horz(CT) 0.01 5 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.01 6-8 >999 240	Weight: 43 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 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 2=0-7-0, 5=0-1-8  
 Max Horz 2=83(LC 4)  
 Max Uplift 2=-93(LC 4), 5=-25(LC 4)  
 Max Grav 2=463(LC 1), 5=360(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-716/0  
 BOT CHORD 2-6=-34/686, 5-6=-34/686  
 WEBS 3-5=-725/36

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 53 lb down and 15 lb up at 2-9-8, 53 lb down and 15 lb up at 2-9-8, and 80 lb down and 48 lb up at 5-7-7, and 80 lb down and 48 lb up at 5-7-7 on top chord, and 6 lb down at 2-9-8, 6 lb down at 2-9-8, and 24 lb down at 5-7-7, and 24 lb down at 5-7-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)  
 Vert: 1-4=-60, 2-5=-20

Concentrated Loads (lb)  
 Vert: 10=-19(F=-9, B=-9) 11=-5(F=-2, B=-2) 12=-40(F=-20, B=-20)



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Job	Truss	Truss Type	Qty	Ply	Jonah Blakenship/Mrtyle Beach	I67205815
28141	CJ2	Diagonal Hip Girder	1	1		

C&R Truss, Autryville, NC - 28318,

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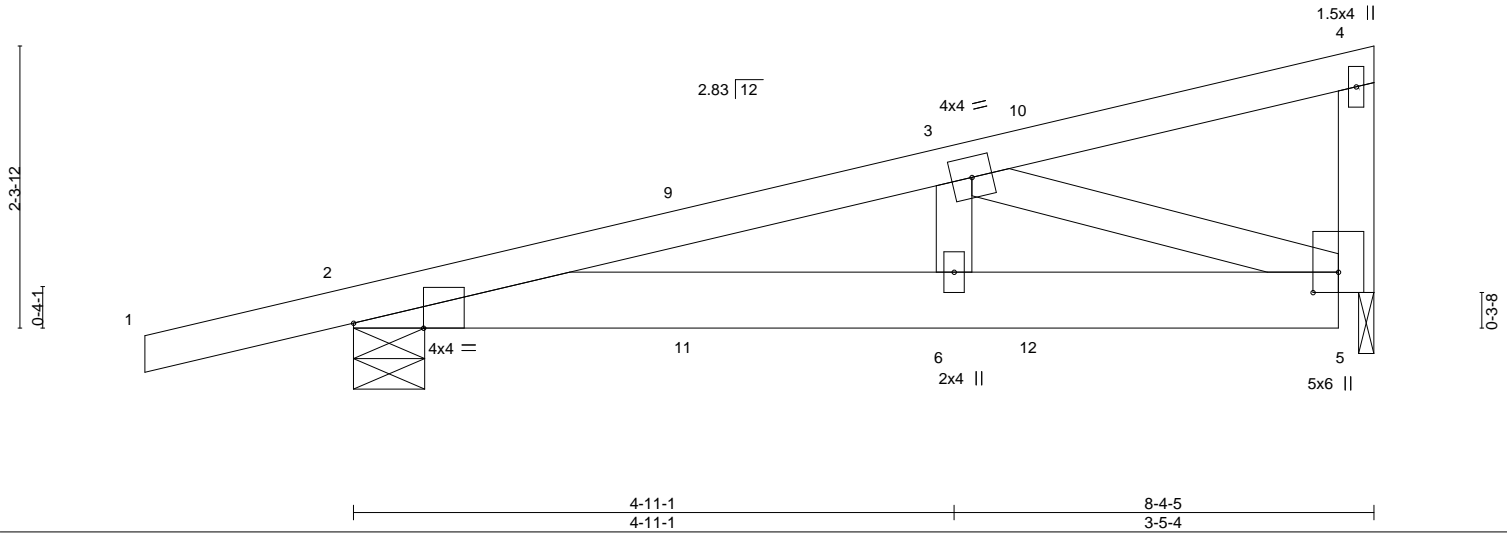


Plate Offsets (X,Y)--	[2:0-6-14,Edge], [5:0-2-0,0-2-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.23	Vert(LL) -0.02 6-8 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.03 6-8 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.20	Horz(CT) 0.01 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP	Wind(LL) 0.01 6-8 >999 240	Weight: 43 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3

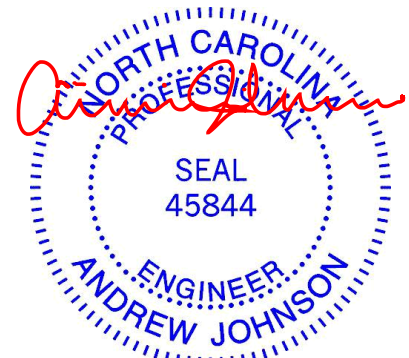
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-7-0, 5=0-1-8  
 Max Horz 2=83(LC 19)  
 Max Uplift 2=-93(LC 4), 5=-25(LC 4)  
 Max Grav 2=463(LC 1), 5=360(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-716/0  
 BOT CHORD 2-6=-34/686, 5-6=-34/686  
 WEBS 3-5=-725/36

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 53 lb down and 15 lb up at 2-9-8, 53 lb down and 15 lb up at 2-9-9, and 80 lb down and 48 lb up at 5-7-7, and 80 lb down and 48 lb up at 5-7-9 on top chord, and 6 lb down at 2-9-8, 6 lb down at 2-9-9, and 24 lb down at 5-7-7, and 24 lb down at 5-7-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 2-5=-20  
 Concentrated Loads (lb)  
 Vert: 10=-19(F=-9, B=-9) 11=-5(F=-2, B=-2) 12=-40(F=-20, B=-20)



July 30, 2024

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818 Soundside Road  
 Edenton, NC 27932



Job 28141	Truss G1	Truss Type Common Supported Gable	Qty 1	Ply 1	Jonah Blakenship\Mrlyte Beach 167205816
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C&R Truss, Autryville, NC - 28318,

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4x4 =

Scale = 1:42.9

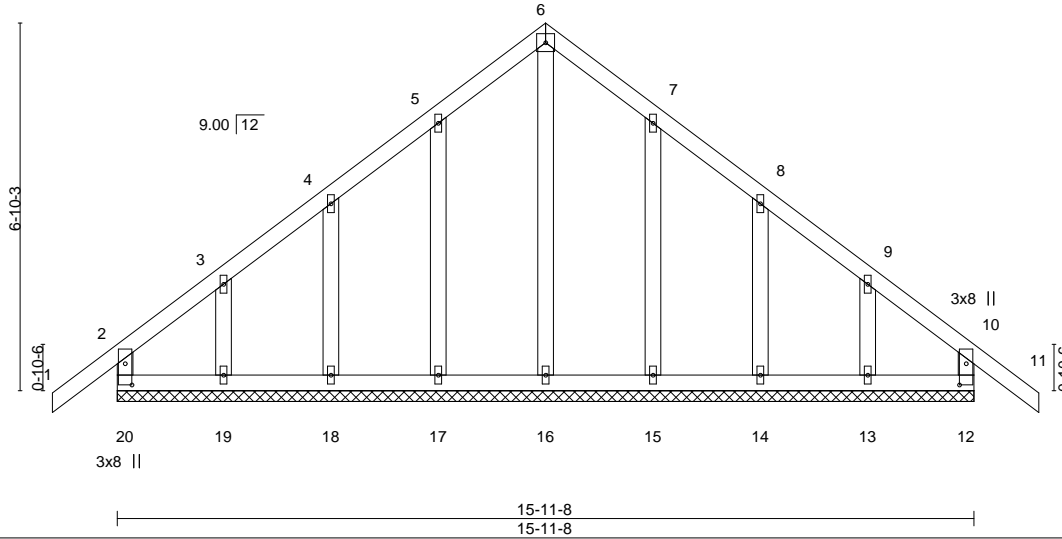


Plate Offsets (X, Y)--	[10:0-4-12,0-1-8], [20:0-4-12,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) -0.01 11 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT) -0.01 11 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.12	Horz(CT) 0.00 12 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R		Weight: 98 lb	FT = 20%

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

**REACTIONS.** All bearings 15-11-8.  
 (lb) - Max Horz 20=182(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13  
 Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 12, 17, 18, 19, 15, 14, 13.
  - 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.



July 30, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Jonah Blakenship/Mrtyle Beach	I67205817
28141	G2	Common Structural Gable	1	1		

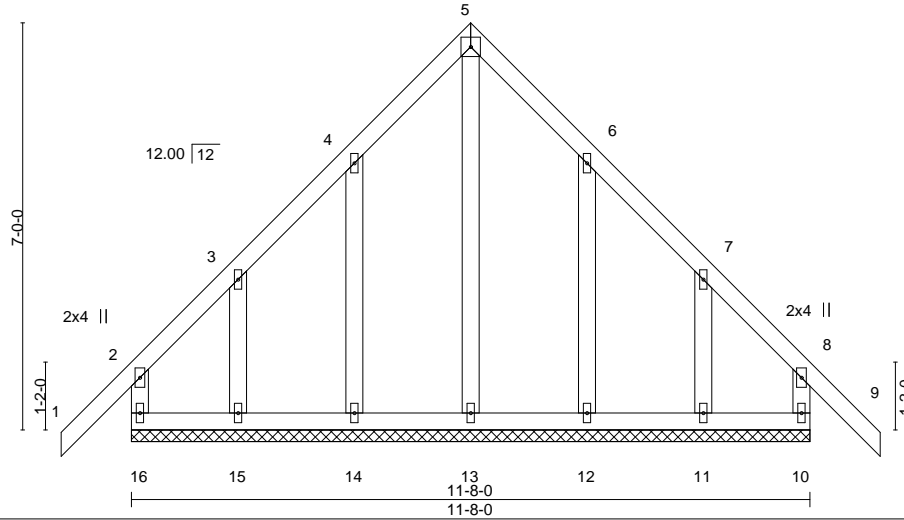
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:37 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-DdM1NnctiiUtg6NDHVtGpeGWpgy5WmK6NR6qhQysury



Scale = 1:39.6



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.01	9	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	9	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(CT)	-0.00	10	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 80 lb	FT = 20%

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

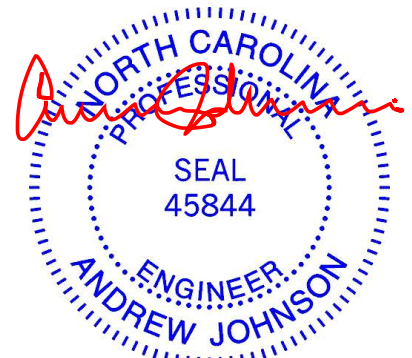
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** All bearings 11-8-0.  
 (lb) - Max Horz 16=212(LC 7)  
 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, 14, 15, 12, 11 except 13=263(LC 8)

**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=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 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 with a clearance greater than 6-0-0 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) 16, 10, 14, 15, 12, 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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



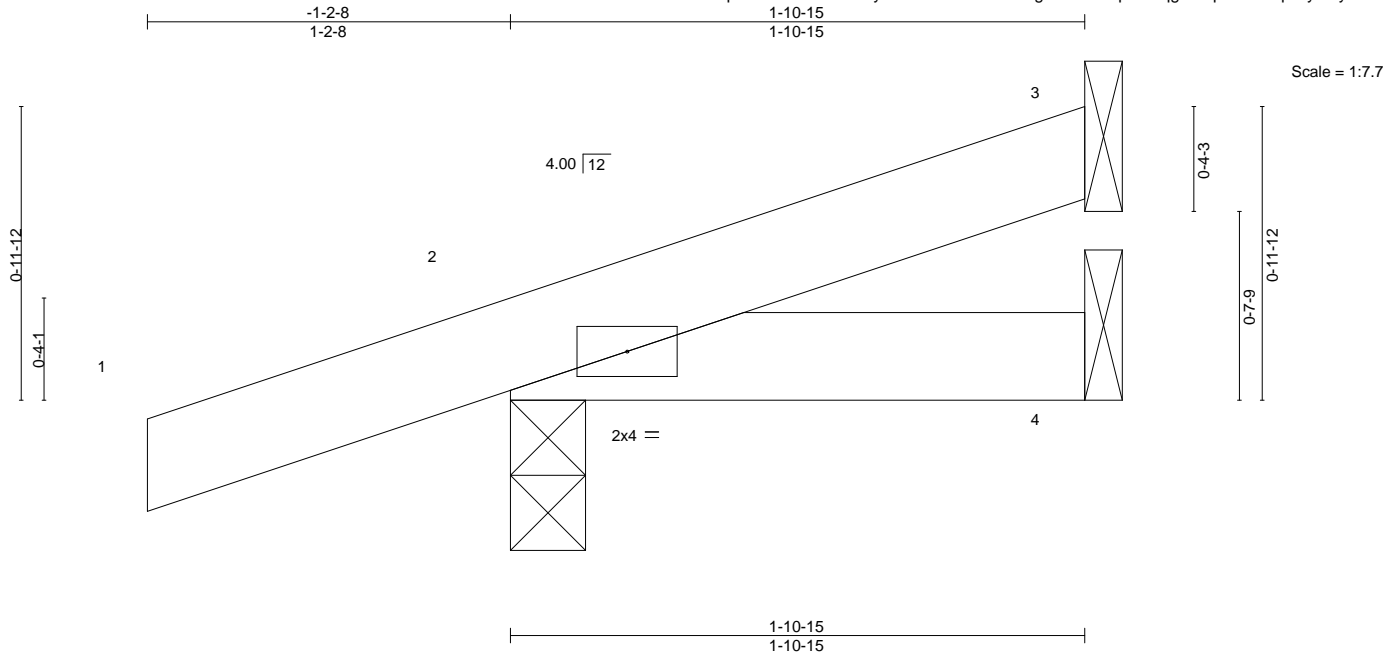
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss J1	Truss Type Jack-Open	Qty 4	Ply 1	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	I67205818
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:37 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-DdM1NnctliUtg6NDHVtGpeGXqgz3WpT6NR6qhQysury



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.00	7	>999	360	MT20	244/190
BCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP	Wind(LL)	-0.00	7	>999	240		
									Weight: 8 lb	FT = 20%

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

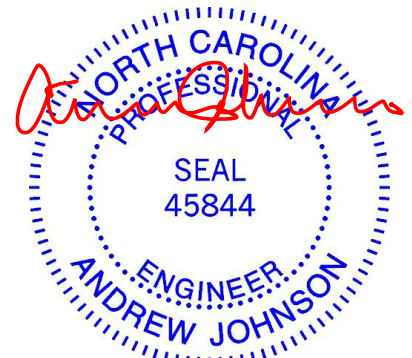
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-0, 4=Mechanical  
Max Horz 2=38(LC 8)  
Max Uplift 3=-5(LC 8), 2=-58(LC 8)  
Max Grav 3=35(LC 1), 2=172(LC 1), 4=29(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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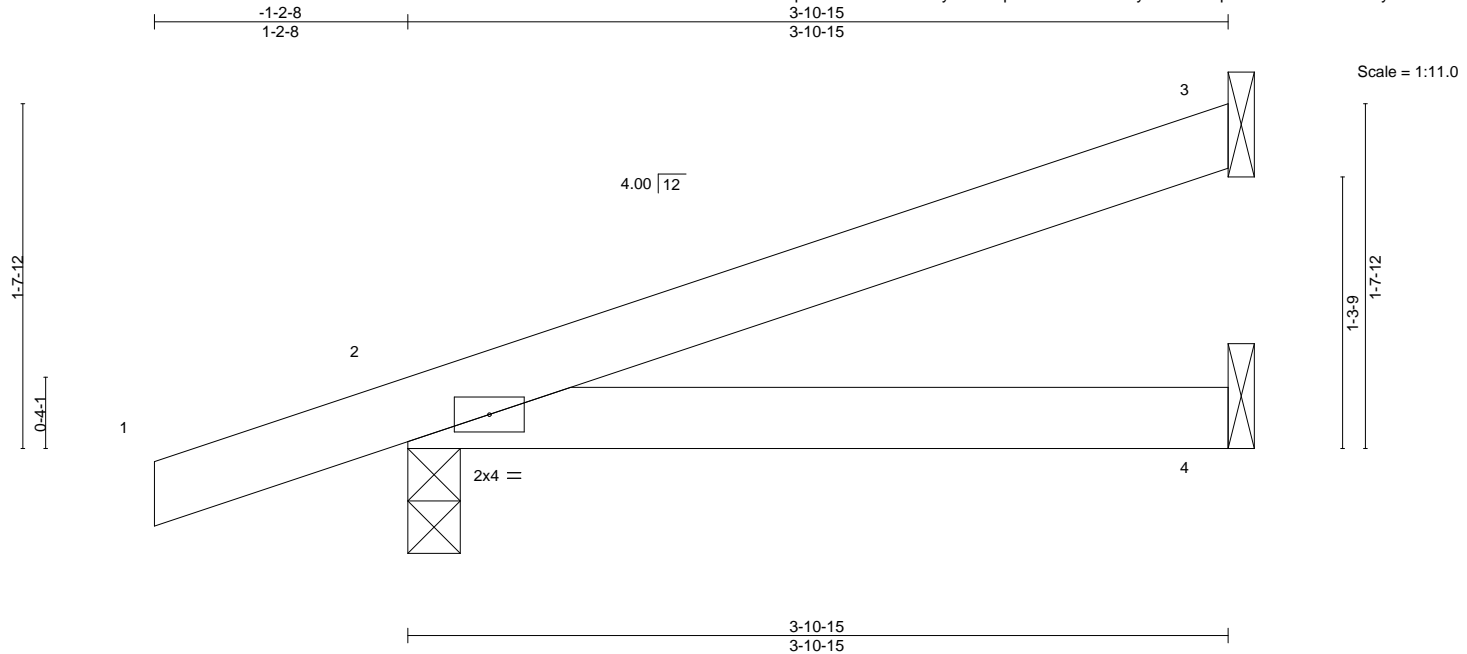


Job 28141	Truss J2	Truss Type Jack-Open	Qty 2	Ply 1	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	167205819
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:38 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-ipwQa7dVW?cklGyPrCOVMsphH4HLFGiGb5sNDSysurx



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	-0.01 4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.02 4-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP	Wind(LL)	0.01 4-7	>999	240	Weight: 14 lb	FT = 20%

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

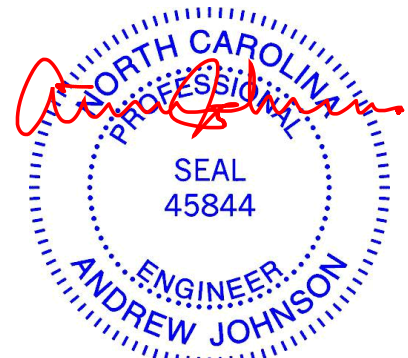
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-0, 4=Mechanical  
Max Horz 2=57(LC 8)  
Max Uplift 3=25(LC 8), 2=54(LC 8)  
Max Grav 3=94(LC 1), 2=238(LC 1), 4=68(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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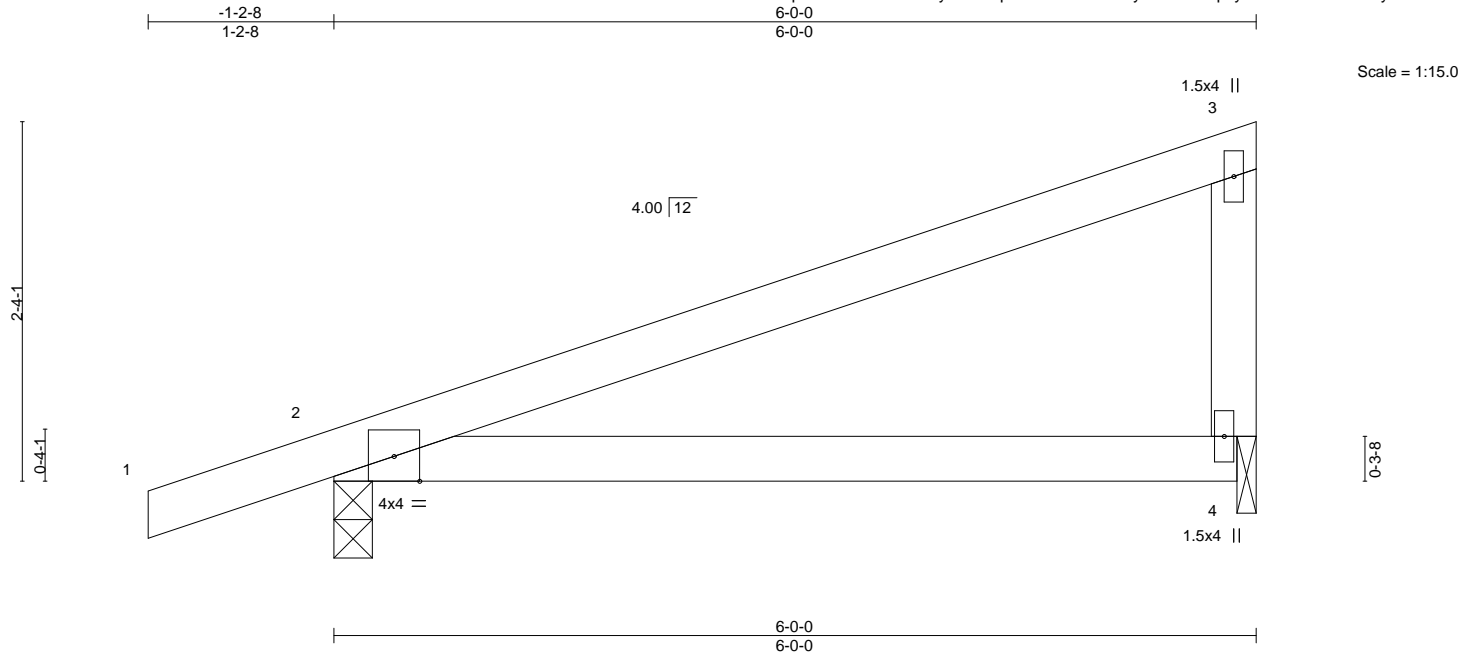
818 Soundside Road  
Edenton, NC 27932

Job 28141	Truss J3	Truss Type JACK-OPEN	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	I67205820
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:38 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-ipwQa7dVW?cklGyPrCOVMspcy4E2FGCb5sNDSysurx



Scale = 1:15.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.05 4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.11 4-7	>650	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.04 4-7	>999	240	Weight: 23 lb	FT = 20%

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

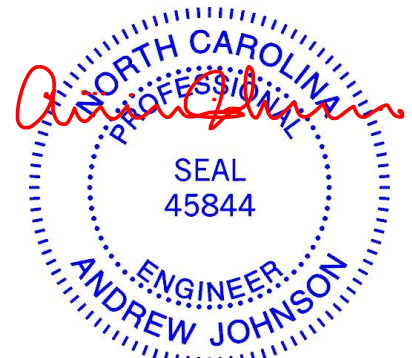
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=77(LC 8)  
 Max Uplift 2=54(LC 8), 4=24(LC 8)  
 Max Grav 2=314(LC 1), 4=227(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



July 30, 2024

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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate

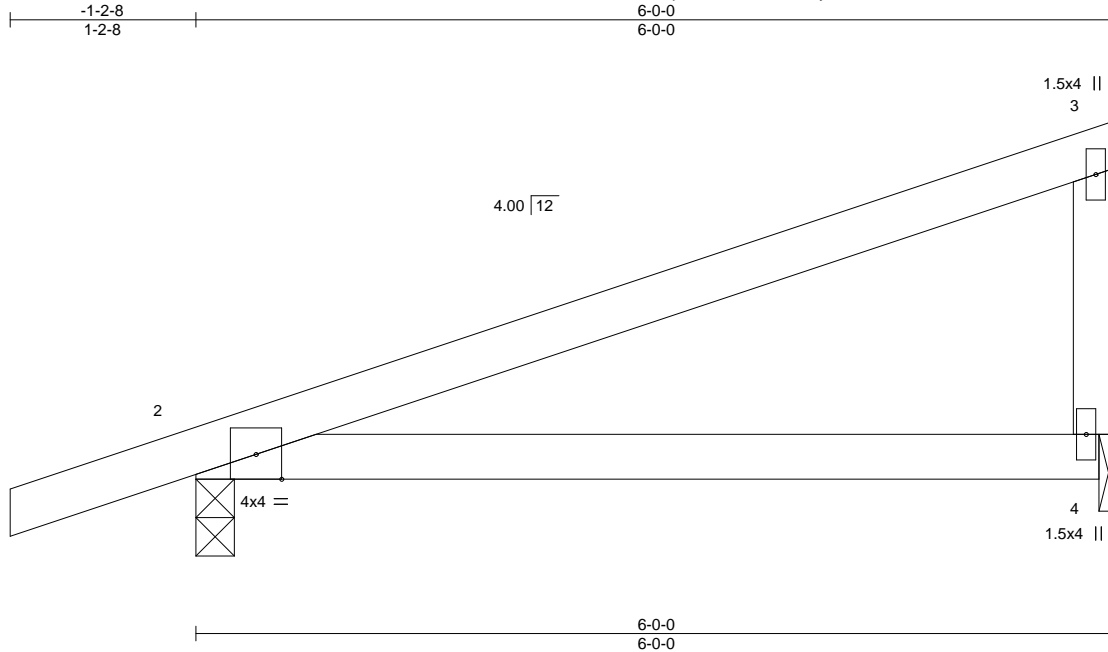
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss J4	Truss Type JACK-OPEN	Qty 15	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	I67205821
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:39 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-A0UonTe7HJkbvQXbOwwkv3LniUaH\_iSPqIbXmlysurw



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.05 4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.11 4-7	>650	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.04 4-7	>999	240	Weight: 23 lb	FT = 20%

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

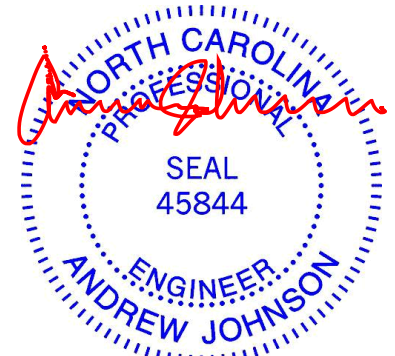
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=77(LC 8)  
 Max Uplift 2=54(LC 8), 4=24(LC 8)  
 Max Grav 2=314(LC 1), 4=227(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



July 30, 2024

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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate

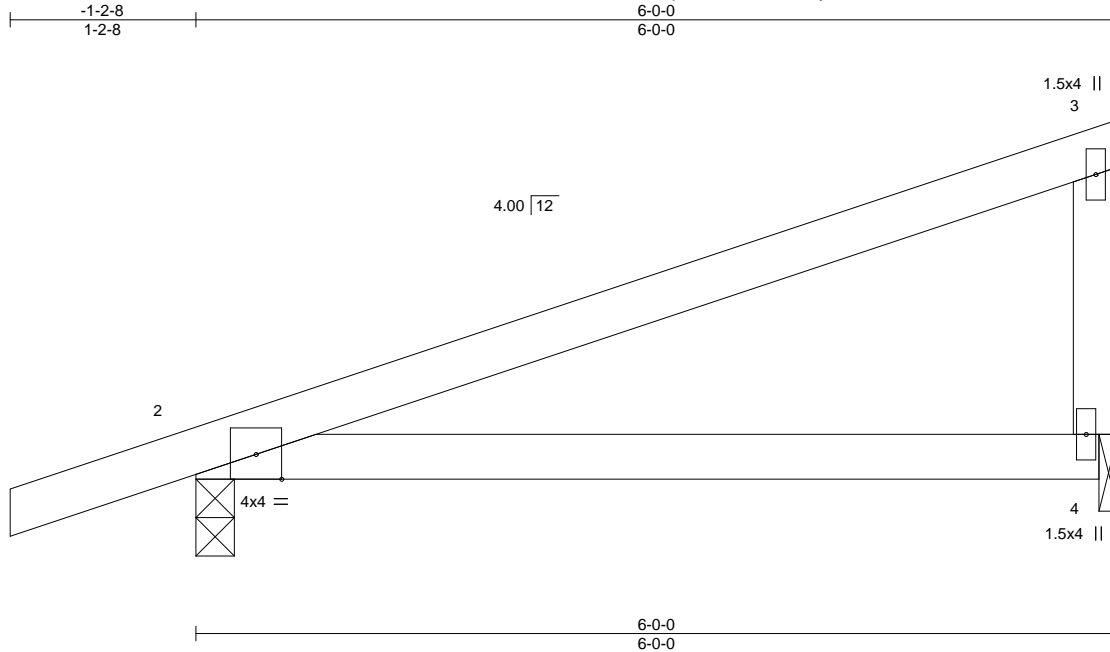
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss J5	Truss Type JACK-OPEN	Qty 3	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	I67205822
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:39 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-A0UonTe7HJkbvQXbOwwkv3LniUaH\_iSPqIbXmlysurw



