

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 28305
Lowe's 647/Humbert

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: I69579833 thru I69579883

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

North Carolina COA: C-0844



November 15, 2024

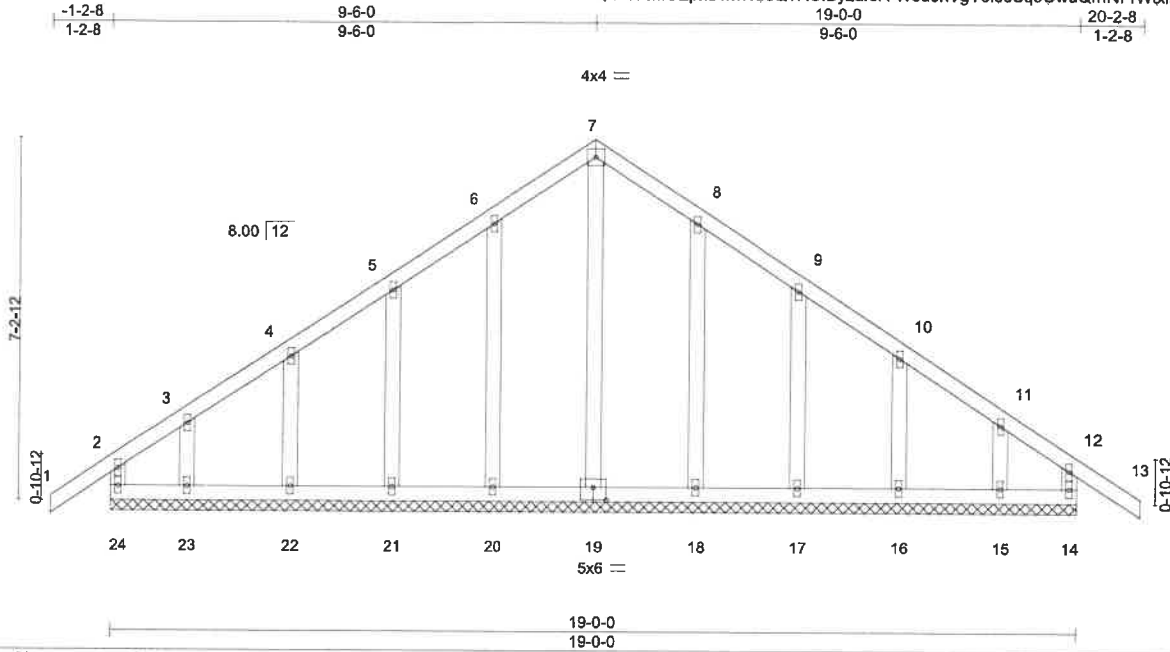
Gilbert, Eric

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

Job 28305	Truss G4	Truss Type Common Supported Gable	Qty 1	Ply 1	Lowes 647/Humbert	I69579833
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CR Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:37:49 2024 Page 1
ID:43FmUEpnBwxW36Q?RCfByzursR-Wou9hVgY0i6oSq9OwuQmNFrWbXlsc1n1VZ8AiPyJclG



Scale = 1:45.7

Plate Offsets (X,Y) - [19:0-3-0,0-3-0]

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 0.13	Vert(LL)	-0.01	13	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.01	13	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R							
									Weight: 118 lb	FT = 20%

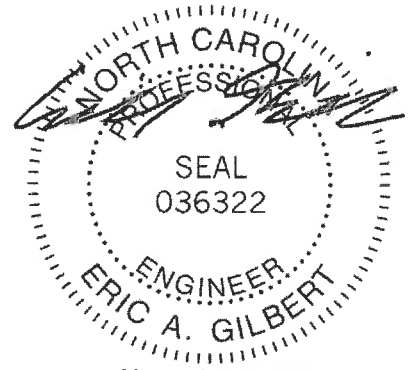
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

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 19-0-0.
(lb) - Max Horz 24=135(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 20, 21, 22, 23, 18, 17, 16, 15
Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 17, 16, 15

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=120mph (3-second gust) Vasd=95mph; 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) 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) 24, 14, 20, 21, 22, 23, 18, 17, 16, 15.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 15, 2024

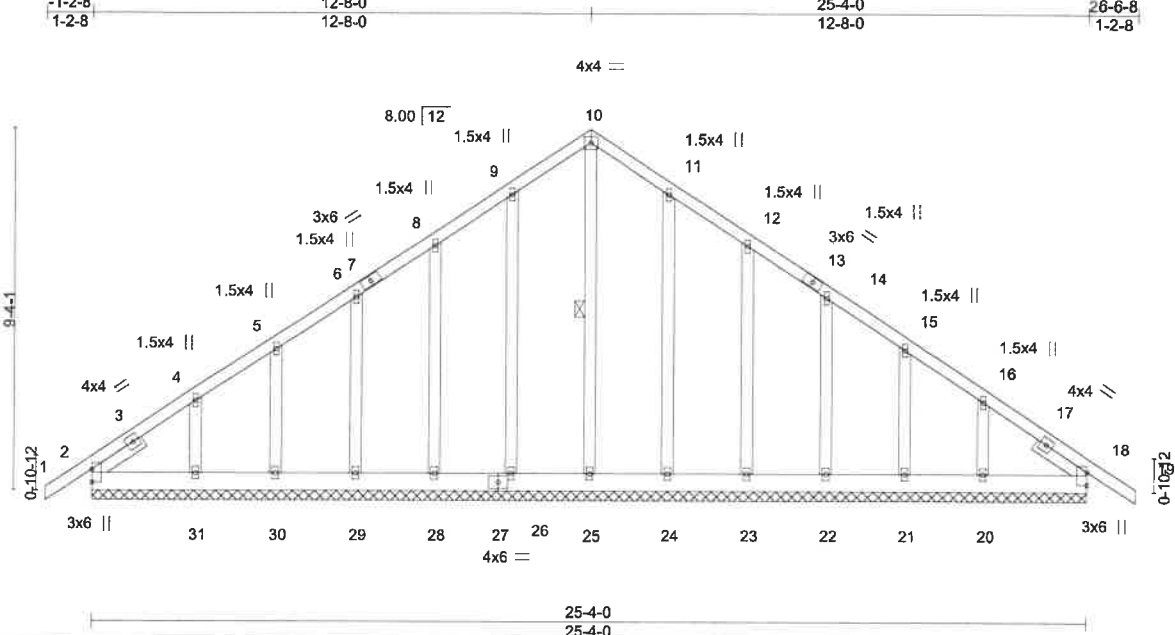
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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 28305	Truss G5	Truss Type GABLE	Qty 1	Ply 1	Lowes 647/Humbert	169579834
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Job Reference (optional)
 8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:50 2024 Page 1
 ID:43FmfUEpnBwxW36Q?RCfByzursR-?_SXurhAn?Ef4_kaUcy?vSNjxL4YLtGAKDjEryJclF



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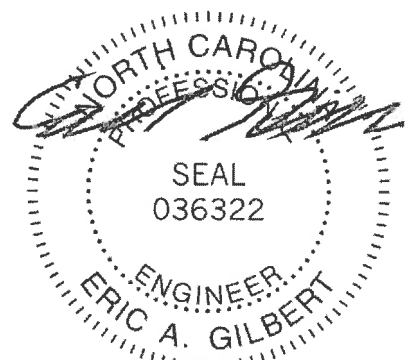
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	-0.00	19	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	19	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.00	18	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 195 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 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	WEBS 1 Row at midpt 10-25
SLIDER Left 2x4 SP No.3 1-6-13, Right 2x4 SP No.3 1-6-13	

REACTIONS. All bearings 25-4-0.
 (lb) - Max Horz 2=-153(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 26, 28, 29, 30, 31, 24, 23, 22, 21, 20
 Max Grav All reactions 250 lb or less at joint(s) 2, 18, 25, 26, 28, 29, 30, 31, 24, 23, 22, 21, 20

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

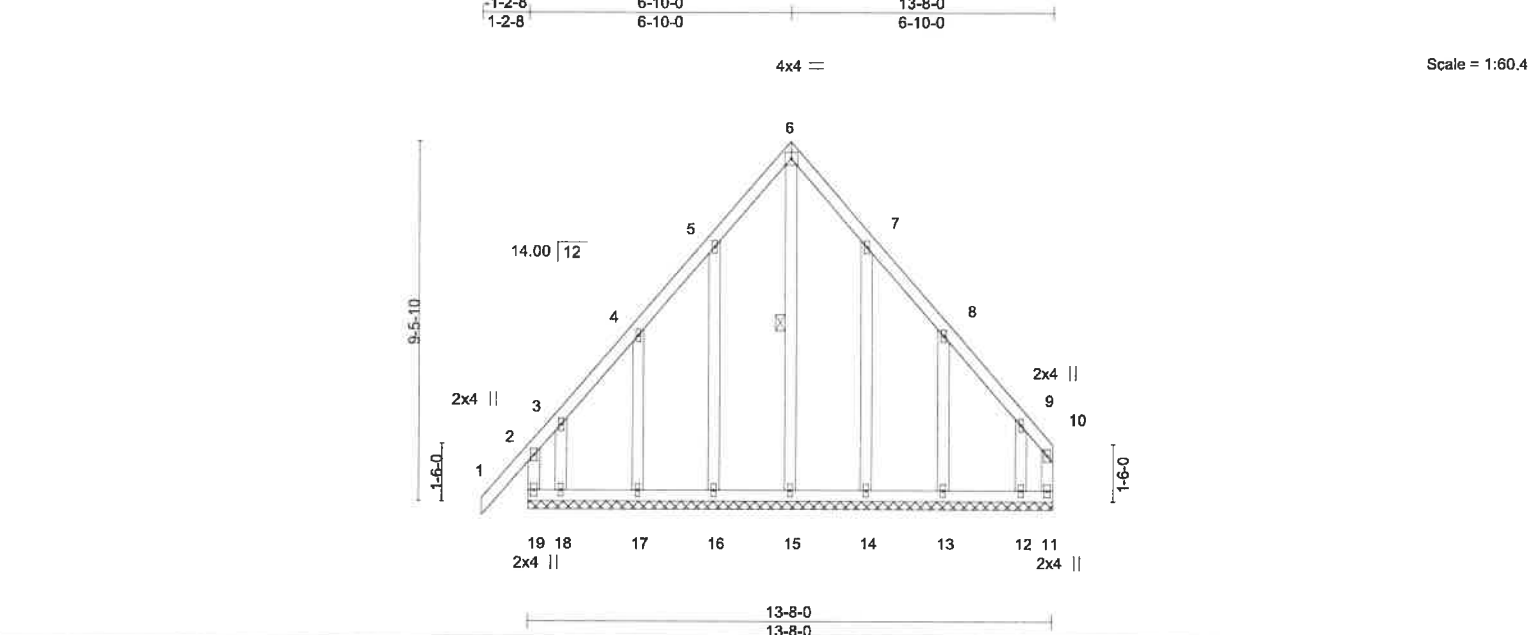
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=25ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left 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 2x4 MT20 unless otherwise indicated.
 - 5) Gable requires continuous bottom chord bearing.
 - 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) 26, 28, 29, 30, 31, 24, 23, 22, 21, 20.
 - 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.



November 15, 2024

Job 28305	Truss G6	Truss Type Common Supported Gable	Qty 1	Ply 1	Lowes 647/Humbert	169579836
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C/R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:51 2024 Page 1
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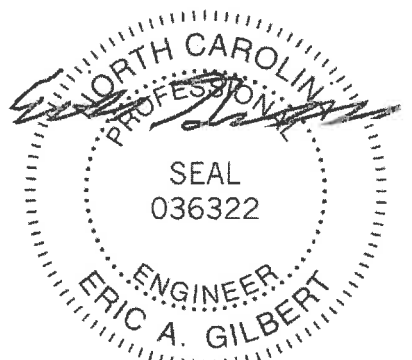
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	-0.00	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						
								Weight: 109 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-15
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 13-8-0.
 (lb) - Max Horz 19=210(LC 7)
 Max Uplift All uplift 100 lb or less at joint(s) 16, 17, 14, 13 except 19=-229(LC 6), 11=-271(LC 7), 18=-189(LC 5), 12=-152(LC 4)
 Max Grav All reactions 250 lb or less at joint(s) 11, 17, 13 except 19=336(LC 14), 15=310(LC 8), 16=257(LC 13), 18=291(LC 6), 14=257(LC 14), 12=304(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 6-15=-286/24

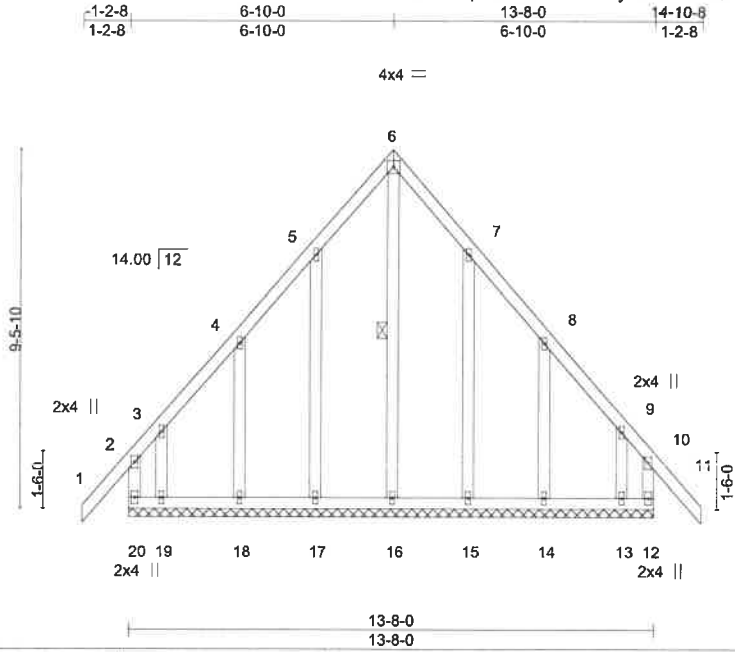
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left 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) 16, 17, 14, 13 except (jt=lb) 19=229, 11=271, 18=189, 12=152.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 15, 2024

Job 28305	Truss G7	Truss Type Common Supported Gable	Qty 1	Ply 1	Lowes 647/Humbert	169579836
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:51 2024 Page 1
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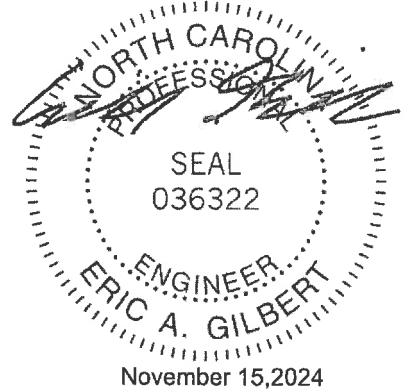
LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.23	Vert(LL)	-0.01	11	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(CT)	-0.01	11	n/r	120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.13	Horz(CT)	-0.00	12	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R							
	Code IRC2018/TPI2014								
								Weight: 112 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-16
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 13-8-0.
 (lb) - Max Horz 20=-223(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 17, 18, 15, 14 except 20=-239(LC 6), 12=-212(LC 7), 19=-172(LC 7), 13=-162(LC 4)
 Max Grav All reactions 250 lb or less at joint(s) 18, 14 except 20=316(LC 14), 12=296(LC 13), 16=336(LC 8), 17=258(LC 13), 19=298(LC 6), 15=257(LC 14), 13=280(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 6-16=-312/18

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=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) 17, 18, 15, 14 except (jt=lb) 20=239, 12=212, 19=172, 13=162.
 - 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.



Job 28305	Truss G8	Truss Type Common Supported Gable	Qty 2	Ply 1	Lowes 647/Humbert	i69579837
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C&R Truss, Autryville, NC - 28318,

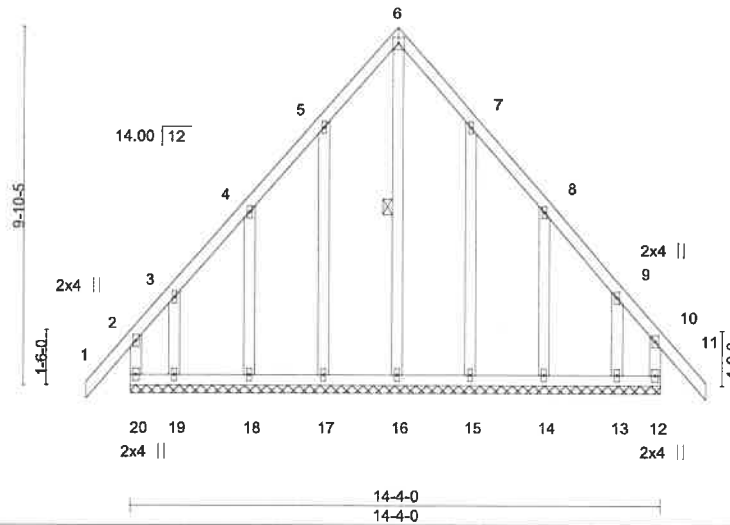
8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:37:52 2024 Page 1

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1-2-8 7-2-0 14-4-0 15-6-8
1-2-8 7-2-0 7-2-0 1-2-8

4x4 ==

Scale = 1:62.7



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 0.24	Vert(LL)	-0.01	11	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.01	11	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	-0.00	12	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R					Weight: 119 lb	FT = 20%

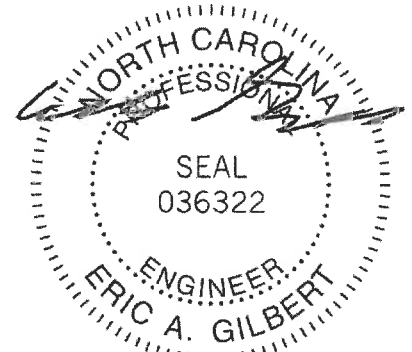
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-16

REACTIONS. All bearings 14-4-0.
(lb) - Max Horz 20=-231(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 17, 18, 15, 14 except 20=-179(LC 6), 12=-158(LC 7), 19=-138(LC 5), 13=-131(LC 4)
Max Grav All reactions 250 lb or less at joint(s) 18, 14, 13 except 20=280(LC 14), 12=263(LC 13), 16=354(LC 8), 17=259(LC 13), 19=261(LC 6), 15=258(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 6-16=-329/20

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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) 17, 18, 15, 14 except (jt=lb) 20=179, 12=158, 19=138, 13=131.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 15, 2024

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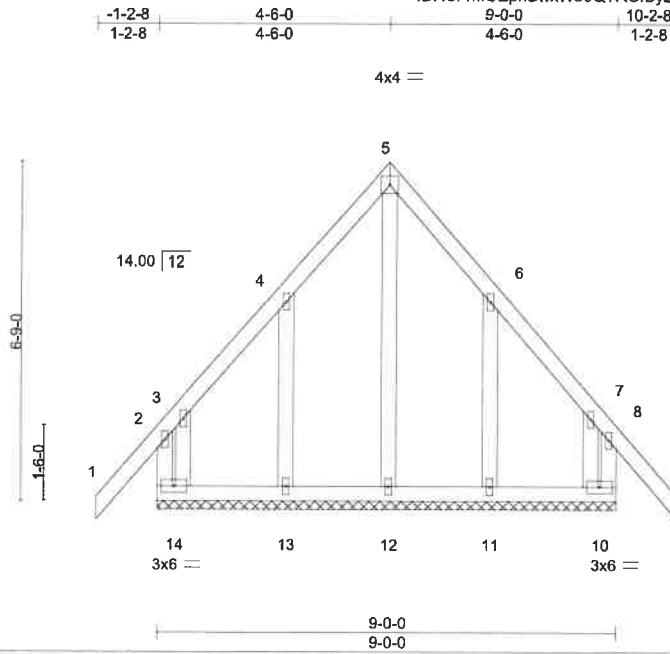
ENGINEERING BY
TRENCO
A MITEK COMPANY

818 Soundside Road
Edenton, NC 27932

Job 28305	Truss GE	Truss Type Common Supported Gable	Qty 1	Ply 1	Lowes 647/Humbert 169579838
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:52 2024 Page 1
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Scale = 1:45.5

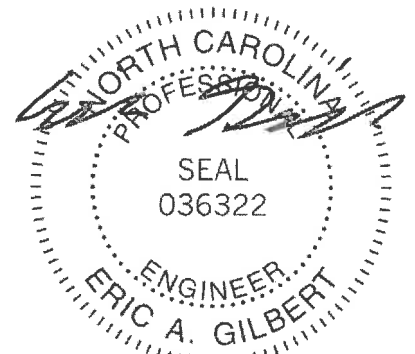
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL. in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL) -0.01	9	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT) -0.01	9	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT) -0.00	10	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R				Weight: 69 lb	FT = 20%

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

REACTIONS. All bearings 9-0-0.
(lb) - Max Horz 14=168(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 14, 10, 13, 11
Max Grav All reactions 250 lb or less at joint(s) 14, 10, 12, 11 except 13=251(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; VuIt=120mph (3-second gust) Vasd=95mph; 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.
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 10, 13, 11.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



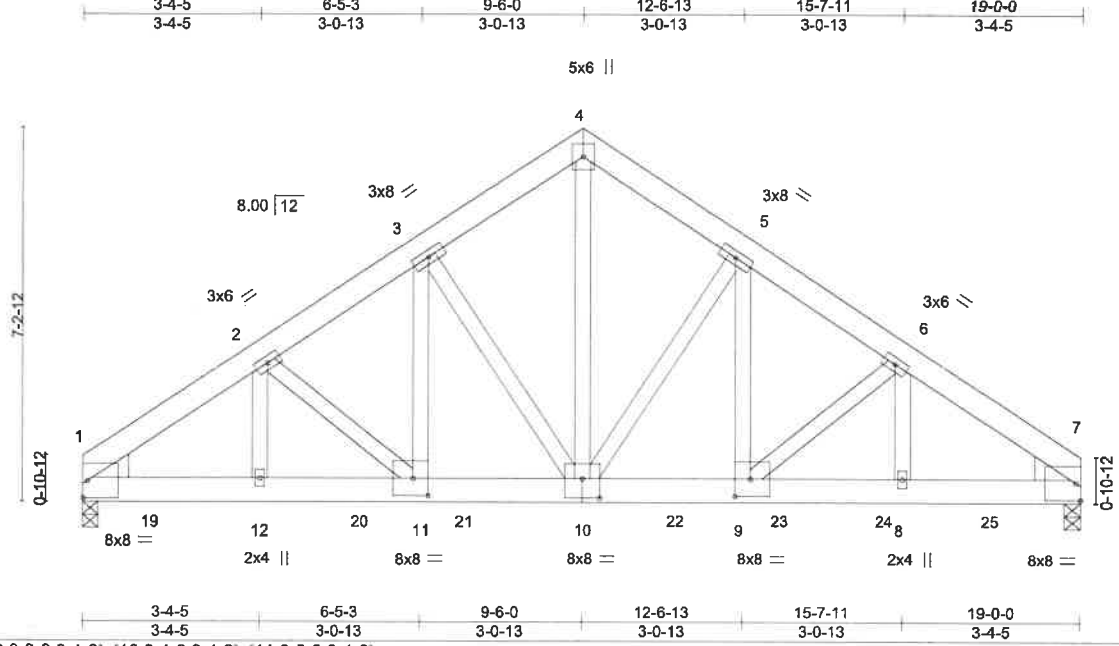
November 15, 2024

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.sbccomponents.com)