Scale = 1:15.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.05 4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.11 4-7	>650	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.04 4-7	>999	240	Weight: 23 lb	FT = 20%

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

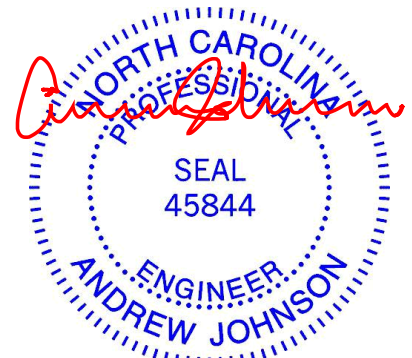
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=77(LC 8)  
 Max Uplift 2=54(LC 8), 4=24(LC 8)  
 Max Grav 2=314(LC 1), 4=227(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



July 30, 2024

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

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

ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate

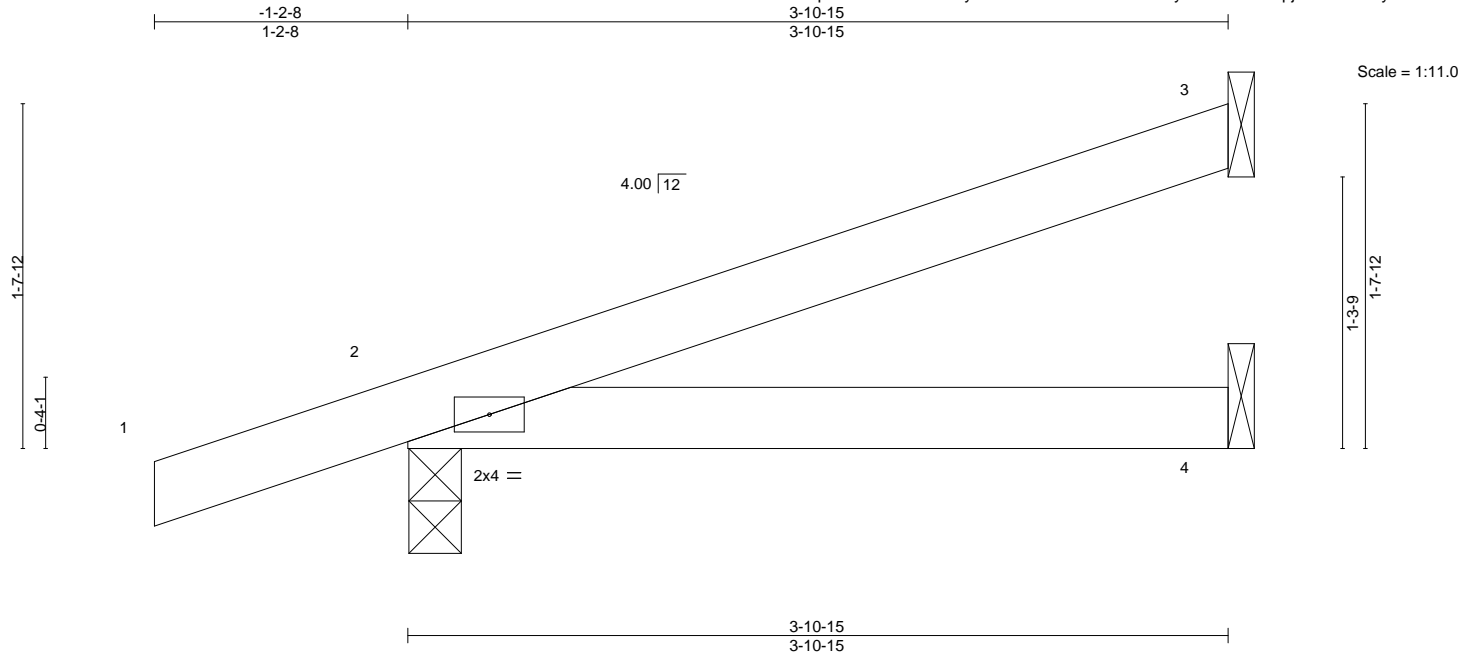
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss J6	Truss Type JACK-OPEN	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	I67205823
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:40 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-eC2A?oel2dsSXZ6oydRzRHu1nuzpj9CZ3PLUlkysurv



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	-0.01 4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.02 4-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP	Wind(LL)	0.01 4-7	>999	240	Weight: 14 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 3-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-0, 4=Mechanical  
Max Horz 2=57(LC 8)  
Max Uplift 3=25(LC 8), 2=54(LC 8)  
Max Grav 3=94(LC 1), 2=238(LC 1), 4=68(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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**TRENCO**  
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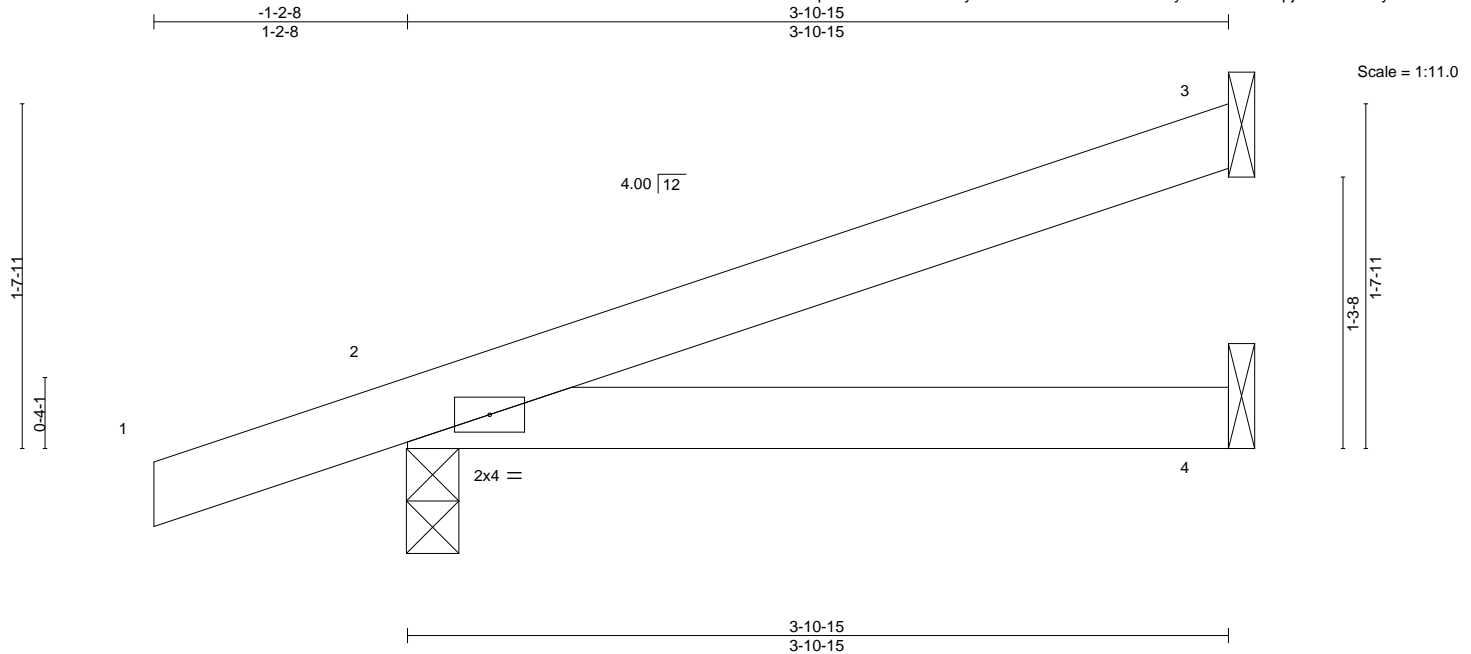
818 Soundside Road  
Edenton, NC 27932

Job 28141	Truss J7	Truss Type JACK-OPEN	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	I67205824
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:40 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-eC2A?oel2dsSXZ6oydRzRHu1ouzpj9CZ3PLUlkysurv



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	-0.01 4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.02 4-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP	Wind(LL)	0.01 4-7	>999	240	Weight: 14 lb	FT = 20%

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

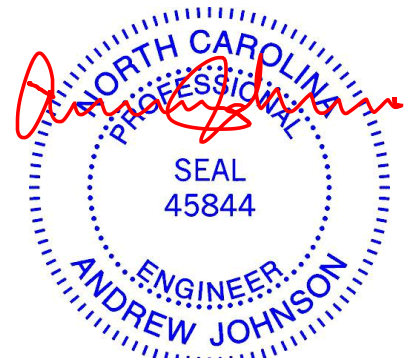
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-0, 4=Mechanical  
Max Horz 2=57(LC 8)  
Max Uplift 3=25(LC 8), 2=54(LC 8)  
Max Grav 3=94(LC 1), 2=238(LC 1), 4=68(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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818 Soundside Road  
Edenton, NC 27932



Job 28141	Truss J8	Truss Type JACK-OPEN	Qty 2	Ply 1	Jonah Blakenship Mrtyle Beach Job Reference (optional)	I67205825
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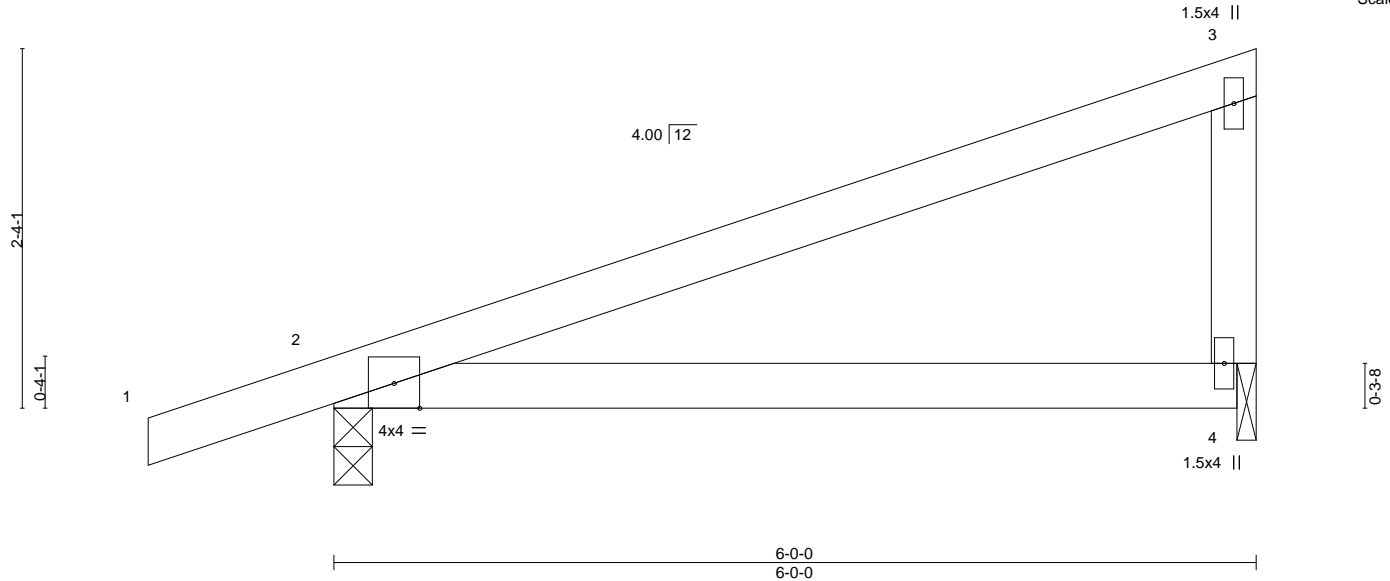
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:40 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-eC2A?oel2dsSXZ6oydRzRHuySuwWj9iZ3PLUikysurv



Scale = 1:15.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.05 4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.11 4-7	>650	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.04 4-7	>999	240	Weight: 23 lb	FT = 20%

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

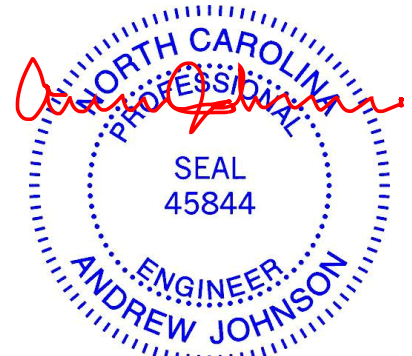
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=77(LC 8)  
 Max Uplift 2=54(LC 8), 4=24(LC 8)  
 Max Grav 2=314(LC 1), 4=227(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



July 30, 2024

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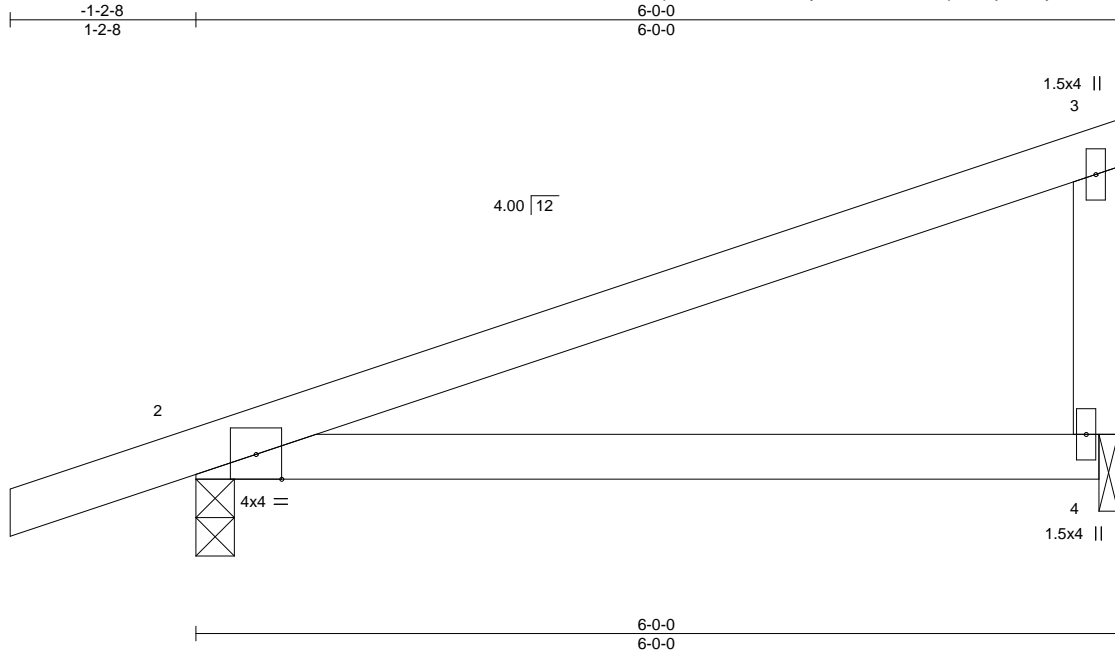
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss J9	Truss Type JACK-OPEN	Qty 1	Ply 1	Jonah Blakenship Mrtyle Beach Job Reference (optional)	I67205826
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:41 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-6OcYC8fNpw\_J9jh\_WKyC\_UQ6CHGIScyiH341qBysuru



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.05 4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.11 4-7	>650	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.04 4-7	>999	240	Weight: 23 lb	FT = 20%

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

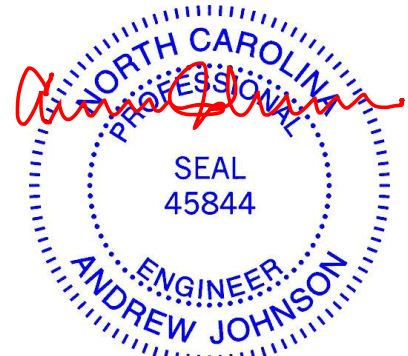
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=77(LC 8)  
 Max Uplift 2=54(LC 8), 4=24(LC 8)  
 Max Grav 2=314(LC 1), 4=227(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



July 30, 2024

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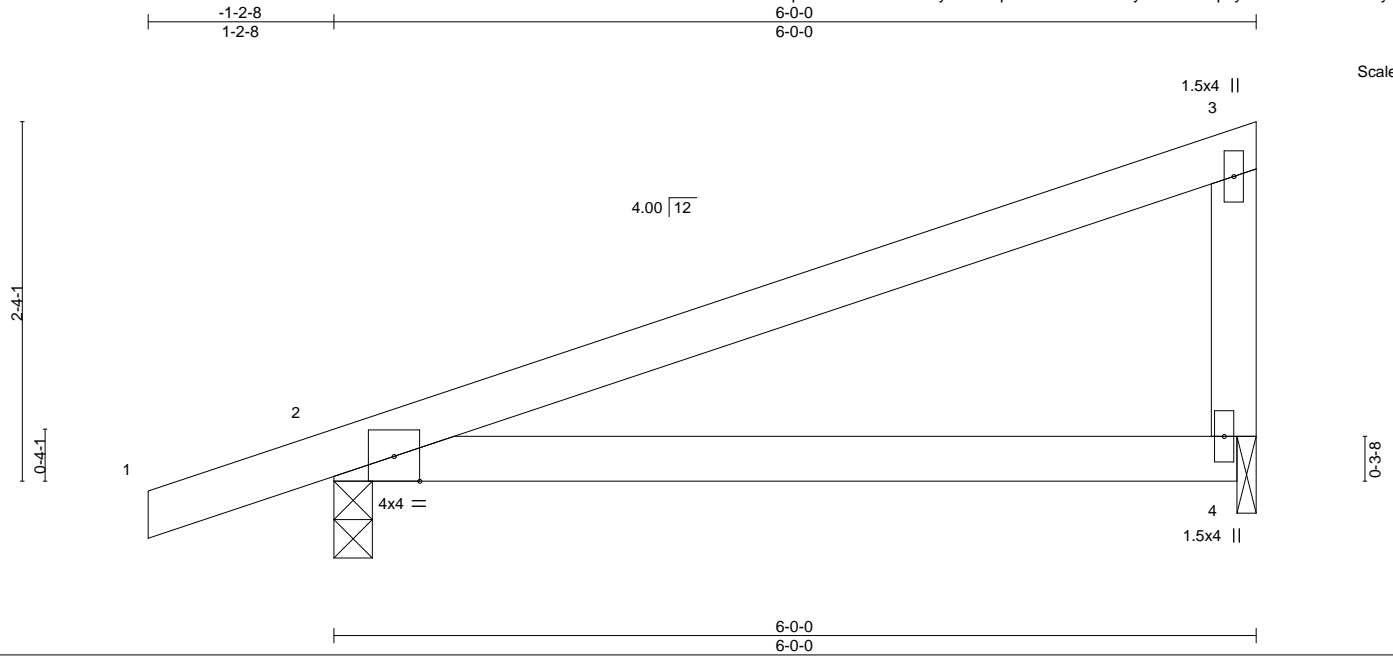
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss J11	Truss Type JACK-OPEN	Qty 1	Ply 1	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	167205827
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:38 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-1pwQa7dVW?cklGyPrCOVMspcy4E2FGCb5sNDSysurx



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.05 4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.11 4-7	>650	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.04 4-7	>999	240	Weight: 23 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=77(LC 8)  
 Max Uplift 2=54(LC 8), 4=24(LC 8)  
 Max Grav 2=314(LC 1), 4=227(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



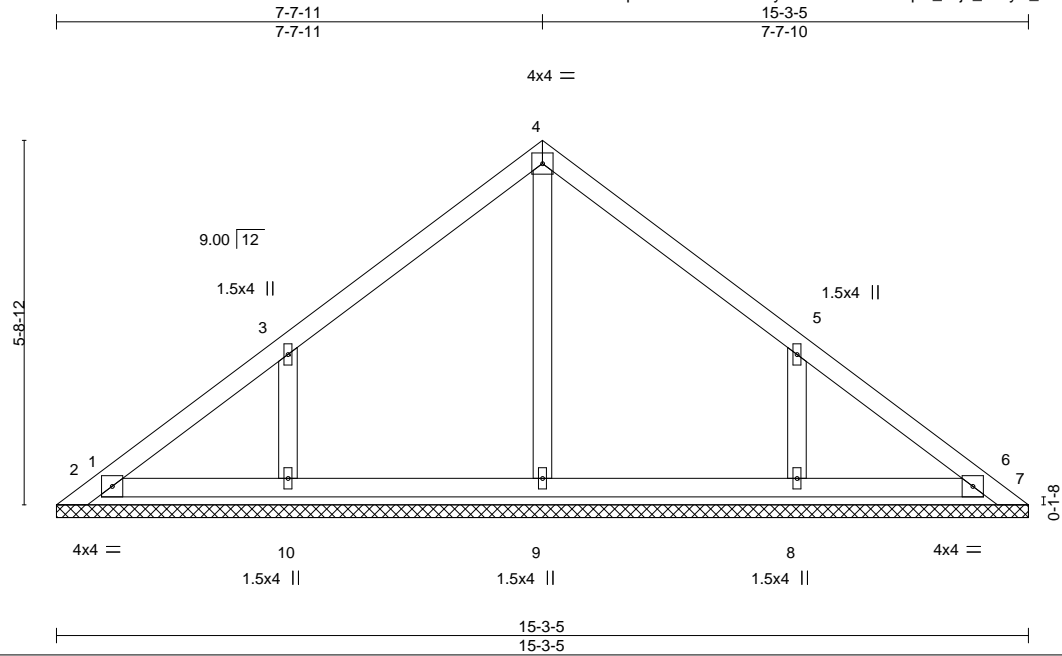
July 30, 2024

Job 28141	Truss PB1	Truss Type GABLE	Qty 2	Ply 1	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	167205828
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:41 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-6OcYC8fNpw\_J9jh\_WKyC\_UQC3HKWSb5iH341qBysuru



Scale = 1:36.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 62 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	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 15-3-5.  
 (lb) - Max Horz 1=128(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 2, 6, 10, 8  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6, 9 except 10=333(LC 13), 8=332(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-10=-258/137, 5-8=-257/137

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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) 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) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 4-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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, 7, 2, 6, 10, 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.
  - 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



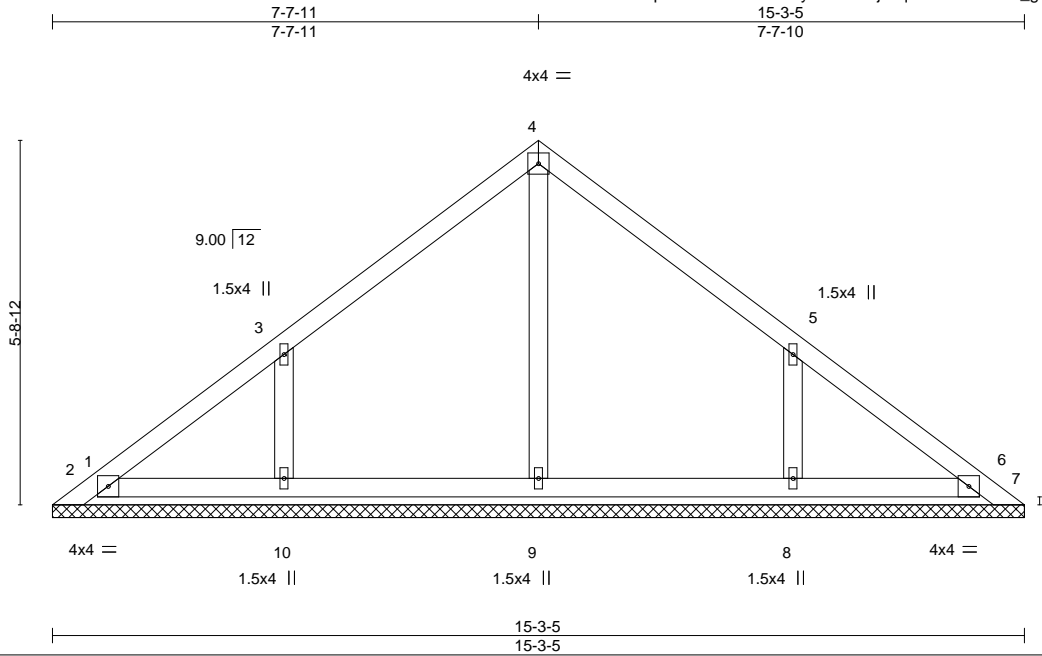
July 30, 2024

Job 28141	Truss PB2	Truss Type GABLE	Qty 15	Ply 1	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	167205829
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:43 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-2njJdqheLYE1O1rNdL\_g3vWYY5?\_wVb?INZ8v3ysurs



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 62 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	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 15-3-5.  
 (lb) - Max Horz 1=128(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 2, 6, 10, 8  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6, 9 except 10=333(LC 13), 8=332(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-10=-258/137, 5-8=-257/137

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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) 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) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 4-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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, 7, 2, 6, 10, 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.
  - 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 30, 2024

Job 28141	Truss PB3	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	167205830
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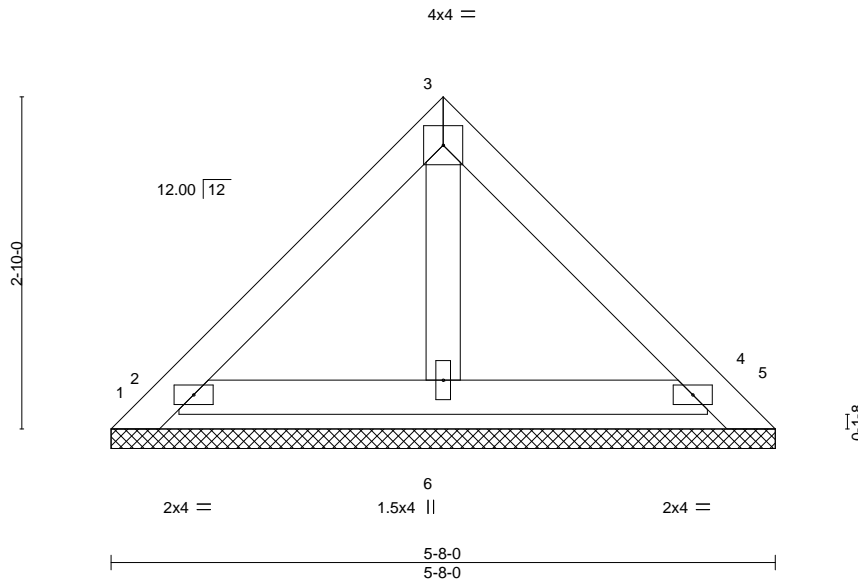
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:44 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-WzHhrAhG5rMu0BPZBTVvc72k\_VMEfzz8\_1JhRWysurr



Scale = 1:19.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 22 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-8-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-8-0.  
 (lb) - Max Horz 1=-67(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 5 except 1=-129(LC 13), 2=-105(LC 8), 4=-105(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 4, 6 except 2=266(LC 13)

**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=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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) 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) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 4-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 5 except (jt=lb) 1=129, 2=105, 4=105.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 30, 2024

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



818 Soundside Road  
 Edenton, NC 27932



Job 28141	Truss PB4	Truss Type GABLE	Qty 13	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	167205831
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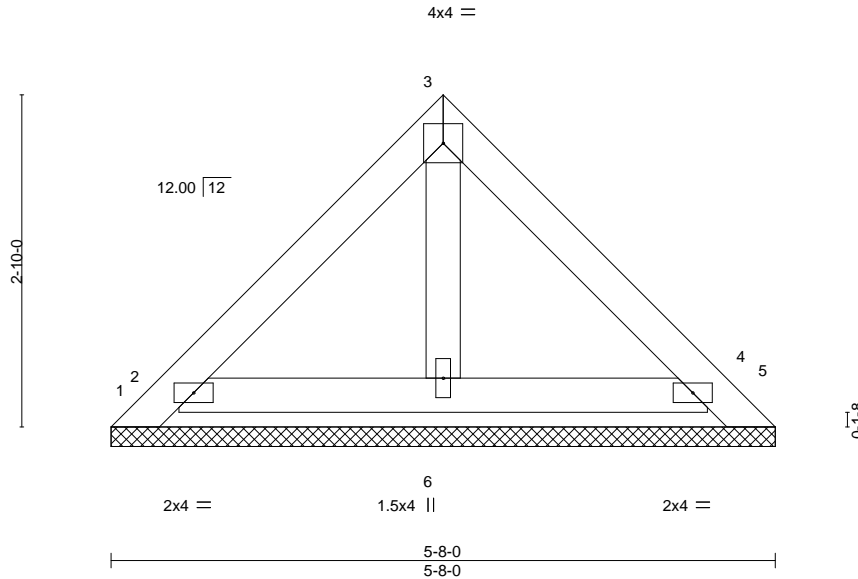
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:44 2024 Page 1

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Scale = 1:19.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 22 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-8-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-8-0.  
 (lb) - Max Horz 1=-67(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 5 except 1=-129(LC 13), 2=-105(LC 8), 4=-105(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 4, 6 except 2=266(LC 13)

**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=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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) 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 5 except (jt=lb) 1=129, 2=105, 4=105.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 30, 2024

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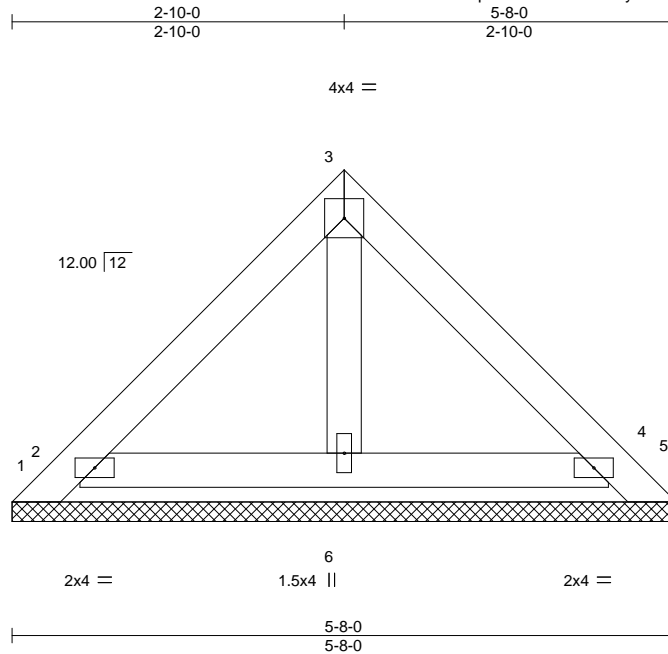


818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss PB5	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	167205832
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:45 2024 Page 1  
ID:43FmfUEpnBwxW36Q?RCfByzursR-\_Ar32Wius9UldL\_IIA088KbvkvITQOD1Ch3Fzyysurq



Scale = 1:19.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 22 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

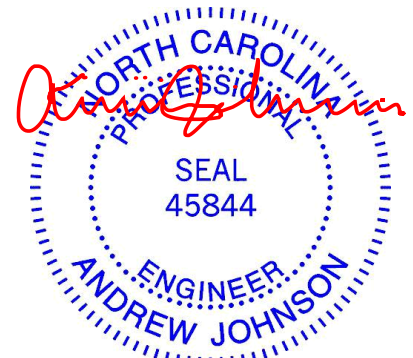
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-8-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-8-0.  
 (lb) - Max Horz 1=-67(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 5 except 1=-129(LC 13), 2=-105(LC 8), 4=-105(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 4, 6 except 2=266(LC 13)

**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=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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) 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 5 except (jt=lb) 1=129, 2=105, 4=105.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 30, 2024

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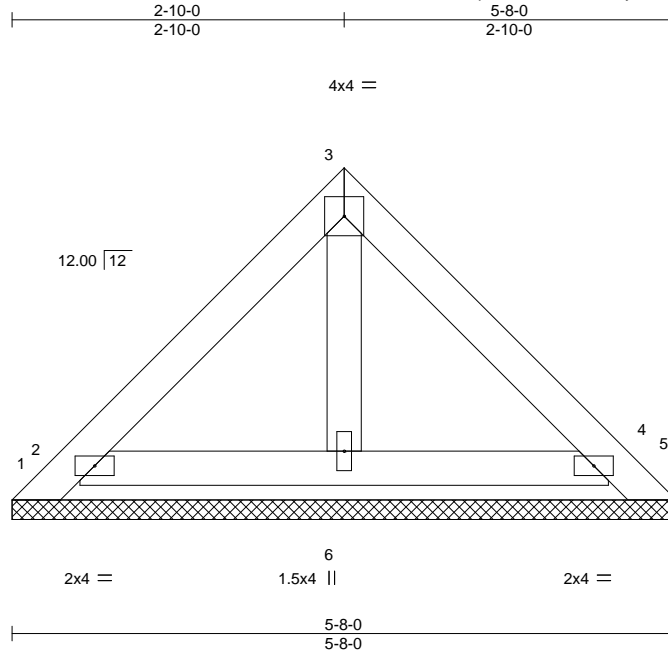
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss PB6	Truss Type GABLE	Qty 13	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	167205833
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:45 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-\_Ar32Wius9UldL\_IIA088KbvkviTOQD1Ch3Fzyysurq



Scale = 1:19.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 22 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-8-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-8-0.  
 (lb) - Max Horz 1=-67(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 5 except 1=-129(LC 13), 2=-105(LC 8), 4=-105(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 4, 6 except 2=266(LC 13)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 1=129, 2=105, 4=105.
- 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.



July 30, 2024

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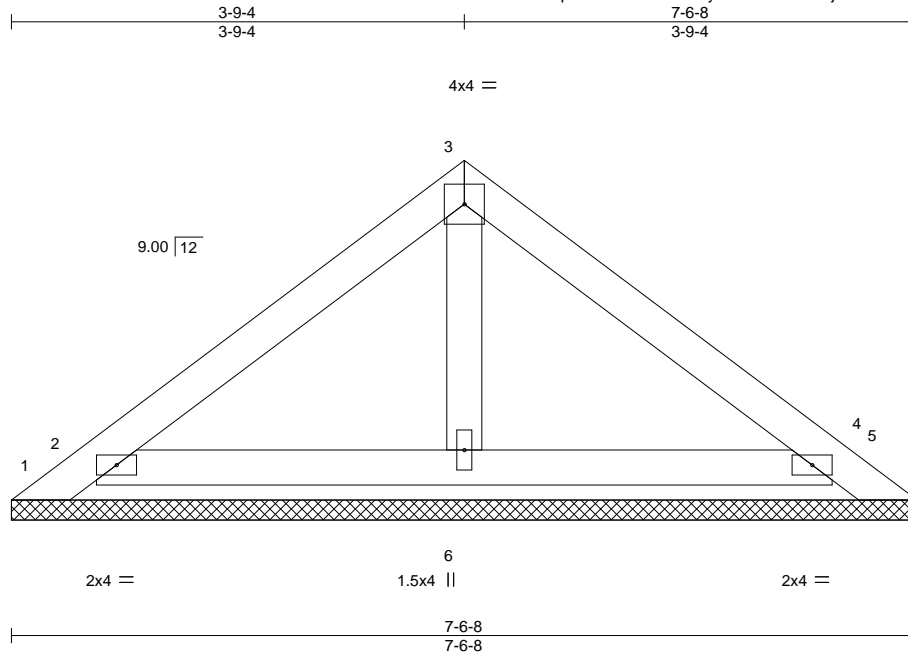
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss PB7	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	167205834
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:46 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-TMPRFsjWdTccFUZyJuYnhX8311107tKRRLoovOysurp



Scale = 1:19.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 26 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

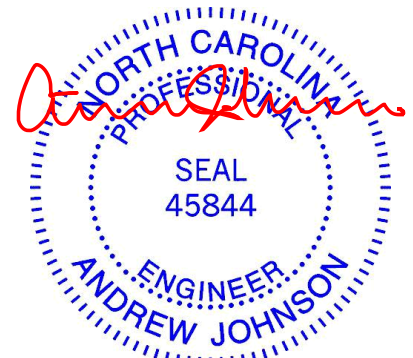
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 7-6-8.  
 (lb) - Max Horz 1=61(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) except 1=152(LC 13), 5=125(LC 14), 2=118(LC 8), 4=118(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=328(LC 13), 4=312(LC 14)

**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=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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) 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 152 lb uplift at joint 1, 125 lb uplift at joint 5, 118 lb uplift at joint 2 and 118 lb uplift at joint 4.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 30, 2024

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

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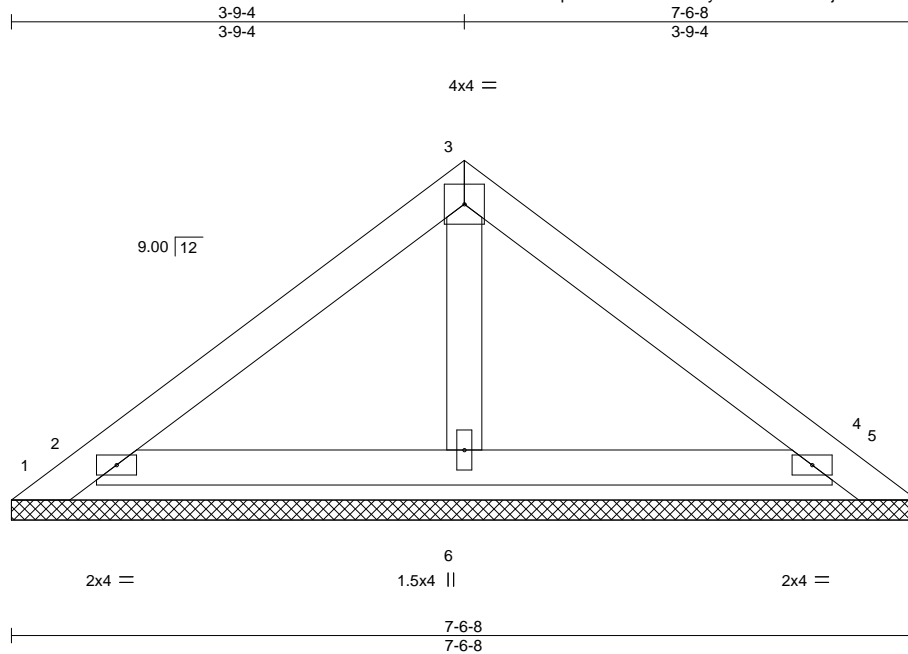
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Jonah Blakenship/Mrtyle Beach	167205835
28141	PB8	GABLE	5	1	Job Reference (optional)	

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:46 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-TMPRFsjWdTccFUZYJuYnhX8311107tKRRLoovOysurp



Scale = 1:19.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 26 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 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 7-6-8.  
 (lb) - Max Horz 1=61(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) except 1=152(LC 13), 5=125(LC 14), 2=118(LC 8), 4=118(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=328(LC 13), 4=312(LC 14)

**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=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 152 lb uplift at joint 1, 125 lb uplift at joint 5, 118 lb uplift at joint 2 and 118 lb uplift at joint 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.



July 30, 2024

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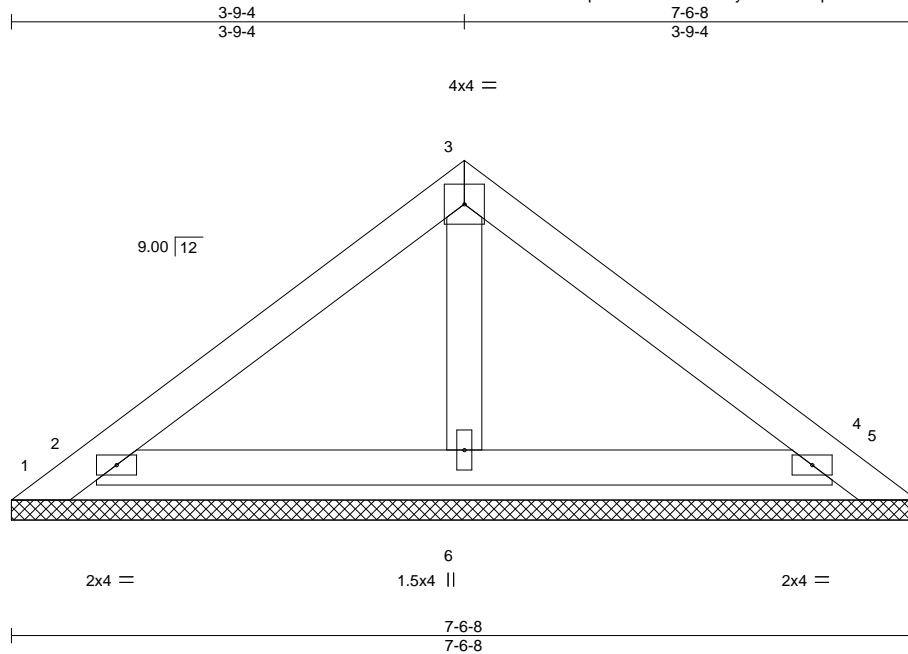


818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss PB9	Truss Type GABLE	Qty 1	Ply 2	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	167205836
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:47 2024 Page 1  
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Scale = 1:19.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 52 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 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 7-6-8.  
 (lb) - Max Horz 1=61(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) except 1=-152(LC 13), 5=-125(LC 14), 2=-118(LC 8), 4=-118(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=328(LC 13), 4=312(LC 14)

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

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 152 lb uplift at joint 1, 125 lb uplift at joint 5, 118 lb uplift at joint 2 and 118 lb uplift at joint 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.



July 30, 2024

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818 Soundside Road  
 Edenton, NC 27932

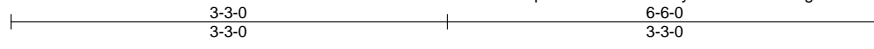


Job	Truss	Truss Type	Qty	Ply	Jonah Blakenship/Mrtyle Beach	167205837
28141	PB10	GABLE	12	1	Job Reference (optional)	

C&R Truss, Autryville, NC - 28318,

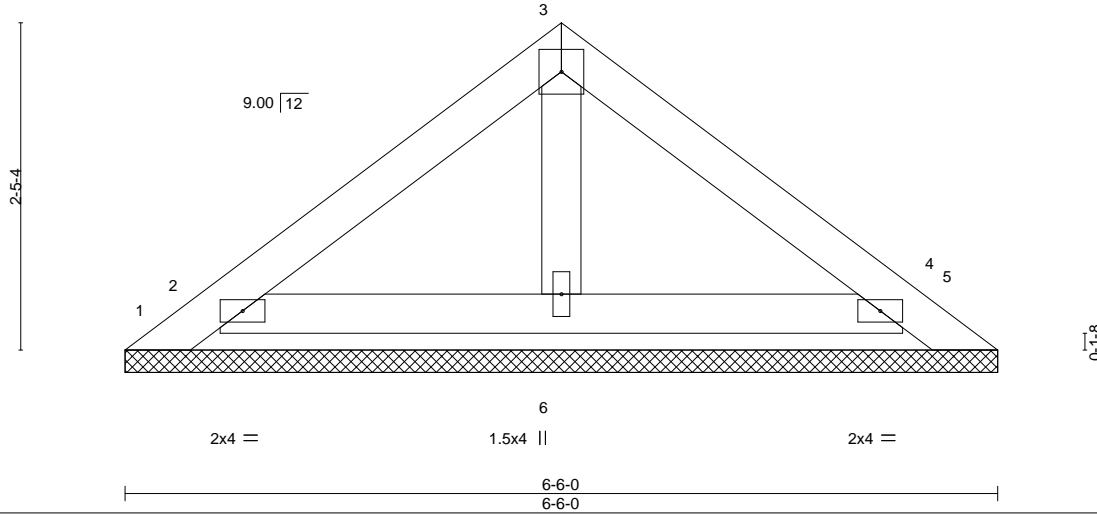
8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:42 2024 Page 1

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4x4 =

Scale = 1:17.2



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.04	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 22 lb	FT = 20%
	Code IRC2018/TPI2014							

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 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 6-6-0.  
 (lb) - Max Horz 1=52(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 5, 2, 4 except 1=101(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 4, 6 except 2=254(LC 13)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 4 except (jt=lb) 1=101.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 30, 2024

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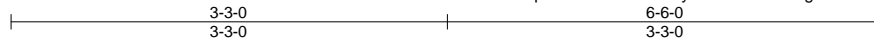
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss PB11	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	I67205838
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C&R Truss, Autryville, NC - 28318,

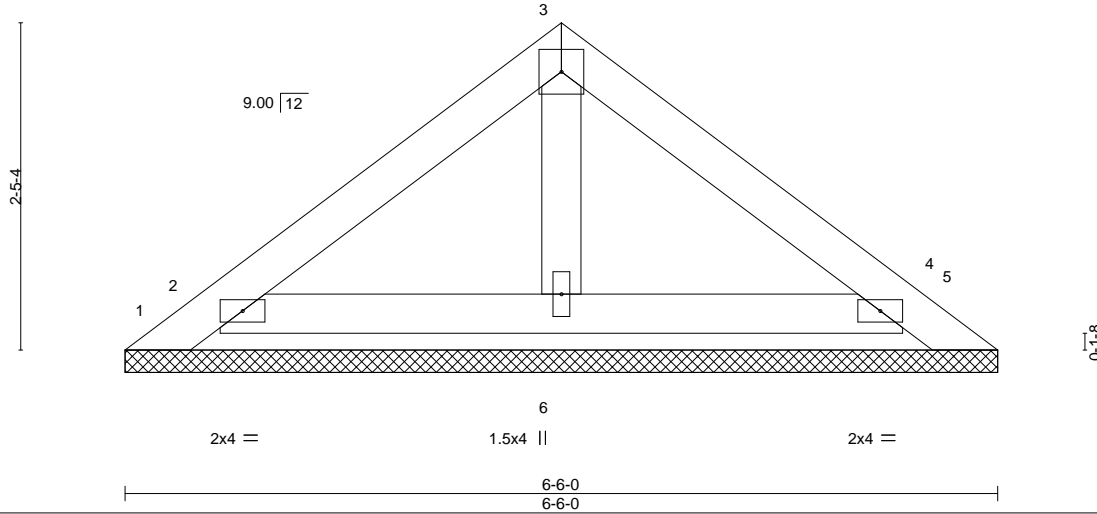
8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:42 2024 Page 1

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4x4 =

Scale = 1:17.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 22 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 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 6-6-0.  
 (lb) - Max Horz 1=52(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 5, 2, 4 except 1=101(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 4, 6 except 2=254(LC 13)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 4 except (jt=lb) 1=101.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



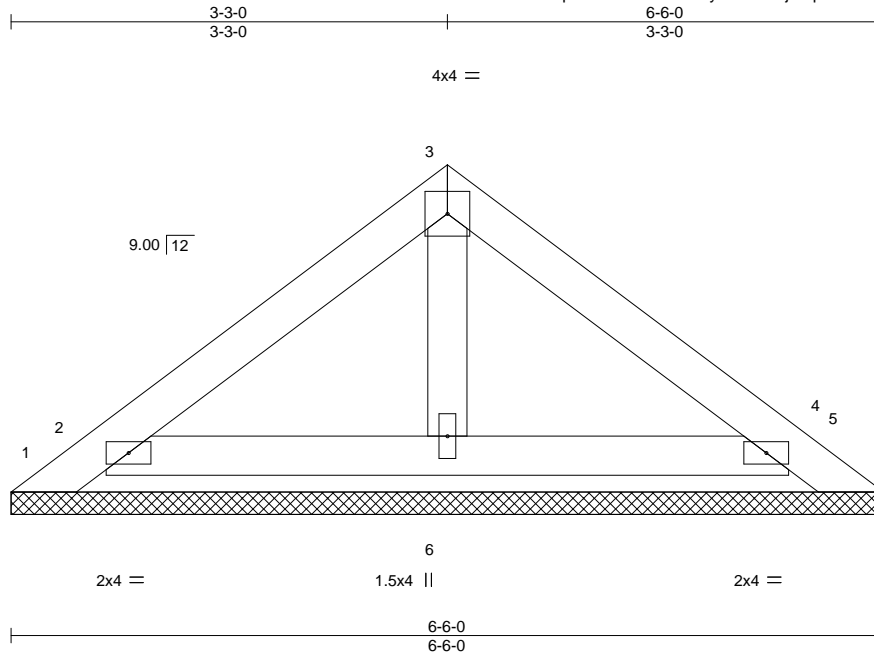
July 30, 2024

Job 28141	Truss PB12	Truss Type GABLE	Qty 1	Ply 2	Jonah Blakenship/Mrtyle Beach 167205839
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:43 2024 Page 1

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Scale = 1:17.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 44 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 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 6-6-0.  
 (lb) - Max Horz 1=52(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 5, 2, 4 except 1=101(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 4, 6 except 2=254(LC 13)

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

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 4 except (jt=lb) 1=101.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 30, 2024

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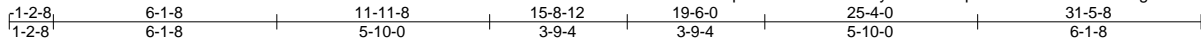
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss T1	Truss Type Piggyback Base	Qty 5	Ply 1	Jonah Blakenship\Mrtle Beach Job Reference (optional)	167205840
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:47 2024 Page 1

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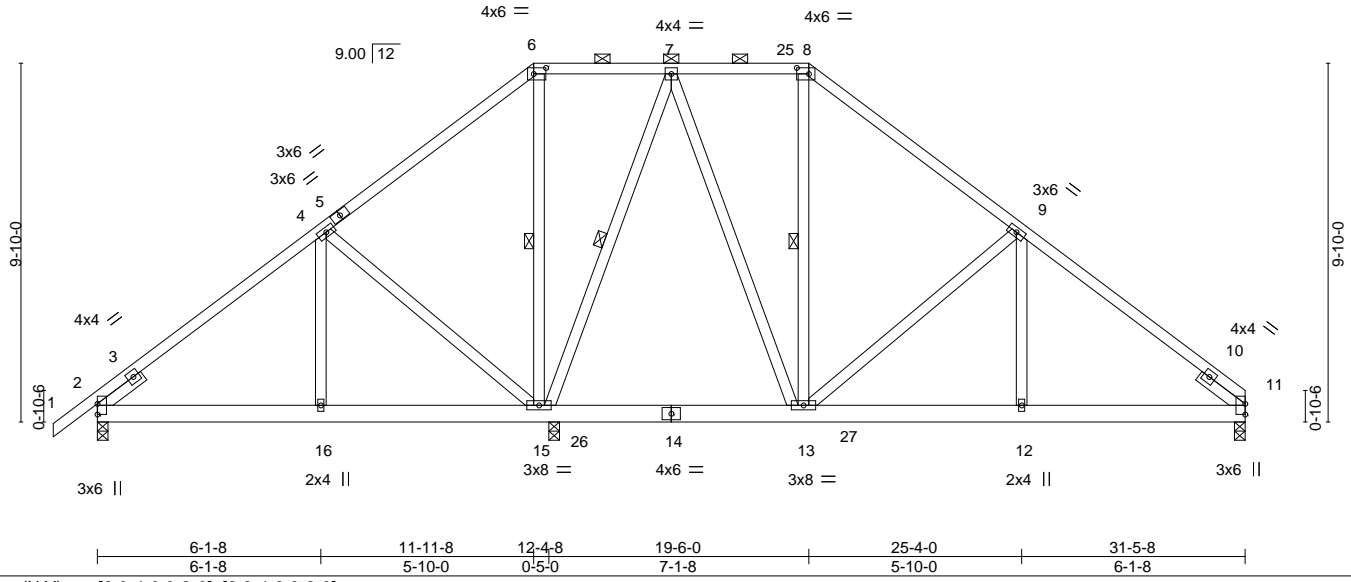


Plate Offsets (X, Y)--	[6:0-4-0,0-2-0], [8:0-4-0,0-2-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.04	13-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.05	13-15	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.01	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.01	12-19	>999		
								Weight: 229 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 6-8.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.
SLIDER Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0	WEBS 1 Row at midpt 6-15, 7-15, 8-13

**REACTIONS.** (size) 11=0-3-8, 2=0-3-8, 15=0-3-8  
 Max Horz 2=233(LC 7)  
 Max Uplift 11=68(LC 8), 2=-94(LC 8), 15=-73(LC 8)  
 Max Grav 11=753(LC 14), 2=520(LC 19), 15=1400(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-436/100, 7-8=-415/181, 8-9=-590/172, 9-11=-897/129  
 BOT CHORD 2-16=-56/374, 15-16=-56/374, 12-13=-17/653, 11-12=-17/653  
 WEBS 4-15=-440/137, 6-15=-314/24, 7-15=-703/54, 7-13=-7/521, 9-13=-414/140

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=31ft; 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 11, 94 lb uplift at joint 2 and 73 lb uplift at joint 15.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 30, 2024

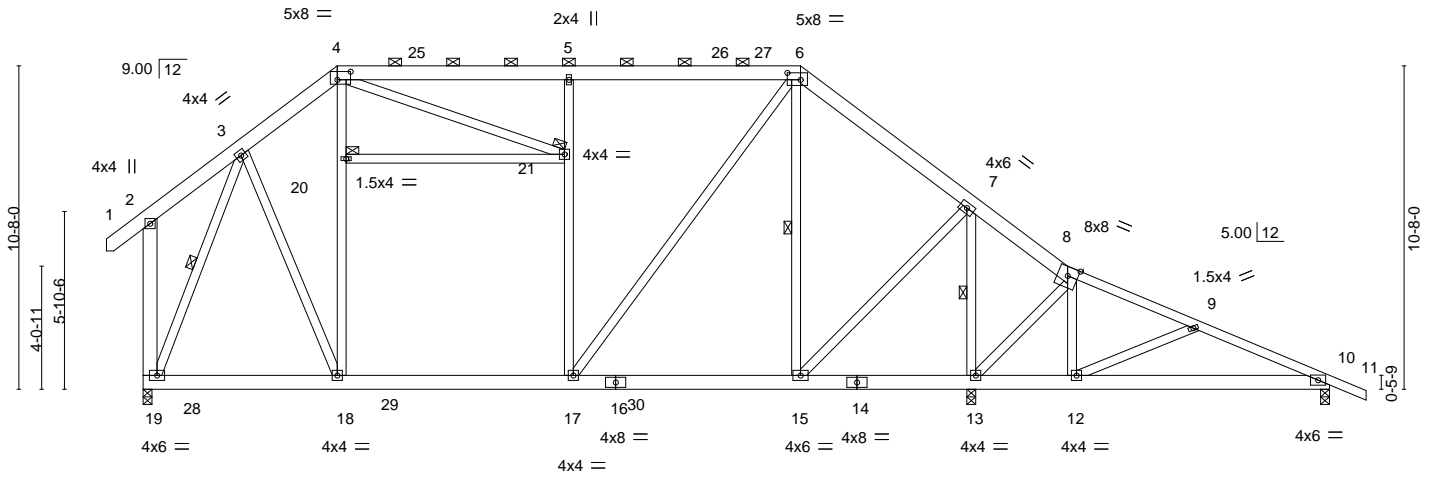
Job 28141	Truss T2	Truss Type Piggyback Base	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	167205841
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:54 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-EuuTxbpXlwdTCjAUUnZhGODTOwXgM?LSdHakDnxsyrh

1-2-8	3-4-3	6-4-13	14-0-8	21-8-3	27-3-12	30-5-14	34-7-9	39-1-8	40-4-0
1-2-8	3-4-3	3-0-11	7-7-11	7-7-11	5-7-9	3-2-2	4-1-11	4-5-15	1-2-8

Scale = 1:76.0



6-4-13	14-0-8	21-8-3	27-3-12	30-5-14	39-1-8
6-4-13	7-7-11	7-7-11	5-7-9	3-2-2	8-7-10

Plate Offsets (X, Y)--	[4:0-5-4,0-3-4], [6:0-5-4,0-2-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.26	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.39	Vert(LL) -0.15 15-17 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.65	Vert(CT) -0.24 15-17 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 10 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.08 15-17 >999 240	Weight: 349 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 8-11: 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 4-18,5-17: 2x4 SP No.2, 2-19: 2x6 SP No.1	WEBS 1 Row at midpt 6-15, 7-13, 3-19
	JOINTS 1 Brace at Jt(s): 20, 21

**REACTIONS.** (size) 13=0-3-8, 19=0-3-8, 10=0-3-8  
 Max Horz 19=-342(LC 6)  
 Max Uplift 13=-165(LC 8), 19=-111(LC 8), 10=-180(LC 21)  
 Max Grav 13=2455(LC 14), 19=1233(LC 13), 10=132(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-767/202, 4-5=-685/199, 5-6=-663/198, 6-7=-369/151, 7-8=-170/1336,  
 8-9=-226/1041, 9-10=-199/776, 2-19=-312/203  
 BOT CHORD 18-19=-59/546, 17-18=0/741, 15-17=-84/292, 13-15=-1076/237, 12-13=-957/264,  
 10-12=-689/209  
 WEBS 3-18=-17/593, 17-21=-412/141, 5-21=-436/142, 6-17=-51/763, 6-15=-856/107,  
 7-15=-43/1619, 7-13=-2275/169, 8-12=0/363, 9-12=-381/109, 3-19=-974/8

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=39ft; eave=5ft; 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 165 lb uplift at joint 13, 111 lb uplift at joint 19 and 180 lb uplift at joint 10.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