ENGINEERING BY
TRENCO
A BCSI COMPANY
818 Soundside Road
Edenton, NC 27932

Job 28306	Truss GR3	Truss Type Common Gilder	Qty 1	Ply 2	Lowes 647/Humbert	69579839
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C&R Truss, Autryville, NC - 28318, 8,530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:53 2024 Page 1
 ID:43FmfUEpnBwxW36Q?RCfByzursR-PZ7gWlj33wcExST99kVIX577GY?DYiycQB6NrAyJclC



Scale = 1:44.3

Plate Offsets (X,Y)-- [9:0-3-8,0-4-0], [10:0-4-0,0-4-8], [11:0-3-8,0-4-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.42	Vert(LL) -0.07	9-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.47	Horz(CT) -0.13	9-10	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.68	Horz(LL) 0.04	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Wind(LL) -0.01	11	>999	240		
							Weight: 313 lb	FT = 20%

LUMBER-
 TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP 2400F 2.0E
 WEBS 2x4 SP No.3 *Except*
 4-10: 2x4 SP No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

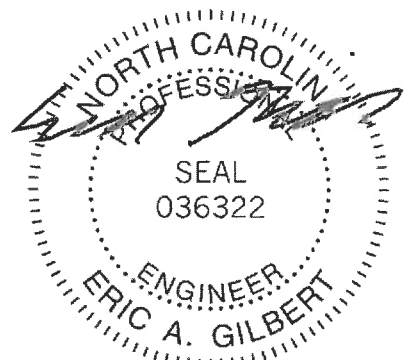
WEDGE
 Left: 2x6 SP No.2 , Right: 2x6 SP No.2

REACTIONS. (size) 1=0-3-8, 7=0-3-8
 Max Horz 1=104(LC 7)
 Max Grav 1=5957(LC 1), 7=5748(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-7788/0, 2-3=-6751/0, 3-4=-5361/0, 4-5=-5361/0, 5-6=-6789/0, 6-7=-7766/0
 BOT CHORD 1-12=0/6261, 11-12=0/6261, 10-11=0/5620, 9-10=0/5652, 8-9=0/6238, 7-8=0/6238
 WEBS 4-10=0/5539, 5-10=-2159/0, 5-9=0/2426, 6-9=-792/0, 6-8=0/1221, 3-10=-2100/0,
 3-11=0/2357, 2-11=-865/0, 2-12=0/1293

- 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 0-7-0 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=120mph (3-second gust) Vasd=95mph; 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
 - 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.
 - 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1132 lb down at 1-3-4, 1132 lb down at 3-3-4, 1132 lb down at 5-3-4, 1132 lb down at 7-3-4, 1132 lb down at 9-3-4, 1132 lb down at 11-3-4, 1132 lb down at 13-3-4, and 1131 lb down at 15-3-4, and 1131 lb down at 17-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
 Continued on page 2



Job	Truss	Truss Type	Qty	Ply	Lowes 647/Humbert	I69579839
28305	GR3	Common Girder	1	2		

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:53 2024 Page 2
 ID:43FmfUEpnBwxW36Q?RCfBzursR-PZ7gWlj33wcExST99kViX5?7GY?DYiycQB6NrAyJclC

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 13-16=-20

Concentrated Loads (lb)

Vert: 10=-1132(B) 12=-1132(B) 19=-1132(B) 20=-1132(B) 21=-1132(B) 22=-1132(B) 23=-1132(B) 24=-1131(B) 25=-1131(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	Truss	Truss Type	Qty	Ply	Lowes 647/Humbert	I69579840
28305	GR4	Common Girder	1	1		

C&R Truss, Airyville, NC - 28318,

Job Reference (optional)
 8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:37:54 2024 Page 2
 ID:43FmfUEpnBwxW36Q?RCfByzursR-tlh2kDkhqEI5Yc2MjR0x4lYOrYQnHGhmfrsxNcyJclB

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-10=-60, 10-17=-60, 2-17=-20
- Concentrated Loads (lb)
 - Vert: 18=-349(B) 30=-349(B)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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.sbccomponents.com)



818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lowes 647/Humbert	169579841
28305	J7	Jack-Closed	2	1		

C&R Truss, Autryville, NC - 28318, Job Reference (optional)
 8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:54 2024 Page 1
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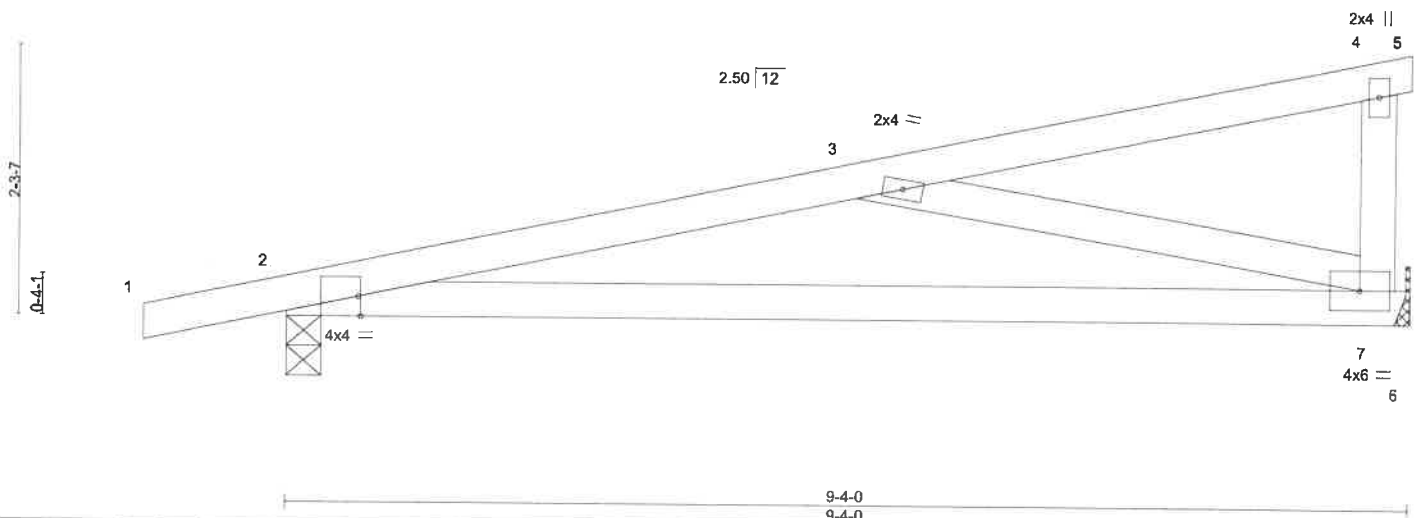


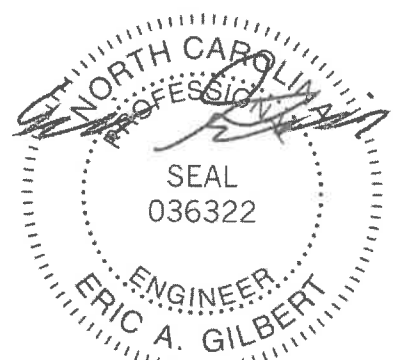
Plate Offsets (X,Y) -	[2:0-0-4,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15		TC 0.69	Vert(LL) -0.10	7-10	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.53	Vert(CT) -0.22	7-10	>501	240			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.26	Horz(CT) 0.01	7	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL) 0.02	7-10	>999	240			
									Weight: 39 lb	FT = 20%

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
 Max Horz 2=58(LC 7)
 Max Uplift 7=-7(LC 4), 2=-37(LC 4)
 Max Grav 7=369(LC 1), 2=440(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-816/48
 BOT CHORD 2-7=-46/795
 WEBS 3-7=-720/81

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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) 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) 7, 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.
 - 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.



November 15, 2024

Job 28305	Truss M7	Truss Type Jack-Closed	Qty 1	Ply 1	Lowe's 647/Humbert	189579842
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:37:55 2024 Page 1
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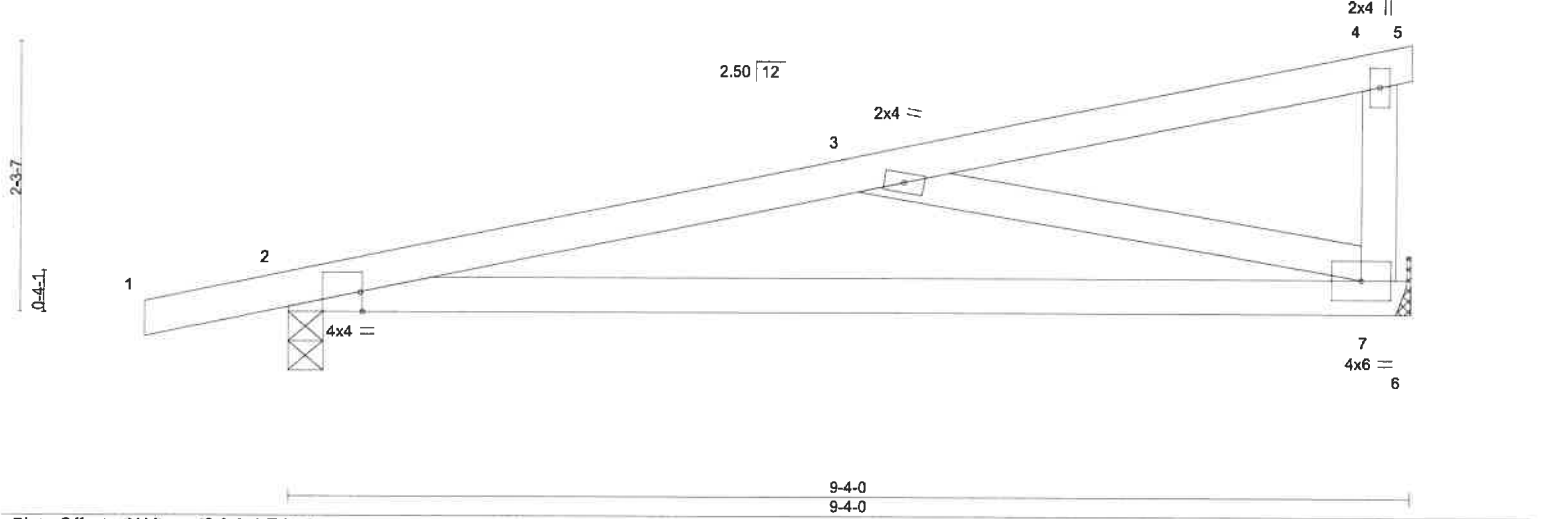


Plate Offsets (X,Y)-- [2:0-4,Edge]	
LOADING (psf)	SPACING- 2-0-0
TCLL 20.0	Plate Grip DOL 1.15
TCDL 10.0	Lumber DOL 1.15
BCLL 0.0 *	Rep Stress Incr YES
BCDL 10.0	Code IRC2018/TPI2014
CSI.	DEFL. in (loc) l/defl L/d
TC 0.69	Vert(LL) -0.10 7-10 >999 360
BC 0.53	Vert(CT) -0.22 7-10 >501 240
WB 0.26	Horz(CT) 0.01 7 n/a n/a
Matrix-AS	Wind(LL) 0.02 7-10 >999 240
PLATES	GRIP
MT20	244/190
Weight: 39 lb	FT = 20%

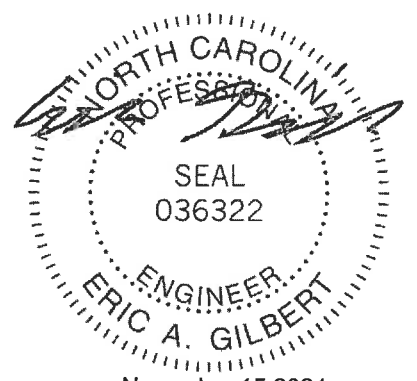
LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
 Max Horz 2=58(LC 7)
 Max Uplift 7=-7(LC 4), 2=-37(LC 4)
 Max Grav 7=369(LC 1), 2=440(LC 1)

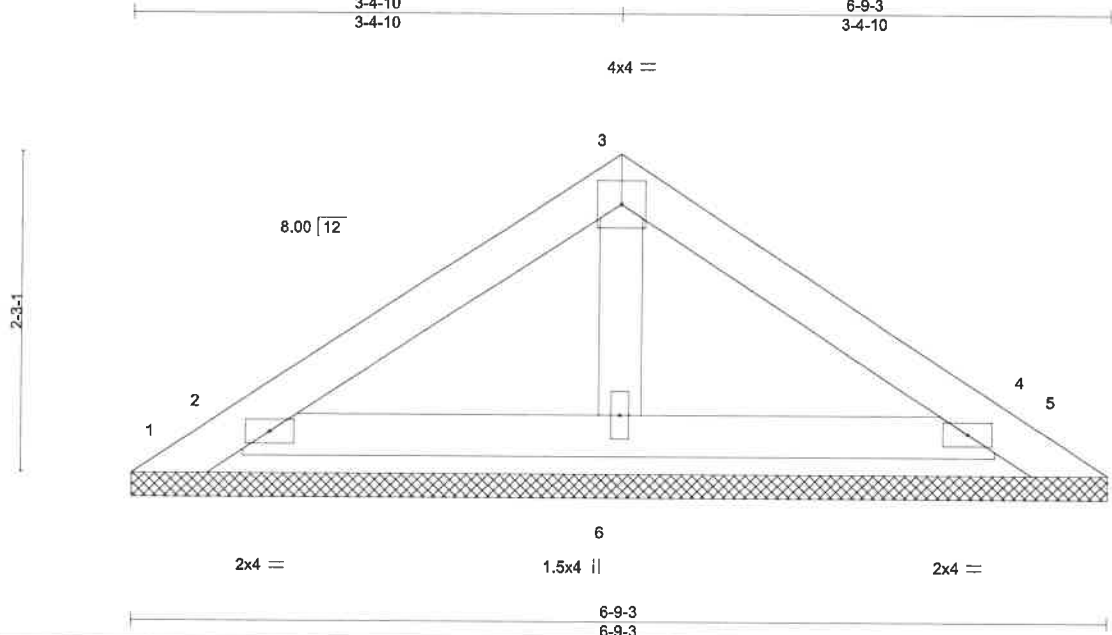
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-816/48
 BOT CHORD 2-7=-46/795
 WEBS 3-7=-720/81

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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
 - 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) 7, 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.
 - 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.



Job	Truss	Truss Type	Qty	Ply	Lowes 647/Humbert	
28305	PB8	GABLE	2	1		69579843

C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:37:55 2024 Page 1
 ID:43FmfUEpnBwxW36Q?RCfByzursR-LxFQxZIJbYtyAIdYH9XAcW5ZfMnw0mlvuUvUv3yJclA



Scale: 3/4"=1'

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.05	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2018/TPI2014			Weight: 22 lb	FT = 20%

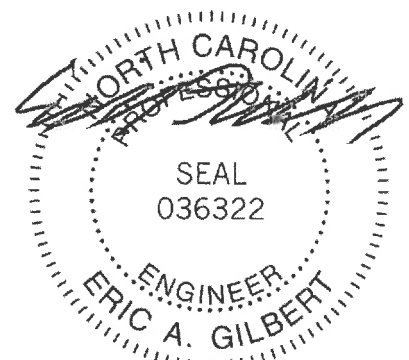
LUMBER-
 TOP CHORD 2x4 SP 2400F 2.0E
 BOT CHORD 2x4 SP No.2
 OTHERS 2x4 SP No.3

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 6-9-3.
 (lb) - Max Horz 1=34(LC 7)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4, 6

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=120mph (3-second gust) Vasd=95mph; 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 2-0-0 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, 5, 2, 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.



November 15, 2024

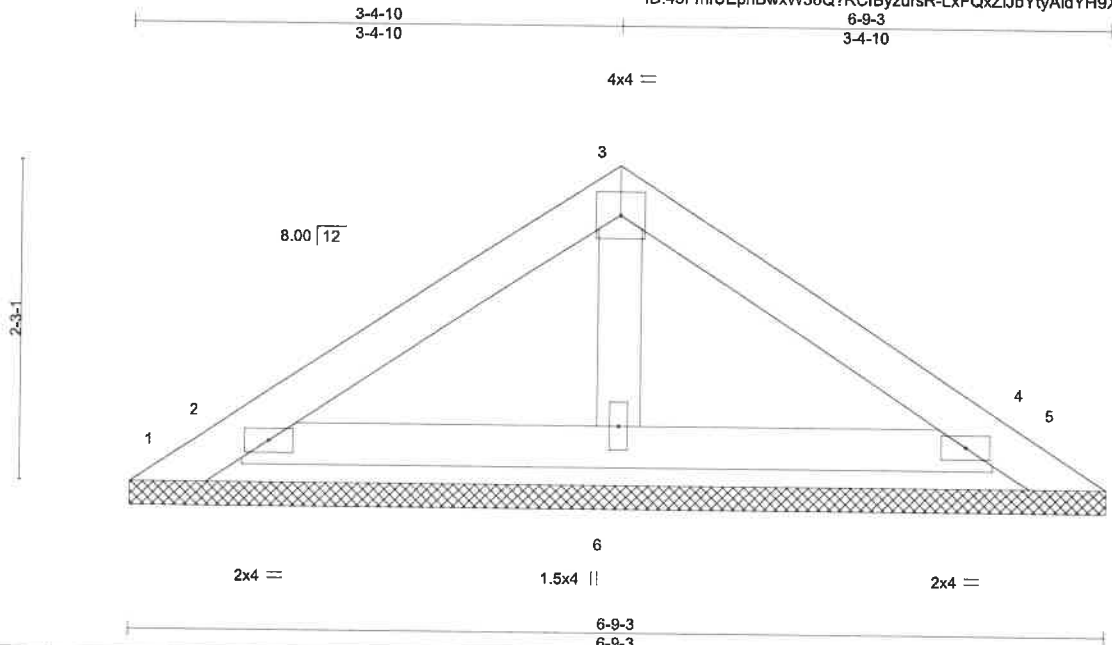
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ENGINEERING BY
TRENCO
 A MITEK COMPANY
 818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lowes 647/Humbert	
28305	PB9	GABLE	35	1		69579844

C&R Truss, Autryville, NC - 28318.

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:55 2024 Page 1
 ID:43FmfUEpnBwxW36Q?RCfByzursR-LxFQxZIJbYtyAldYH9XAcW5ZfMnw0mlvuUbUv3yJclA



Scale: 3/4"=1'

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.05	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2018/TPI2014			Weight: 22 lb	FT = 20%

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

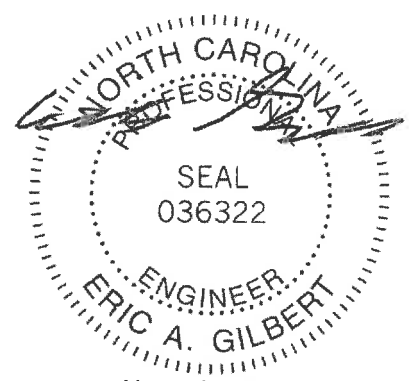
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 6-9-3.
 (lb) - Max Horz 1=34(LC 7)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4, 6

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=120mph (3-second gust) Vasd=95mph; 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 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 2, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



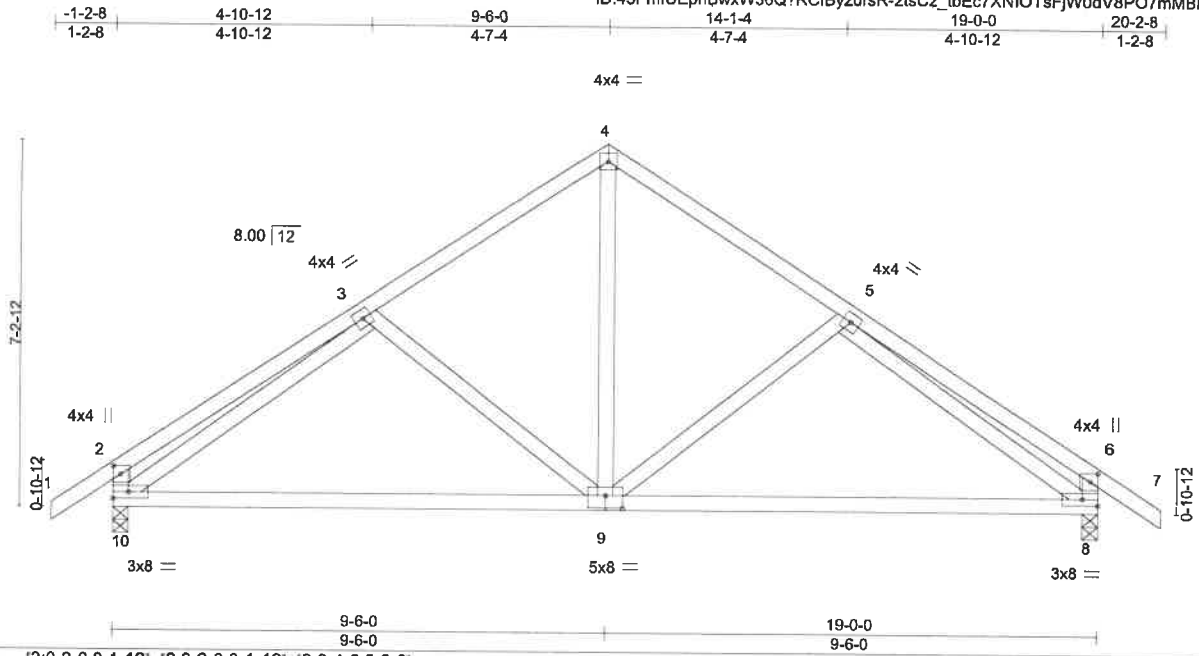
November 15, 2024

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.ipinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbccomponents.com)

ENGINEERING BY
TRENCO
 A MITEK COMPANY
 818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lowes 647/Humbert	169579845
28305	T6	Common	8	1		

C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:05 2024 Page 1
 Job Reference (optional) ID:43FmUEpnBwxW36Q?RCfByzursR-2tsC2_tbEc7XNIOTsFjW0dV8PO7mMBNNB200GUyJcl0



Scale = 1:44.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/def	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.10	8-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.20	8-9	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.39	Horz(CT)	0.01	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.01	9	>999		
								Weight: 112 lb	FT = 20%

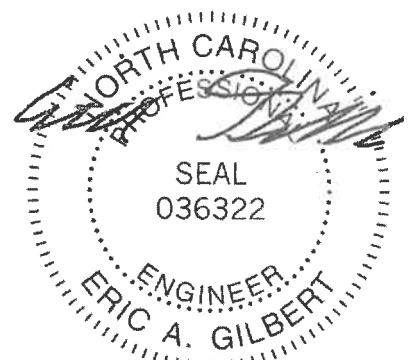
LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP 2400F 2.0E
 WEBS 2x4 SP No.3

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=-135(LC 6)
 Max Uplift 10=-13(LC 8), 8=-13(LC 8)
 Max Grav 10=830(LC 1), 8=830(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-388/2, 3-4=-723/37, 4-5=-723/37, 5-6=-388/2, 2-10=-388/44, 6-8=-388/44
 BOT CHORD 9-10=0/684, 8-9=0/684
 WEBS 4-9=0/481, 3-10=-563/30, 5-8=-563/30

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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 100 lb uplift at joint(s) 10, 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.