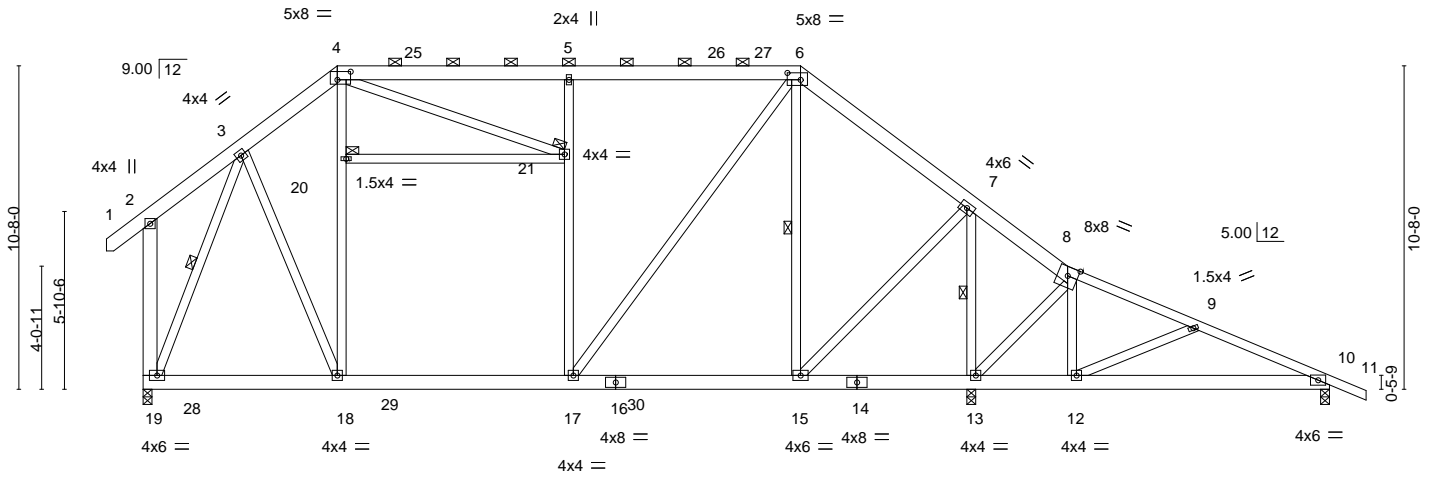
Job 28141	Truss T3	Truss Type Piggyback Base	Qty 2	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	167205842
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:54 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-EuuTxbpXlwdTCjAUUnZhGODTOwXgM?LSdHakDnxsyrh

1-2-8	3-4-3	6-4-13	14-0-8	21-8-3	27-3-12	30-5-14	34-7-9	39-1-8	40-4-0
1-2-8	3-4-3	3-0-11	7-7-11	7-7-11	5-7-9	3-2-2	4-1-11	4-5-15	1-2-8

Scale = 1:76.0



6-4-13	14-0-8	21-8-3	27-3-12	30-5-14	39-1-8
6-4-13	7-7-11	7-7-11	5-7-9	3-2-2	8-7-10

Plate Offsets (X, Y)--	[4:0-5-4,0-3-4], [6:0-5-4,0-2-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.26	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.39	Vert(LL) -0.15 15-17 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.65	Vert(CT) -0.24 15-17 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 10 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.08 15-17 >999 240	Weight: 349 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 8-11: 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 4-18,5-17: 2x4 SP No.2, 2-19: 2x6 SP No.1	WEBS 1 Row at midpt 6-15, 7-13, 3-19
	JOINTS 1 Brace at Jt(s): 20, 21

**REACTIONS.** (size) 13=0-3-8, 19=0-3-8, 10=0-3-8  
 Max Horz 19=-342(LC 6)  
 Max Uplift 13=-165(LC 8), 19=-111(LC 8), 10=-180(LC 21)  
 Max Grav 13=2455(LC 14), 19=1233(LC 13), 10=132(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-767/202, 4-5=-685/199, 5-6=-663/198, 6-7=-369/151, 7-8=-168/1336,  
 8-9=-224/1041, 9-10=-197/776, 2-19=-312/203  
 BOT CHORD 18-19=-59/546, 17-18=0/741, 15-17=-84/292, 13-15=-1076/236, 12-13=-957/263,  
 10-12=-689/208  
 WEBS 3-18=-17/593, 17-21=-412/141, 5-21=-436/142, 6-17=-51/763, 6-15=-856/106,  
 7-15=-41/1619, 7-13=-2275/169, 8-12=0/363, 9-12=-381/109, 3-19=-974/8

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=39ft; eave=5ft; 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 165 lb uplift at joint 13, 111 lb uplift at joint 19 and 180 lb uplift at joint 10.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





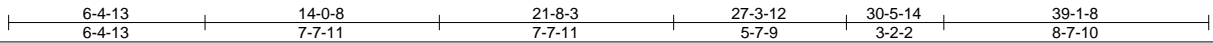
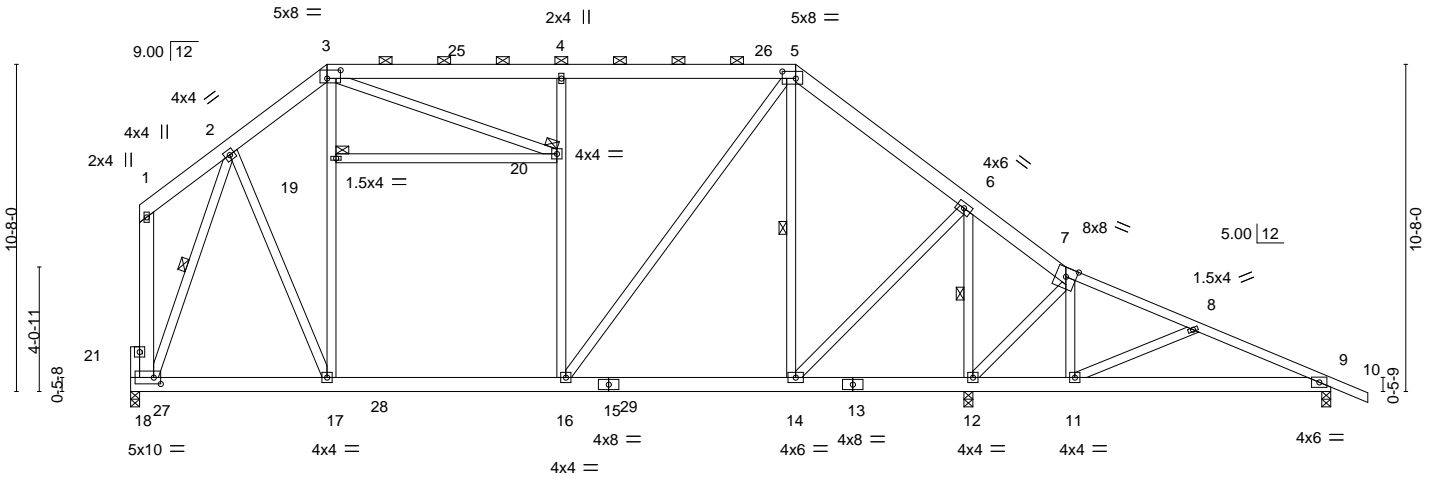
Job 28141	Truss T4	Truss Type Piggyback Base	Qty 2	Ply 1	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	167205843
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:55 2024 Page 1

ID:43FmfUEpnbW36Q?RCfByzursR-i5Sr8xq9WEIKqtlgKHCYVROZgx0XkoimVEUnKNysurg



Scale = 1:75.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.26	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.39	Vert(LL) -0.15 14-16 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.65	Vert(CT) -0.24 14-16 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 9 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.08 14-16 >999 240	Weight: 347 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 7-10: 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 3-17,4-16: 2x4 SP No.2, 1-18: 2x6 SP No.1	WEBS 1 Row at midpt 5-14, 6-12, 2-18 JOINTS 1 Brace at Jt(s): 19, 20

**REACTIONS.** (size) 12=0-3-8, 18=0-3-8, 9=0-3-8  
 Max Horz 18=194(LC 8)  
 Max Uplift 12=194(LC 8), 18=69(LC 8), 9=181(LC 21)  
 Max Grav 12=2449(LC 14), 18=1136(LC 13), 9=131(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-727/133, 3-4=-653/148, 4-5=-630/145, 5-6=-335/95, 6-7=-172/1318,  
 7-8=-228/1023, 8-9=-202/778  
 BOT CHORD 17-18=-37/500, 16-17=0/708, 14-16=-71/265, 12-14=-1062/240, 11-12=-941/267,  
 9-11=-691/212  
 WEBS 2-17=9/586, 16-20=-413/134, 4-20=-437/138, 5-16=-38/754, 5-14=-851/119,  
 6-14=-60/1611, 6-12=-2266/213, 7-11=0/363, 8-11=-381/111, 2-18=-1015/62

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=39ft; eave=5ft; 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 194 lb uplift at joint 12, 69 lb uplift at joint 18 and 181 lb uplift at joint 9.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

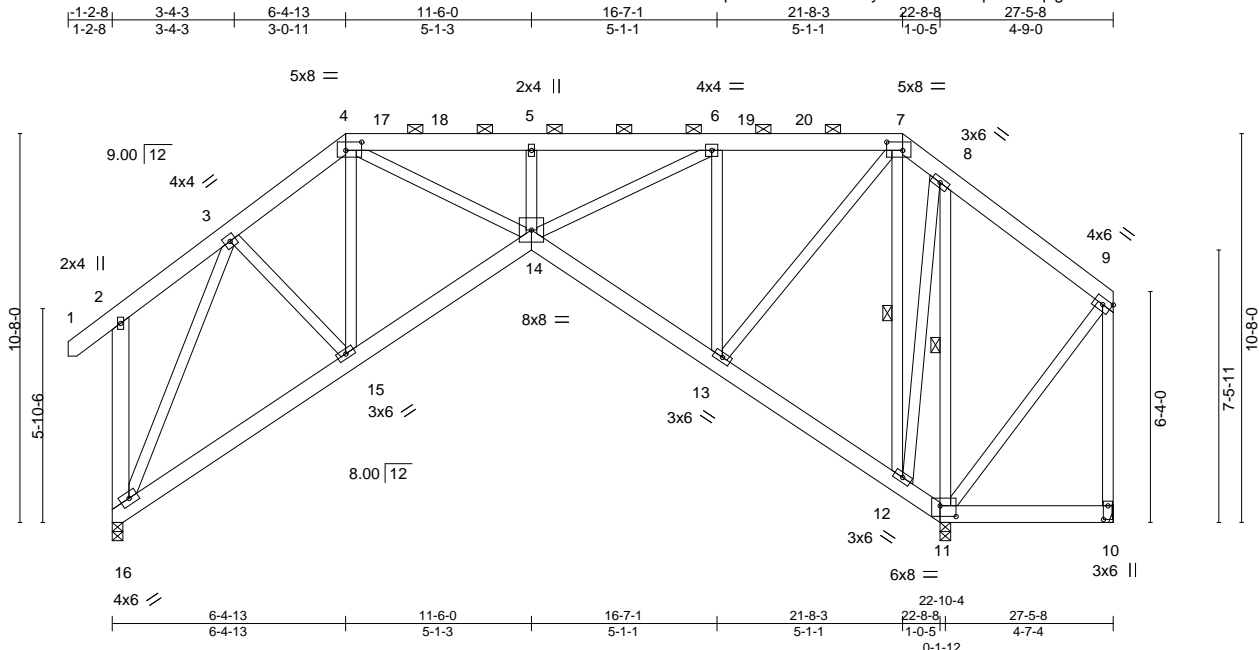


Job 28141	Truss T5	Truss Type Piggyback Base	Qty 6	Ply 1	Jonah Blakenship/Mrlyte Beach Job Reference (optional)	I67205844
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:55 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-i5Sr8xq9WEIKqtlgKHCvYR0aF4vkkkmVEUnKNysurg



Scale = 1:63.2

Plate Offsets (X,Y)-- [4:0-5-4,0-2-12], [7:0-5-4,0-2-12], [10:0-4-8,0-1-8], [11:0-5-4,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.23	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(LL) -0.05 14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.91	Vert(CT) -0.10 14 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.14 11 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.05 14 >999 240	Weight: 287 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-7.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 2-16: 2x6 SP No.1, 9-10: 2x4 SP No.2	WEBS 1 Row at midpt 7-12, 8-11

**REACTIONS.** (size) 11=0-3-8, 10=Mechanical, 16=0-3-8  
 Max Horz 16=328(LC 7)  
 Max Uplift 11=-313(LC 5), 10=-830(LC 19), 16=-120(LC 8)  
 Max Grav 11=2219(LC 1), 10=240(LC 5), 16=791(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-694/166, 4-5=-1115/269, 5-6=-1115/269, 7-8=-90/368, 8-9=-171/650,  
 2-16=-277/196, 9-10=-216/829  
 BOT CHORD 15-16=-295/566, 14-15=-261/744, 12-13=-435/136, 11-12=-692/99  
 WEBS 3-15=0/305, 4-14=-133/673, 5-14=-286/99, 6-14=-279/1113, 6-13=-842/241,  
 7-13=-156/839, 7-12=-834/190, 8-12=-97/536, 8-11=-1002/175, 3-16=-755/16,  
 9-11=-666/134

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=27ft; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 313 lb uplift at joint 11, 830 lb uplift at joint 10 and 120 lb uplift at joint 16.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

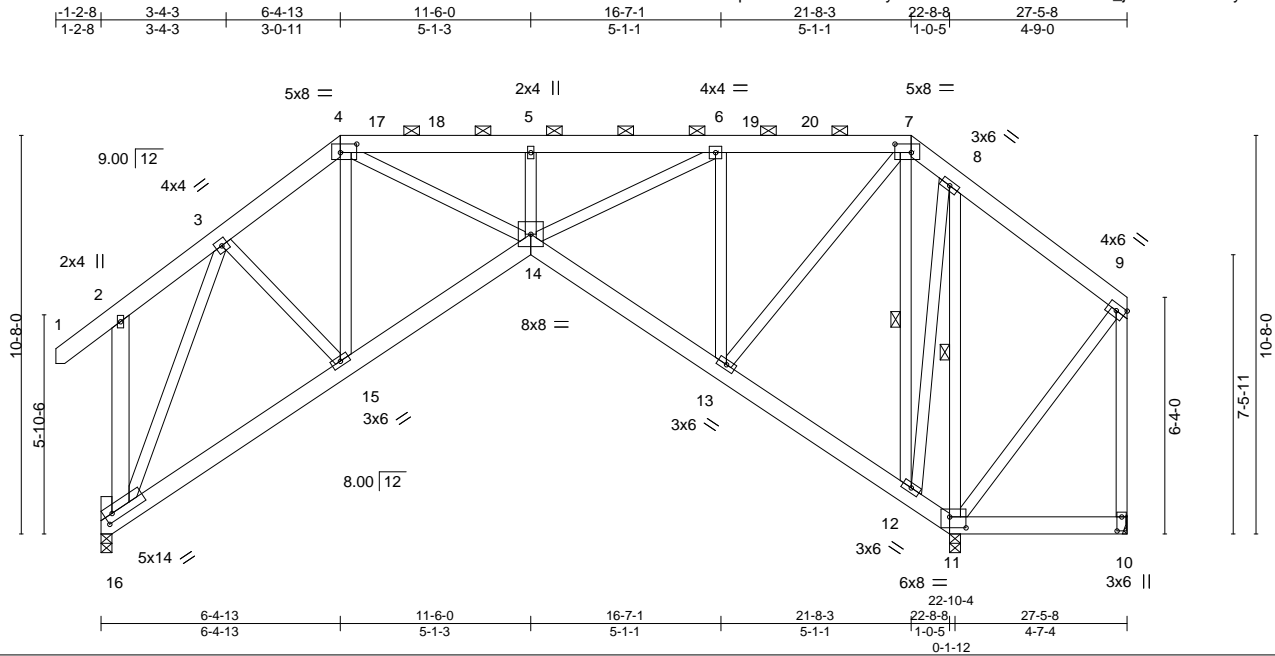


Job 28141	Truss T6	Truss Type Piggyback Base	Qty 4	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	I67205845
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:56 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-AHODMHmHXtBS1Ktu\_jk5eY1?KQ9TCyvkDKspysurf



Scale = 1:61.7

Plate Offsets (X, Y)--	[4:0-5-4,0-2-12], [7:0-5-4,0-2-12], [10:0-4-8,0-1-8], [11:0-5-4,0-3-8], [16:0-2-9,0-2-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	-0.05	14	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.10	14	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.85	Horz(CT)	0.14	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.05	14	>999		
								Weight: 287 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-7.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 7-12, 8-11
9-10: 2x4 SP No.2, 2-16: 2x6 SP No.1	

**REACTIONS.** (size) 11=0-3-8, 10=Mechanical, 16=0-3-8  
 Max Horz 16=286(LC 7)  
 Max Uplift 11=-277(LC 5), 10=-823(LC 19), 16=-146(LC 8)  
 Max Grav 11=2207(LC 1), 10=220(LC 5), 16=793(LC 19)

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

TOP CHORD 3-4=-649/124, 4-5=-1082/231, 5-6=-1082/231, 7-8=-87/358, 8-9=-160/635, 9-10=-197/822

BOT CHORD 15-16=-251/503, 14-15=-221/698, 12-13=-431/124, 11-12=-687/82

WEBS 3-15=0/317, 4-14=-129/671, 5-14=-286/99, 6-14=-240/1065, 6-13=-839/222, 7-13=-139/837, 7-12=-831/175, 8-12=-89/534, 8-11=-999/161, 3-16=-756/44, 9-11=-660/120

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=27ft; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 277 lb uplift at joint 11, 823 lb uplift at joint 10 and 146 lb uplift at joint 16.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job 28141	Truss T7	Truss Type Common	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	I67205846
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C&R Truss, Autryville, NC - 28318,

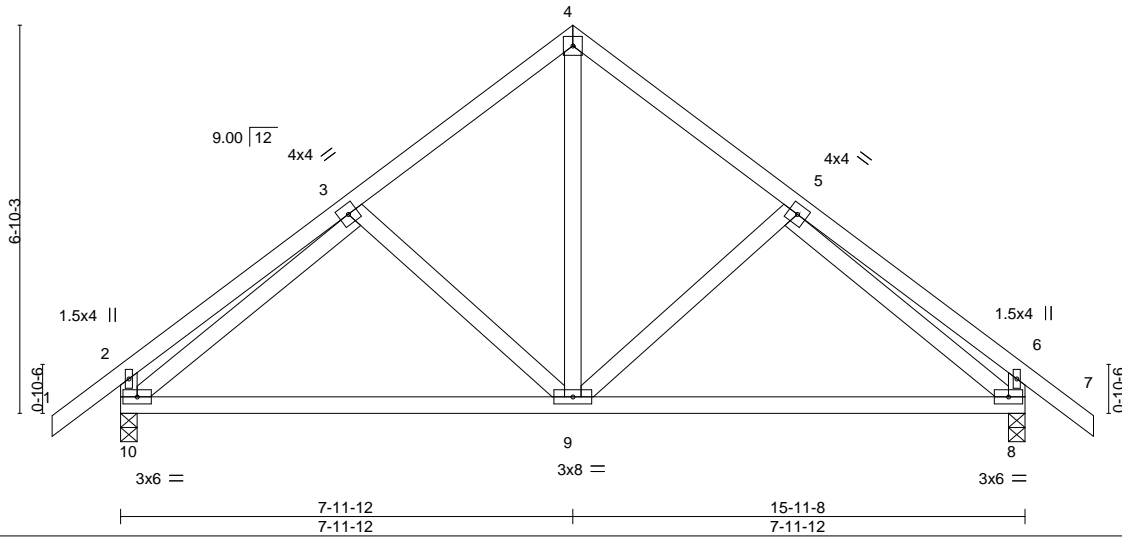
8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:56 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-AH0DMHrnHXtBS1Ktu\_jk5eYi?KP2TMHvkuDKspysurf



4x4 =

Scale = 1:40.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.05 9-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.10 9-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	0.01 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.01 9	>999	240		
								Weight: 99 lb	FT = 20%

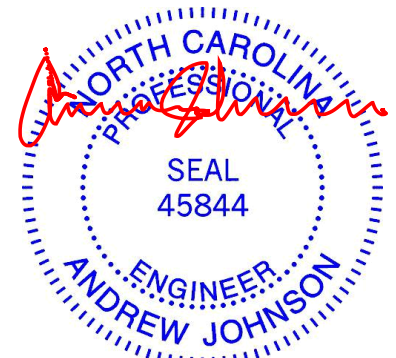
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 10=0-3-8, 8=0-3-8  
 Max Horz 10=182(LC 7)  
 Max Uplift 10=-95(LC 8), 8=-95(LC 8)  
 Max Grav 10=708(LC 1), 8=708(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-289/42, 3-4=-566/107, 4-5=-566/107, 5-6=-289/42, 2-10=-327/97, 6-8=-327/97  
 BOT CHORD 9-10=0/549, 8-9=0/502  
 WEBS 4-9=-42/399, 3-10=-455/58, 5-8=-455/58

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 95 lb uplift at joint 10 and 95 lb uplift at joint 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.
  - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



July 30, 2024

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



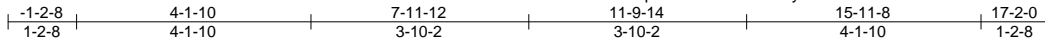
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss T8	Truss Type Common	Qty 1	Ply 1	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	I67205847
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C&R Truss, Autryville, NC - 28318,

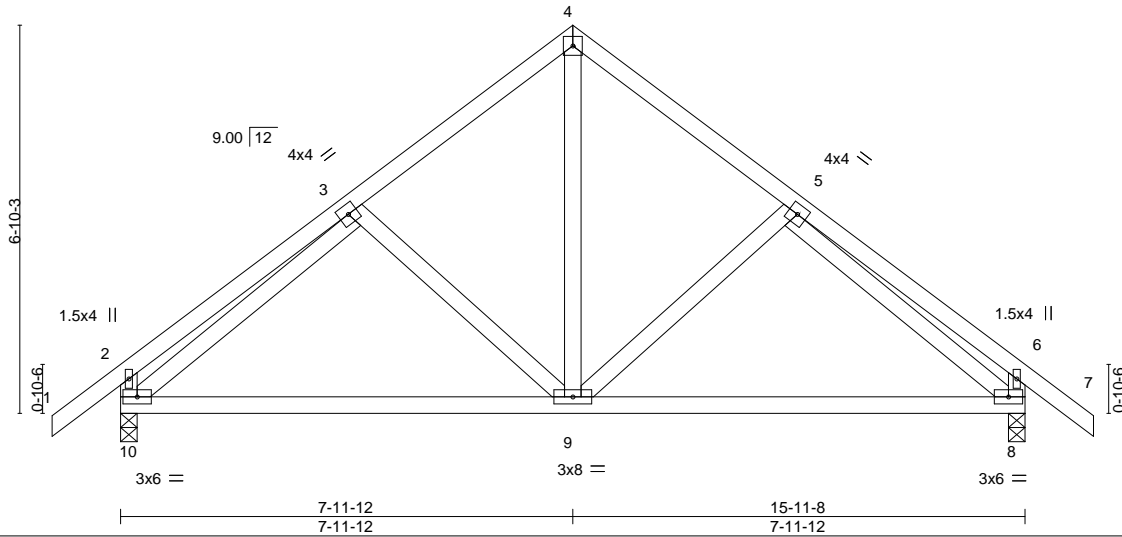
8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:57 2024 Page 1

ID:43FmfUEpnbWxW36Q?RCfByzursR-eTZbZcrQ2r?23Bv3SiEzds5slkiHCoW3zYztOFysure



4x4 =

Scale = 1:40.7



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.05 9-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.10 9-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	0.01 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.01 9	>999	240		
								Weight: 99 lb	FT = 20%

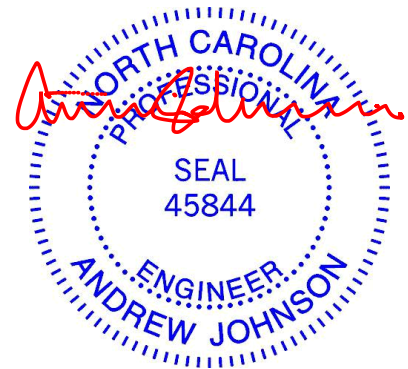
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 10=0-3-8, 8=0-3-8  
 Max Horz 10=182(LC 7)  
 Max Uplift 10=-95(LC 8), 8=-95(LC 8)  
 Max Grav 10=708(LC 1), 8=708(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-289/42, 3-4=-566/107, 4-5=-566/107, 5-6=-289/42, 2-10=-327/97, 6-8=-327/97  
 BOT CHORD 9-10=0/549, 8-9=0/502  
 WEBS 4-9=-42/399, 3-10=-455/58, 5-8=-455/58

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BC DL=6.0psf; h=20ft; 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
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 95 lb uplift at joint 10 and 95 lb uplift at joint 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



July 30, 2024

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

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



818 Soundside Road  
 Edenton, NC 27932



Job 28141	Truss T9	Truss Type Piggyback Base	Qty 3	Ply 1	Jonah Blakenship/Mrlyte Beach Job Reference (optional)	167205848
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:58 2024 Page 1  
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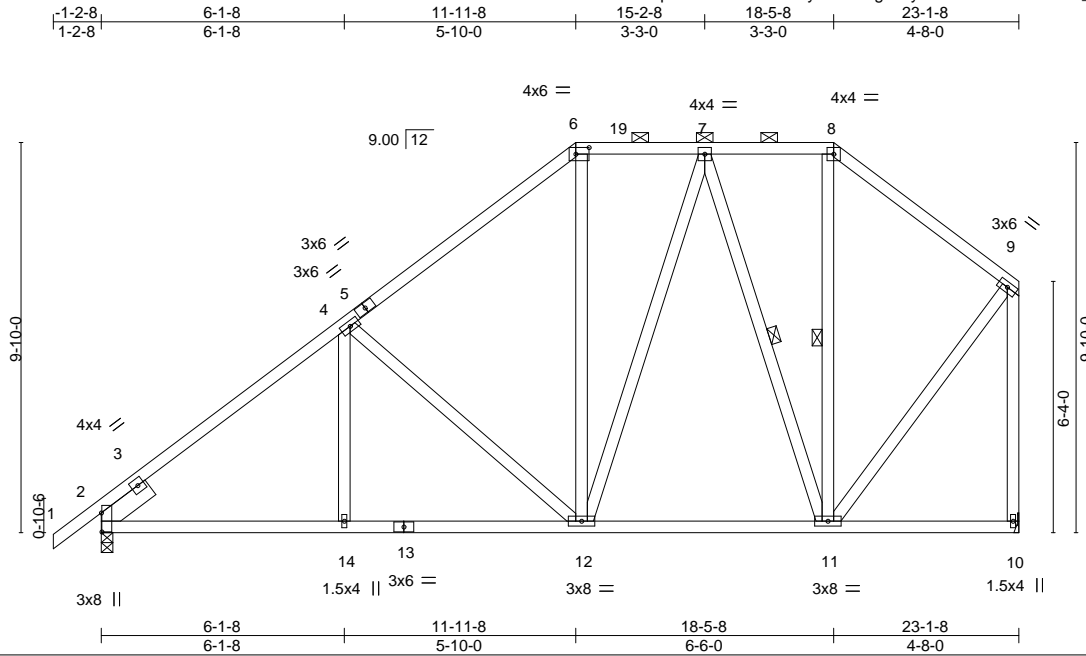


Plate Offsets (X,Y)--	[2:0-5-12,0-0-3], [6:0-4-0,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.59	Vert(LL) -0.07 11-12 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.19	Vert(CT) -0.10 11-12 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.44	Horz(CT) 0.01 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL) 0.01 12-14 >999 240	Weight: 176 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-11, 8-11
SLIDER Left 2x6 SP No.1 1-6-0	

**REACTIONS.** (size) 2=0-3-8, 10=Mechanical  
 Max Horz 2=321(LC 7)  
 Max Uplift 2=-109(LC 8), 10=-74(LC 8)  
 Max Grav 2=994(LC 1), 10=958(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1137/120, 4-6=-840/170, 6-7=-618/180, 7-8=-436/163, 8-9=-593/160, 9-10=-932/107  
 BOT CHORD 2-14=-182/962, 12-14=-182/962, 11-12=-120/583  
 WEBS 4-12=-373/135, 7-12=-18/319, 7-11=-448/99, 9-11=-68/692

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 2 and 74 lb uplift at joint 10.
  - 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.
  - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