November 15, 2024

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ENGINEERING BY
TRENCO
 A MITEK COMPANY

818 Soundside Road
 Edenton, NC 27932

Job 28305	Truss T7	Truss Type Common	Qty 1	Ply 1	Lowes 647/Humbert	I69579846
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:05 2024 Page 1
 ID:43FmfUEpnBwxV36Q?RCfByzursR-2tsC2_tbcEc7XNIOTsFjW0dV8PO7mMBRNB200GUyJcl0

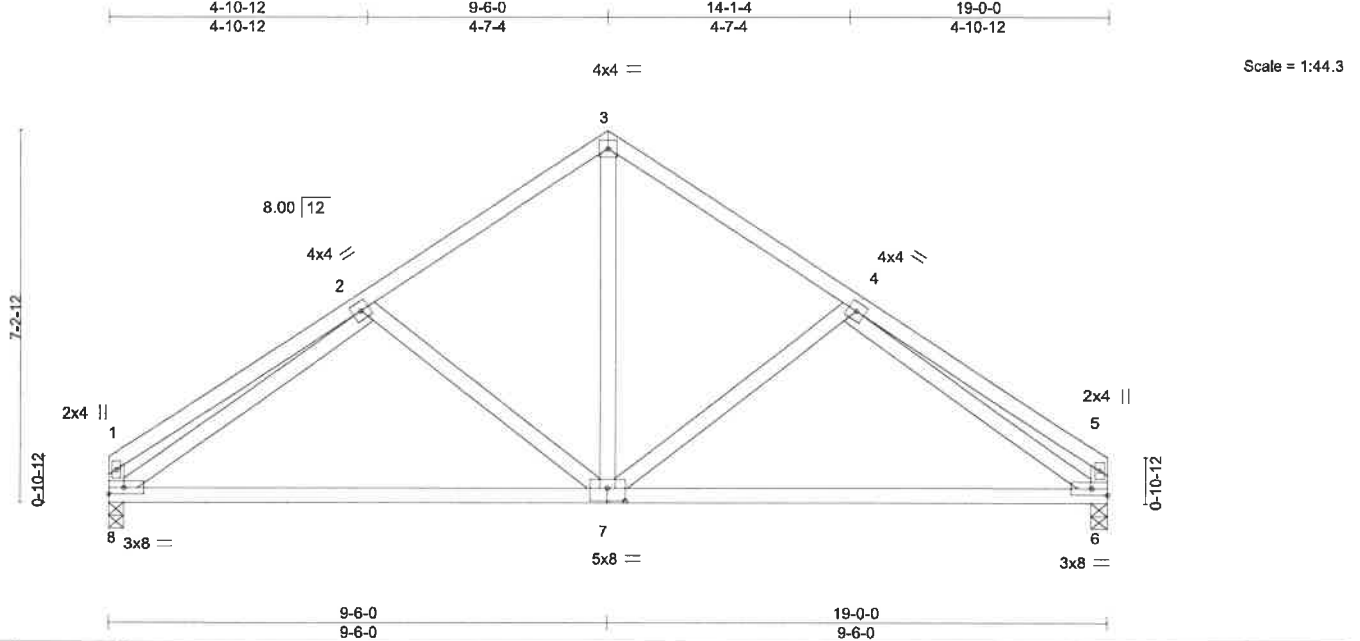


Plate Offsets (X,Y)-- [7:0-4-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.60	Vert(LL) -0.10	6-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.36	Vert(CT) -0.20	6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.39	Horz(CT) 0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL) 0.01	7	>999	240		
							Weight: 108 lb	FT = 20%

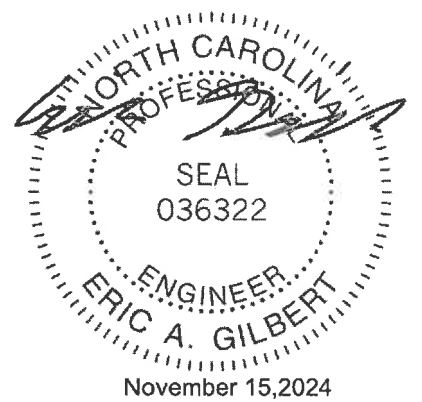
LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP 2400F 2.0E
 WEBS 2x4 SP No.3

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

REACTIONS. (size) 8=0-3-8, 6=0-3-8
 Max Horz 8=-120(LC 6)
 Max Grav 8=748(LC 1), 6=748(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-396/4, 2-3=-734/40, 3-4=-734/40, 4-5=-396/4, 1-8=-310/14, 5-6=-310/14
 BOT CHORD 7-8=0/702, 6-7=0/702
 WEBS 3-7=0/486, 2-8=-557/31, 4-6=-557/31

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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
 - 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.
 - 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 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.



Job 28305	Truss T8	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 4	Lowes 647/Humbert	169579847
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:38:06 2024 Page 1
 ID:43FmfUEpnBwxW36Q?RCfByzursR-X3QaFJtD?wFO?SyfQzEIzq2NgoSm5ZAXQimZowyJcl?



Scale = 1:49.8

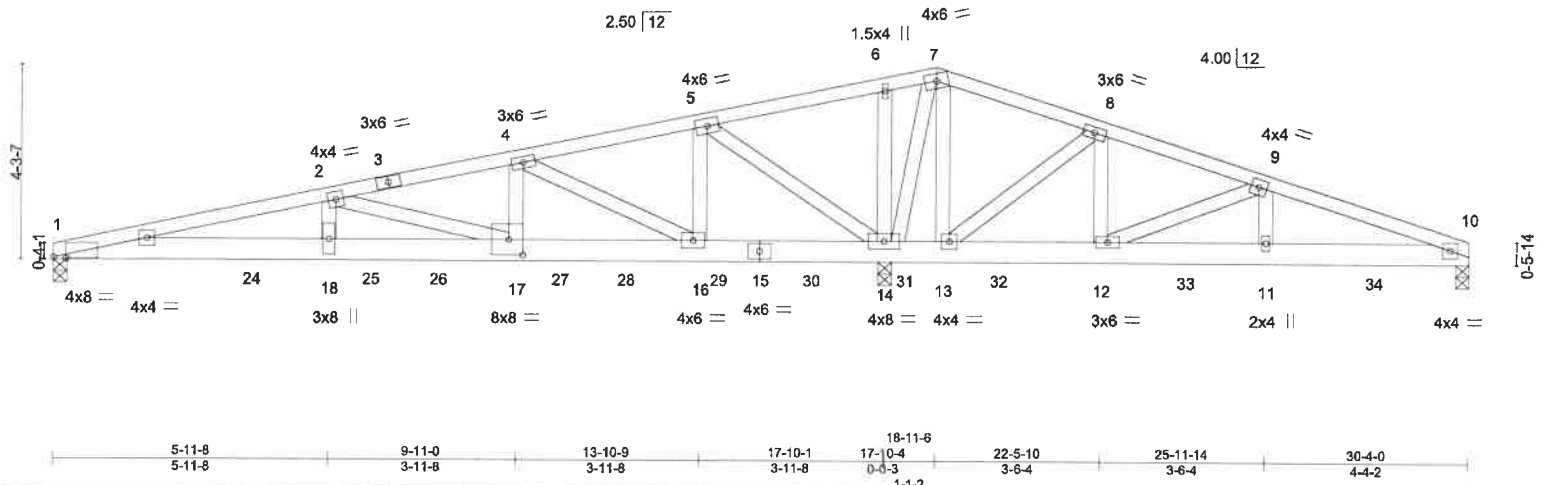


Plate Offsets (X,Y)-- [1:0-3-4,0-0-4], [17:0-3-8,0-4-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.38	Vert(LL) -0.10	18-23	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.43	Vert(CT) -0.20	18-23	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.74	Horz(CT) 0.02	14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Wind(LL) -0.02	18	>999	240		
							Weight: 701 lb	FT = 20%

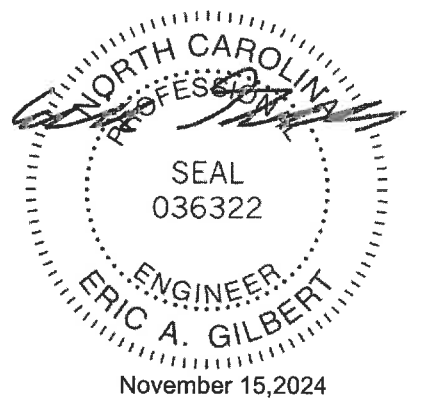
LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 10=0-3-8, 1=0-3-8, 14=0-3-8 (req. 0-3-9)
 Max Horz 1=35(LC 26)
 Max Grav 10=980(LC 20), 1=3825(LC 19), 14=17270(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-11530/0, 2-4=-4129/0, 4-5=0/3708, 5-6=0/10641, 6-7=0/10519, 7-8=0/8725, 8-9=0/4296, 9-10=-682/139
 BOT CHORD 1-18=0/11290, 17-18=0/11290, 16-17=0/4027, 14-16=-3607/0, 13-14=-8356/0, 12-13=-4064/0, 11-12=-100/643, 10-11=-100/643
 WEBS 2-18=0/3366, 2-17=-7596/0, 4-17=0/5171, 4-16=-8464/0, 5-16=0/6158, 5-14=-8357/0, 6-14=-673/0, 7-14=-7407/0, 7-13=0/2570, 8-13=-5645/0, 8-12=0/4764, 9-12=-4539/0, 9-11=0/2938

- NOTES-**
- 1) 4-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 0-4-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
 - 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - 3) Unbalanced roof live loads have been considered for this design.
 - 4) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=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
 - 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.
 - 7) WARNING: Required bearing size at joint(s) 14 greater than input bearing size.
 - 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1392 lb down at 2-3-4, 1392 lb down at 4-3-4, 1392 lb down at 6-3-4, 1392 lb down at 8-3-4, 1392 lb down at 10-3-4, 1392 lb down at 12-3-4, 1392 lb down at 14-3-4, 1393 lb down at 16-3-4, 1393 lb down at 18-3-4, 1393 lb down at 20-3-4, 1393 lb down at 22-3-4, 1393 lb down at 24-3-4, and 1393 lb down at 26-3-4, and 1393 lb down at 28-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2
 LOAD CASE(S) Standard



Job	Truss	Truss Type	Qty	Ply	Lowes 647/Humbert	I69579847
28305	T8	ROOF SPECIAL GIRDER	1	4	Job Reference (optional)	

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:06 2024 Page 2
 ID:43FmfUEpnBwxW36Q?RCfByzursR-X3QaFjD?wFO?SyfQzEIZq2NgoSm5ZAXQimZowyJcl?

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-7=-60, 7-10=-60, 1-19=-20

Concentrated Loads (lb)

Vert: 12=-1393(B) 11=-1393(B) 23=-1392(B) 24=-1392(B) 25=-1392(B) 26=-1392(B) 27=-1392(B) 28=-1392(B) 29=-1392(B) 30=-1393(B) 31=-1393(B) 32=-1393(B) 33=-1393(B) 34=-1393(B)

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818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lowes 647/Humbert	169579848
28305	T9	Roof Special Girder	1	2	Job Reference (optional)	

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:07 2024 Page 2
 ID:43FmfUEpnBwxW36Q?RCfByzursR-?FzyTfurnENFccXr_gl_52aTRCmCq?jgeMV7KMyJcl_

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-8=-60, 8-11=-60, 2-20=-20

Concentrated Loads (lb)

Vert: 18=-992(F) 17=-992(F) 25=-585(F) 26=-992(F) 27=-992(F)

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818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lowes 647/Humbert	169579849
28305	T10	Roof Special	1	1		

C&R Truss, Autryville, NC - 28318,

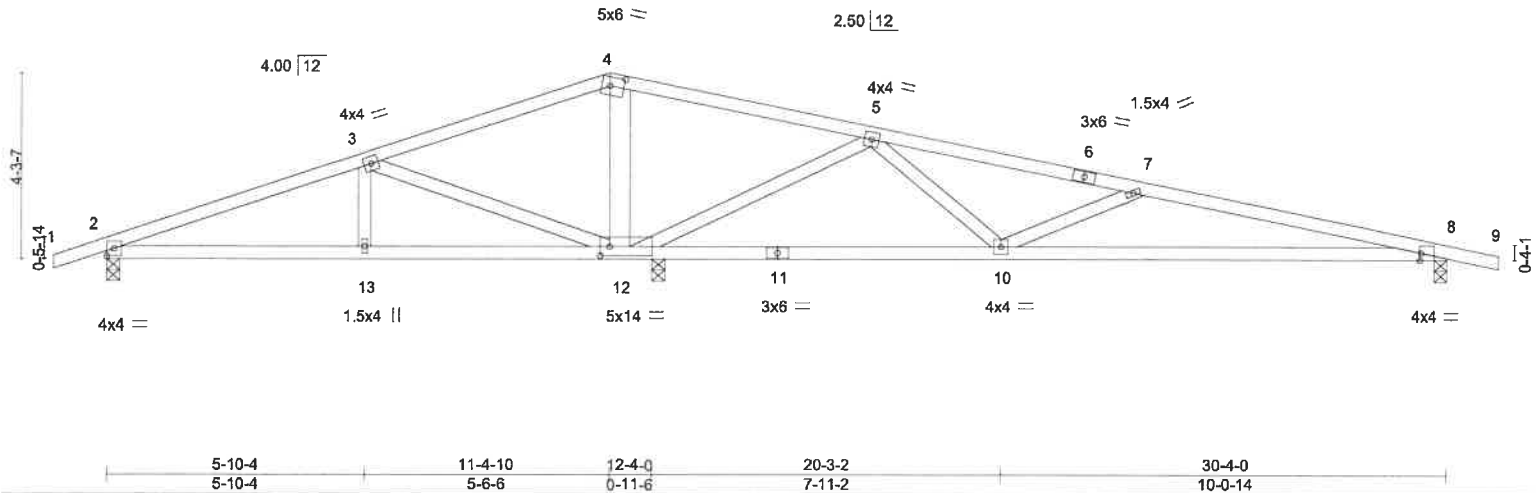
8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:56 2024 Page 1

ID:43FmUEpnBwxW36Q?RCfByzursR-p8po9vmxMr?pvCkqs2P9jdckm2NI?v368L1SVyJcl9

Job Reference (optional)

-1-2-8	5-10-4	11-4-10	17-3-10	23-2-10	30-4-0	31-6-8
1-2-8	5-10-4	5-6-6	5-11-0	5-11-0	7-1-6	1-2-8

Scale = 1:52.5



LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.54	Vert(LL) -0.13	10-19	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.37	Vert(CT) -0.32	10-19	>712	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.86	Horz(CT) 0.01	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL) 0.05	10-19	>999	240		
							Weight: 135 lb	FT = 20%

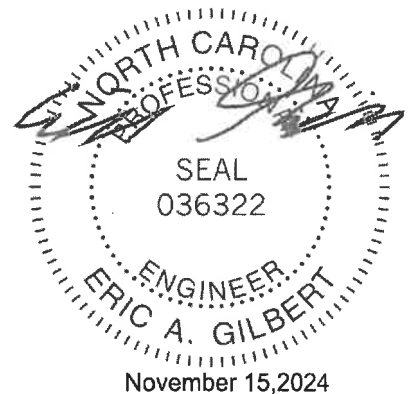
LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP 2400F 2.0E
 WEBS 2x4 SP No.3 *Except*
 4-12: 2x6 SP No.1

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

REACTIONS. (size) 2=0-3-8, 12=0-3-8, 8=0-3-8
 Max Horz 2=-38(LC 6)
 Max Uplift 2=-59(LC 20), 8=-24(LC 5)
 Max Grav 2=343(LC 19), 12=1766(LC 1), 8=627(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-252/530, 3-4=0/1023, 4-5=0/1027, 5-7=-793/0, 7-8=-1407/37
 BOT CHORD 2-13=-480/196, 12-13=-480/196, 8-10=0/1362
 WEBS 3-12=-781/11, 4-12=-831/34, 5-12=-1221/39, 5-10=0/776, 7-10=-693/97

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=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
 - 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) 2, 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.



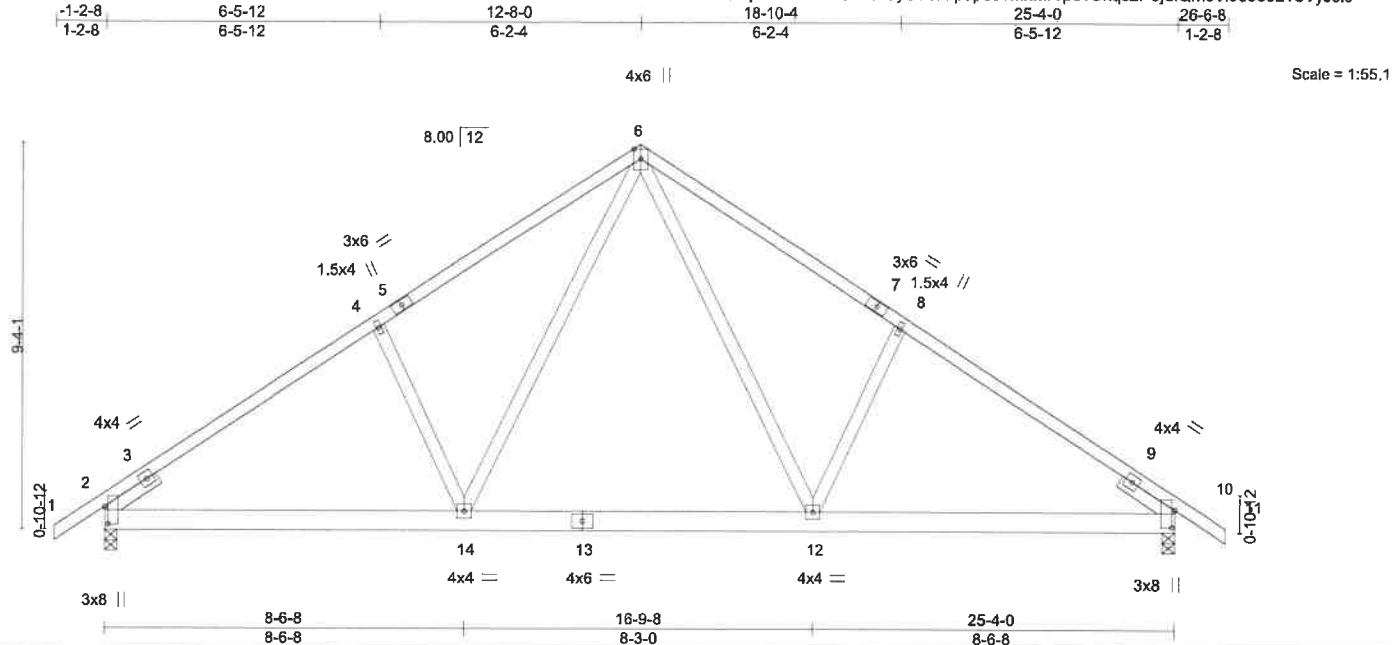
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIJ-7473 rev. 1/2/2023 BEFORE USE.
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ENGINEERING BY
TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

Job 28305	Truss T11	Truss Type Common	Qty 14	Ply 1	Lowes 647/Humbert	169579850
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:56 2024 Page 1

ID:43FmUEpnBwxW36Q?RCfByzursR-p8po9vmxMr?pvovCkqs2P9jdiQm3V19d368L1SVyJcl9



Scale = 1:65.1

Plate Offsets (X,Y)-- [2:0-5-0,0-0-14], [10:0-5-0,0-0-14]

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 0.17	Vert(LL)	-0.10 12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.15 12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.03 10	n/a	n/a		
BCDL 10.0	Code	IRC2018/TP12014	Matrix-AS	Wind(LL)	0.02 12-14	>999	240	Weight: 157 lb	FT = 20%

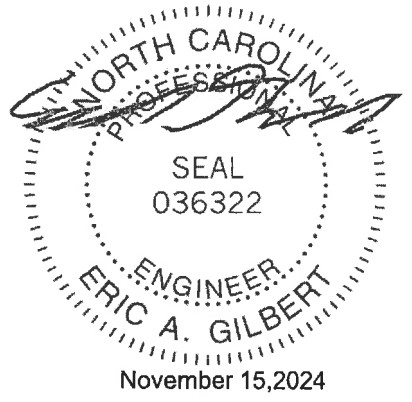
LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=153(LC 7)
Max Uplift 2=-3(LC 8), 10=-3(LC 8)
Max Grav 2=1100(LC 13), 10=1100(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1401/16, 4-6=-1300/76, 6-8=-1300/76, 8-10=-1401/16
BOT CHORD 2-14=0/1198, 12-14=0/821, 10-12=0/1102
WEBS 6-12=-2/614, 8-12=-318/109, 6-14=-2/614, 4-14=-318/109

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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
 - 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) 2, 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/TP1.
 - 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.



Job	Truss	Truss Type	Qty	Ply	Lowes 647/Humbert	169579851
28305	T12	Common	11	1		

C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:37:57 2024 Page 1
 ID:43FmfUEpnBwxW36Q?RCfByzursR-HKNBMEZ797gP3mwOaaehxAt8APIJcQClO4b_xyJcl8

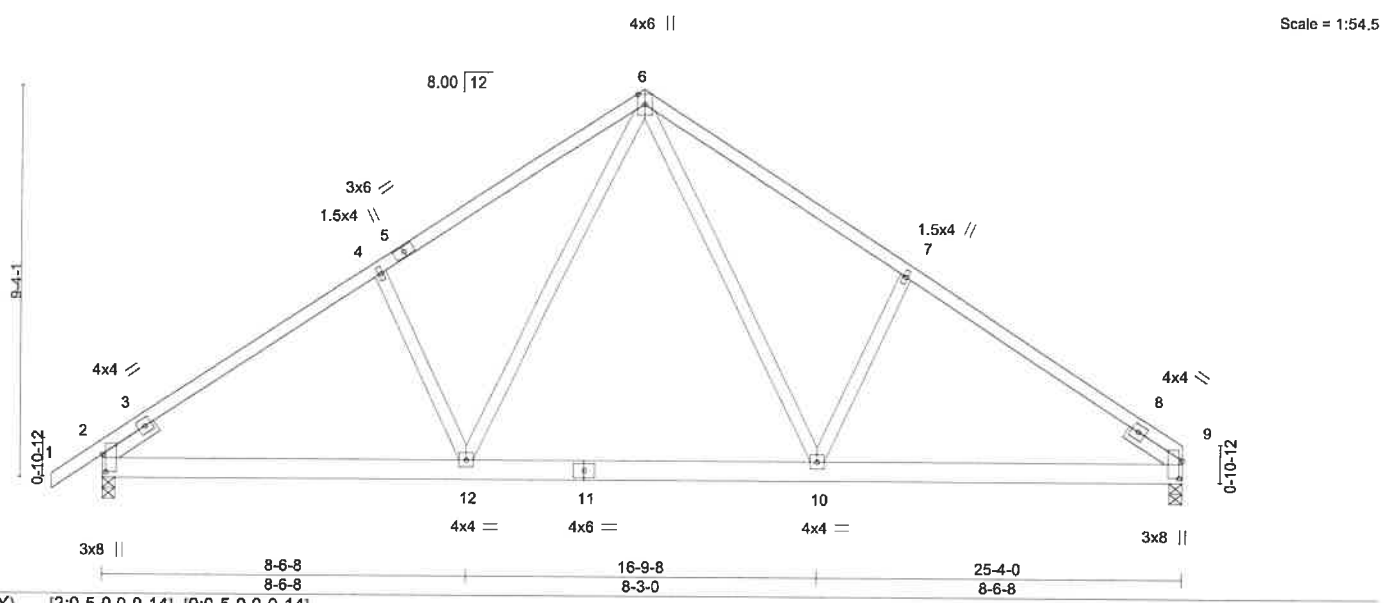


Plate Offsets (X,Y)--	[2:0-5-0,0-0-14], [9:0-5-0,0-0-14]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL) -0.10 10-12 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.30	Vert(CT) -0.15 10-12 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.24	Horz(CT) 0.03 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL) 0.02 10-12 >999 240	Weight: 154 lb	FT = 20%

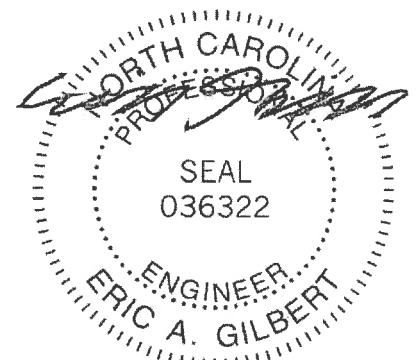
LUMBER-
 TOP CHORD 2x4 SP 2400F 2.0E
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.3
 SLIDER Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0

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

REACTIONS. (size) 9=0-3-8, 2=0-3-8
 Max Horz 2=150(LC 7)
 Max Uplift 2=-4(LC 8)
 Max Grav 9=1034(LC 14), 2=1102(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-1402/17, 4-6=-1302/77, 6-7=-1307/79, 7-9=-1407/19
 BOT CHORD 2-12=0/1192, 10-12=0/816, 9-10=0/1100
 WEBS 6-10=-4/622, 7-10=-321/110, 6-12=-1/613, 4-12=-318/109

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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
 - 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) 2.
 - 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.



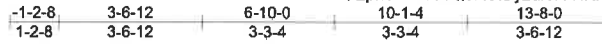
November 15, 2024

Job 28305	Truss T13	Truss Type Common	Qty 7	Ply 1	Lowes 647/Humbert 169579852
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C&R Truss, Autryville, NC - 28318,

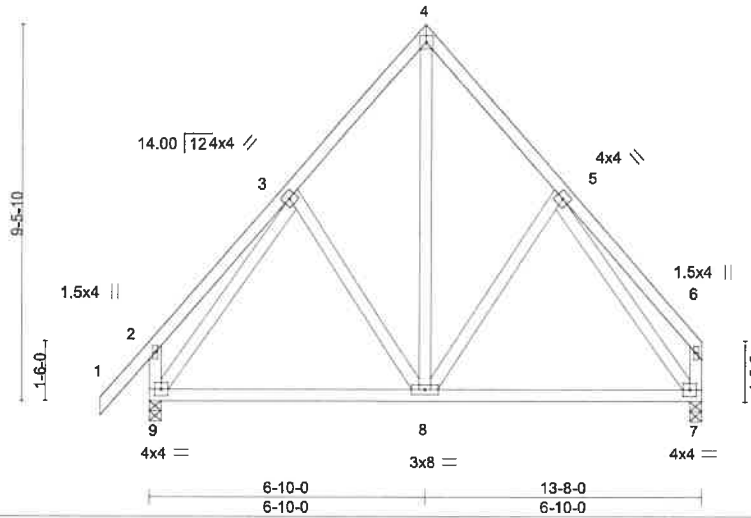
8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:57 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-HKNBMEZ797gP3mwOaaehxAshARZUb3CLO4b_xyJcl8



4x4 =

Scale = 1:57.3



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 0.20	Vert(LL)	-0.03	7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.06	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.29	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MS	Wind(LL)	0.01	8	>999	240	Weight: 106 lb	FT = 20%

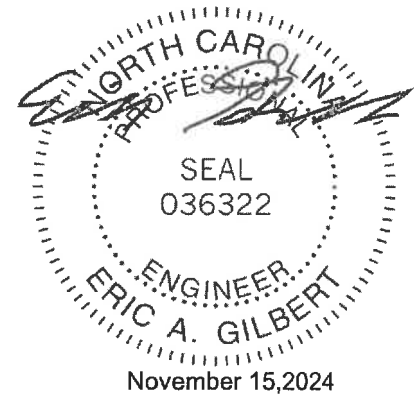
LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP 2400F 2.0E
 WEBS 2x4 SP No.3

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) 9=0-3-8, 7=0-3-8
 Max Horz 9=210(LC 7)
 Max Uplift 9=-17(LC 8)
 Max Grav 9=620(LC 1), 7=531(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 3-4=-401/94, 4-5=-403/95
 BOT CHORD 8-9=-40/320, 7-8=0/261
 WEBS 4-8=90/326, 3-9=-418/0, 5-7=-396/0

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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) 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 100 lb uplift at joint(s) 9.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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.sbccomponents.com)

ENGINEERING BY
TRENCO
 A MITEK BRAND
 818 Soundside Road
 Edenton, NC 27932

Job 28305	Truss T15	Truss Type Common	Qty 4	Ply 1	Lowes 647/Humbert 169579854
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C&R Truss, Autryville, NC - 28318,

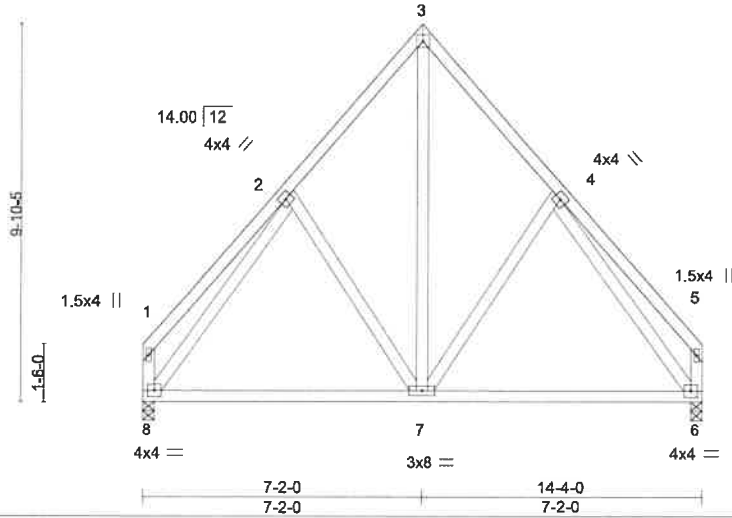
8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:58 2024 Page 1

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4x4 =

Scale = 1:59.6



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 0.22	Vert(LL) -0.04 6-7 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.07 6-7 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.31	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Wind(LL) 0.01 7 >999 240	Weight: 108 lb	FT = 20%

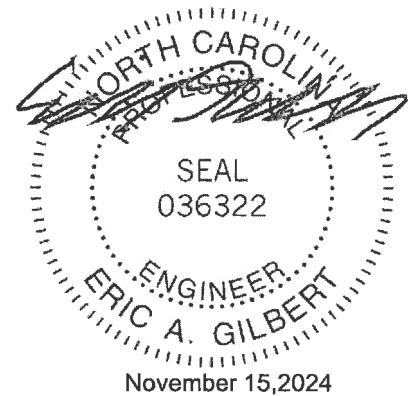
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3

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) 8=0-3-8, 6=0-3-8
Max Horz 8=-199(LC 6)
Max Grav 8=562(LC 1), 6=562(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-430/98, 3-4=-430/98
BOT CHORD 7-8=-39/348, 6-7=0/279
WEBS 3-7=-94/349, 2-8=-419/0, 4-6=-419/0

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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
 - 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.
 - 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.



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.tpinet.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbccomponents.com)

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TRENCO
A MITEK COMPANY
818 Soundside Road
Edenton, NC 27932

Job 28305	Truss T16	Truss Type Common	Qty 3	Ply 1	Lowes 647/Humbert 169579856
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C&R Truss, Autryville, NC - 28318,

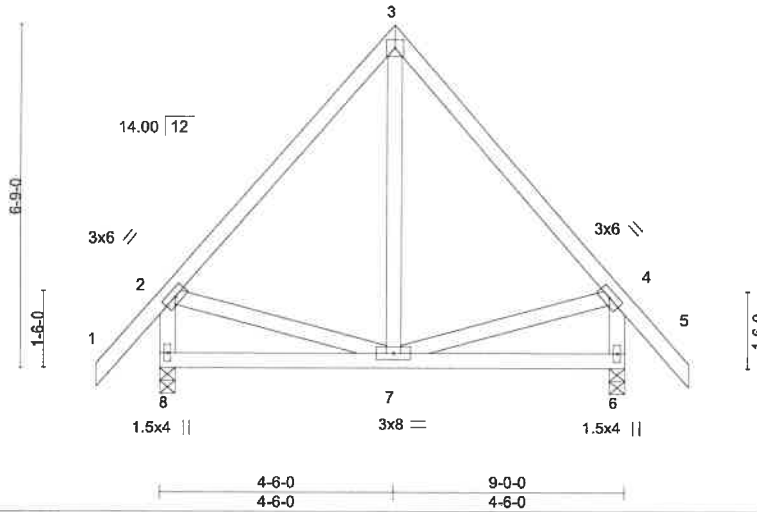
8,530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:37:59 2024 Page 1

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4x4 =

Scale = 1:44.9



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 0.33	Vert(LL)	-0.01	7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.02	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MS	Wind(LL)	0.00	7	>999	240	Weight: 65 lb	FT = 20%

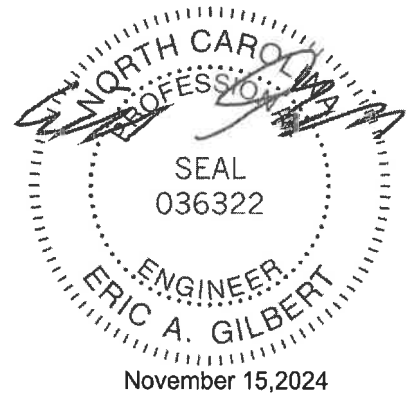
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3

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) 8=0-3-8, 6=0-3-8
Max Horz 8=168(LC 7)
Max Uplift 8=-22(LC 8), 6=-22(LC 8)
Max Grav 8=430(LC 1), 6=430(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-289/39, 3-4=-289/39, 2-8=-396/41, 4-6=-396/41

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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 100 lb uplift at joint(s) 8, 6.
 - 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.



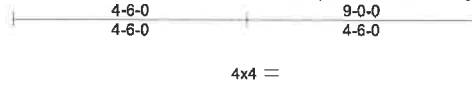
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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.sbccomponents.com)

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A MITEK AFFILIATE
818 Soundside Road
Edenton, NC 27932

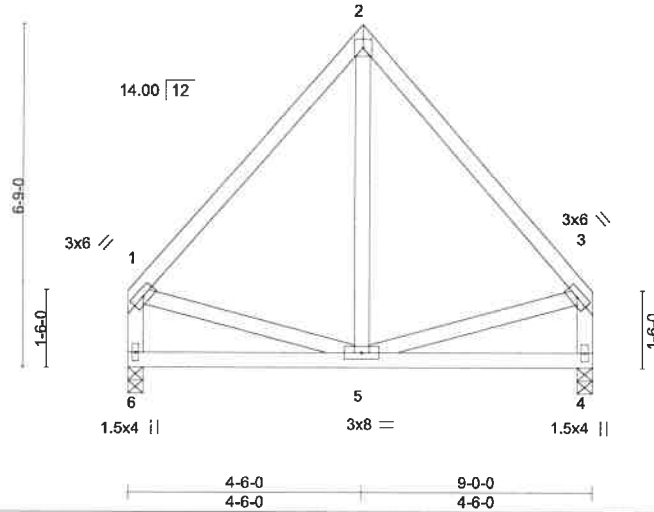
Job 28305	Truss T17	Truss Type Common	Qty 2	Ply 1	Lowes 647/Humbert Job Reference (optional)	169579856
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:37:59 2024 Page 1
ID:43FmfUEpnBwxW36Q?RCfByzursR-EJvxnwoqfmNOFNwJW?c6mMF94z8eyZ8Vp6Zi2qyJcl6



Scale = 1:44.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/def	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.01	5-6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.02	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MS	Wind(LL)	0.00	5	>999	240	Weight: 60 lb	FT = 20%

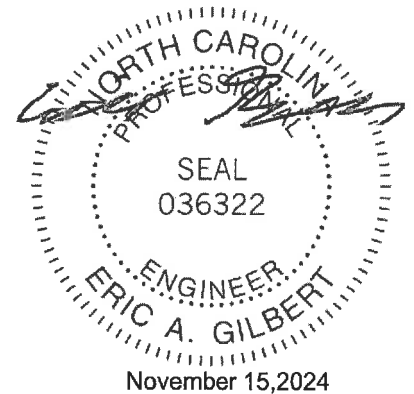
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3

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) 6=0-3-8, 4=0-3-8
Max Horz 6=-136(LC 6)
Max Grav 6=348(LC 1), 4=348(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-273/26, 2-3=-273/26, 1-6=-315/12, 3-4=-315/12

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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
 - 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.
 - 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.

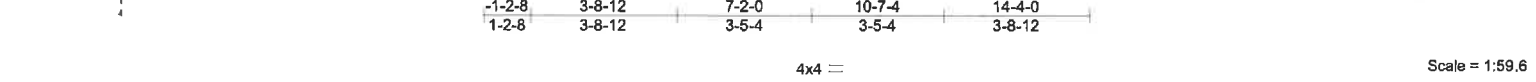


WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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.sbccomponents.com)

ENGINEERING BY
TRENCO
A MITEK AFFILIATE
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lowes 647/Humbert	169579857
28305	T18	Common	2	1		

C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:37:59 2024 Page 1
 ID:43FmUEpnBwxW36Q?RCfByzursR-EjVxnwoqfmNOFNwJW?c6mMFCrz6kyU_Vp6Zl2ayJcI6



Scale = 1:59.6

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 0.22	Vert(LL)	-0.04	7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.07	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.32	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS	Wind(LL)	0.01	8	>999	240	Weight: 111 lb	FT = 20%

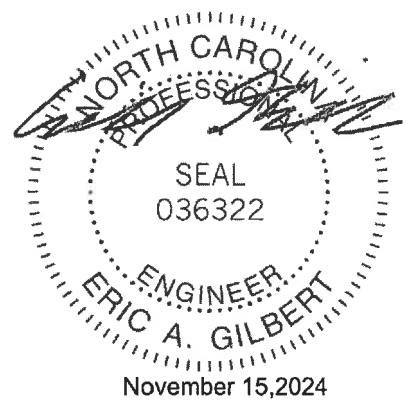
LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP 2400F 2.0E
 WEBS 2x4 SP No.3

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) 9=0-3-8, 7=0-3-8
 Max Horz 9=218(LC 7)
 Max Uplift 9=-16(LC 8)
 Max Grav 9=647(LC 1), 7=558(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 3-4=-424/97, 4-5=-426/99, 2-9=-260/127
 BOT CHORD 8-9=-40/340, 7-8=0/277
 WEBS 4-8=-93/346, 3-9=-435/0, 5-7=-415/0

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; VuIt=120mph (3-second gust) Vasd=95mph; 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 100 lb uplift at joint(s) 9.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R602.10.2 and referenced standard ANSI/TPI 1.



Job 28305	Truss T19	Truss Type Plggyback Base	Qty 7	Ply 1	Lowes 647/Humbert	169579858
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C&R Truss, Autryville, NC - 28318, 8,530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:00 2024 Page 1
 ID:43FmFUepnBwxW36Q?RCfByzursR-iv2J?GpSQ4VEGXVv3i7LJZoNgNQvhyem1mJFbGyJcl5
 Job Reference (optional)

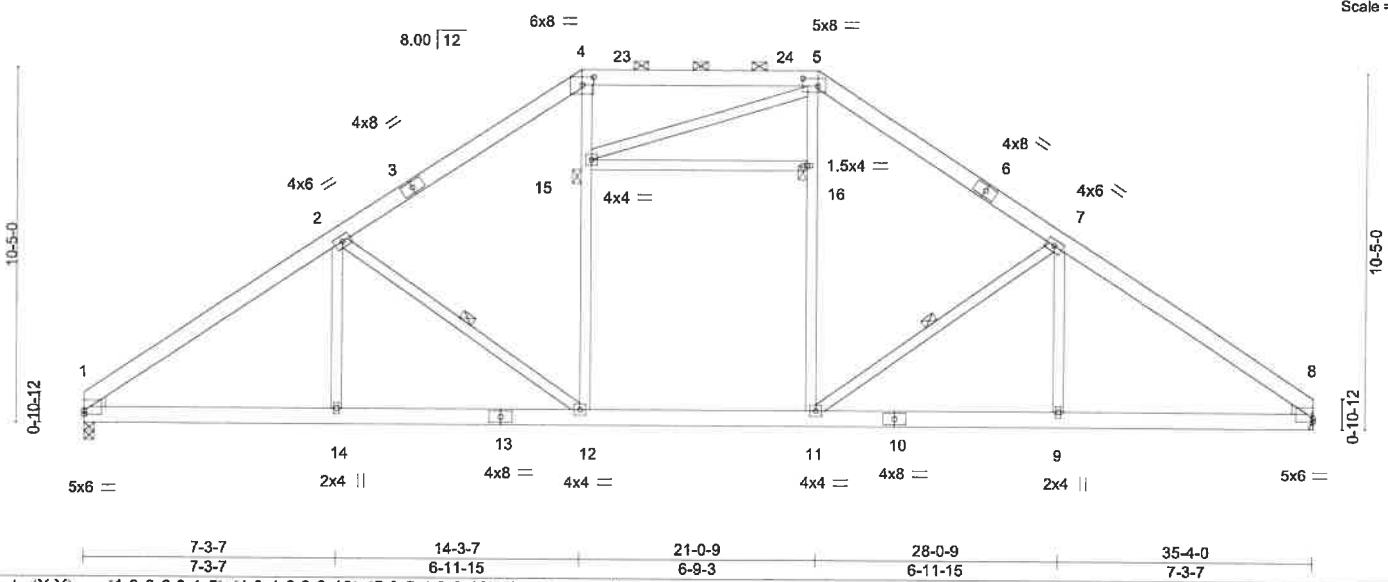


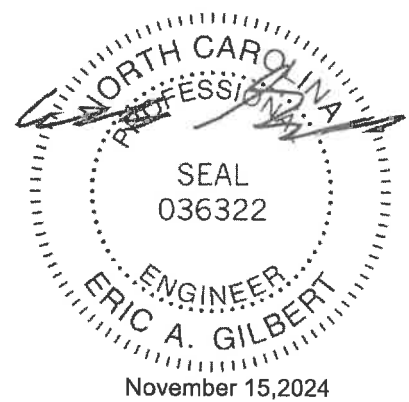
Plate Offsets (X,Y)--	[1:0-0-0,0-1-5], [4:0-4-0,0-2-13], [5:0-5-4,0-2-12], [8:Edge,0-1-5]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/def L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.22	Vert(LL) -0.14 9-11 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.20 9-11 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.29	Horz(CT) 0.05 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL) -0.06 12-14 >999 240	Weight: 268 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 4-5.
WEBS 2x4 SP No.3 *Except*	Rigid ceiling directly applied.
4-12,5-11: 2x4 SP No.2	BOT CHORD
WEDGE	WEBS 1 Row at midpt 2-12, 7-11
Left: 2x4 SP No.3, Right: 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 15, 16

REACTIONS. (size) 1=0-3-8, 8=Mechanical
 Max Horz 1=-165(LC 6)
 Max Grav 1=1413(LC 1), 8=1413(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-2048/0, 2-4=-1603/64, 4-5=-1307/77, 5-7=-1598/65, 7-8=-2051/0
 BOT CHORD 1-14=0/1680, 12-14=0/1680, 11-12=0/1287, 9-11=0/1599, 8-9=0/1599
 WEBS 2-14=0/256, 2-12=-522/71, 12-15=0/500, 4-15=0/482, 11-16=0/488, 5-16=0/489,
 7-11=-530/69, 7-9=0/264