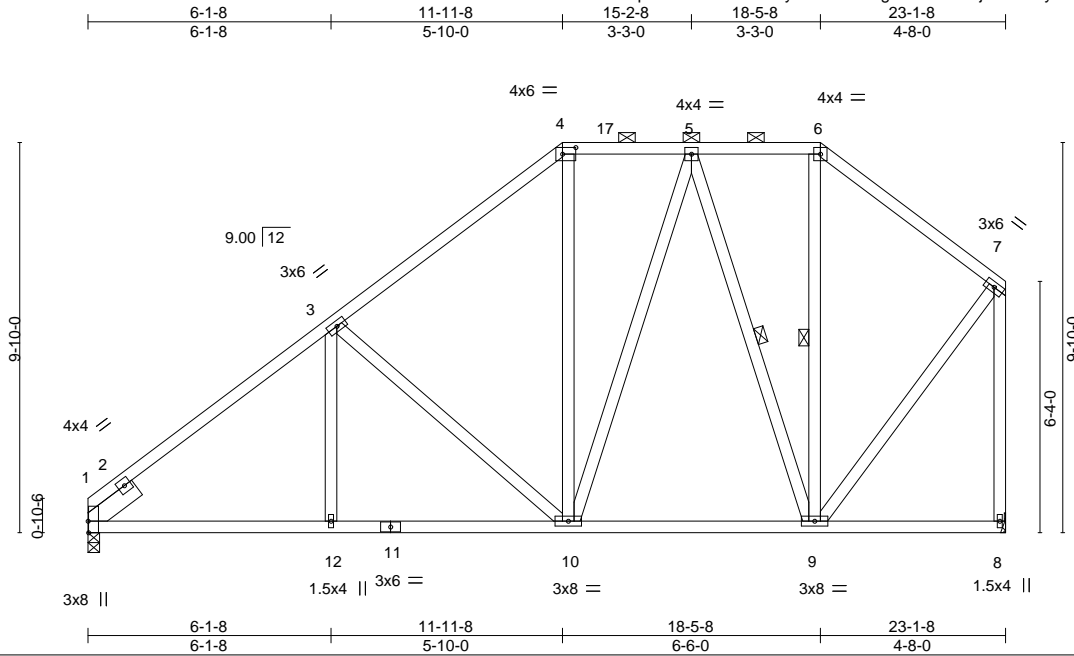


Job 28141	Truss T10	Truss Type Piggyback Base	Qty 3	Ply 1	Jonah Blakenship/Mrlyte Beach Job Reference (optional)	167205849
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:48 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-PIXCgXkm94tKUjKQJarmyDHN6h?bhEkueHvaHysurn



Scale = 1:58.1

Plate Offsets (X, Y)--	[1:0-3-8,Edge], [4:0-4-0,0-2-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.59	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.19	Vert(LL) -0.07 9-10 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.45	Vert(CT) -0.10 9-10 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 8 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.01 10 >999 240	Weight: 174 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-9, 6-9
SLIDER Left 2x6 SP No.1 1-6-0	

**REACTIONS.** (size) 1=0-3-8, 8=Mechanical  
 Max Horz 1=306(LC 7)  
 Max Uplift 1=67(LC 8), 8=75(LC 8)  
 Max Grav 1=919(LC 1), 8=960(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-1145/124, 3-4=-843/172, 4-5=-620/181, 5-6=-437/164, 6-7=-594/161, 7-8=-934/108  
 BOT CHORD 1-12=-182/969, 10-12=-182/969, 9-10=-120/584  
 WEBS 3-10=-380/139, 5-10=-18/320, 5-9=-449/99, 7-9=-68/693

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 1 and 75 lb uplift at joint 8.
  - 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.
  - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

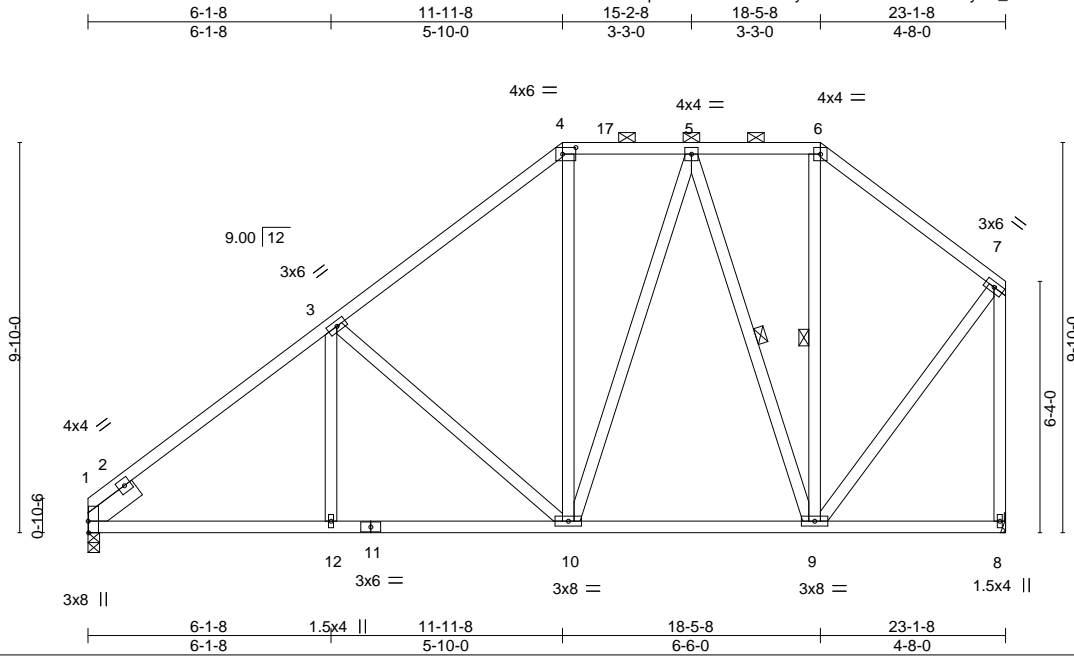


Job 28141	Truss T11	Truss Type Piggyback Base	Qty 1	Ply 1	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	167205850
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:49 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-tx5autlOwO?B6yIW\_054JAmS7W1EK8Ut711S6jysurm



Scale = 1:58.1

Plate Offsets (X, Y)--	[1:0-3-8,Edge], [4:0-4-0,0-2-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.59	Vert(LL)	-0.07	9-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.10	9-10	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.45	Horz(CT)	0.01	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.01	10	>999		
								Weight: 174 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-9, 6-9
SLIDER Left 2x6 SP No.1 1-6-0	

**REACTIONS.** (size) 1=0-3-8, 8=Mechanical  
 Max Horz 1=306(LC 7)  
 Max Uplift 1=67(LC 8), 8=75(LC 8)  
 Max Grav 1=919(LC 1), 8=960(LC 13)

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

TOP CHORD 1-3=-1145/124, 3-4=-843/172, 4-5=-620/181, 5-6=-437/164, 6-7=-594/161, 7-8=-934/108

BOT CHORD 1-12=-182/969, 10-12=-182/969, 9-10=-120/584

WEBS 3-10=-380/139, 5-10=-18/320, 5-9=-449/99, 7-9=-68/693

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 1 and 75 lb uplift at joint 8.
  - 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.
  - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job 28141	Truss T12	Truss Type Piggyback Base	Qty 1	Ply 1	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	167205851
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:49 2024 Page 1

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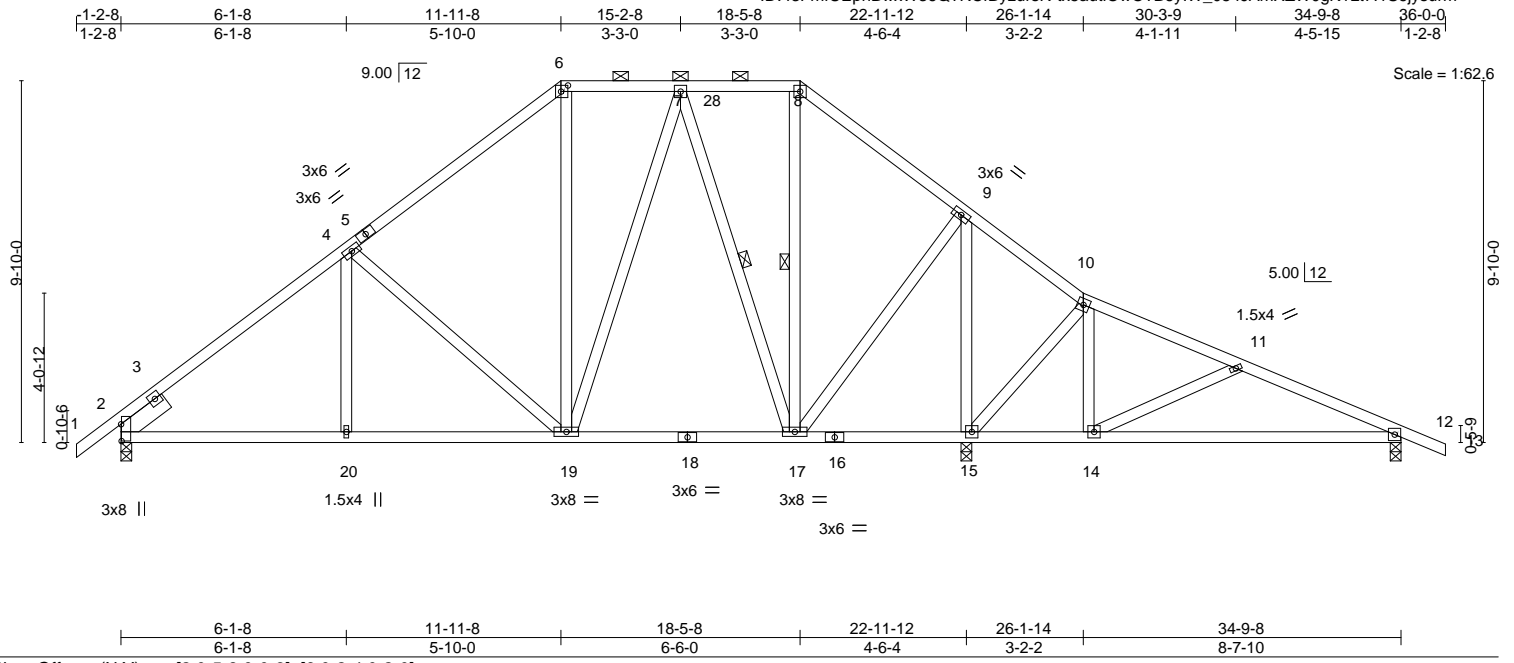


Plate Offsets (X, Y)--	[2:0-5-8,0-0-3], [6:0-2-4,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.30	Vert(LL) -0.07 14-27 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.23	Vert(CT) -0.15 14-27 >922 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.84	Horz(CT) 0.01 12 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL) 0.02 19 >999 240	Weight: 233 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-17, 8-17
SLIDER Left 2x6 SP No.1 1-6-0	

**REACTIONS.** (size) 2=0-3-8, 15=0-3-8, 12=0-3-8  
 Max Horz 2=-241(LC 6)  
 Max Uplift 2=-103(LC 8), 15=-135(LC 8), 12=-59(LC 8)  
 Max Grav 2=957(LC 13), 15=1531(LC 1), 12=462(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1079/112, 4-6=-789/161, 6-7=-579/172, 7-8=-320/150, 8-9=-480/142, 9-10=0/270, 11-12=-535/54  
 BOT CHORD 2-20=0/951, 19-20=0/951, 17-19=0/548, 12-14=0/472  
 WEBS 4-19=-388/136, 7-19=-17/358, 7-17=-496/53, 9-17=0/794, 9-15=-1173/121, 10-15=-422/49, 10-14=0/365, 11-14=-370/107

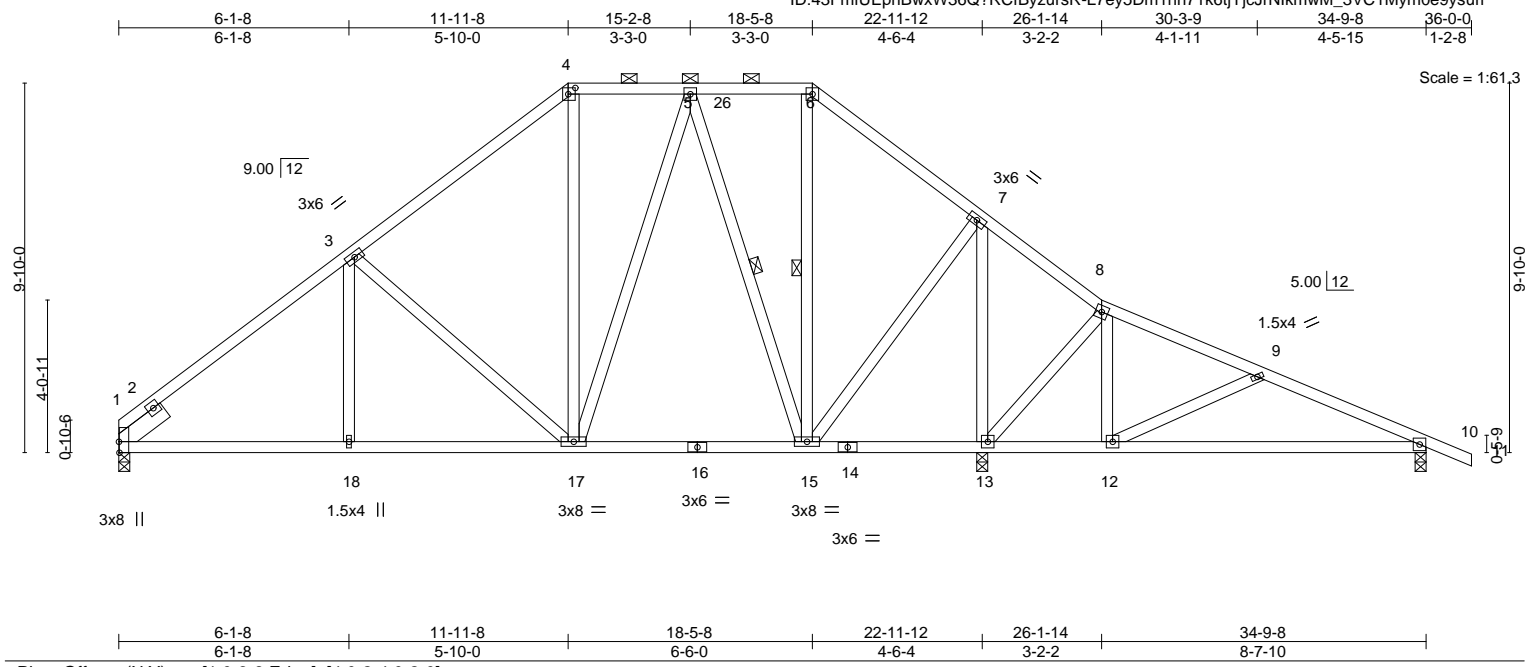
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111 mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are 4x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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 103 lb uplift at joint 2, 135 lb uplift at joint 15 and 59 lb uplift at joint 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job 28141	Truss T13	Truss Type Piggyback Base	Qty 3	Ply 1	Jonah Blakenship\Mrtle Beach Job Reference (optional)	167205852
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:50 2024 Page 1  
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.15	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.22	Vert(LL) -0.07 12-25 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.80	Vert(CT) -0.14 12-25 >981 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 10 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.01 18-21 >999 240	Weight: 231 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SP 2400F 2.0E	2-0-0 oc purlins (6-0-0 max.): 4-6.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.
SLIDER Left 2x6 SP No.1 1-6-0	WEBS 1 Row at midpt 5-15, 6-15

**REACTIONS.** (size) 1=0-3-8, 13=0-3-8, 10=0-3-8  
 Max Horz 1=-233(LC 6)  
 Max Uplift 1=-65(LC 8), 13=-124(LC 8), 10=-67(LC 8)  
 Max Grav 1=902(LC 13), 13=1490(LC 1), 10=483(LC 20)

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

TOP CHORD	BOT CHORD	WEBS
1-3=-1108/121, 3-4=-815/169, 4-5=-600/178, 5-6=-348/159, 6-7=-515/153, 8-9=-255/22, 9-10=-586/72	1-18=0/976, 17-18=0/976, 15-17=0/573, 10-12=-0/519	3-17=-393/139, 5-17=-14/346, 5-15=-481/49, 7-15=0/752, 7-13=-1121/107, 8-13=-433/55, 8-12=0/361, 9-12=-369/103

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111 mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; 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
  - Provide adequate drainage to prevent water ponding.
  - All plates are 4x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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 65 lb uplift at joint 1, 124 lb uplift at joint 13 and 67 lb uplift at joint 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

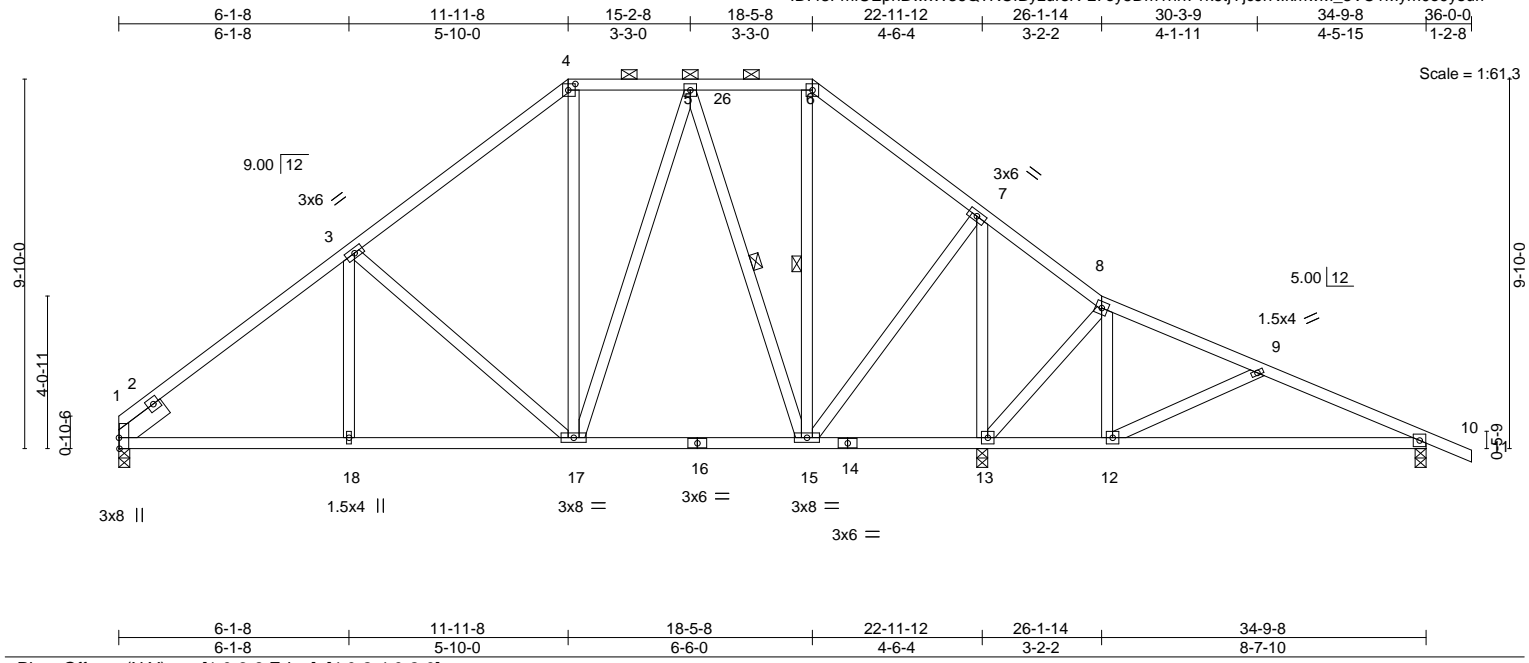


Job 28141	Truss T14	Truss Type Piggyback Base	Qty 1	Ply 1	Jonah Blakenship Mrtyle Beach Job Reference (optional)	167205853
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C&R Truss, Autryville, NC - 28318,

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.15	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.22	Vert(LL) -0.07 12-25 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.80	Vert(CT) -0.14 12-25 >981 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 10 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.01 18-21 >999 240	Weight: 231 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SP 2400F 2.0E	2-0-0 oc purlins (6-0-0 max.): 4-6.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.
SLIDER Left 2x6 SP No.1 1-6-0	WEBS 1 Row at midpt 5-15, 6-15

**REACTIONS.** (size) 1=0-3-8, 13=0-3-8, 10=0-3-8  
 Max Horz 1=-233(LC 6)  
 Max Uplift 1=-65(LC 8), 13=-124(LC 8), 10=-67(LC 8)  
 Max Grav 1=902(LC 13), 13=1490(LC 1), 10=483(LC 20)

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

TOP CHORD	BOT CHORD	WEBS
1-3=-1108/121, 3-4=-815/169, 4-5=-600/178, 5-6=-348/159, 6-7=-515/153, 8-9=-255/22, 9-10=-586/72	1-18=0/976, 17-18=0/976, 15-17=0/573, 10-12=-0/519	3-17=-393/139, 5-17=-14/346, 5-15=-481/49, 7-15=0/752, 7-13=-1121/107, 8-13=-433/55, 8-12=0/361, 9-12=-369/103

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111 mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; 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
  - Provide adequate drainage to prevent water ponding.
  - All plates are 4x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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 65 lb uplift at joint 1, 124 lb uplift at joint 13 and 67 lb uplift at joint 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.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



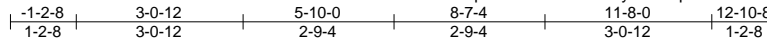


Job	Truss	Truss Type	Qty	Ply	Jonah Blakenship/Mrlyte Beach	I67205854
28141	T15	Common	1	1	Job Reference (optional)	

C&R Truss, Autryville, NC - 28318,

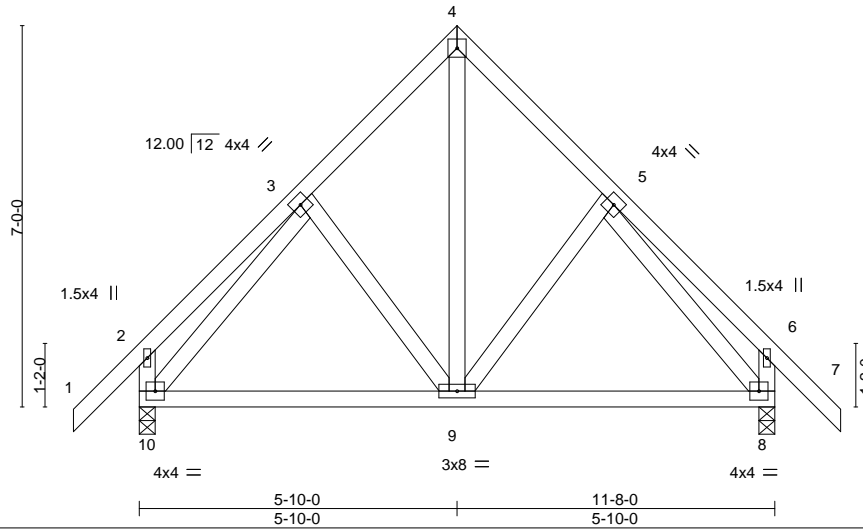
8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:51 2024 Page 1

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4x4 =

Scale = 1:42.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	-0.02 9-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.03 9-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.00 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS	Wind(LL)	0.00 9	>999	240		
								Weight: 85 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 2400F 2.0E  
 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) 10=0-3-8, 8=0-3-8  
 Max Horz 10=212(LC 7)  
 Max Uplift 10=-81(LC 8), 8=-81(LC 8)  
 Max Grav 10=536(LC 1), 8=536(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-347/109, 4-5=-347/109  
 BOT CHORD 9-10=-30/323, 8-9=0/259  
 WEBS 4-9=-87/269, 3-10=-355/0, 5-8=-355/0

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 10 and 81 lb uplift at joint 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.



July 30, 2024

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





Job 28141	Truss T16	Truss Type Piggyback Base	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	I67205855
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C&R Truss, Autryville, NC - 28318,

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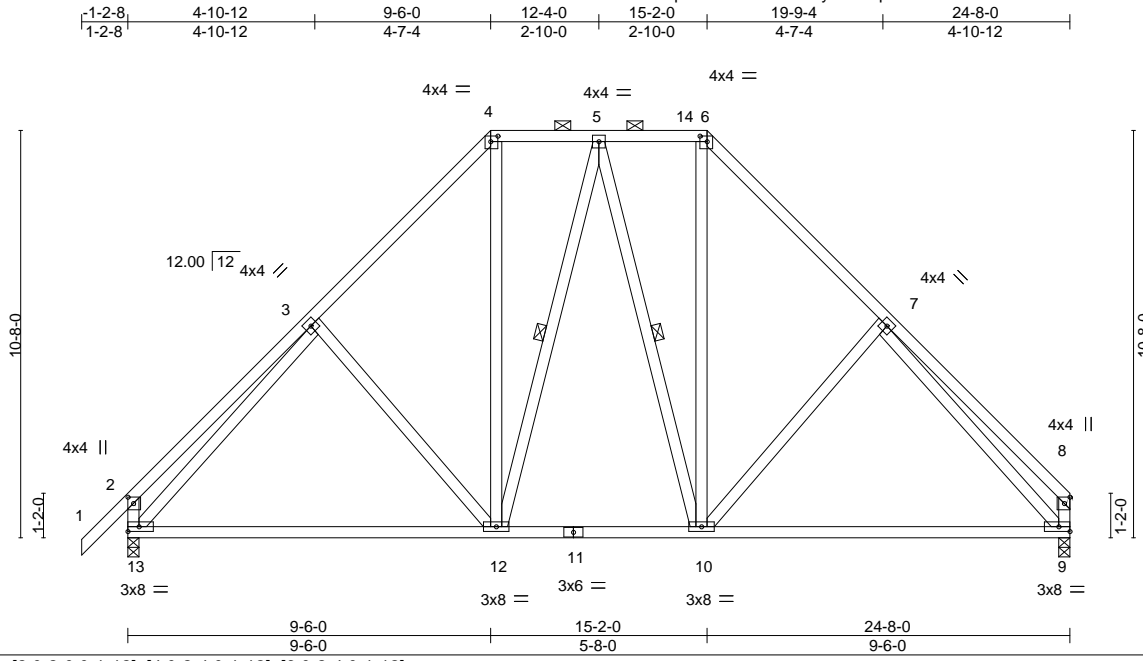


Plate Offsets (X,Y)--	[2:0-2-0,0-1-12], [4:0-2-4,0-1-12], [6:0-2-4,0-1-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.76	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.32	Vert(LL) -0.14 12-13 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.74	Vert(CT) -0.29 12-13 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 9 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.01 10-12 >999 240	Weight: 193 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-12, 5-10

**REACTIONS.** (size) 13=0-3-8, 9=0-3-8  
 Max Horz 13=296(LC 7)  
 Max Uplift 13=-122(LC 8), 9=-75(LC 8)  
 Max Grav 13=1059(LC 1), 9=973(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-430/109, 3-4=-908/201, 4-5=-606/195, 5-6=-607/195, 6-7=-912/203, 7-8=-434/88,  
 2-13=-465/148, 8-9=-385/83  
 BOT CHORD 12-13=-97/807, 10-12=0/676, 9-10=-3/668  
 WEBS 4-12=-43/389, 6-10=-46/391, 3-13=-748/41, 7-9=-737/63

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 13 and 75 lb uplift at joint 9.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job	Truss	Truss Type	Qty	Ply	Jonah Blakenship/Mrlyte Beach	167205856
28141	T17	Piggyback Base	6	1	Job Reference (optional)	

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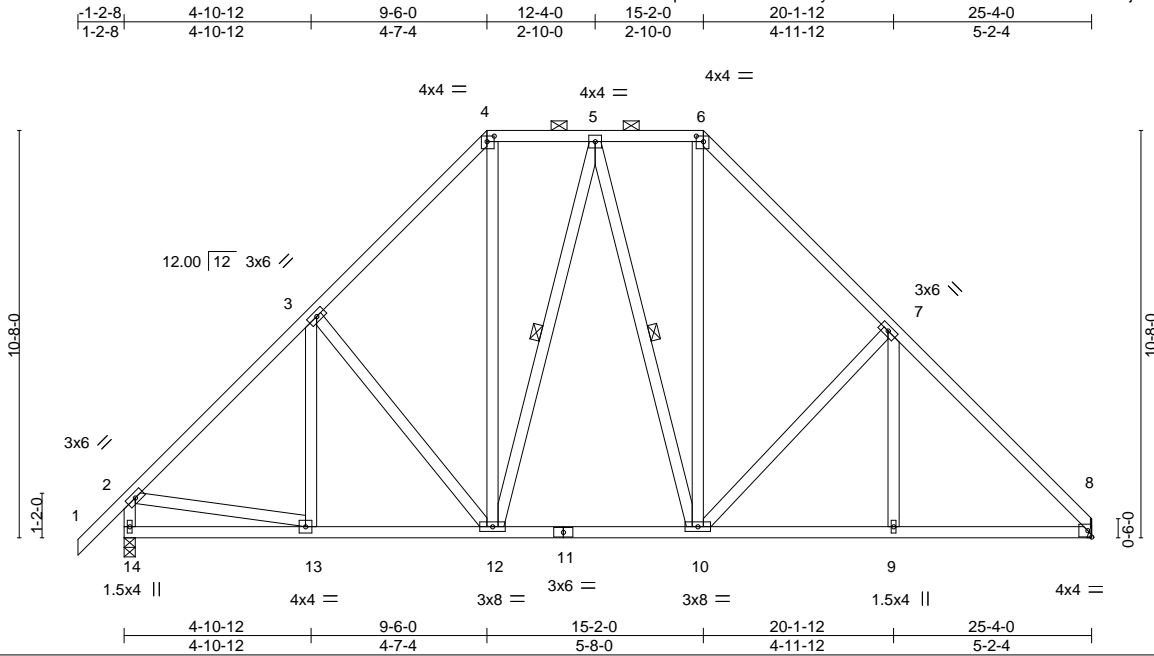