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BC DL=6.0psf; h=20ft; B=45ft; L=35ft; 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 BC DL = 10.0psf.
 - 6) Refer to girder(s) for truss to truss connections.
 - 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 28305	Truss T20	Truss Type Piggyback Base	Qty 7	Ply 1	Lowes 647/Humbert	169579859
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:38:00 2024 Page 1
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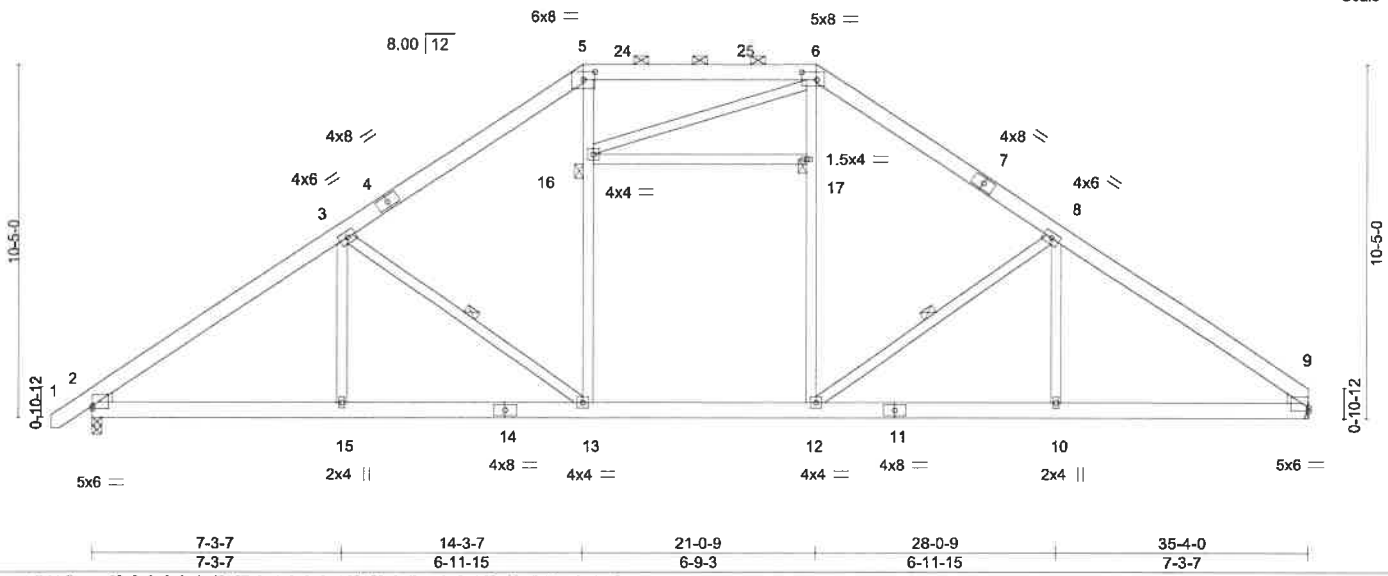


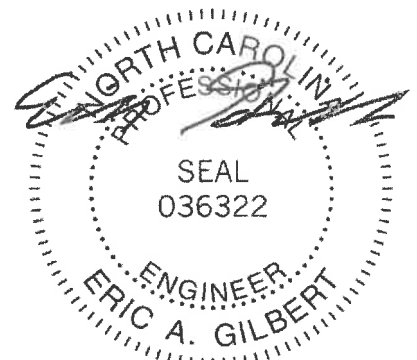
Plate Offsets (X,Y) -		[2:0-0-0,0-1-1], [5:0-4-0,0-2-13], [6:0-5-4,0-2-12], [9:Edge,0-1-5]			
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.23	Vert(LL) -0.14 10-12 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.20 10-12 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.29	Horz(CT) 0.05 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL) -0.06 13-15 >999 240	Weight: 271 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.); 5-6.
WEBS 2x4 SP No.3 *Except*	Rigid ceiling directly applied.
5-13,6-12: 2x4 SP No.2	WEBS 1 Row at midpt 3-13, 8-12
WEDGE	JOINTS 1 Brace at Jt(s): 16, 17
Left: 2x4 SP No.3 , Right: 2x4 SP No.3	

REACTIONS.	(size) 2=0-3-8, 9=Mechanical
	Max Horz 2=174(LC 7)
	Max Grav 2=1480(LC 1), 9=1412(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2042/0, 3-5=-1600/63, 5-6=-1305/76, 6-8=-1596/64, 8-9=-2050/0
BOT CHORD 2-15=0/1673, 13-15=0/1673, 12-13=0/1285, 10-12=0/1598, 9-10=0/1598
WEBS 3-15=0/256, 3-13=-515/68, 13-16=0/497, 5-16=0/479, 12-17=0/488, 6-17=0/489, 8-12=-530/70, 8-10=0/265

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; 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) Refer to girder(s) for truss to truss connections.
 - 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.



November 15, 2024

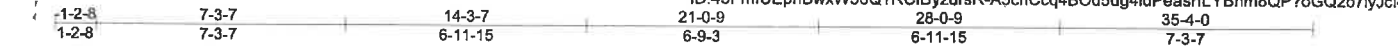
Job 28305	Truss T21	Truss Type Piggyback Base	Qty 1	Ply 1	Lowes 647/Humbert	169579860
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:38:01 2024 Page 1

Job Reference (optional)

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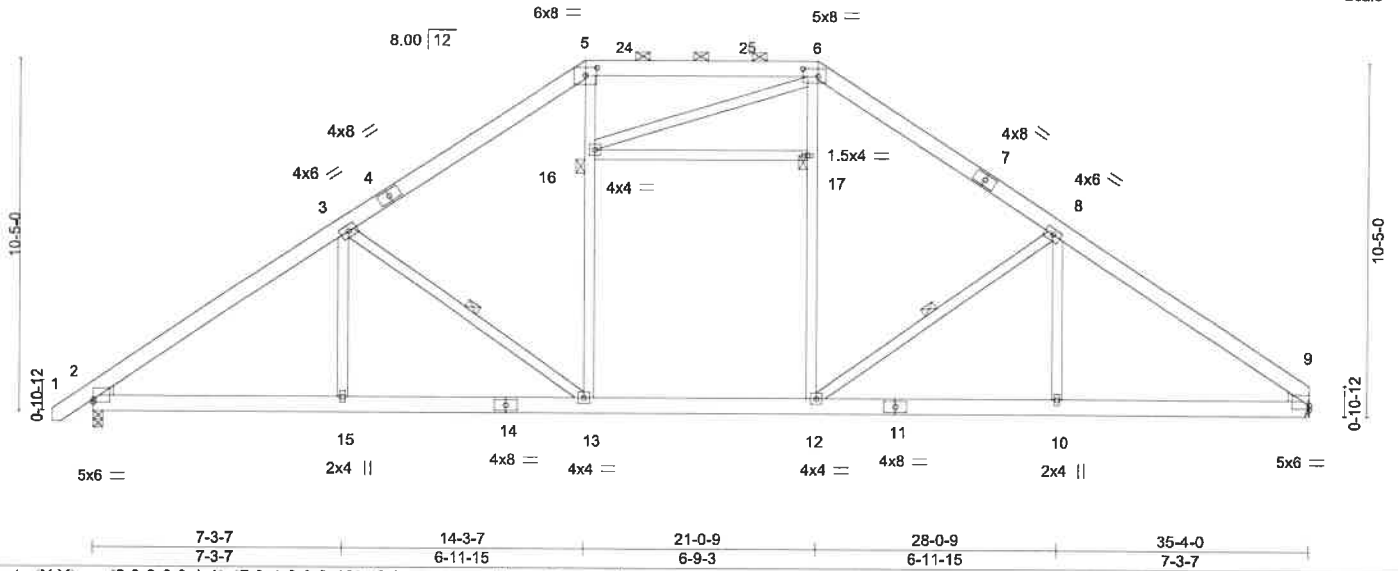


Plate Offsets (X,Y)-- [2:0-0-0,0-1-1], [5:0-4-0,0-2-13], [6:0-5-4,0-2-12], [9:Edge,0-1-5]

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 0.23	Vert(LL)	-0.14 10-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.20 10-12	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.29	Horz(CT)	0.05 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	-0.06 13-15	>999	240	Weight: 271 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.3 *Except*
 5-13,6-12: 2x4 SP No.2

WEDGE
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
 2-0-0 oc purlins (6-0-0 max.): 5-6.
 Rigid ceiling directly applied.
 BOT CHORD
 WEBS 1 Row at midpt 3-13, 8-12
 JOINTS 1 Brace at Jt(s): 16, 17

REACTIONS.

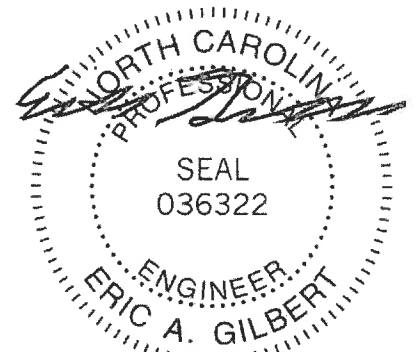
(size) 2=0-3-8, 9=Mechanical
 Max Horz 2=174(LC 7)
 Max Grav 2=1480(LC 1), 9=1412(LC 1)

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

TOP CHORD 2-3=-2042/0, 3-5=-1600/63, 5-6=-1305/76, 6-8=-1596/64, 8-9=-2050/0
 BOT CHORD 2-15=0/1673, 13-15=0/1673, 12-13=0/1285, 10-12=0/1598, 9-10=0/1598
 WEBS 3-15=0/256, 3-13=-515/68, 13-16=0/497, 5-16=0/479, 12-17=0/488, 6-17=0/489,
 8-12=-530/70, 8-10=0/265

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; 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) Refer to girder(s) for truss to truss connections.
- 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.



November 15, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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)



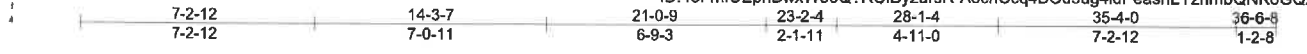
818 Soundside Road
 Edenton, NC 27932

Job 28305	Truss T22	Truss Type Pliggyback Base	Qty 5	Ply 1	Lowes 647/Humbert	169579861
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:01 2024 Page 1

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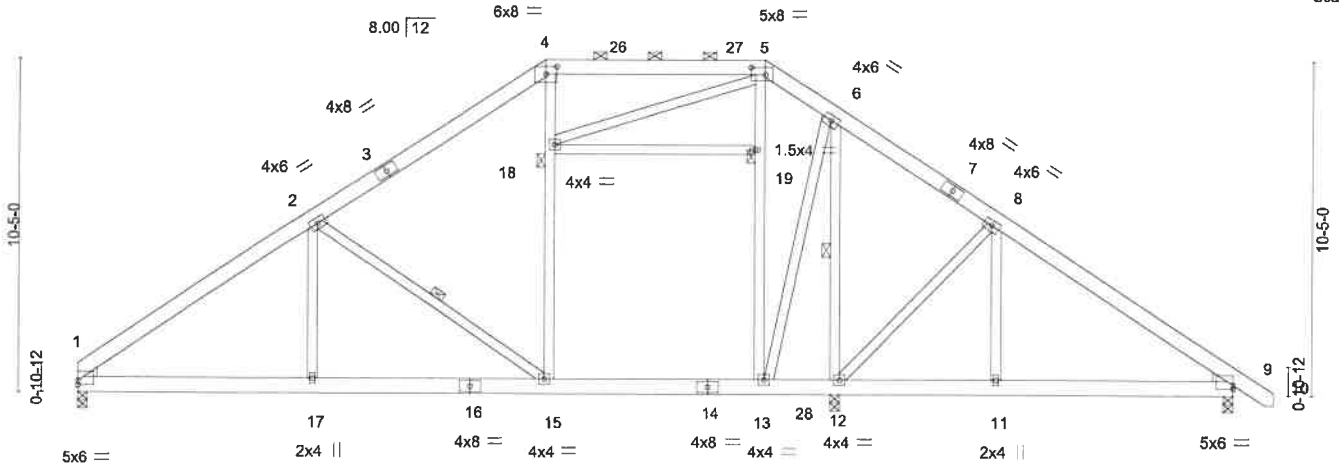


Plate Offsets (X,Y)--	[1:0-0-0,0-1-9], [4:0-4-0,0-2-13], [5:0-5-4,0-2-12], [9:Edge,0-1-5]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	-0.09 15-17	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.18 15-17	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.40	Horz(CT)	0.04 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.05 15-17	>999	240	Weight: 293 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.3 *Except*
 4-15,5-13: 2x4 SP No.2
 WEDGE
 Left: 2x4 SP No.3 , Right: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
 2-0-0 oc purlins (6-0-0 max.): 4-5.
 Rigid ceiling directly applied.
 BOT CHORD
 WEBS 1 Row at midpt 2-15, 6-12
 JOINTS 1 Brace at Jt(s): 18, 19

REACTIONS.

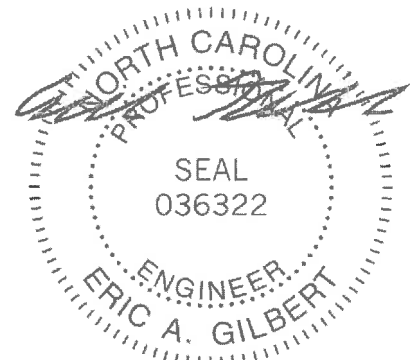
(size) 1=0-3-8, 12=0-3-8, 9=0-3-8
 Max Horz 1=-174(LC 6)
 Max Uplift 12=-14(LC 4), 9=-1(LC 8)
 Max Grav 1=1283(LC 13), 12=593(LC 22), 9=1220(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-1851/3, 2-4=-1394/72, 4-5=-1150/84, 5-6=-1226/96, 6-8=-1310/71, 8-9=-1607/10
 BOT CHORD 1-17=0/1568, 15-17=0/1568, 13-15=0/1125, 12-13=0/1067, 11-12=0/1264, 9-11=0/1264
 WEBS 2-17=0/295, 2-15=-530/69, 15-18=0/453, 4-18=0/420, 13-19=-10/271, 5-19=-10/271,
 6-12=-338/10, 8-12=-422/57

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; 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
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 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.
- 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.



November 15, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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)

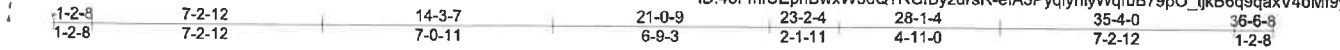
ENGINEERING BY
TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

Job 28306	Truss T23	Truss Type Piggyback Base	Qty 6	Ply 1	Lowes 647/Humbert	69579862
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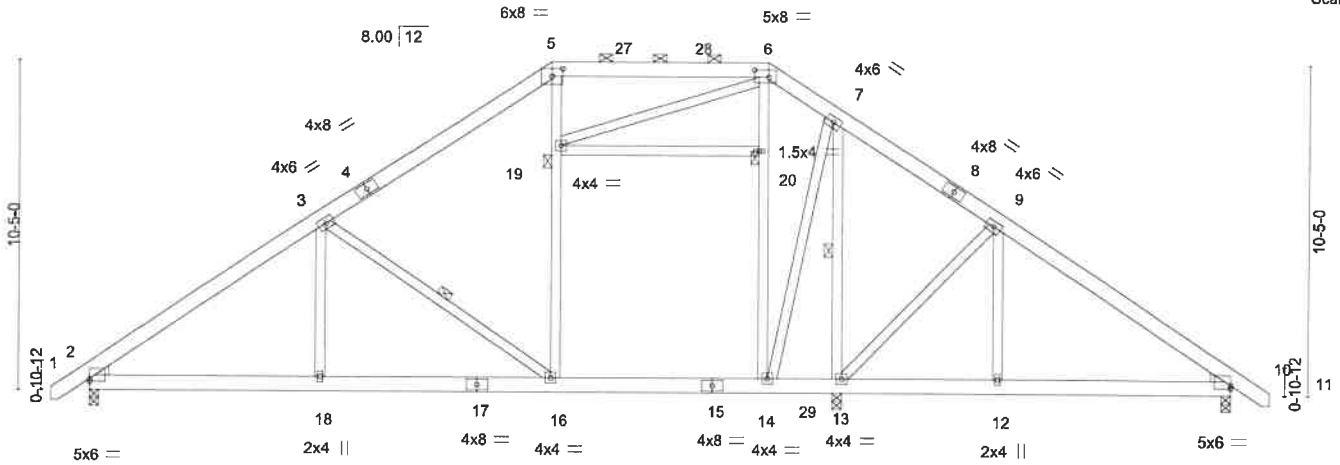
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:02 2024 Page 1

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Scale = 1:71.7



7-2-12	14-3-7	21-0-9	23-2-4	28-1-4	35-4-0
7-2-12	7-0-11	6-9-3	2-1-11	4-11-0	7-2-12

Plate Offsets (X,Y)-- [2:0-0-0,0-1-1], [5:0-4-0,0-2-13], [6:0-5-4,0-2-12], [10:Edge,0-1-5]

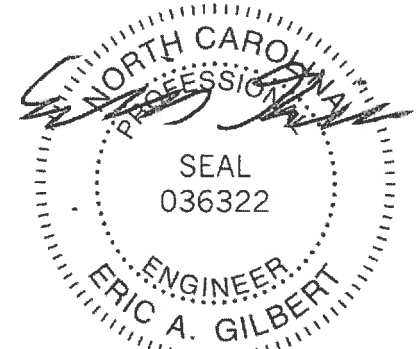
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	-0.09 16-18	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.18 16-18	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.40	Horz(CT)	0.04 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.05 16-18	>999	240	Weight: 296 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 5-6.
WEBS 2x4 SP No.3 *Except*	Rigid ceiling directly applied.
5-16,6-14: 2x4 SP No.2	WEBS 1 Row at midpt 3-16, 7-13
WEDGE	JOINTS 1 Brace at Jt(s): 19, 20
Left: 2x4 SP No.3, Right: 2x4 SP No.3	

REACTIONS. (size) 2=0-3-8, 13=0-3-8, 10=0-3-8
 Max Horz 2=-177(LC 6)
 Max Uplift 13=-9(LC 4), 10=-1(LC 8)
 Max Grav 2=1343(LC 13), 13=593(LC 22), 10=1219(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1845/1, 3-5=-1391/71, 5-6=-1148/83, 6-7=-1224/95, 7-9=-1308/70, 9-10=-1604/9
 BOT CHORD 2-18=0/1560, 16-18=0/1560, 14-16=0/1123, 13-14=0/1065, 12-13=0/1262, 10-12=0/1262
 WEBS 3-18=0/294, 3-16=-523/66, 16-19=0/450, 5-19=0/417, 14-20=-10/271, 6-20=-10/271, 7-13=-338/6, 9-13=-423/57

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; 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 100 lb uplift at joint(s) 13, 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.



November 15, 2024

Job 28305	Truss T24	Truss Type Piggyback Base	Qty 3	Ply 1	Lowes 647/Humbert	169579863
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:03 2024 Page 1
 ID:43FmfUEpnbWxW36Q?RCfByzursR-6UkSdIrKj?tp8_E4lqg2xCQuTaR2uHh5jkXvBbyJcl2



Scale = 1:70.9

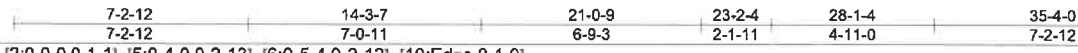
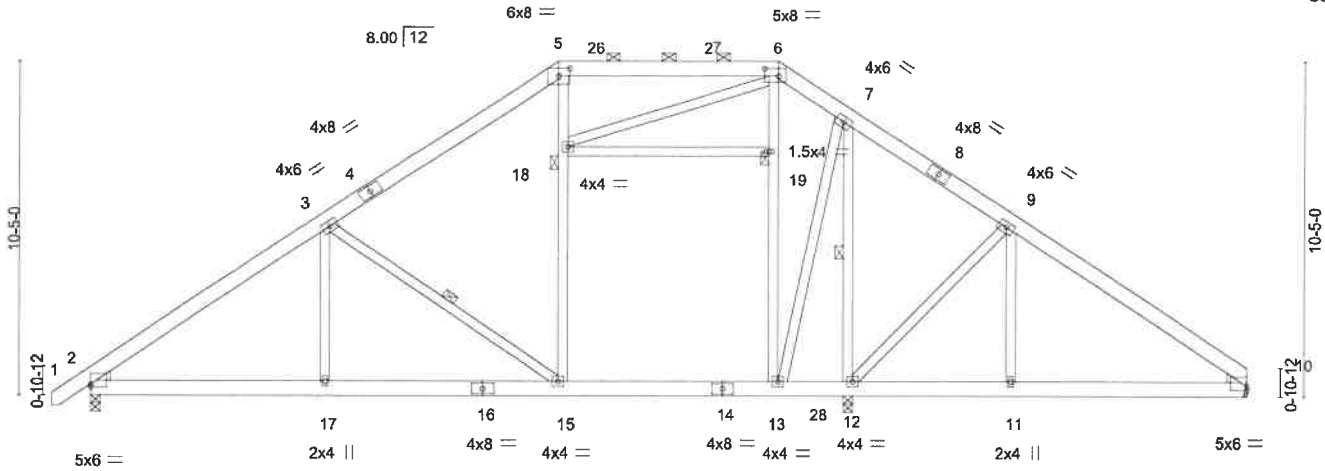


Plate Offsets (X,Y)- [2:0-0-0,0-1-1], [5:0-4-0,0-2-13], [6:0-5-4,0-2-12], [10:Edge,0-1-9]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.25	Vert(LL) -0.09	15-17	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.37	Vert(CT) -0.18	15-17	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.41	Horz(CT) 0.04	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL) 0.05	15-17	>999	240	Weight: 293 lb	FT = 20%

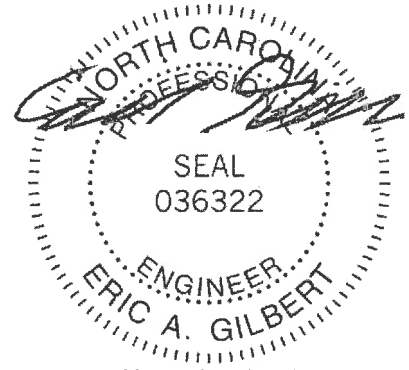
LUMBER-
 TOP CHORD 2x6 SP No.1
 BOT CHORD 2x6 SP No.1
 WEBS 2x4 SP No.3 *Except*
 5-15,6-13: 2x4 SP No.2
 WEDGE
 Left: 2x4 SP No.3, Right: 2x4 SP No.3

BRACING-
 TOP CHORD Structural wood sheathing directly applied, except
 2-0-0 oc purlins (6-0-0 max.): 5-6.
 Rigid ceiling directly applied.
 BOT CHORD
 WEBS 1 Row at midpt 3-15, 7-12
 JOINTS 1 Brace at Jt(s): 18, 19

REACTIONS. (size) 2=0-3-8, 12=0-3-8, 10=Mechanical
 Max Horz 2=174(LC 7)
 Max Uplift 12=9(LC 4)
 Max Grav 2=1343(LC 13), 12=595(LC 22), 10=1151(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1846/0, 3-5=-1392/70, 5-6=-1149/82, 6-7=-1224/93, 7-9=-1310/69, 9-10=-1609/9
 BOT CHORD 2-17=0/1554, 15-17=0/1554, 13-15=0/1117, 12-13=0/1059, 11-12=0/1260, 10-11=0/1260
 WEBS 3-17=0/294, 3-15=-523/66, 15-18=0/450, 5-18=0/417, 13-19=-8/271, 6-19=-8/270,
 7-12=-336/7, 9-12=-430/60

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; 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) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12.
 - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 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.



November 15, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MJI-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.tpinstr.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

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TRENCO
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 818 Soundside Road
 Edenton, NC 27932

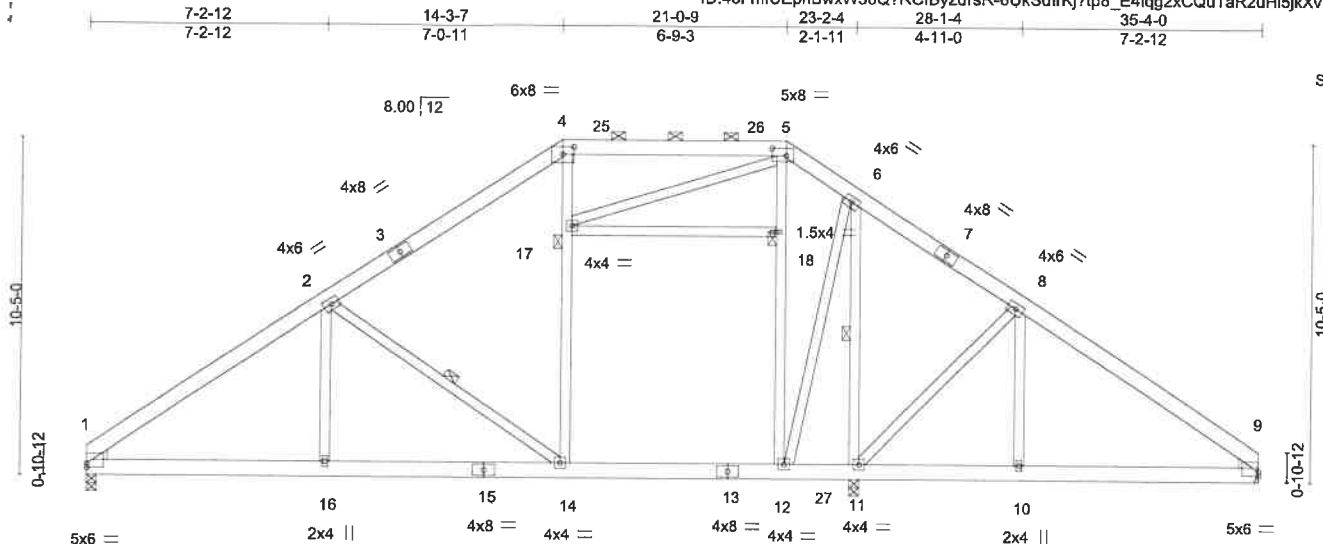
Job 28305	Truss T25	Truss Type Piggyback Base	Qty 7	Ply 1	Lowes 647/Humbert	169579864
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C&R Truss, Autryville, NC - 28318.

Job Reference (optional)

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:03 2024 Page 1

ID:43FmUEpnBwxW36Q?RCfByzursR-6UkSdlrKj?tp8_E4lqg2xCQuTaR2uHi5jkXvBbyJcl2



Scale = 1:70.0

Plate Offsets (X,Y)--	[1:0-0-0,0-1-9], [4:0-4-0,0-2-13], [5:0-5-4,0-2-12], [9:Edge,0-1-9]
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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 0.25	Vert(LL)	-0.09 14-16	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.18 14-16	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.41	Horz(CT)	0.04 9	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS	Wind(LL)	0.05 14-16	>999	240	Weight: 290 lb	FT = 20%

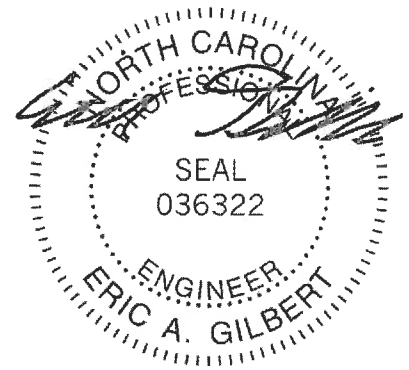
LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3 *Except*
4-14,5-12: 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3, Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-14, 6-11
JOINTS 1 Brace at Jt(s): 17, 18

REACTIONS. (size) 1=0-3-8, 11=0-3-8, 9=Mechanical
Max Horz 1=-165(LC 6)
Max Uplift 11=-14(LC 4)
Max Grav 1=1284(LC 13), 11=595(LC 22), 9=1152(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1852/3, 2-4=-1395/71, 4-5=-1151/83, 5-6=-1226/94, 6-8=-1312/70, 8-9=-1611/9
BOT CHORD 1-16=0/1561, 14-16=0/1561, 12-14=0/1119, 11-12=0/1061, 10-11=0/1261, 9-10=0/1261
WEBS 2-16=0/295, 2-14=-530/69, 14-17=0/454, 4-17=0/420, 12-18=-9/271, 5-18=-9/271,
6-11=-336/11, 8-11=-430/60

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; 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) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11.
 - 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.



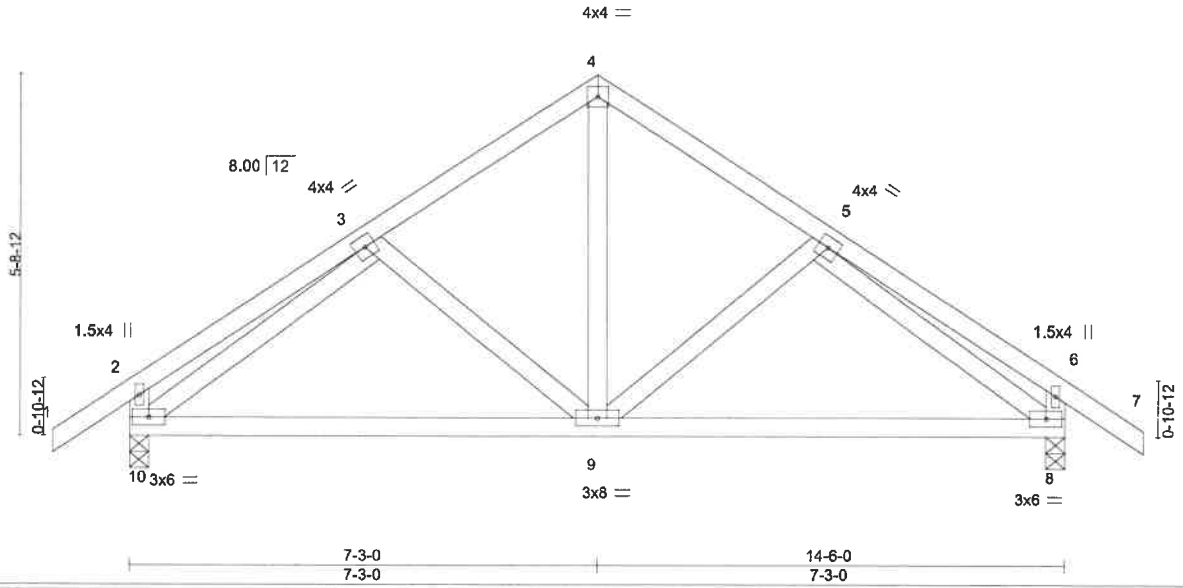
November 15, 2024

Job 28305	Truss T26	Truss Type Common	Qty 7	Ply 1	Lowes 647/Humbert	169579865
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:04 2024 Page 1
 ID:43FmUEpnBwxW36Q?RCfByzursR-aglqqesyUJ?gl8pHIYCHTPz1h_pxdn6EyOHTk1yJcl1



Scale = 1:36.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.35	Vert(LL) -0.03	8-9	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.07	8-9	>999	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.20	Horz(CT) 0.01	8	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL) 0.00	9	>999	240		Weight: 87 lb	FT = 20%

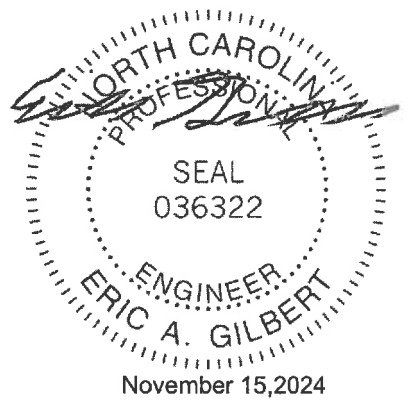
LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP 2400F 2.0E
 WEBS 2x4 SP No.3

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=110(LC 7)
 Max Uplift 10=-17(LC 8), 8=-17(LC 8)
 Max Grav 10=650(LC 1), 8=650(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 3-4=-528/30, 4-5=-528/30, 2-10=-281/45, 6-8=-281/45
 BOT CHORD 9-10=0/488, 8-9=0/482
 WEBS 4-9=0/347, 3-10=-463/15, 5-8=-463/15

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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 100 lb uplift at joint(s) 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.
 - 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.



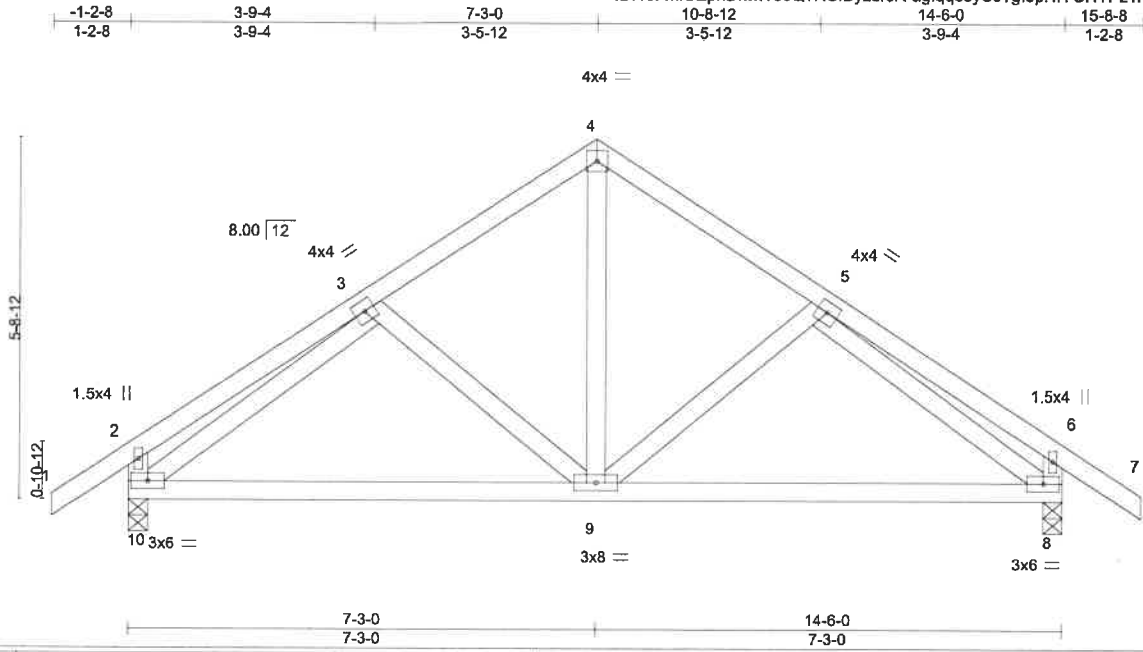
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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 GROUP
 818 Soundside Road
 Edenton, NC 27932

Job 28305	Truss T26A	Truss Type Common	Qty 1	Ply 1	Lowes 647/Humbert	i69579866
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:04 2024 Page 1
ID:43FmfUEpnBwxW36Q?RCfByzursR-aglqqesyUJ?gl8pHIYCHTPz1h_pxdn6EyOHTk1yJc1



Scale = 1:36.1

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 0.35	Vert(LL)	-0.03	8-9	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.07	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(CT)	0.01	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.00	9	>999	240	Weight: 87 lb	FT = 20%

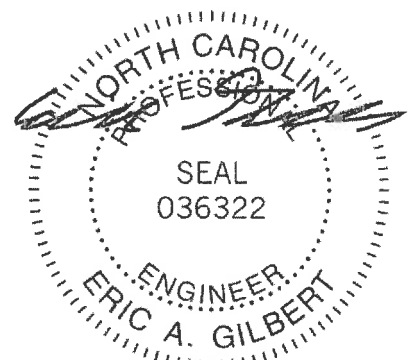
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3

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=110(LC 7)
Max Uplift 10=-17(LC 8), 8=-17(LC 8)
Max Grav 10=650(LC 1), 8=650(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-528/30, 4-5=-528/30, 2-10=-281/45, 6-8=-281/45
BOT CHORD 9-10=0/488, 8-9=0/482
WEBS 4-9=0/347, 3-10=-463/15, 5-8=-463/15

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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) 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 100 lb uplift at joint(s) 10, 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.



November 15, 2024

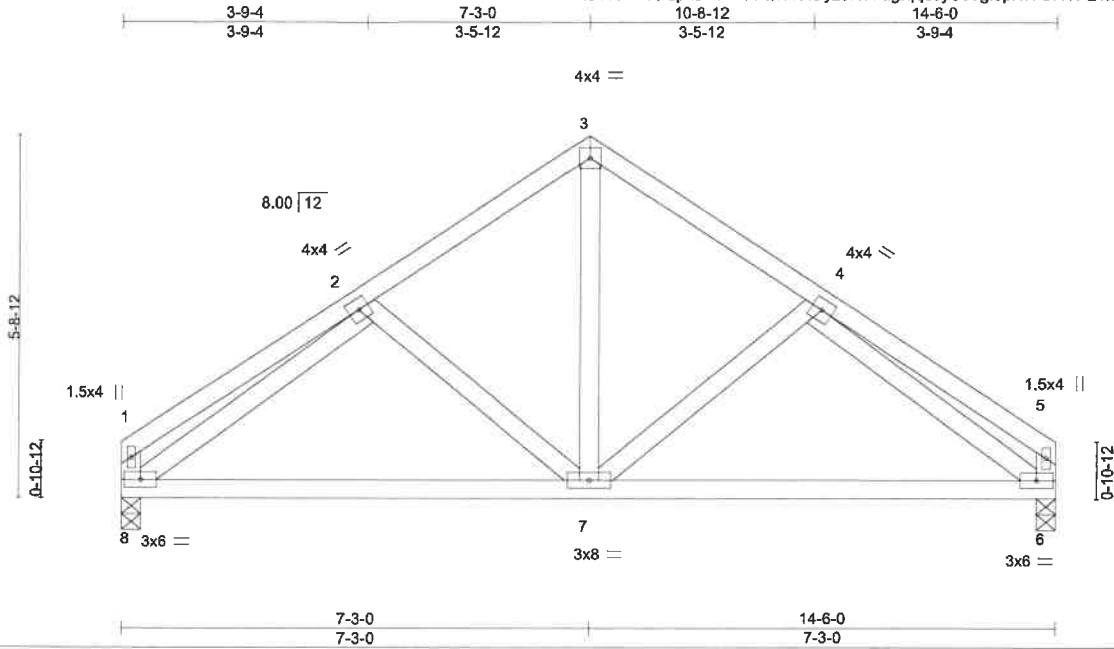
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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 COMPANY
818 Soundside Road
Edenton, NC 27932

Job 28305	Truss T27	Truss Type Common	Qty 1	Ply 1	Lowes 647/Humbert	169579867
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:04 2024 Page 1
ID:43FmfUEpnBwxW36Q?RCfByzursR-aglqgesyUJ?gl8pHIYCHTPz1h_pxdnFEyOHTk1yJcl1



Scale = 1:36.0

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 0.35	Vert(LL)	-0.03	6-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.07	6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.01	7	>999	240	Weight: 83 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.

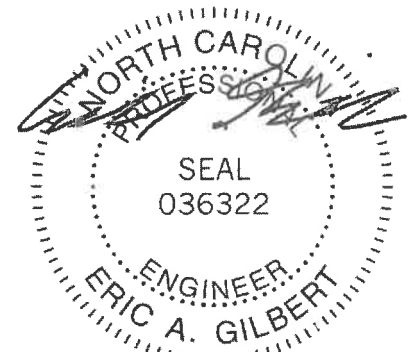
(size) 8=0-3-8, 6=0-3-8
Max Horz 8=-95(LC 6)
Max Grav 8=568(LC 1), 6=568(LC 1)

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

TOP CHORD 1-2=-256/14, 2-3=-542/33, 3-4=-542/33, 4-5=-256/14
BOT CHORD 7-8=0/503, 6-7=0/503
WEBS 3-7=0/353, 2-8=-444/14, 4-6=-444/14

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCCL=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.
- 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.



November 15, 2024

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

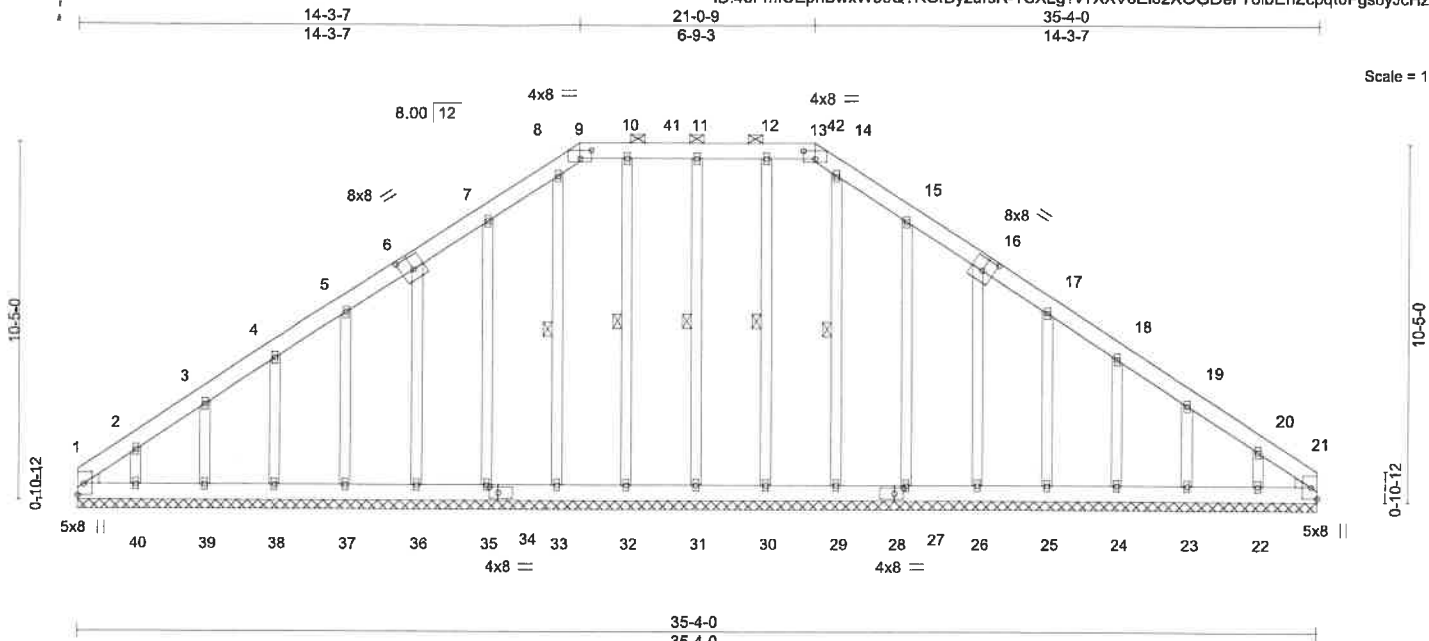
Job 28305	Truss TGE3	Truss Type GABLE	Qty 1	Ply 1	Lowe's 647/Humbert	169579868
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:08 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-TSXLg?vTXXV6E162XOGDeF7oibEnZcpq0FgsoyJcHz

Job Reference (optional)



Scale = 1:66.3

Plate Offsets (X,Y) -- [6:0-4-0,0-4-8], [9:0-4-0,0-2-13], [13:0-4-0,0-2-13], [16:0-4-0,0-4-8], [28:0-3-0,0-2-0], [34:0-3-0,0-2-0]

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 0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.00	21	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S							
								Weight: 330 lb	FT = 20%	

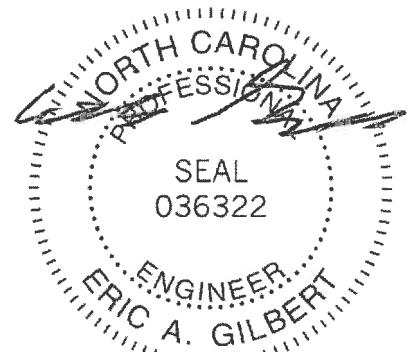
LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.); 9-13.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 11-31, 10-32, 8-33, 12-30, 14-29

REACTIONS. All bearings 35-4-0.
(lb) - Max Horz 1=-172(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 21, 31, 35, 36, 37, 38, 39, 40, 27, 26, 25, 24, 23, 22
Max Grav All reactions 250 lb or less at joint(s) 1, 21, 31, 32, 33, 35, 36, 37, 38, 39, 40, 30, 29, 27, 26, 25, 24, 23, 22

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=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; 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.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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) 1, 21, 31, 35, 36, 37, 38, 39, 40, 27, 26, 25, 24, 23, 22.
 - 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.