Plate Offsets (X,Y)--	[4:0-2-4,0-1-12], [6:0-2-4,0-1-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.22	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) -0.04 10-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.37	Vert(CT) -0.07 10-12 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.02 8 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.02 9-17 >999 240	Weight: 196 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-12, 5-10

**REACTIONS.** (size) 8=Mechanical, 14=0-3-8  
 Max Horz 14=288(LC 6)  
 Max Uplift 8=77(LC 8), 14=125(LC 8)  
 Max Grav 8=1005(LC 1), 14=1091(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1086/127, 3-4=-942/214, 4-5=-627/200, 5-6=-646/202, 6-7=-976/211, 7-8=-1243/133, 2-14=-1043/150  
 BOT CHORD 13-14=-230/338, 12-13=-54/855, 10-12=0/710, 9-10=-5/811, 8-9=-5/811  
 WEBS 4-12=-64/431, 6-10=-57/441, 7-10=-362/162, 2-13=0/655

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 8 and 125 lb uplift at joint 14.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 30, 2024

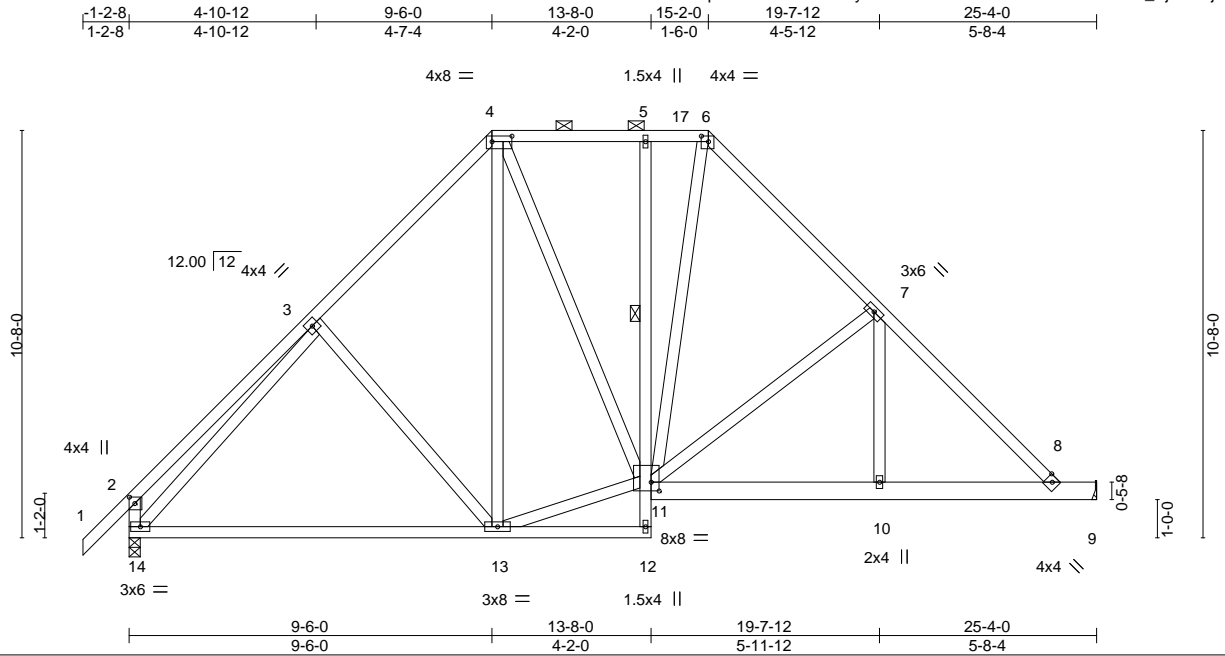
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MITEK Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 28141	Truss T18	Truss Type Piggyback Base	Qty 4	Ply 1	Jonah Blakenship/Mrlyte Beach Job Reference (optional)	167205857
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Scale = 1:60.3

Plate Offsets (X,Y)--	[2:0-2-0,0-1-12], [4:0-6-4,0-1-12], [6:0-2-4,0-1-12], [11:0-2-8,0-2-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.54	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.69	Vert(LL) -0.15 13-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.80	Vert(CT) -0.31 13-14 >985 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.03 9 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.05 10-15 >999 240	Weight: 201 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x4 SP 2400F 2.0E *Except* 5-12: 2x4 SP No.3, 9-11: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 1 Row at midpt 5-11
WEBS 2x4 SP No.3	

REACTIONS.
(size) 9=Mechanical, 14=0-3-8
Max Horz 14=-278(LC 6)
Max Uplift 9=-56(LC 8), 14=-123(LC 8)
Max Grav 9=1003(LC 1), 14=1088(LC 1)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-371/138, 3-4=-937/201, 4-5=-675/191, 5-6=-675/190, 6-7=-963/190, 7-8=-1444/141, 2-14=-421/168
BOT CHORD 13-14=-82/756, 10-11=-16/998, 8-10=-16/998
WEBS 11-13=0/634, 4-11=-37/283, 6-11=-54/444, 7-11=-539/146, 7-10=0/413, 3-14=-792/11

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 9 and 123 lb uplift at joint 14.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



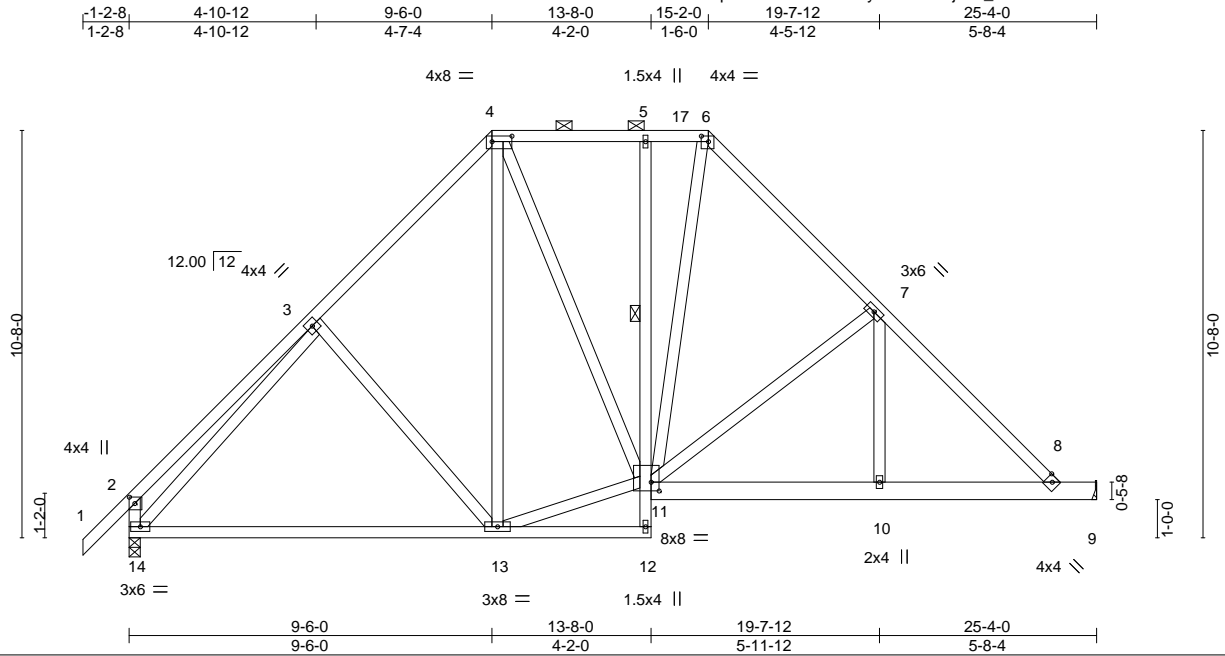
July 30, 2024

Job 28141	Truss T19	Truss Type Piggyback Base	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	I67205858
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:53 2024 Page 1

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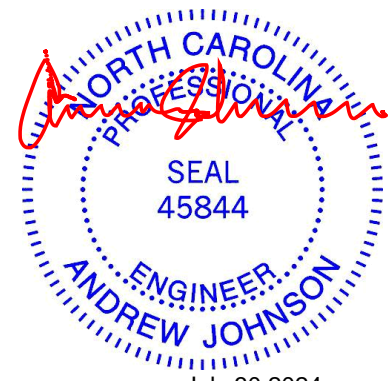
Plate Offsets (X,Y)--	[2:0-2-0,0-1-12], [4:0-6-4,0-1-12], [6:0-2-4,0-1-12], [11:0-2-8,0-2-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.54	Vert(LL) -0.15 13-14 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.69	Vert(CT) -0.31 13-14 >985 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.80	Horz(CT) 0.03 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Wind(LL) 0.05 10-15 >999 240	Weight: 201 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x4 SP 2400F 2.0E *Except*	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
5-12: 2x4 SP No.3, 9-11: 2x6 SP No.1	1 Row at midpt 5-11
WEBS 2x4 SP No.3	

<b>REACTIONS.</b>	(size) 9=Mechanical, 14=0-3-8
	Max Horz 14=-278(LC 6)
	Max Uplift 9=-56(LC 8), 14=-123(LC 8)
	Max Grav 9=1003(LC 1), 14=1088(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-371/138, 3-4=-937/201, 4-5=-675/191, 5-6=-675/190, 6-7=-963/190, 7-8=-1444/141, 2-14=-421/168
BOT CHORD	13-14=-82/756, 10-11=-16/998, 8-10=-16/998
WEBS	11-13=0/634, 4-11=-37/283, 6-11=-54/444, 7-11=-539/146, 7-10=0/413, 3-14=-792/11

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 9 and 123 lb uplift at joint 14.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



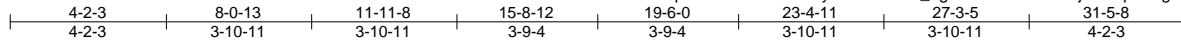
July 30, 2024

Job 28141	Truss TG1	Truss Type Piggyback Base Girder	Qty 1	Ply 2	Jonah Blakenship/Mrlyte Beach Job Reference (optional)	167205859
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C&R Truss, Autryville, NC - 28318,

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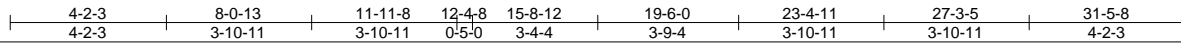
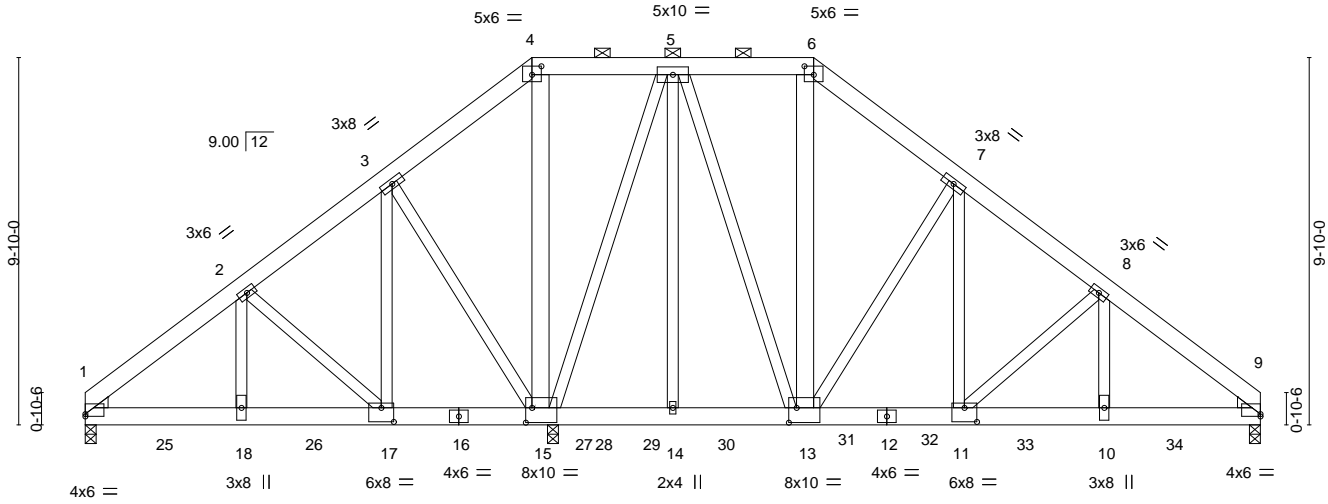


Plate Offsets (X,Y)--	[1:0-0-0,0-0-12], [4:0-3-0,0-2-12], [6:0-3-0,0-2-12], [9:Edge,0-0-12], [11:0-4-0,0-4-8], [13:0-2-8,0-4-12], [15:0-2-0,0-4-12], [17:0-4-0,0-4-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	0.05 10-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	0.08 10-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.72	Horz(CT)	-0.01 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS	Wind(LL)	-0.05 10-11	>999	240	Weight: 618 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 4-6.
WEBS 2x4 SP No.3 *Except* 4-15,6-13: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEDGE Left: 2x4 SP No.3, Right: 2x4 SP No.3	

**REACTIONS.** (size) 1=0-3-8, 9=0-3-8, 15=0-3-8 (req. 0-3-15)  
 Max Horz 1=-218(LC 32)  
 Max Uplift 9=-3916(LC 26), 15=-3768(LC 8)  
 Max Grav 1=2314(LC 19), 9=1300(LC 33), 15=6677(LC 38)

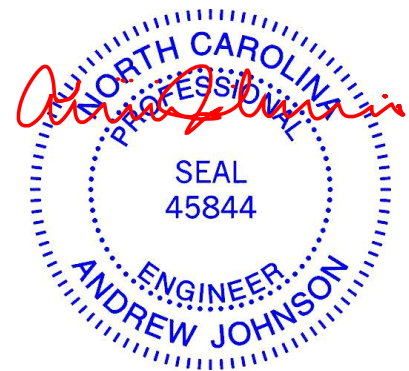
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-2728/0, 2-3=-1189/0, 3-4=-415/1022, 4-5=-294/774, 5-6=-402/1718,  
 6-7=-507/2142, 7-8=-979/3301, 8-9=-1394/4319

BOT CHORD 1-18=0/2101, 17-18=0/2101, 15-17=0/929, 14-15=-1069/47, 13-14=-1069/47,  
 11-13=-2656/715, 10-11=-3372/1059, 9-10=-3372/1059

WEBS 2-18=-188/1813, 2-17=-1604/286, 3-17=-172/3027, 3-15=-2665/233, 4-15=-794/309,  
 5-15=-1471/3011, 5-14=-1431/306, 5-13=-1835/1075, 6-13=-1392/197, 7-13=-815/1796,  
 7-11=-2234/816, 8-11=-462/962, 8-10=-1468/454

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=31ft; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3916 lb uplift at joint 9 and 3768 lb uplift at joint 15.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and conform to standard ANSI/TPI 1.



July 30, 2024

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

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

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

818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss TG1	Truss Type Piggyback Base Girder	Qty 1	Ply <b>2</b>	Jonah Blakenship\Mrtyle Beach I67205859 Job Reference (optional)
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:53:59 2024 Page 2  
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**NOTES-**

- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 906 lb down and 94 lb up at 2-0-12, 906 lb down and 94 lb up at 4-0-12, 906 lb down and 94 lb up at 6-0-12, 908 lb down and 95 lb up at 8-0-12, 908 lb down and 95 lb up at 10-0-12, 900 lb down and 95 lb up at 12-0-12, 899 lb down and 95 lb up at 12-3-4, 228 lb down and 850 lb up at 13-1-4, 228 lb down and 850 lb up at 15-1-4, 208 lb down and 843 lb up at 17-1-4, 208 lb down and 843 lb up at 19-1-4, 228 lb down and 850 lb up at 21-1-4, 228 lb down and 850 lb up at 23-1-4, 228 lb down and 850 lb up at 25-1-4, 208 lb down and 843 lb up at 27-1-4, and 208 lb down and 843 lb up at 29-1-4, and 231 lb down and 844 lb up at 31-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-6=-60, 6-9=-60, 19-22=-20

Concentrated Loads (lb)

Vert: 16=-899(B) 18=-897(B) 17=-899(B) 15=-1798(B) 11=391(B) 10=389(B) 24=385(B) 25=-897(B) 26=-897(B) 28=391(B) 29=391(B) 30=389(B) 31=389(B) 32=391(B) 33=391(B) 34=389(B)

**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

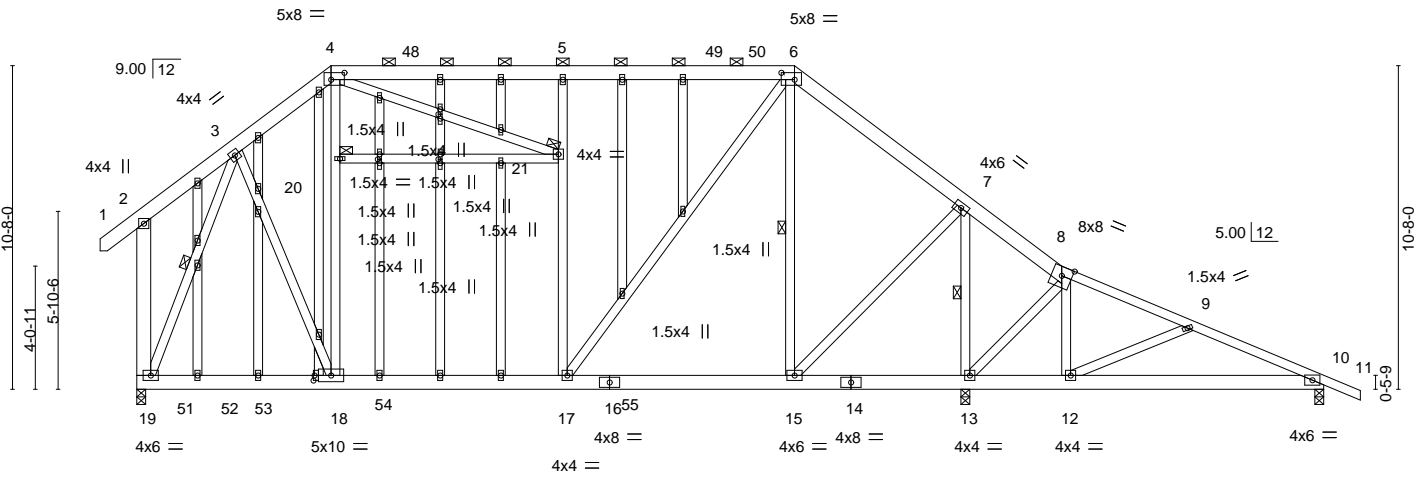


Job 28141	Truss TG2	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship\Mrlyte Beach Job Reference (optional)	167205860
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:00 2024 Page 1

1-2-8	3-4-3	6-4-13	14-0-8	21-8-3	27-3-12	30-5-14	34-7-9	39-1-8	40-4-0
1-2-8	3-4-3	3-0-11	7-7-11	7-7-11	5-7-9	3-2-2	4-1-11	4-5-15	1-2-8

Scale = 1:75.9



6-4-13	14-0-8	21-8-3	27-3-12	30-5-14	39-1-8
6-4-13	7-7-11	7-7-11	5-7-9	3-2-2	8-7-10

Plate Offsets (X,Y)-- [4:0-5-4,0-2-12], [6:0-5-4,0-2-12], [29:0-2-0,0-0-6], [30:0-1-8,0-0-12], [33:0-1-11,0-0-12], [35:0-1-8,0-0-12]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.15 15-17	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.54	Vert(CT)	-0.24 15-17	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.65	Horz(CT)	0.01 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS	Wind(LL)	0.09 15-17	>999	240	Weight: 442 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except* 8-11: 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 4-18,5-17: 2x4 SP No.2, 2-19: 2x6 SP No.1	WEBS 1 Row at midpt 6-15, 7-13, 3-19
OTHERS 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 20, 21

**REACTIONS.** (size) 13=0-3-8, 19=0-3-8, 10=0-3-8  
 Max Horz 19=342(LC 6)  
 Max Uplift 13=236(LC 34), 19=208(LC 8), 10=180(LC 28)  
 Max Grav 13=2503(LC 14), 19=1768(LC 38), 10=207(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-900/229, 4-5=-771/216, 5-6=-752/215, 6-7=-466/170, 7-8=-336/1427,  
 8-9=-398/1136, 9-10=-366/790, 2-19=-321/207  
 BOT CHORD 18-19=-78/621, 17-18=0/831, 15-17=-122/364, 13-15=-1144/371, 12-13=-1047/424,  
 10-12=-691/362  
 WEBS 3-18=-25/635, 17-21=-458/151, 5-21=-476/152, 6-17=-60/792, 6-15=-882/164,  
 7-15=-123/1659, 7-13=-2349/271, 8-13=-274/39, 8-12=0/362, 9-12=-389/117,  
 3-19=-1128/31

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=39ft; eave=5ft; 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
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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 236 lb uplift at joint 13, 208 lb uplift at joint 19 and 180 lb uplift at joint 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Continued on page 2

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

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

818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss TG2	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach I67205860 Job Reference (optional)
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:00 2024 Page 2  
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**NOTES-**

- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 218 lb down and 32 lb up at 0-2-12, and 207 lb down and 44 lb up at 2-0-12, and 207 lb down and 44 lb up at 4-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 2-4=-60, 4-6=-60, 6-8=-60, 8-11=-60, 19-45=-20  
Concentrated Loads (lb)  
Vert: 19=-218 52=-207 53=-207

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

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



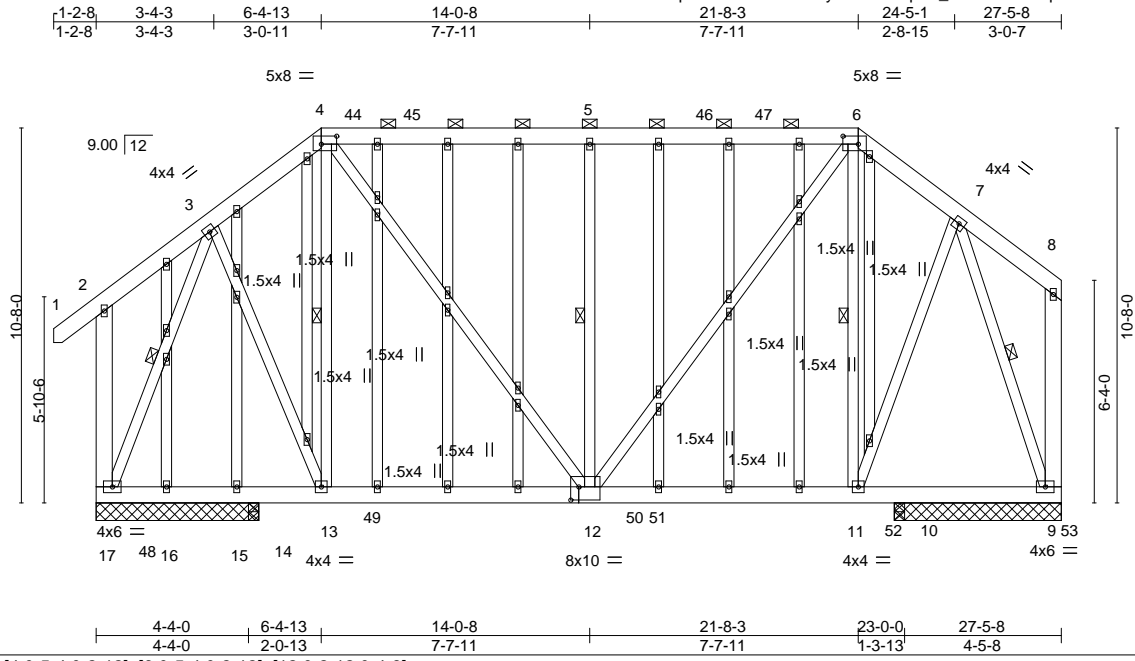
818 Soundside Road  
Edenton, NC 27932

Job 28141	Truss TG3	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship/Mrlyte Beach Job Reference (optional)	167205861
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:01 2024 Page 1

ID:43FmfUEpnbW36Q?RCfByzursR-WFp6P\_vw54VUYoDqhXJvoifalL5Z8azfuAx5X1ysura



Scale = 1:65.5

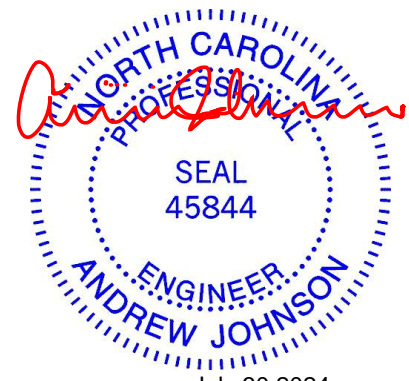
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.29	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.29	Vert(LL) -0.05 11-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.35	Vert(CT) -0.08 11-12 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.01 9 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.02 12 >999 240	Weight: 425 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 4-13, 5-12, 6-11, 3-17, 7-9
OTHERS 2-17,8-9: 2x6 SP No.1 2x4 SP No.3	

**REACTIONS.** All bearings 4-7-8 except (jt=length) 9=4-9-0, 14=0-3-8, 10=0-3-8.  
 (lb) - Max Horz 17=329(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 9, 16, 14, 10 except 17=120(LC 8), 15=601(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 15 except 17=1086(LC 14), 9=1012(LC 13), 16=326(LC 38), 14=775(LC 13), 10=343(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-725/211, 4-5=-817/214, 5-6=-817/214, 6-7=-659/196, 2-17=-256/200  
 BOT CHORD 16-17=-190/497, 15-16=-190/497, 14-15=-190/497, 13-14=-190/497, 12-13=-152/628,  
 11-12=-98/504, 10-11=-81/343, 9-10=-81/343  
 WEBS 3-13=-25/484, 4-13=-324/89, 4-12=-60/543, 5-12=-525/157, 6-12=-79/634,  
 6-11=-418/120, 7-11=-55/506, 3-17=-1001/50, 7-9=-963/102

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=27ft; 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) 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) Provide adequate drainage to prevent water ponding.
  - 5) All plates are 2x4 MT20 unless otherwise indicated.
  - 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 with a clearance greater than 6-0-0 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) 9, 16, 14, 10 except (jt=lb) 17=120, 15=601.
  - 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.
  - 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 207 lb down and 44 lb up at 2-0-12, and 207 lb down and 44 lb up at 4-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



Job 28141	Truss TG3	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship Mrtyle Beach I67205861 Job Reference (optional)
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:01 2024 Page 2  
ID:43FmfUEpnBwxW36Q?RCfByzursR-WFp6P\_vw54VUYoDqhXJvoiFalL5Z8azfuAx5X1ysura

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 2-4=-60, 4-6=-60, 6-8=-60, 9-17=-20  
Concentrated Loads (lb)  
Vert: 16=-207 15=-207

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

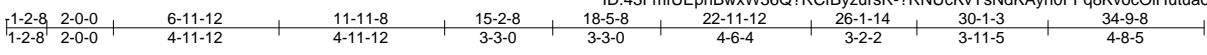
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

ENGINEERING BY  
**TRENCO**  
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818 Soundside Road  
Edenton, NC 27932

Job 28141	Truss TG4	Truss Type GABLE	Qty 1	Ply 2	Jonah Blakenship\Mrtle Beach 167205862
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:02 2024 Page 1  
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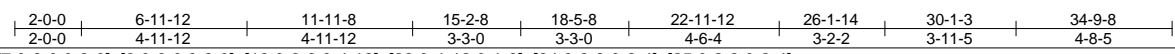
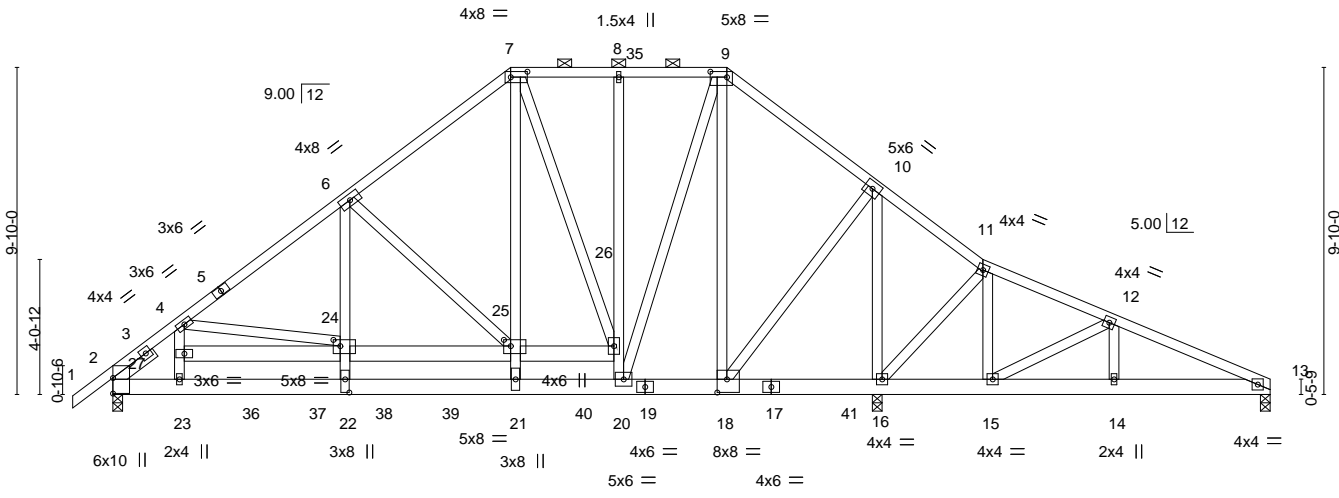


Plate Offsets (X, Y)--	[7:0-6-0,0-2-0], [9:0-6-0,0-2-0], [18:0-3-8,0-4-12], [22:0-4-12,0-1-8], [24:0-2-8,0-2-4], [25:0-2-8,0-2-4]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.87	Vert(LL)	-0.13 22-23	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.25 22-23	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.90	Horz(CT)	0.04 13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS	Wind(LL)	0.10 22-23	>999	240	Weight: 618 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-13 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 7-9.
WEBS 2x4 SP No.3 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
4-23: 2x4 SP 2400F 2.0E, 6-22,7-21,8-20,9-18: 2x4 SP No.2	
24-27,24-25,25-26: 2x6 SP No.1	
SLIDER Left 2x4 SP No.3 1-6-0	

<b>REACTIONS.</b>	(size) 13=0-3-8, 2=0-3-8 (req. 0-3-10), 16=0-3-8 (req. 0-4-2)
	Max Horz 2=-232(LC 32)
	Max Uplift 13=-36(LC 8), 2=-511(LC 8), 16=-585(LC 8)
	Max Grav 13=550(LC 1), 2=6181(LC 19), 16=6953(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-7492/547, 4-6=-7855/649, 6-7=-5167/516, 7-8=-3667/430, 8-9=-3695/433, 9-10=-3516/405, 10-11=-495/168, 11-12=-535/62, 12-13=-1020/81
BOT CHORD	2-23=-405/5695, 22-23=-288/4469, 21-22=-260/4179, 20-21=-237/3931, 18-20=-166/2719, 16-18=-152/383, 15-16=0/452, 14-15=-33/903, 13-14=-33/903
WEBS	23-27=-200/384, 4-27=-213/341, 4-24=-726/141, 22-24=-156/3093, 6-24=-193/3345, 6-25=-3123/329, 21-25=-97/2028, 7-25=-297/4057, 7-26=-1307/73, 20-26=-1425/117, 9-20=-234/3002, 9-18=-986/57, 10-18=-238/3938, 10-16=-5206/458, 11-16=-372/185, 12-15=-516/79, 24-27=-293/2515, 24-25=-197/2161

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - WARNING: Required bearing size at joint(s) 2, 16 greater than input bearing size.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 2=511, 16=585.