November 15, 2024

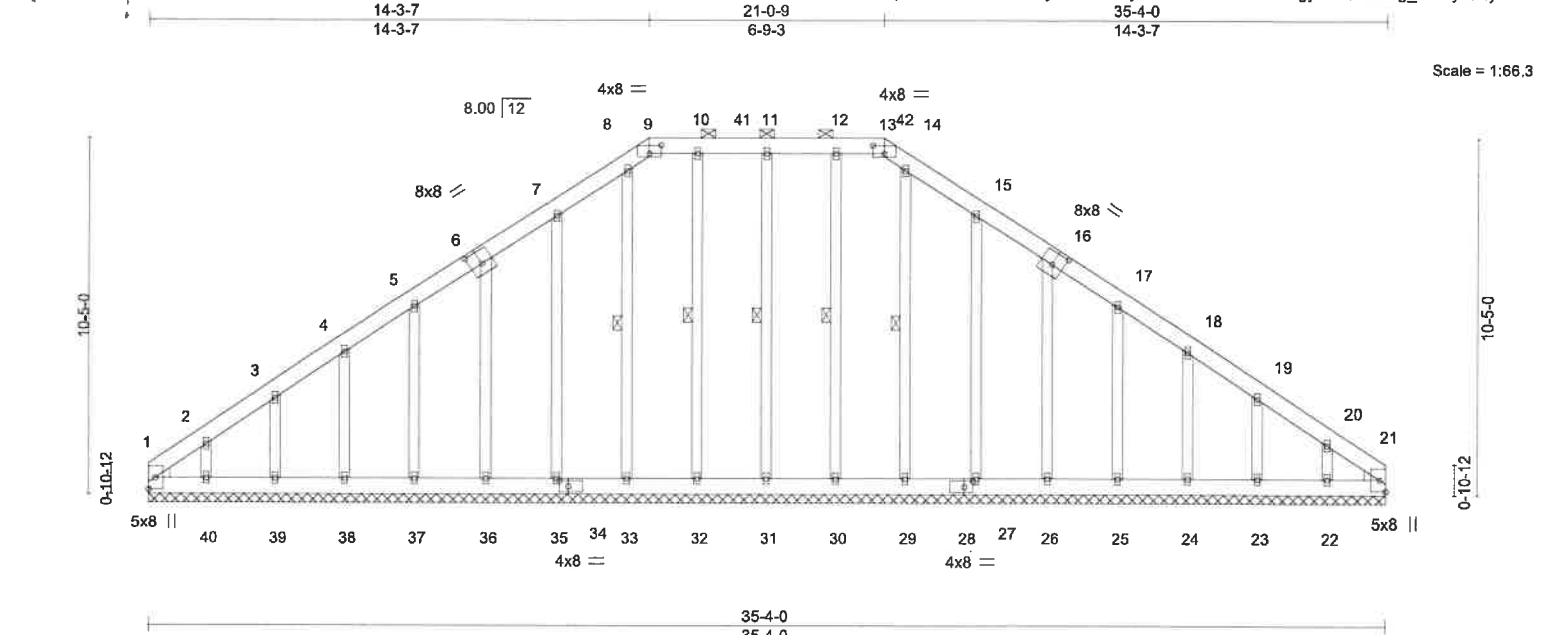
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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.tpinstr.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbccomponents.com)



818 Soundside Road
Edenton, NC 27932

Job 28305	Truss TGE4	Truss Type GABLE	Qty 1	Ply 1	Lowes 647/Humbert	IG9579869
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:09 2024 Page 1
 ID:43FmfUEpnBwxW36Q?RCfByzursR-xe5jtLw5lrdzsvhE55nSATgyS?Z0I32z6g_DOFYJcHy



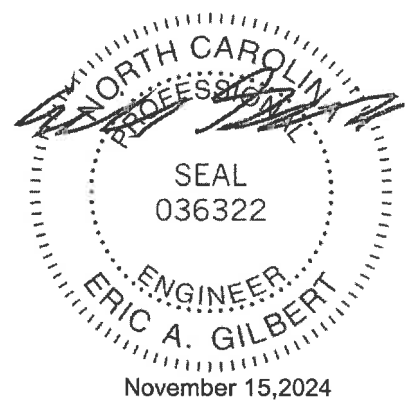
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.02	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 21 n/a n/a		
	Code IRC2018/TPI2014			Weight: 330 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 2-0-0 oc purlins (6-0-0 max.); 9-13.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	WEBS 1 Row at midpt 11-31, 10-32, 8-33, 12-30, 14-29
WEDGE	
Left: 2x4 SP No.3, Right: 2x4 SP No.3	

REACTIONS. All bearings 35-4-0.
 (lb) - Max Horz 1=-172(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 21, 31, 35, 36, 37, 38, 39, 40, 27, 26, 25, 24, 23, 22
 Max Grav All reactions 250 lb or less at joint(s) 1, 21, 31, 32, 33, 35, 36, 37, 38, 39, 40, 30, 29, 27, 26, 25, 24, 23, 22

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

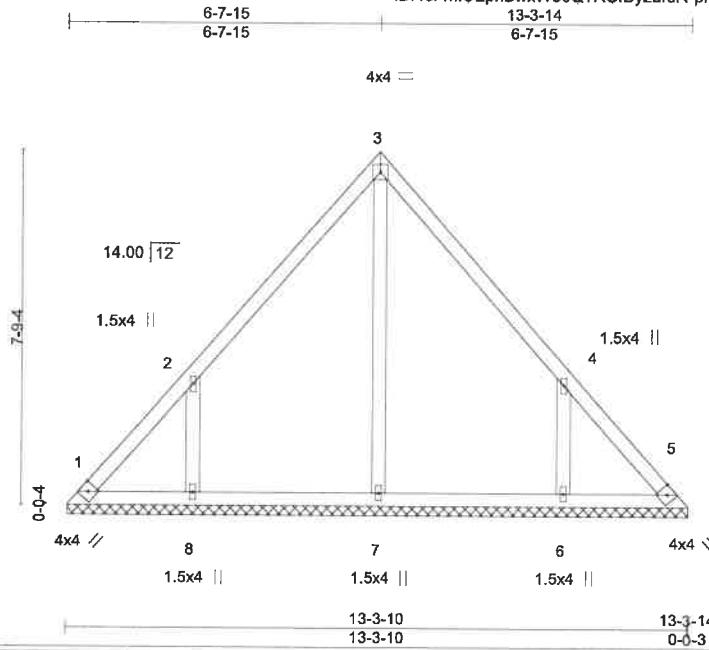
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=35ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and 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.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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) 1, 21, 31, 35, 36, 37, 38, 39, 40, 27, 26, 25, 24, 23, 22.
 - 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 28305	Truss V5	Truss Type Valley	Qty 2	Ply 1	Lowes 647/Humbert	169579870
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:38:13 2024 Page 1
 ID:43FmfUEpnBwxW36Q?RCfByzursR-pPLEjjzcM48OKX??KxsOLJqdWcvDEuiZ1lyRX0yJcHu



Scale = 1:49.9

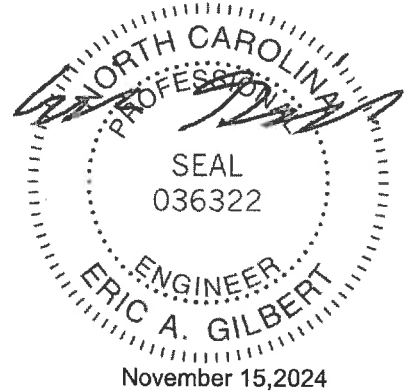
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.08	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.19	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.12	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2018/TPI2014			Weight: 67 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 13-3-7.
 (lb) - Max Horz 1--149(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8--111(LC 8), 6--111(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=327(LC 13), 8=415(LC 13), 6=415(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-279/152, 4-6=-279/152

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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) 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, with BCDL = 10.0psf.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=111, 6=111.
 - 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.

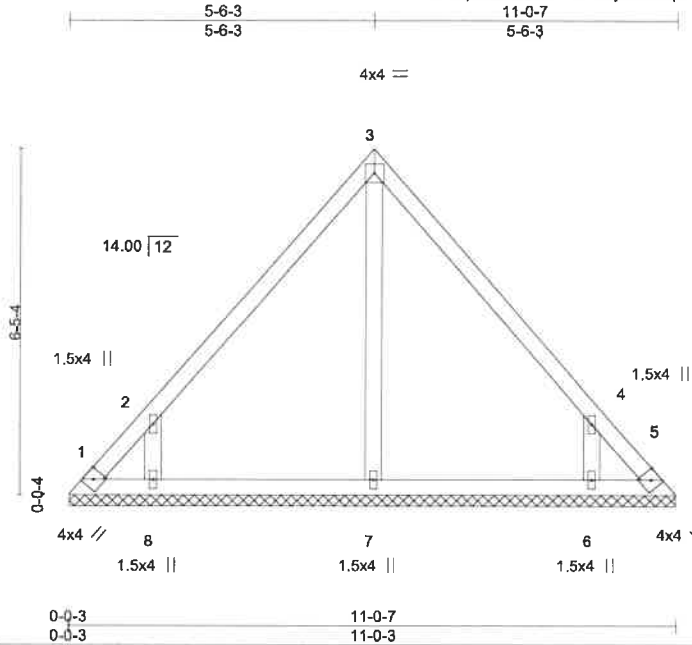


Job 28305	Truss V6	Truss Type Valley	Qty 2	Ply 1	Lowes 647/Humbert	169579871
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:13 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-pLEIjjzcm48OKX??KxsOLJqdUcwHEuJZ1lyRX0yJcHu



Scale = 1:42.2

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 0.09	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 0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 52 lb	FT = 20%

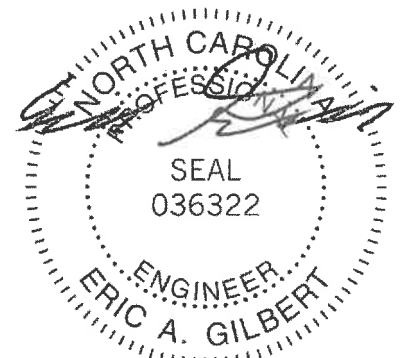
LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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 11-0-0.
(lb) - Max Horz 1=-122(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 5 except 1=-101(LC 6), 8=-111(LC 8), 6=-111(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=347(LC 13), 6=346(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-287/156, 4-6=-287/156

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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) 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) 5 except (jt=lb) 1=101, 8=111, 6=111.
 - 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.



November 15, 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)



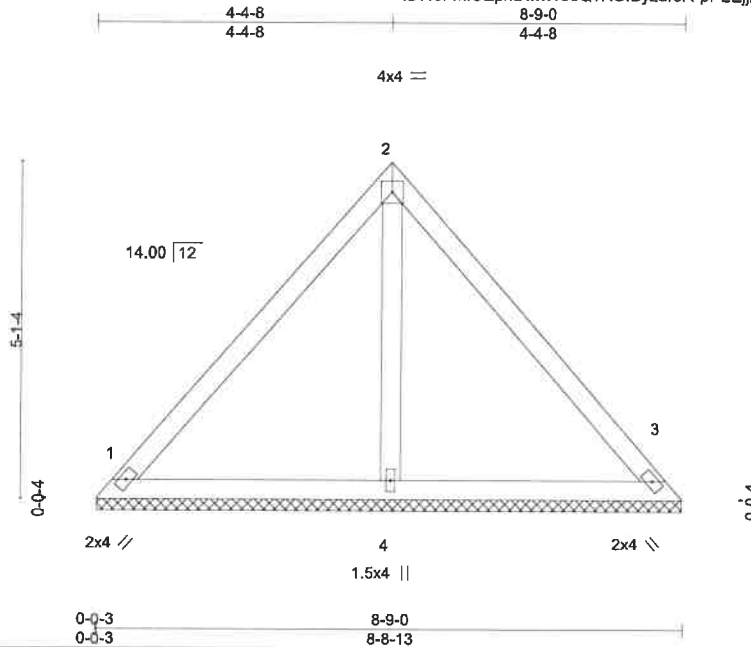
818 Soundside Road
Edenton, NC 27932

Job 28305	Truss V7	Truss Type Valley	Qty 2	Ply 1	Lowes 647/Humbert 169579872
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:38:13 2024 Page 1

ID:43FmfUEpnBwxW36Q?RCfByzursR-pPLEjzcm48OKX??KxsOLJqcRcvaEvZ1lyRX0yJcHu



Scale = 1:34.5

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 0.17	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2018/TPI2014			Weight: 38 lb	FT = 20%

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

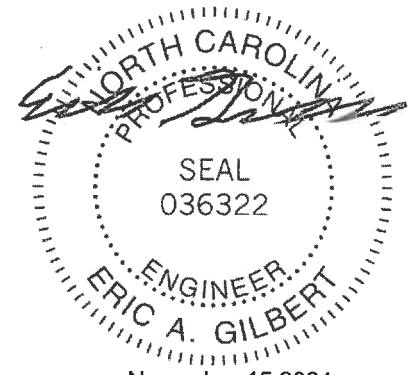
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=8-8-9, 3=8-8-9, 4=8-8-9
Max Horz 1=-95(LC 6)
Max Uplift 1=-21(LC 8), 3=-21(LC 8)
Max Grav 1=212(LC 1), 3=212(LC 1), 4=244(LC 3)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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) 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.



November 15, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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)

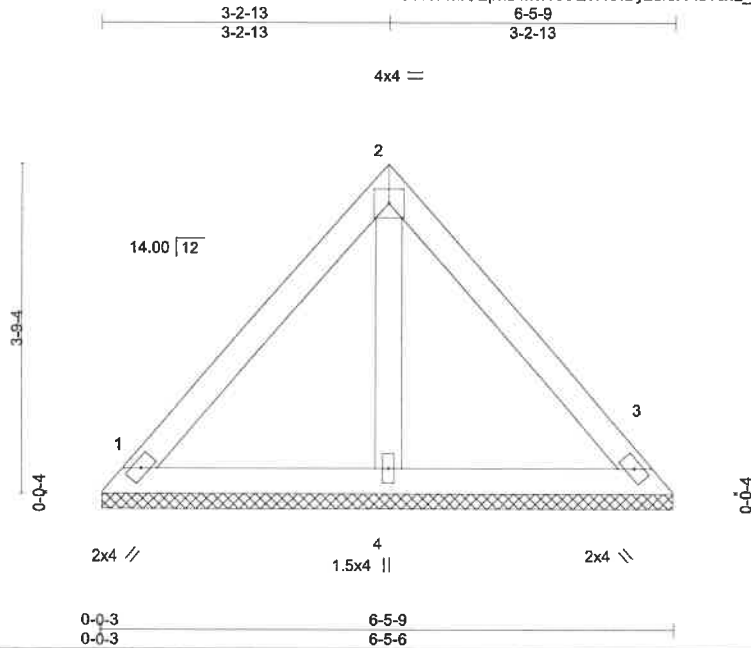


818 Soundside Road
Edenton, NC 27932

Job 28305	Truss V8	Truss Type Valley	Qty 2	Ply 1	Lowes 6477/Humbert	I69579873
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:38:14 2024 Page 1
 ID:43FmfUEpnBwxW36Q?RCfByzursR-lbvcx2_E7NGFYgaCueNdtWNoP0G3zLOiFyl_3SyJcHt



Scale = 1:26.1

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2018/TPI2014			Weight: 28 lb	FT = 20%

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

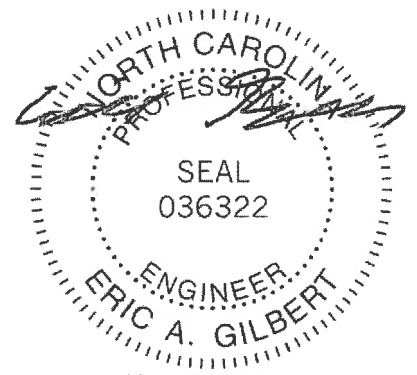
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=6-5-2, 3=6-5-2, 4=6-5-2
 Max Horz 1=-69(LC 6)
 Max Uplift 1=-15(LC 8), 3=-15(LC 8)
 Max Grav 1=152(LC 1), 3=152(LC 1), 4=175(LC 3)

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=120mph (3-second gust) Vasd=95mph; 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.



November 15, 2024

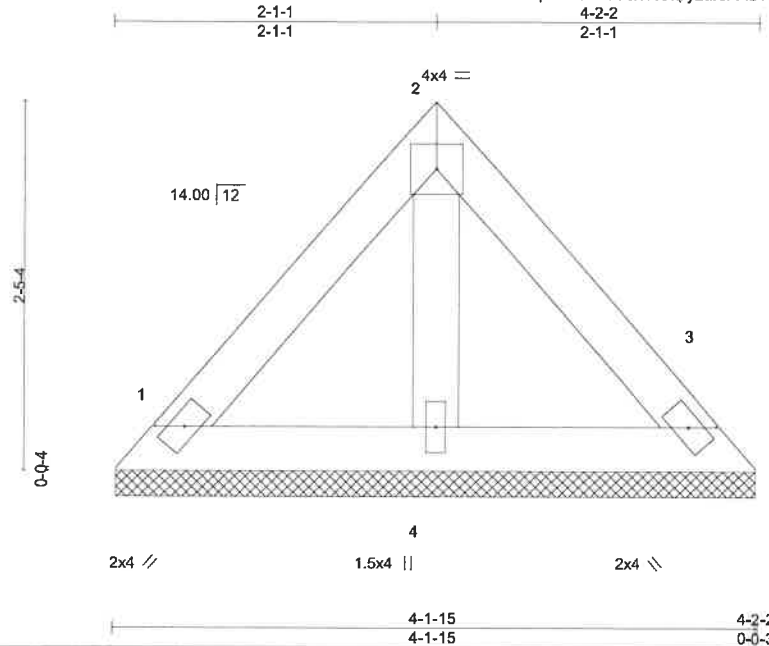
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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.ipinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

ENGINEERING BY
TRENCO
 A MEMBER OF
 818 Soundside Road
 Edenton, NC 27932

Job 28305	Truss V9	Truss Type Valley	Qty 2	Ply 1	Lowes 647/Humbert	I69579874
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:38:14 2024 Page 1
ID:43FmfUEpnBwxW36Q?RCfByzursR-lbvcx2_E7NGFYgaCueNdtWNpA0HwzLbIFyi_3SyJcHt



Scale = 1:15.0

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.03	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2018/TPI2014			Weight: 17 lb	FT = 20%

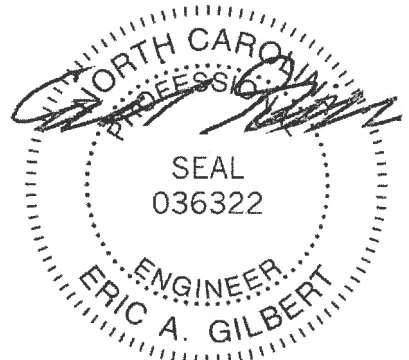
LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-2-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-1-11, 3=4-1-11, 4=4-1-11
Max Horz 1=-42(LC 6)
Max Uplift 1=-9(LC 8), 3=-9(LC 8)
Max Grav 1=93(LC 1), 3=93(LC 1), 4=107(LC 3)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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) 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.



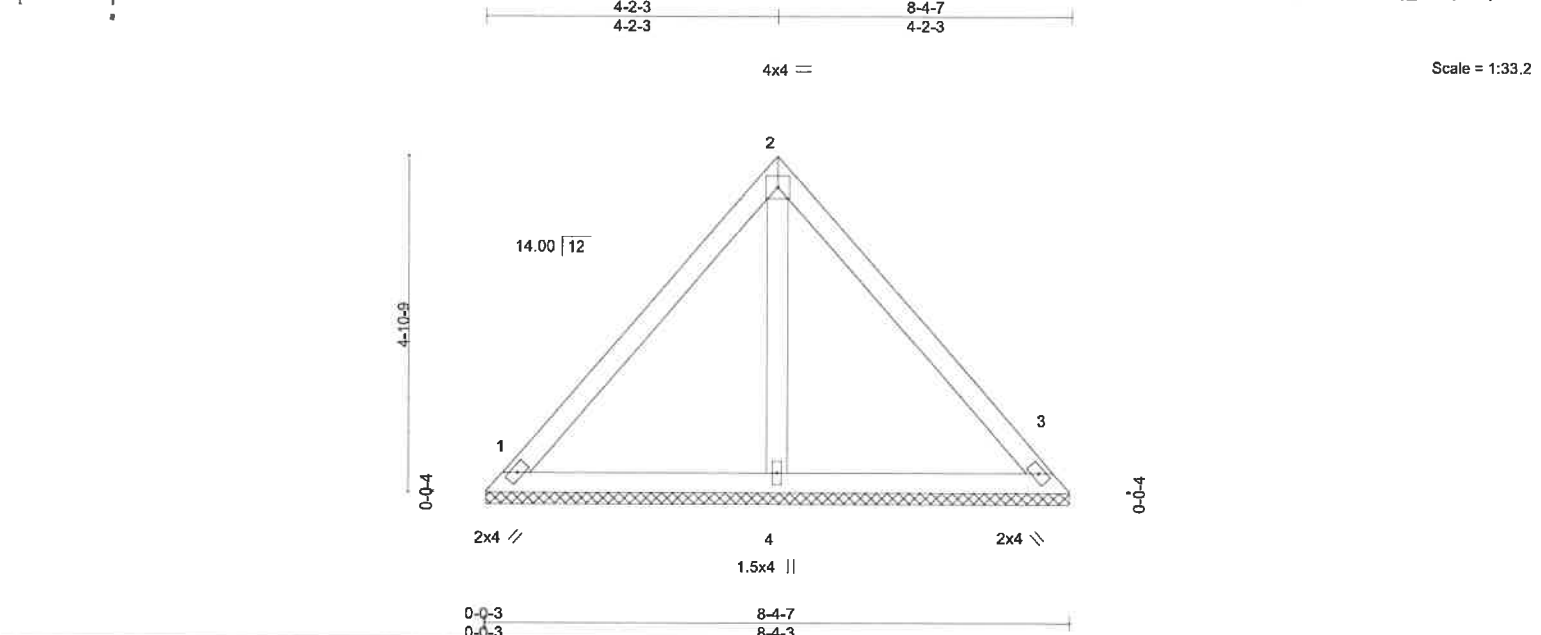
November 15, 2024

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.tpinet.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

ENGINEERING BY
TRENCO
A MEMBER AMBA
818 Soundside Road
Edenton, NC 27932

Job 28305	Truss V10	Truss Type Valley	Qty 1	Ply 1	Lowes 6477/Humbert	169579875
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:38:09 2024 Page 1
 ID:43FmfUEpnbWxW36Q?RCfByzursR-xe5jtlw5lrdzsvhE55nSATgwh?Xtl5mz8g_DOFYJcHy



Scale = 1:33.2

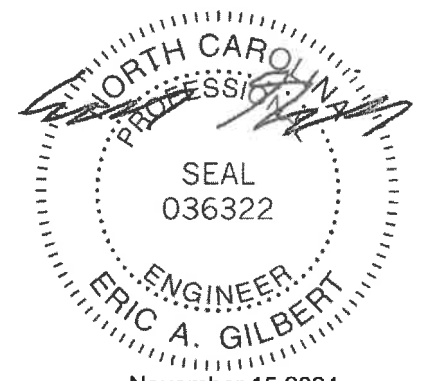
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 36 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. (size) 1=8-4-0, 3=8-4-0, 4=8-4-0
 Max Horz 1=-91(LC 6)
 Max Uplift 1=-20(LC 8), 3=-20(LC 8)
 Max Grav 1=202(LC 1), 3=202(LC 1), 4=233(LC 3)

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

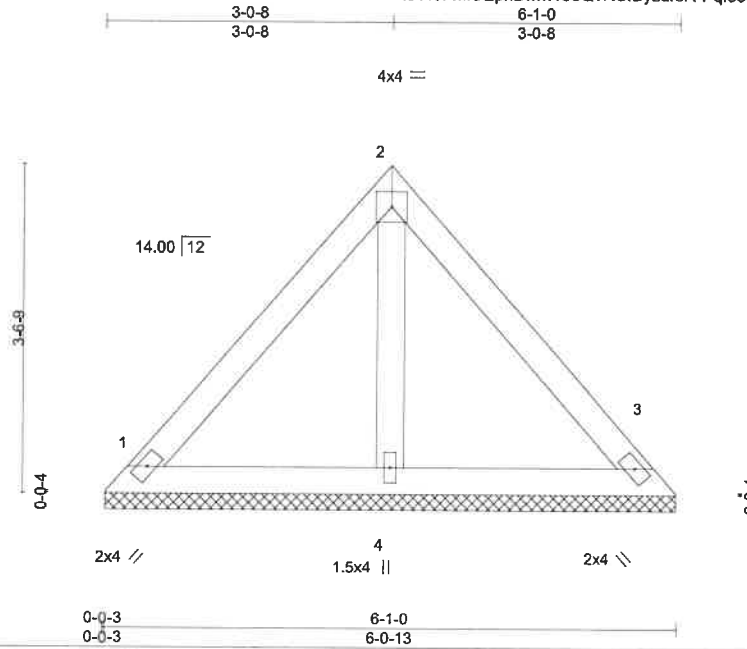
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) 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.