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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

**TRENCO**  
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818 Soundside Road  
Edenton, NC 27932

Job 28141	Truss TG4	Truss Type GABLE	Qty 1	Ply 2	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	I67205862
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:02 2024 Page 2  
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**NOTES-**

- 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.
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 985 lb down and 97 lb up at 2-0-12, 983 lb down and 76 lb up at 4-0-12, 983 lb down and 76 lb up at 6-0-12, 983 lb down and 76 lb up at 8-0-12, 983 lb down and 76 lb up at 10-0-12, 983 lb down and 76 lb up at 12-0-12, 985 lb down and 97 lb up at 14-0-12, 985 lb down and 97 lb up at 16-0-12, 985 lb down and 97 lb up at 18-0-12, and 985 lb down and 97 lb up at 20-0-12, and 985 lb down and 97 lb up at 22-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-7=-60, 7-9=-60, 9-11=-60, 11-13=-60, 28-31=-20

Concentrated Loads (lb)

Vert: 19=-985(B) 23=-985(B) 21=-983(B) 18=-985(B) 17=-985(B) 36=-983(B) 37=-983(B) 38=-983(B) 39=-983(B) 40=-985(B) 41=-985(B)

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

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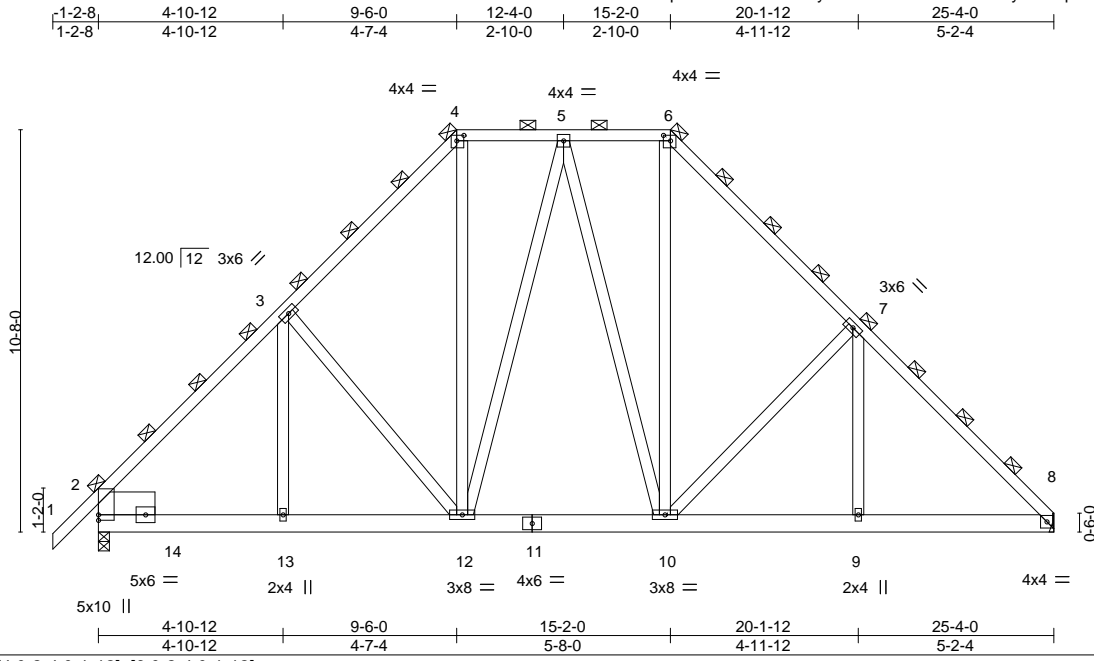


Job 28141	Truss TG5	Truss Type PIGGYBACK BASE	Qty 1	Ply 2	Jonah Blakenship/Mrlyte Beach Job Reference (optional)	167205863
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:02 2024 Page 1

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Scale = 1:61.1

Plate Offsets (X,Y)--	[4:0-2-4,0-1-12], [6:0-2-4,0-1-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	4-0-0	TC 0.16	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.28	Vert(LL) -0.03 10-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.17	Vert(CT) -0.05 10-12 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.02 8 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.02 12 >999 240	Weight: 426 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
BOT CHORD 2x6 SP No.1	(Switched from sheeted: Spacing > 2-0-0).
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER Left 2x8 SP 2400F 2.0E 1-6-0	

**REACTIONS.** (size) 8=Mechanical, 2=0-3-8  
 Max Horz 2=548(LC 7)  
 Max Uplift 8=-154(LC 8), 2=-241(LC 8)  
 Max Grav 8=2023(LC 1), 2=2175(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2211/261, 3-4=-1922/425, 4-5=-1285/399, 5-6=-1312/402, 6-7=-1977/418, 7-8=-2529/272  
 BOT CHORD 2-13=-516/1733, 12-13=-111/1733, 10-12=0/1445, 9-10=-8/1659, 8-9=-8/1659  
 WEBS 3-12=-461/294, 4-12=-126/883, 5-12=-359/175, 5-10=-287/203, 6-10=-109/902, 7-10=-744/322, 7-9=0/439

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=154, 2=241.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

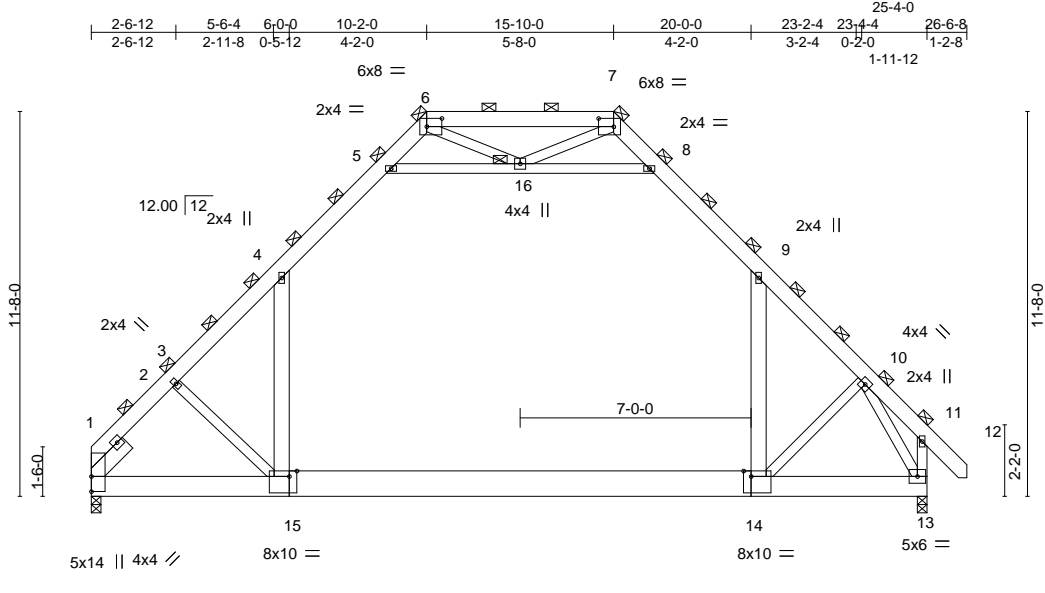


Job 28141	Truss TG6	Truss Type PIGGYBACK ATTIC	Qty 1	Ply 2	Jonah Blakenship/Mrlyte Beach Job Reference (optional)	I67205864
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:03 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-TdxsqgwAdhmBo6MDoyLNt7Lrc9lqcU1xLUQCcvysurY



Scale = 1:69.8

Plate Offsets (X, Y)--	[6:0-5-8,0-3-0], [7:0-5-8,0-3-0], [14:0-2-12,Edge], [15:0-2-12,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	4-0-0	TC 0.59	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.43	Vert(LL) -0.35 14-15 >856 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.38	Vert(CT) -0.48 14-15 >635 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.02 1 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) -0.09 15 >999 240	Weight: 493 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP 2400F 2.0E *Except* 6-7: 2x6 SP No.1	TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals (Switched from sheeted: Spacing > 2-0-0).
BOT CHORD 2x8 SP 2400F 2.0E *Except* 14-15: 2x10 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 5-8: 2x4 SP 2400F 2.0E, 9-14,4-15: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 6, 7, 16, 11
SLIDER Left 2x6 SP No.1 1-6-0	

**REACTIONS.** (size) 1=0-3-8, 13=0-3-8  
 Max Horz 1=616(LC 7)  
 Max Uplift 1=-75(LC 8), 13=-147(LC 8)  
 Max Grav 1=2778(LC 14), 13=2970(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-3368/120, 3-4=-3212/157, 4-5=-1992/313, 5-6=-487/626, 7-8=-492/637,  
 8-9=-2009/312, 9-10=-3259/161, 10-11=-167/266, 6-7=-176/995, 11-13=-301/285  
 BOT CHORD 1-15=-115/2447, 14-15=0/2090, 13-14=0/1657  
 WEBS 5-16=-2782/409, 8-16=-2829/407, 3-15=-541/287, 6-16=-92/310, 7-16=-64/338,  
 9-14=0/1762, 10-14=-111/527, 10-13=-3600/0, 4-15=0/1725

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Ceiling dead load (5.0 psf) on member(s). 4-5, 8-9, 5-16, 8-16
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-15
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 13=147.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and conform to standard ANSI/TPI 1.



July 30, 2024

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

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

Job 28141	Truss TG6	Truss Type PIGGYBACK ATTIC	Qty 1	Ply <b>2</b>	Jonah Blakenship\Mrtyle Beach I67205864 Job Reference (optional)
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:03 2024 Page 2  
ID:43FmfUEpnBwxW36Q?RCfByzursR-TdxsqwAdhmBo6MDoyLNt7Lrc9lqcU1xLUQCcvysurY

**NOTES-**

- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Attic room checked for L/360 deflection.

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

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



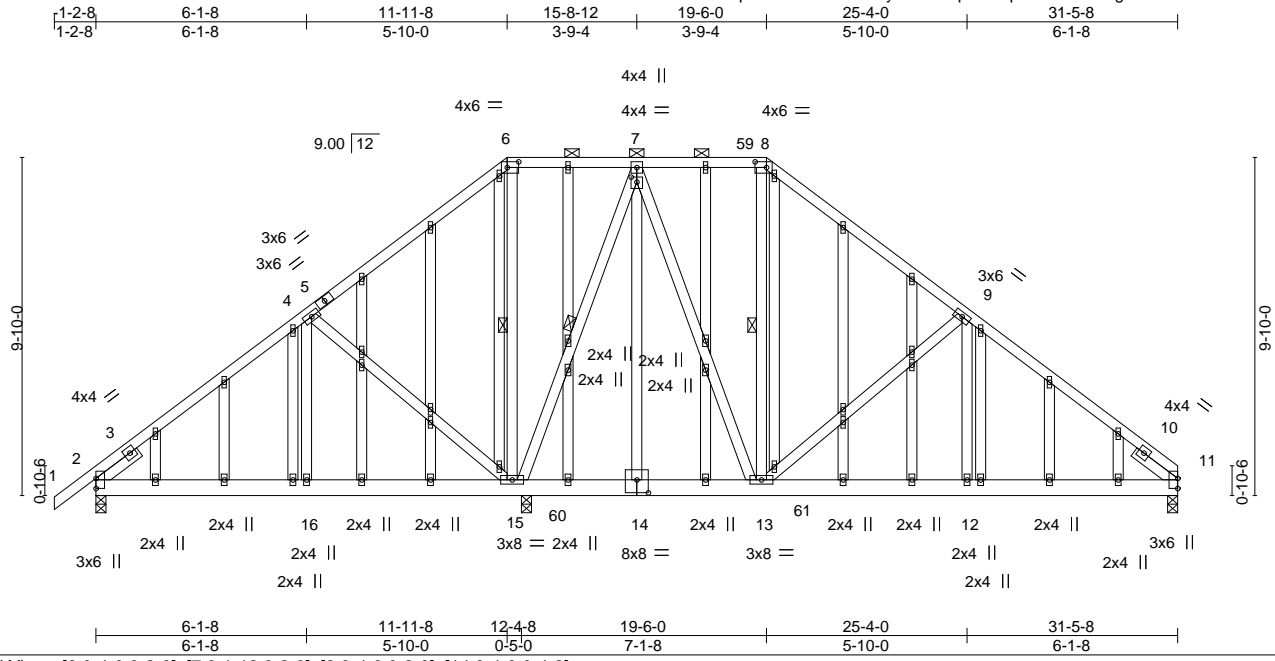
818 Soundside Road  
Edenton, NC 27932

Job 28141	Truss TGE1	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship/Mrlyte Beach Job Reference (optional)	167205865
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:04 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-xqVF10xpO?u2PFxPMgscPKi70Z95LvJ5a89I8LysurX



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.04	13-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.05	13-15	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.01	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.01	12-53	>999	Weight: 359 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 6-8.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.
OTHERS 2x4 SP No.3	WEBS 1 Row at midpt 6-15, 7-15, 8-13
SLIDER Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0	

**REACTIONS.** (size) 11=0-3-8, 2=0-3-8, 15=0-3-8  
 Max Horz 2=233(LC 7)  
 Max Uplift 11=-68(LC 8), 2=-94(LC 8), 15=-73(LC 8)  
 Max Grav 11=751(LC 14), 2=520(LC 19), 15=1392(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-436/100, 7-8=-413/181, 8-9=-587/172, 9-11=-897/129  
 BOT CHORD 2-16=-56/374, 15-16=-56/374, 12-13=-17/653, 11-12=-17/653  
 WEBS 4-15=-440/137, 6-15=-314/24, 7-15=-700/54, 7-13=-7/517, 9-13=-415/140

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=31ft; 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) 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) Provide adequate drainage to prevent water ponding.
  - 5) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 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 with a clearance greater than 6-0-0 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, 2, 15.
  - 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

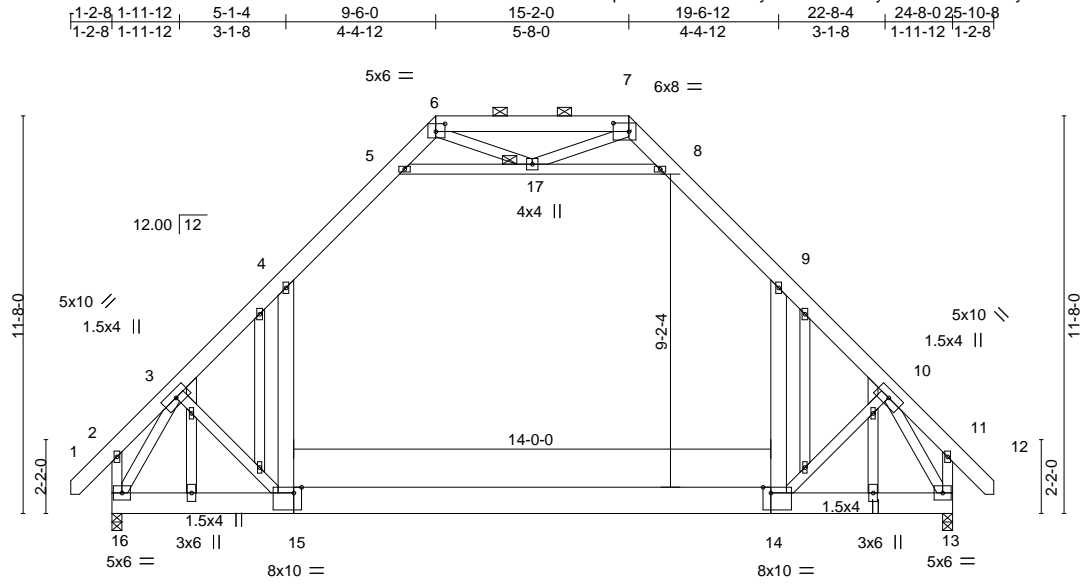


Job 28141	Truss TGE2	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship/Mrtle Beach 167205866
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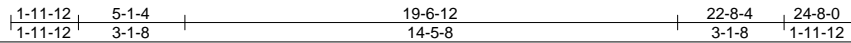
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:05 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-P02dFLyR910v1PWbwnNryYQD7zS84MNEpovJgoysurW



Scale = 1:67.6



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.33	14-15	>887	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.44	14-15	>672		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.45	Horz(CT)	0.01	13	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	-0.08	15	>999		
								Weight: 272 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD 2x8 SP 2400F 2.0E *Except* 14-15: 2x10 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* 4-15,9-14: 2x6 SP No.1, 5-8: 2x4 SP 2400F 2.0E	JOINTS 1 Brace at Jt(s): 17
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 16=0-3-8, 13=0-3-8  
 Max Horz 16=331(LC 6)  
 Max Uplift 16=74(LC 8), 13=74(LC 8)  
 Max Grav 16=1438(LC 14), 13=1438(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-1533/81, 4-5=-951/158, 5-6=-256/349, 7-8=-256/349, 8-9=-951/158,  
 9-10=-1532/81, 6-7=-106/541  
 BOT CHORD 15-16=-78/929, 14-15=0/975, 13-14=0/785  
 WEBS 4-15=0/831, 9-14=0/831, 5-17=-1370/219, 8-17=-1370/219, 3-16=-1671/0,  
 10-13=-1670/0

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BC DL=6.0psf; h=20ft; 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
  - 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) Provide adequate drainage to prevent water ponding.
  - 5) All plates are 2x4 MT20 unless otherwise indicated.
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 9) Ceiling dead load (5.0 psf) on member(s). 4-5, 8-9, 5-17, 8-17
  - 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-15
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 13.
  - 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 15) Attic room checked for L/360 deflection.



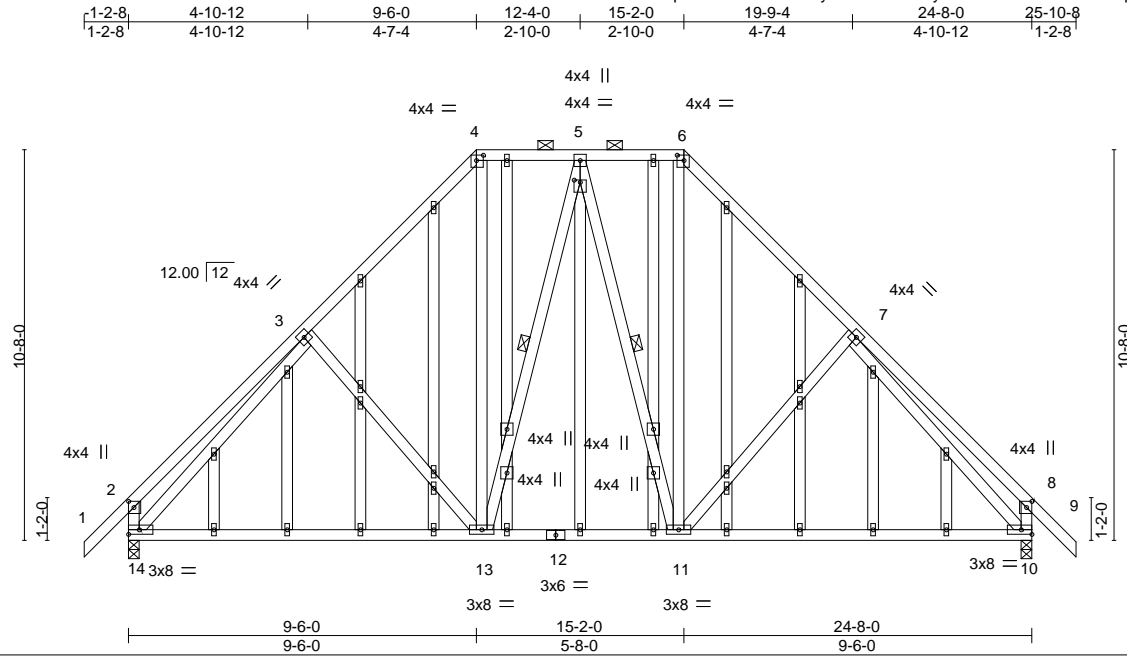


Job	Truss	Truss Type	Qty	Ply	Jonah Blakenship/Mrlyte Beach	167205867
28141	TSGE1	GABLE	1	1	Job Reference (optional)	

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:06 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-tCc?Shy3wc8mfZ5oU4v4VlzK9MpDpl5O1SesDEysurV



Scale = 1:62.9

Plate Offsets (X, Y)--	[2:0-2-0,0-1-12], [4:0-2-4,0-1-12], [5:0-0-12,0-2-0], [6:0-2-4,0-1-12], [8:0-2-0,0-1-12]
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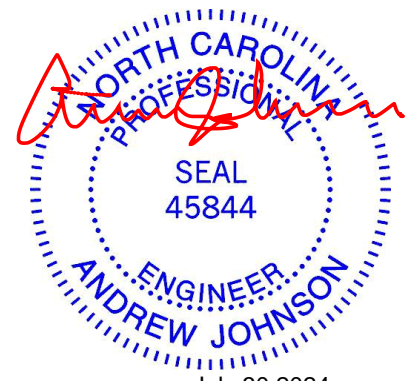
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.76	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.32	Vert(LL) -0.14 13-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.74	Vert(CT) -0.29 13-14 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 10 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.01 13 >999 240	Weight: 306 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-13, 5-11
OTHERS 2x4 SP No.3	

REACTIONS.
(size) 14=0-3-8, 10=0-3-8
Max Horz 14=308(LC 7)
Max Uplift 14=122(LC 8), 10=122(LC 8)
Max Grav 14=1056(LC 1), 10=1056(LC 1)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-430/109, 3-4=-906/201, 4-5=-604/195, 5-6=-604/195, 6-7=-906/201, 7-8=-430/109, 2-14=-465/148, 8-10=-465/148
BOT CHORD 13-14=-65/823, 11-13=0/691, 10-11=0/678
WEBS 4-13=-43/387, 6-11=-43/386, 3-14=-745/40, 7-10=-745/40

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - 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) Provide adequate drainage to prevent water ponding.
  - 5) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 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 with a clearance greater than 6-0-0 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) 14=122, 10=122.
  - 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





Job 28141	Truss TSGE2	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship/Mrlyte Beach Job Reference (optional)	167205868
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:06 2024 Page 1

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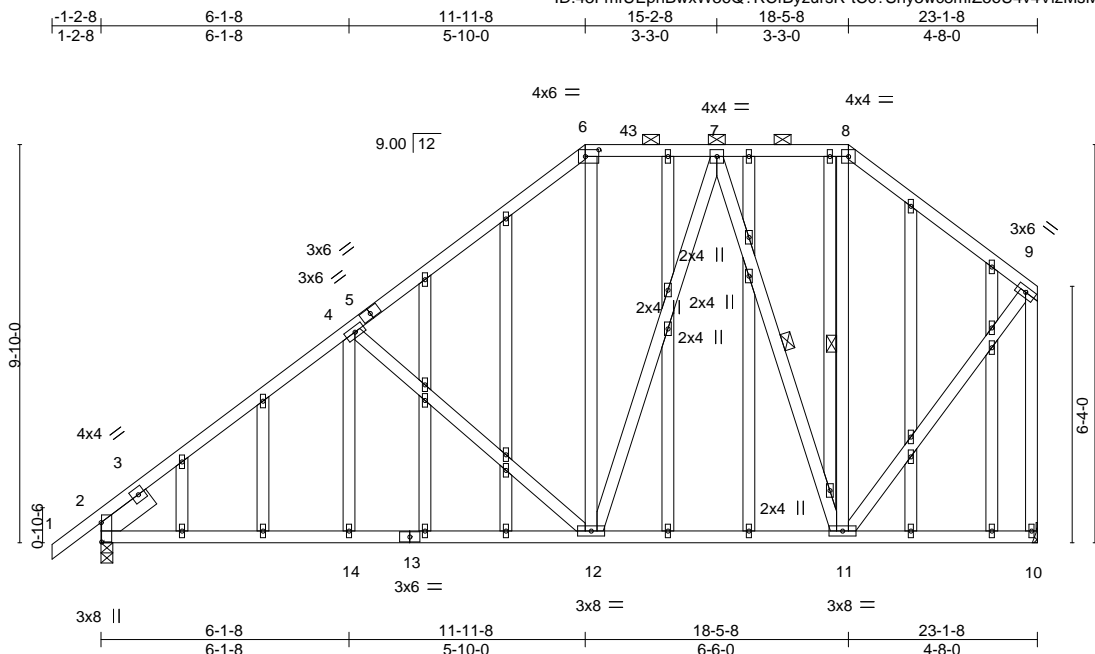


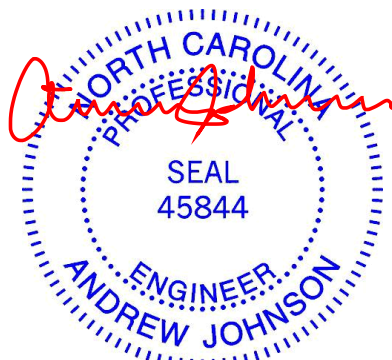
Plate Offsets (X,Y)--	[2:0-5-12,0-0-3], [6:0-4-0,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.59	Vert(LL) -0.07 11-12 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.19	Vert(CT) -0.10 11-12 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.44	Horz(CT) 0.01 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL) 0.01 12-14 >999 240	Weight: 266 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-11, 8-11
OTHERS 2x4 SP No.3	
SLIDER Left 2x6 SP No.1 1-6-0	

**REACTIONS.** (size) 2=0-3-8, 10=Mechanical  
 Max Horz 2=321 (LC 7)  
 Max Uplift 2=-109 (LC 8), 10=-74 (LC 8)  
 Max Grav 2=994 (LC 1), 10=958 (LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1137/120, 4-6=-840/170, 6-7=-618/180, 7-8=-436/163, 8-9=-593/160, 9-10=-932/107  
 BOT CHORD 2-14=-182/962, 12-14=-182/962, 11-12=-120/583  
 WEBS 4-12=-373/135, 7-12=-18/319, 7-11=-448/99, 9-11=-68/692

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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) 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) Provide adequate drainage to prevent water ponding.
  - 5) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 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 with a clearance greater than 6-0-0 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) 10 except (jt=lb) 2=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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 30, 2024

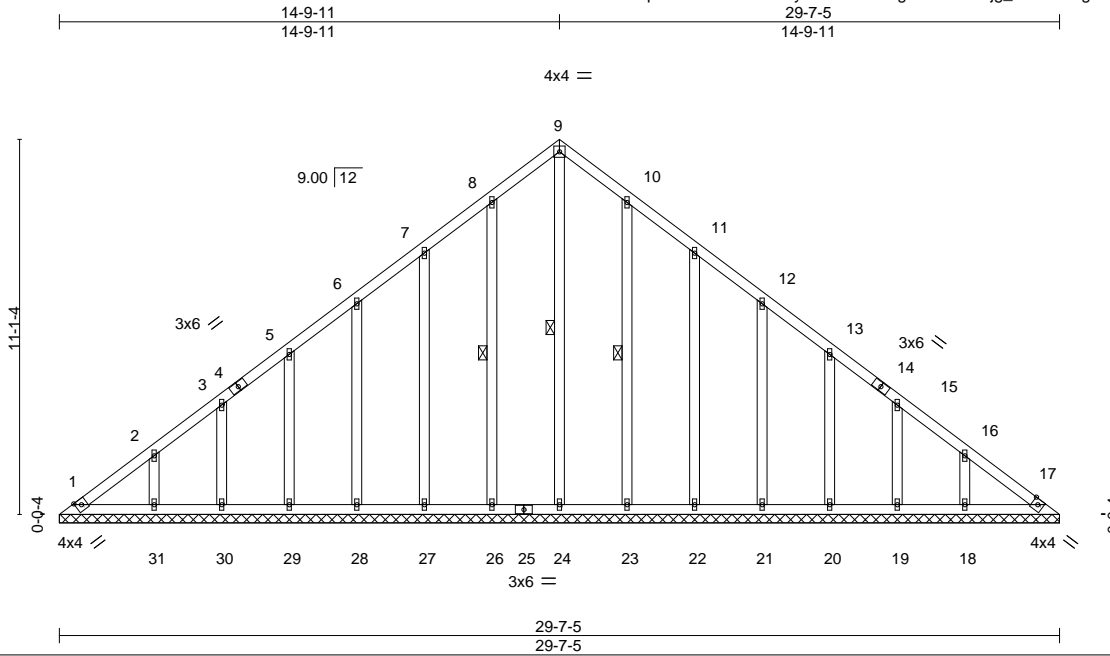
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TP1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 28141	Truss V1	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	I67205869
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:07 2024 Page 1

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Scale = 1:68.2

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	17	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 208 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 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.  
 WEBS 1 Row at midpt 9-24, 8-26, 10-23

**REACTIONS.** All bearings 29-7-5.  
 (lb) - Max Horz 1=-258(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 26, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19, 18, 17  
 Max Grav All reactions 250 lb or less at joint(s) 1, 24, 26, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19, 18, 17

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=30ft; 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) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 4) Gable requires continuous bottom chord bearing.
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 26, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19, 18, 17.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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



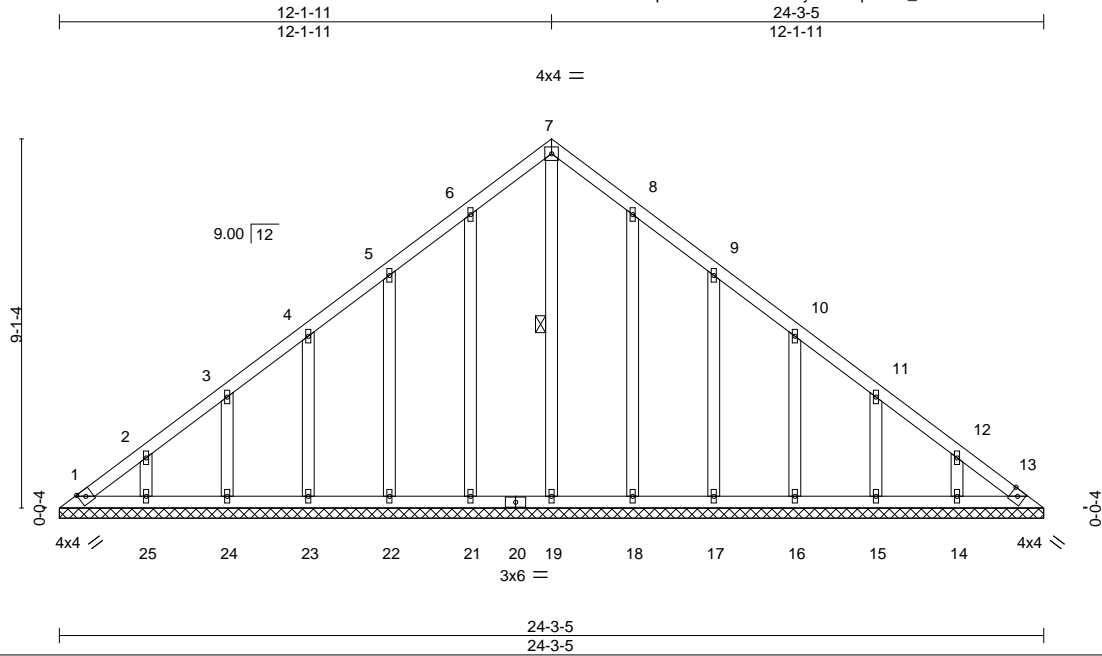
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss V2	Truss Type GABLE	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach 167205870
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:08 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-pbklitN\_JSDOUutFAbVxYaA2r9AYxHo\_gVm7zH7ysurT



Scale = 1:56.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.02	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.00	13	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 152 lb	FT = 20%

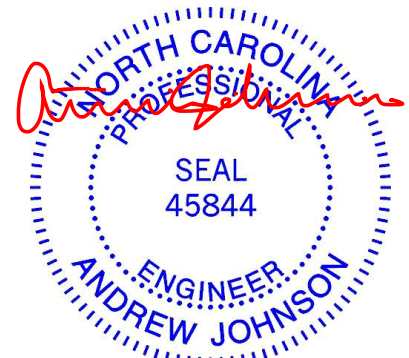
**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**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.  
 WEBS 1 Row at midpt 7-19

**REACTIONS.** All bearings 24-3-5.  
 (lb) - Max Horz 1=203(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 13, 21, 22, 23, 24, 25, 18, 17, 16, 15, 14  
 Max Grav All reactions 250 lb or less at joint(s) 1, 13, 19, 21, 22, 23, 24, 25, 18, 17, 16, 15, 14

**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=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 4) Gable requires continuous bottom chord bearing.
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 13, 21, 22, 23, 24, 25, 18, 17, 16, 15, 14.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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



818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss V3	Truss Type Valley	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach 167205871
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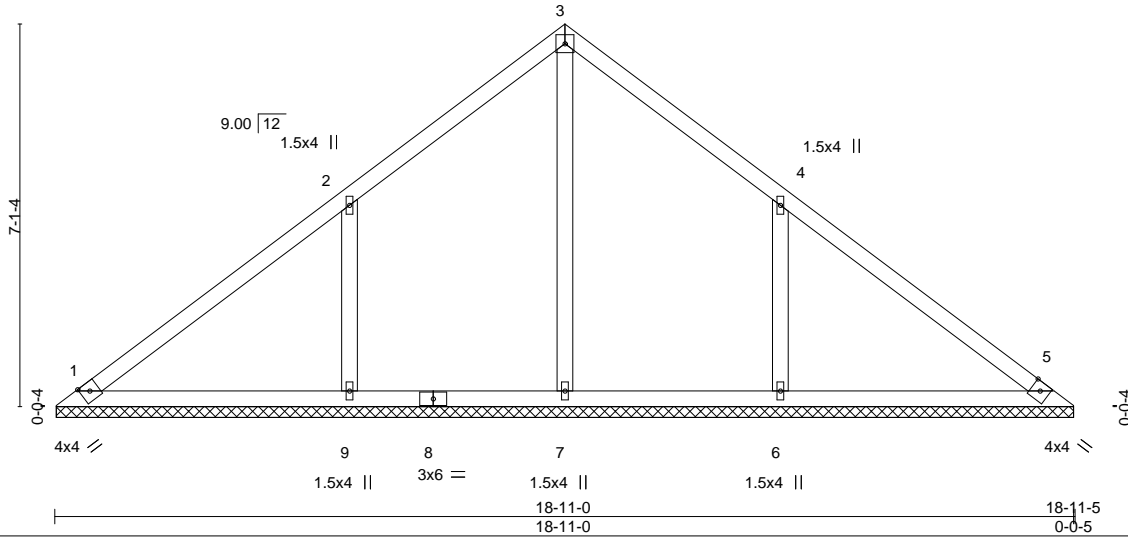
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:08 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-pbktlN\_JSDOUtFAbVxYaA2pCAVYHpKgVm7zH7ysurT



Scale = 1:42.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 82 lb	FT = 20%

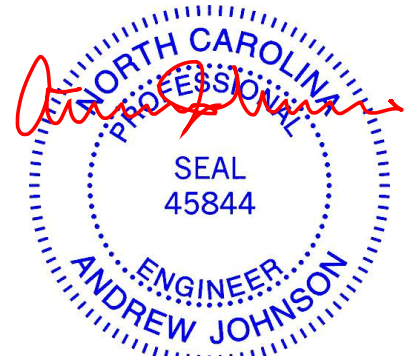
**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**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 18-10-11.  
 (lb) - Max Horz 1=157(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) except 9=130(LC 8), 6=130(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=331(LC 13), 9=524(LC 13), 6=524(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-9=-353/184, 4-6=-352/184

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - 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 with a clearance greater than 6-0-0 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 130 lb uplift at joint 9 and 130 lb uplift at joint 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.



July 30, 2024

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



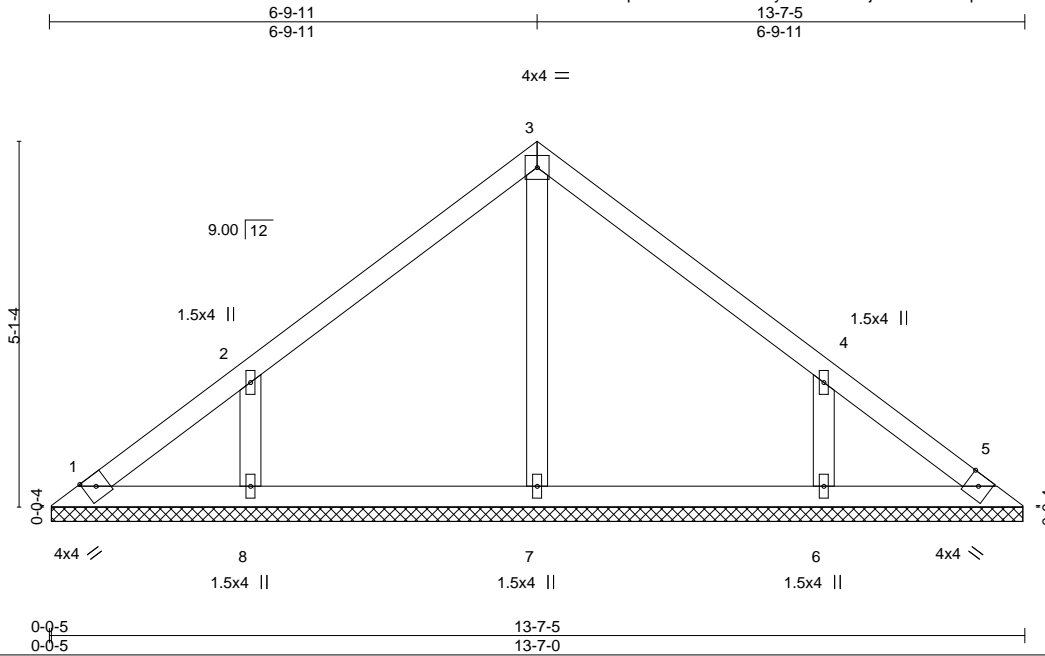
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss V4	Truss Type Valley	Qty 1	Ply 1	Jonah Blakenship/Mrtyle Beach Job Reference (optional)	167205872
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:09 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-Inl84j?xDXWLW1qN9DSn6Ob??at?0GFqjQtWpZysurS



Scale: 3/8"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 55 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 13-6-11.  
 (lb) - Max Horz 1=110(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=324(LC 13), 6=324(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-253/133, 4-6=-253/133

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 6.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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

Job 28141	Truss V5	Truss Type Valley	Qty 1	Ply 1	Jonah Blakenship\Mrtle Beach 167205873
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C&R Truss, Autryville, NC - 28318,

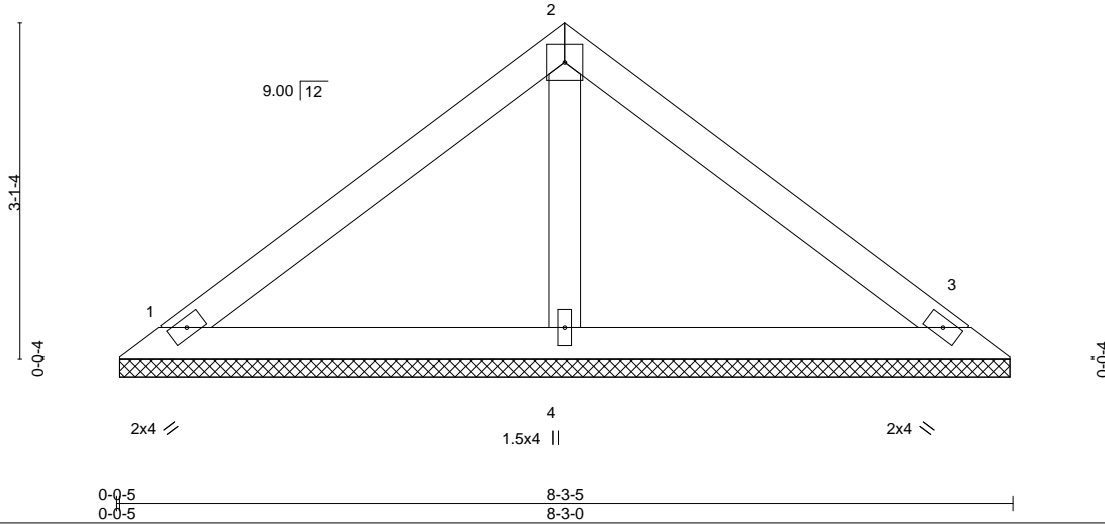
8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:10 2024 Page 1

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4x4 =

Scale = 1:21.3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.12	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.14	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 30 lb	FT = 20%
	Code IRC2018/TPI2014							

**LUMBER-**  
TOP CHORD 2x4 SP 2400F 2.0E  
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=8-2-11, 3=8-2-11, 4=8-2-11  
Max Horz 1=64(LC 7)  
Max Uplift 1=36(LC 8), 3=36(LC 8)  
Max Grav 1=170(LC 1), 3=170(LC 1), 4=253(LC 1)

**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=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
  - 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 with a clearance greater than 6-0-0 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.



July 30, 2024

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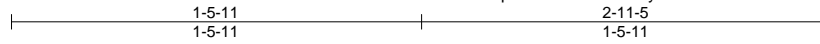


Job 28141	Truss V6	Truss Type Valley	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach I67205874
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:11 2024 Page 1

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Scale = 1:8.3

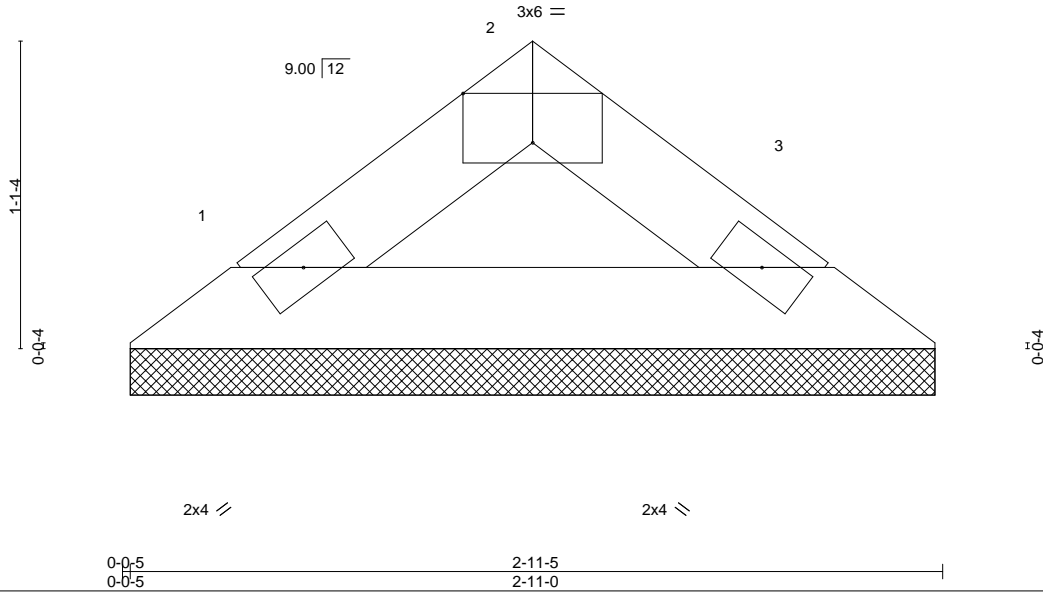


Plate Offsets (X,Y)--	[2:0-3-0,Edge]					PLATES	GRIP
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	
TCLL 20.0	Plate Grip DOL 1.15	TC 0.01	Vert(LL) n/a	-	n/a	999	MT20 244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT) n/a	-	n/a	999	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P					Weight: 8 lb FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-11-5 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-10-11, 3=2-10-11  
 Max Horz 1=18(LC 6)  
 Max Uplift 1=6(LC 8), 3=6(LC 8)  
 Max Grav 1=83(LC 1), 3=83(LC 1)

**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=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BC DL=6.0psf; h=20ft; 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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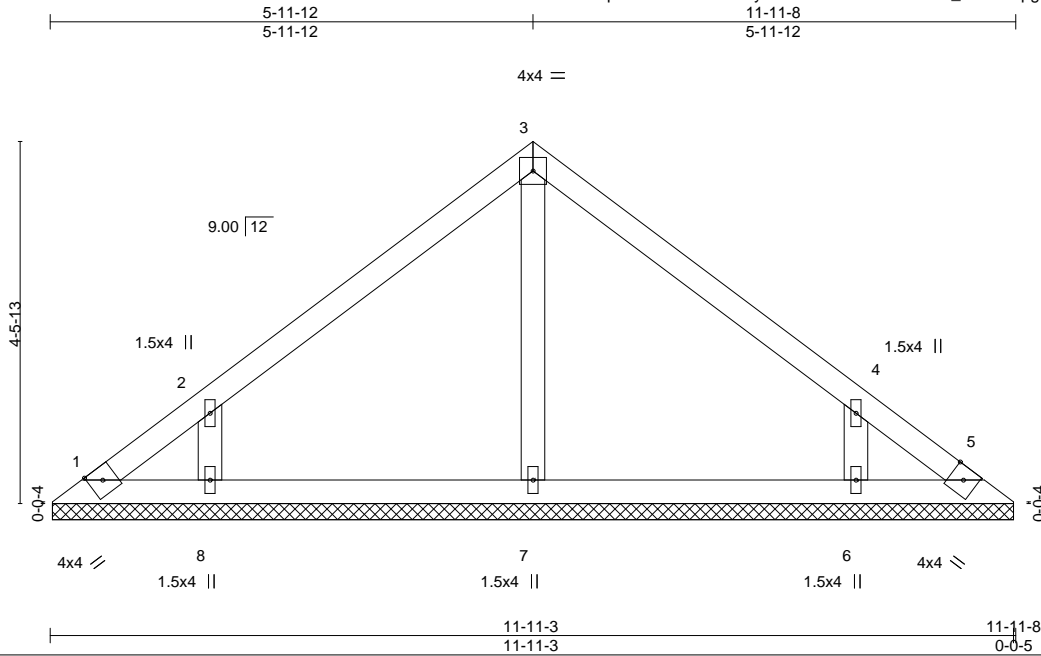


Job 28141	Truss V7	Truss Type Valley	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	167205875
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:11 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-EAQuVPOCI8m3IK\_IGeUFcpgLTNZQUBz7BjMduRysurQ



Scale = 1:28.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S							
									Weight: 47 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 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 11-10-13.  
 (lb) - Max Horz 1=96(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=310(LC 13), 6=310(LC 14)

**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=140mph (3-second gust) Vasd=111mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; 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) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 6.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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



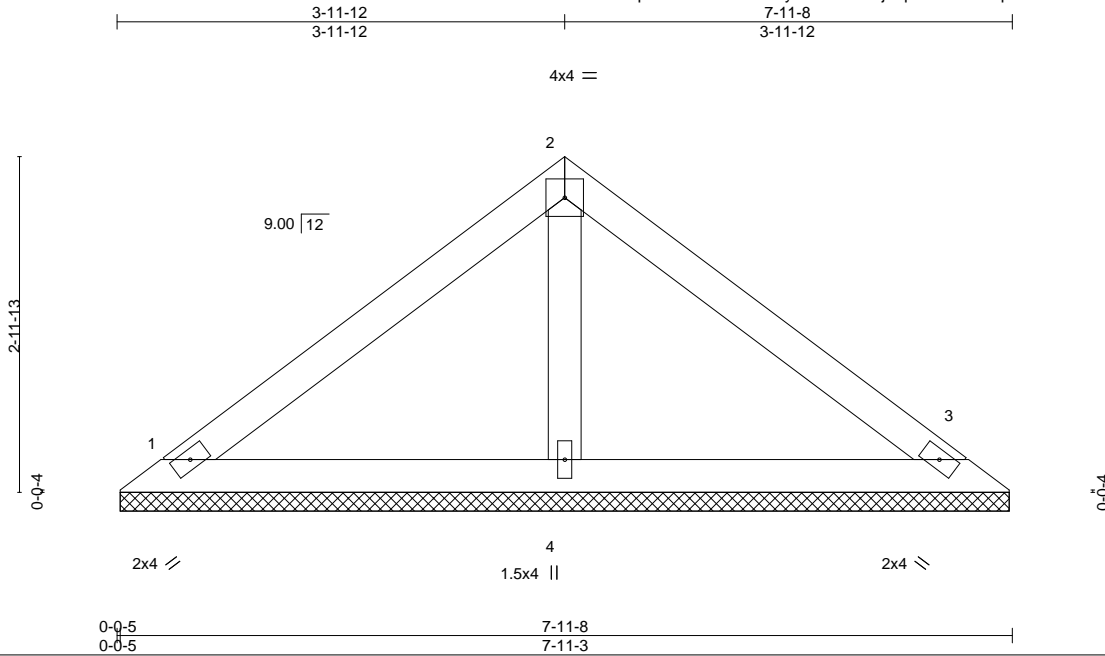
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss V8	Truss Type Valley	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach 167205876
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:12 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-iMzGjl1qVSuwNUYxqL?Uk0DWnnvbDeaGQN5AQuysurP



Scale = 1:20.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 28 lb	FT = 20%
	Code IRC2018/TPI2014							

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** (size) 1=7-10-13, 3=7-10-13, 4=7-10-13  
 Max Horz 1=61(LC 7)  
 Max Uplift 1=34(LC 8), 3=34(LC 8)  
 Max Grav 1=162(LC 1), 3=162(LC 1), 4=242(LC 1)

**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=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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



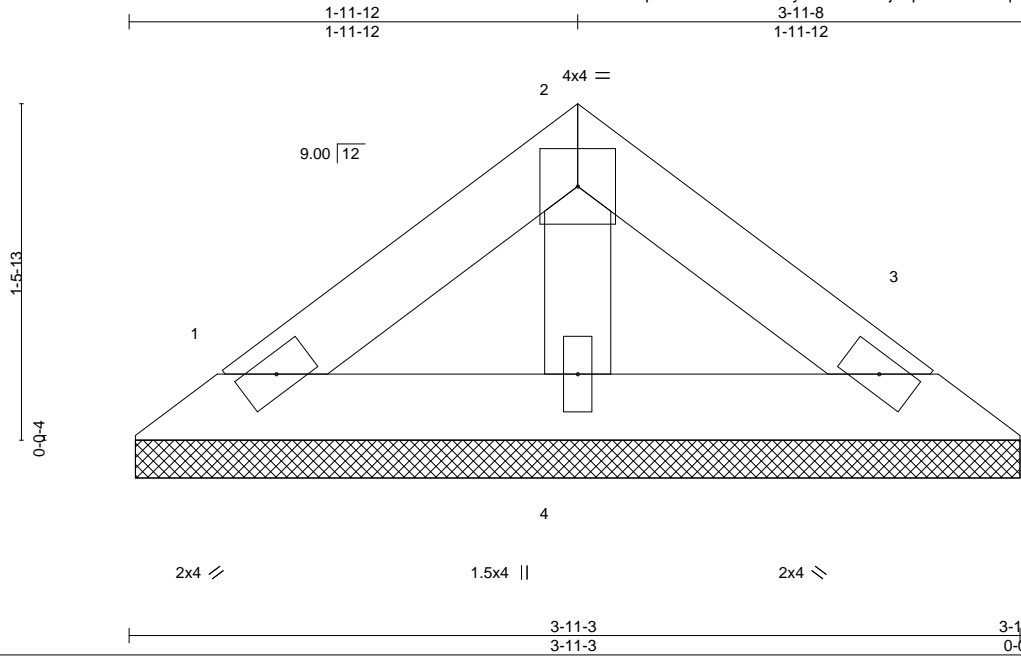
818 Soundside Road  
 Edenton, NC 27932

Job 28141	Truss V9	Truss Type Valley	Qty 1	Ply 1	Jonah Blakenship\Mrtyle Beach Job Reference (optional)	167205877
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Jul 30 10:54:12 2024 Page 1

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Scale = 1:10.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.02	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 13 lb	FT = 20%
	Code IRC2018/TPI2014							

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-11-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-10-13, 3=3-10-13, 4=3-10-13  
 Max Horz 1=27(LC 6)  
 Max Uplift 1=15(LC 8), 3=15(LC 8)  
 Max Grav 1=71(LC 1), 3=71(LC 1), 4=105(LC 1)

**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=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 30, 2024

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

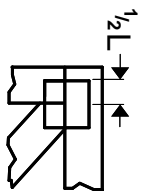
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



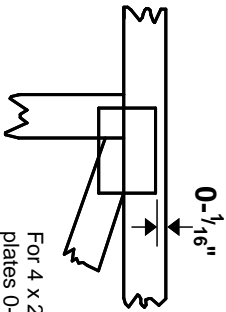
818 Soundside Road  
 Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

4 X 4

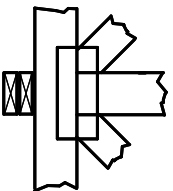
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



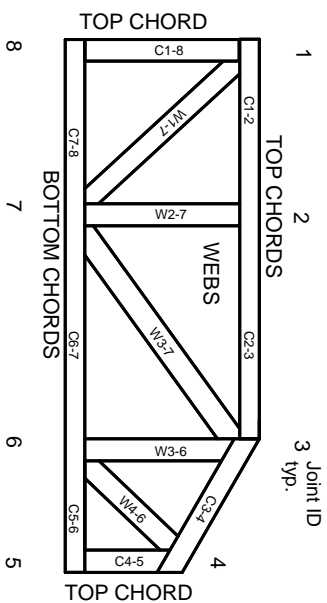
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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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**MITek**

ENGINEERING BY  
**TRENGO**  
A MITek Affiliate

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

# General Safety Notes

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

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