Job 28305	Truss V11	Truss Type Valley	Qty 1	Ply 1	Lowes 647/Humbert	169579876
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:10 2024 Page 1
ID:43FmfUEpnBwxW36Q?RCfByzursR-Pqf55hxj39mqT3GQfoJhJgC6ZPul1YR7KKknwhyJcHx



Scale = 1:24.6

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 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 26 lb	FT = 20%

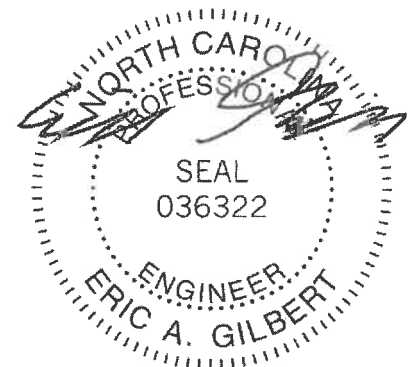
LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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. (size) 1=6-0-9, 3=6-0-9, 4=6-0-9
Max Horz 1=-64(LC 6)
Max Uplift 1=-14(LC 8), 3=-14(LC 8)
Max Grav 1=142(LC 1), 3=142(LC 1), 4=164(LC 3)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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) 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.



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.sbccomponents.com)

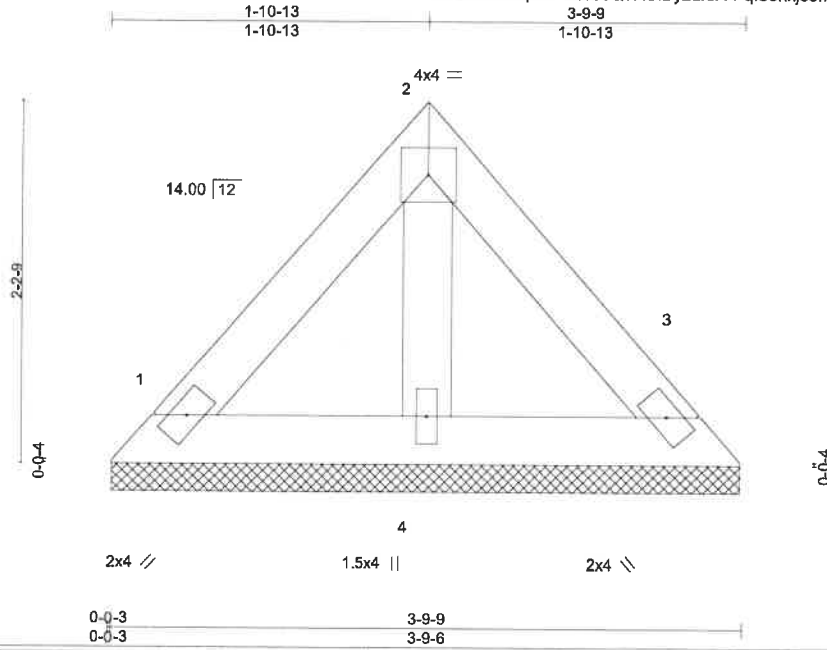
ENGINEERING BY
TRENCO
A MITEK COMPANY

818 Soundside Road
Edenton, NC 27932

Job 28305	Truss V12	Truss Type Valley	Qty 1	Ply 1	Lowes 647/Humbert	169579877
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:10 2024 Page 1
ID:43FmfUEpnBwxW36Q?RCfByzursR-Pqf55hxj39mqT3GQfoJhJgC7GPv41Yd7KKknwhyJctHx



Scale = 1:13.9

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	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P							
	Code IRC2018/TPI2014							Weight: 15 lb	FT = 20%

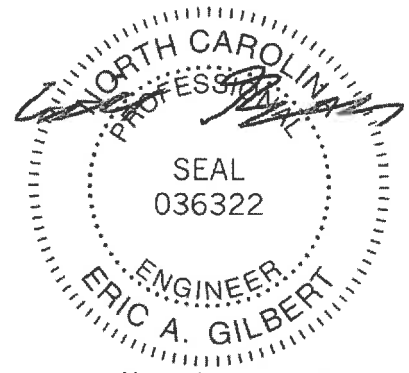
LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-9 oc purfins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-9-2, 3=3-9-2, 4=3-9-2
Max Horz 1=-37(LC 6)
Max Uplift 1=-8(LC 8), 3=-8(LC 8)
Max Grav 1=83(LC 1), 3=83(LC 1), 4=95(LC 3)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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) 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.



November 15, 2024

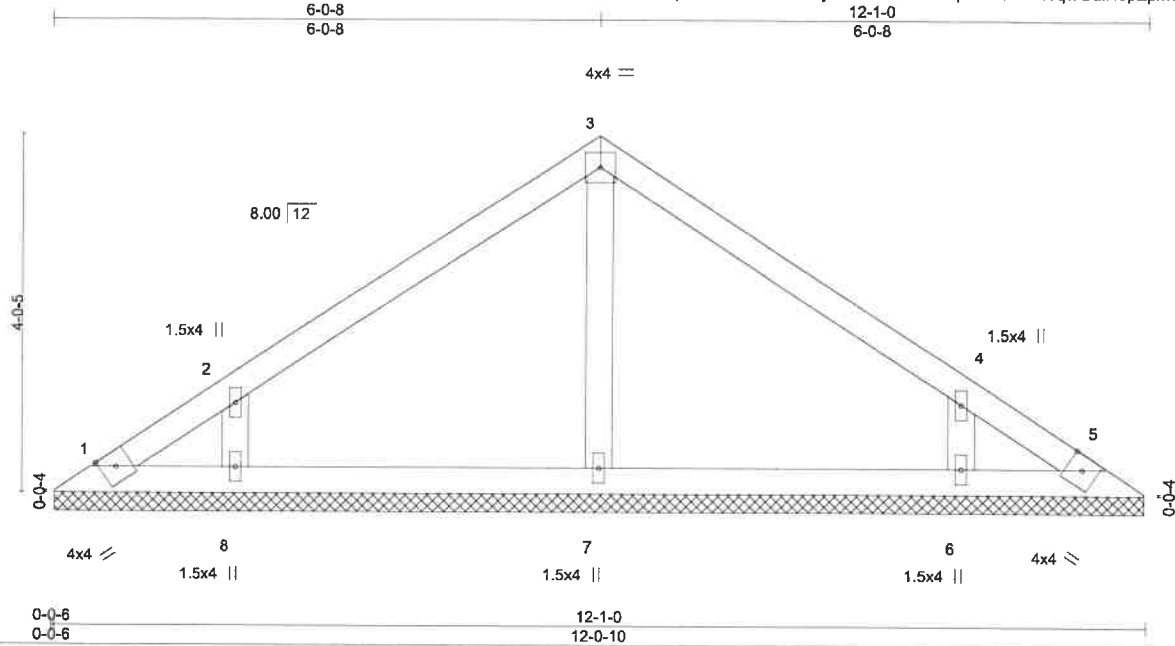
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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.sbccomponents.com)



818 Soundside Road
Edenton, NC 27932

Job 28305	Truss V14	Truss Type Valley	Qty 1	Ply 1	Lowes 647/Humbert	169579879
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:38:11 2024 Page 1
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Scale = 1:25.7

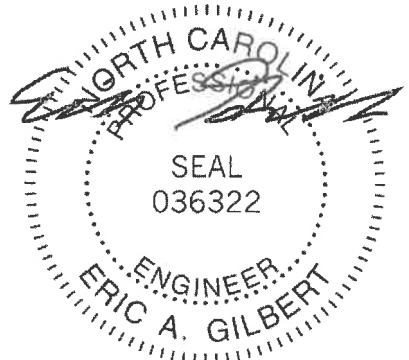
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.08	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.12	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2018/TPI2014			Weight: 45 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 12-0-4.
 (lb) - Max Horz 1=-61(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 except 7=259(LC 1), 8=295(LC 19), 6=295(LC 20)

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

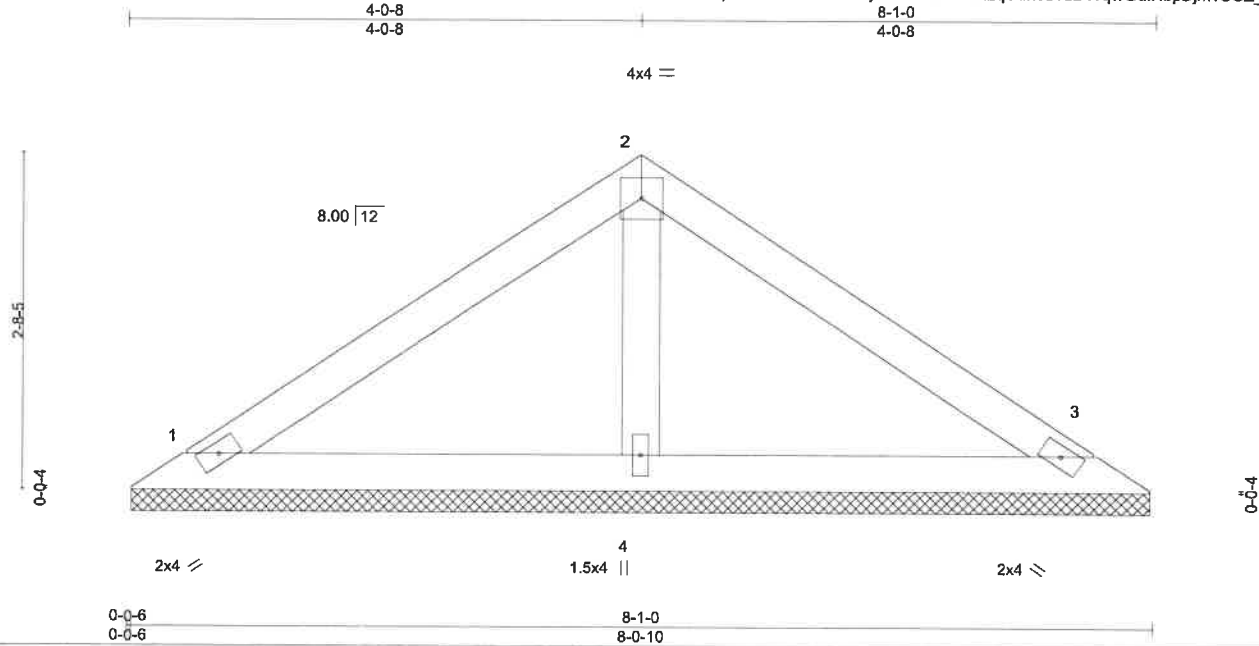
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) 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.



November 15, 2024

Job 28305	Truss V15	Truss Type Valley	Qty 1	Ply 1	Lowes 647/Humbert	169579880
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:11 2024 Page 1
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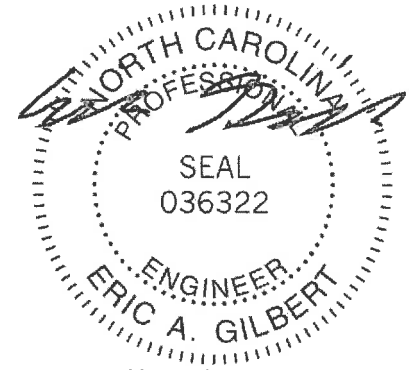
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2018/TPI2014			Weight: 28 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. (size) 1=8-0-4, 3=8-0-4, 4=8-0-4
 Max Horz 1=-39(LC 6)
 Max Uplift 1=-12(LC 8), 3=-12(LC 8)
 Max Grav 1=157(LC 1), 3=157(LC 1), 4=255(LC 1)

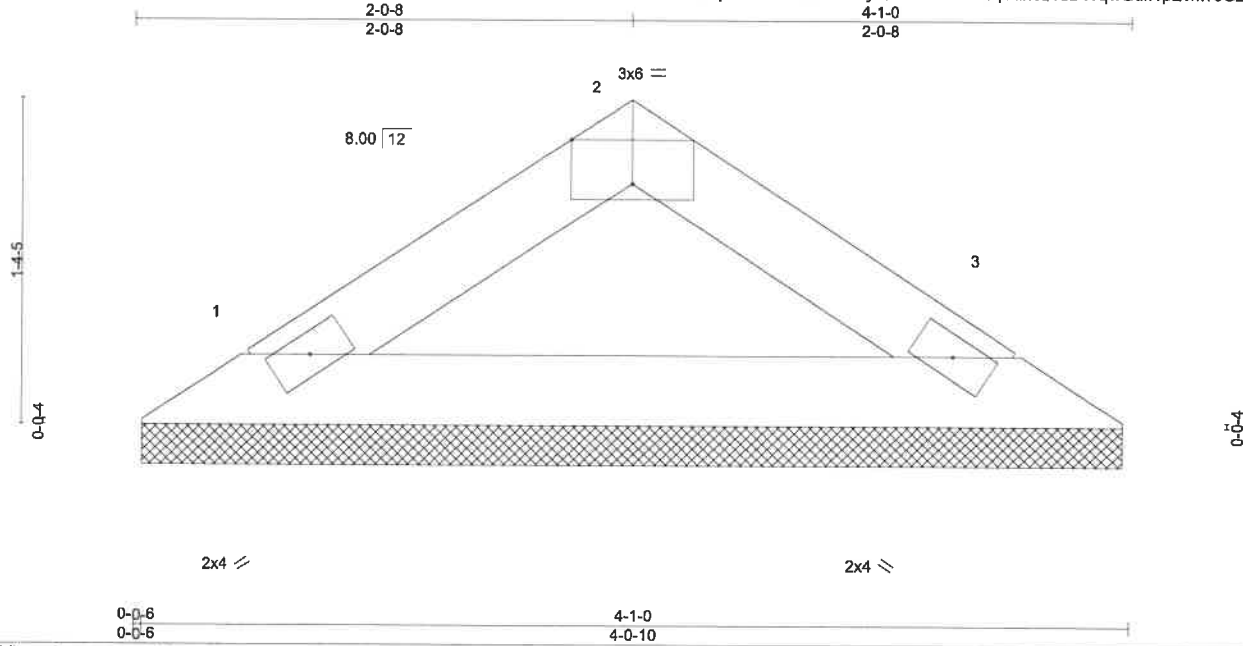
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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, 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.



Job 28305	Truss V16	Truss Type Valley	Qty 1	Ply 1	Lowes 647/Humbert	169579881
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C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MITek Industries, Inc. Wed Nov 13 11:38:11 2024 Page 1
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Scale = 1:9.5

LOADING (psf)		SPACING-		CSI.		DEFL.				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	0.12	Vert(CT)	n/a	-	n/a	999	Weight: 12 lb FT = 20%		
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									

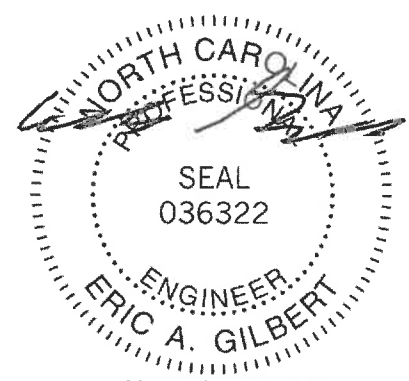
LUMBER-
 TOP CHORD 2x4 SP 2400F 2.0E
 BOT CHORD 2x4 SP No.2

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

REACTIONS. (size) 1=4-0-4, 3=4-0-4
 Max Horz 1=17(LC 7)
 Max Grav 1=125(LC 1), 3=125(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=120mph (3-second gust) Vasd=95mph; 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) 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) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 15, 2024

Job 28305	Truss V17	Truss Type GABLE	Qty 2	Ply 1	Lowes 647/Humbert	I69579882
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:12 2024 Page 1
ID:43FmfUEpnBwxW36Q?RCfByzursR-LDnrWNy_bm0XjNQpmDL9o5lQnDYGVVSJPoeDu?ayJcHv

Job Reference (optional)

16-8-10
10-3-7

Scale = 1:26.8

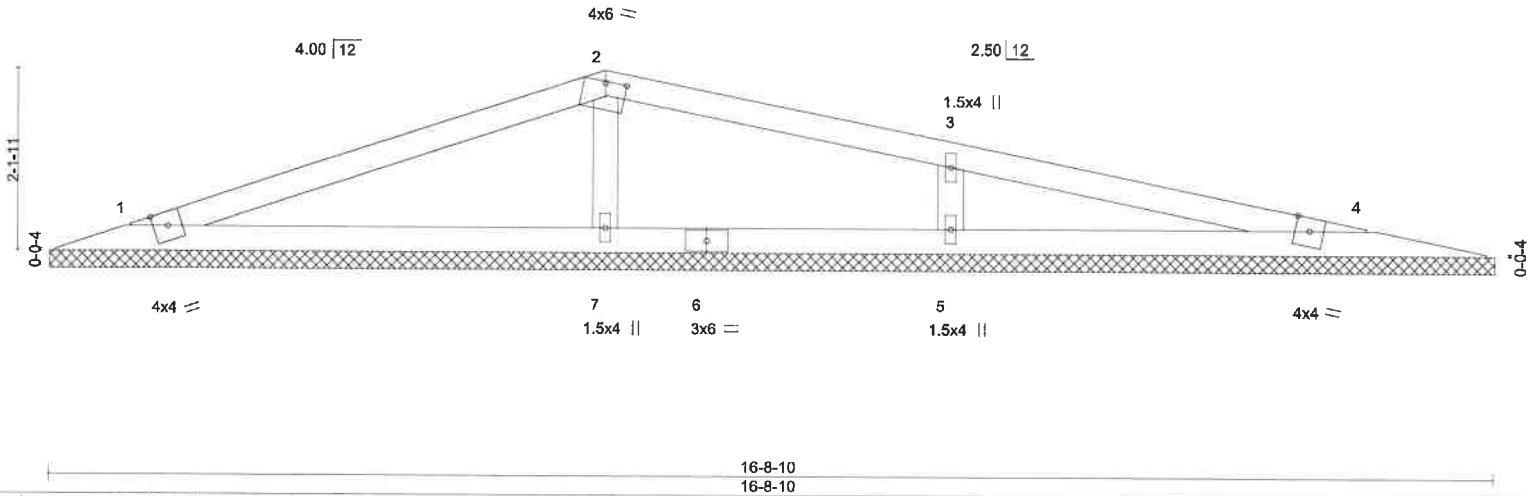


Plate Offsets (X,Y)-- [2:0-3-0,0-0-3]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.21	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.24	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2018/TPI2014						Weight: 50 lb	FT = 20%

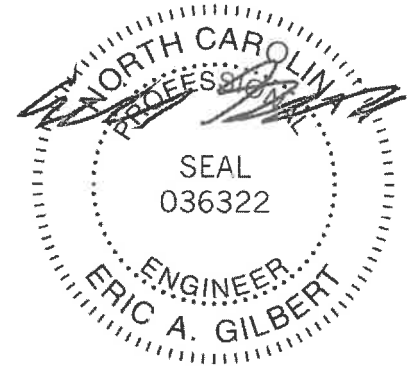
LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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 16-8-10.
(lb) - Max Horz 1=-18(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 4, 5
Max Grav All reactions 250 lb or less at joint(s) 1, 4 except 7=394(LC 1), 5=410(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-7=-277/37, 3-5=-314/74

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; 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) 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, 4, 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.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MI-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 MITTEK AFFILIATE
818 Soundside Road
Edenton, NC 27932

Job 28305	Truss V18	Truss Type Valley	Qty 2	Ply 1	Lowes 647/Humbert I69579883
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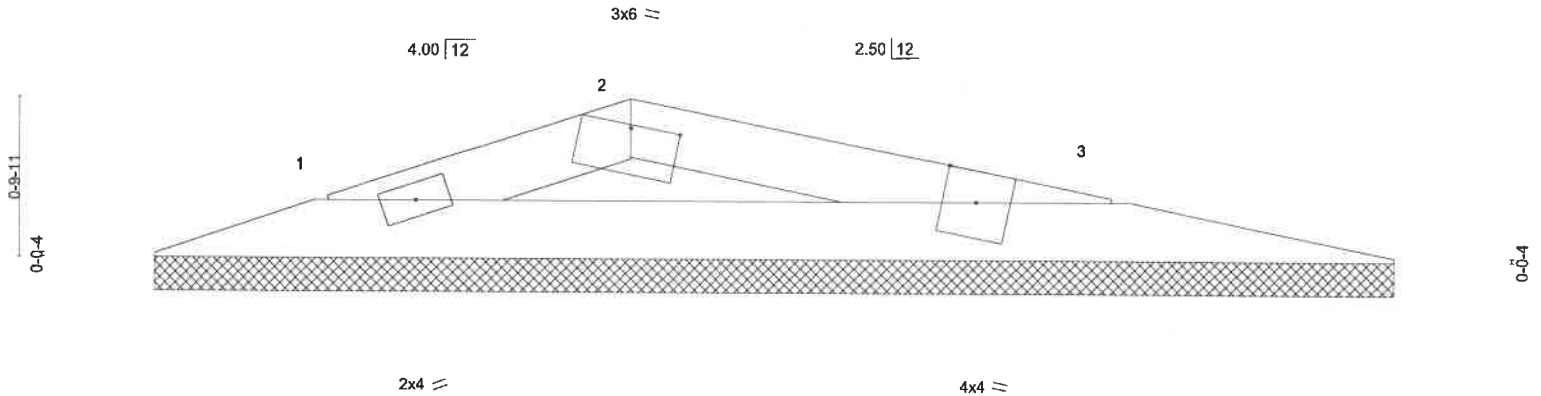
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Wed Nov 13 11:38:12 2024 Page 1
ID:43FmfUEpnBwxW36Q?RCfByzursR-LDnrWNY_bm0XjNQpmDL9o5ITMDYxVSGPoeDu?ayJcHv

2-5-2
2-5-2

6-3-13
3-10-10

Scale = 1:11.5



0-0-12 0-0-12	6-3-13 6-3-1
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Plate Offsets (X,Y)-- [2:0-3-0,0-0-3]

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 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 15 lb	FT = 20%

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

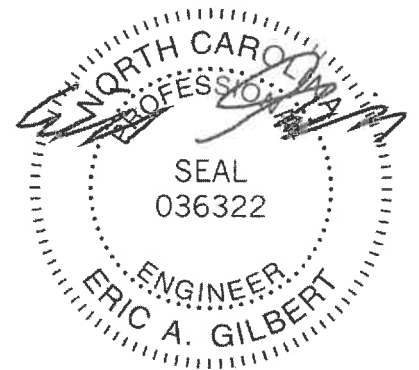
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=6-1-14, 3=6-1-14
Max Horz 1=-5(LC 5)
Max Grav 1=155(LC 1), 3=155(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=120mph (3-second gust) Vasd=95mph; 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
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November 15, 2024

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TRENCO
A MITEK COMPANY

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Edenton, NC 27932