

Trenco 818 Soundside Rd Edenton, NC 27932

# Re: 26156 FREEDOM CONSTRUCTORS/WILDWOOD LOT #14

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: I47585564 thru I47585595

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844



August 24,2021

# Sevier, Scott

**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.



**REACTIONS.** All bearings 11-8-0.

(lb) - Max Horz 16=-162(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11

Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

# NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B;

Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

4) All plates are 1.5x4 MT20 unless otherwise indicated.

5) Gable requires continuous bottom chord bearing.

6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

7) Gable studs spaced at 2-0-0 oc.

8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-00 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) 16, 10, 14, 15, 12, 11.



818 Soundside Road Edenton, NC 27932



BOT CHORD

WEBS

Rigid ceiling directly applied or 10-0-0 oc bracing.

9-23, 8-24, 10-22

1 Row at midpt

TOP CHORD2x4 SP No.2BOT CHORD2x6 SP No.1OTHERS2x4 SP No.3WEDGE

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

REACTIONS. All bearings 24-0-0.

 (Ib) - Max Horz 2=-263(LC 6) Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 24, 25, 26, 27, 28, 22, 21, 20, 19, 18 Max Grav All reactions 250 lb or less at joint(s) 2, 16, 23, 24, 25, 26, 27, 28, 22, 21, 20, 19, 18

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 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) 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) 2, 16, 24, 25, 26, 27, 28, 22, 21, 20, 19, 18.





(lb) - Max Horz 2=72(LC 7)

Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 4) All plates are 1.5x4 MT20 unless otherwise indicated.5) Gable requires continuous bottom chord bearing.
- 5) Gable requires continuous bottor
- 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.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.





Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10



Job	Truss	Truss Type	Qty	Ply	FREEDOM CONSTRUCTORS/WILDWOOD LOT #14	
26156	GR2	Common Girder	1			147585567
20100				2	Job Reference (optional)	
C&R Truss, A	utryville, NC - 28318,		8.	430 s Aug	16 2021 MiTek Industries, Inc. Mon Aug 23 13:27:39 2021	Page 2

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# LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-4=-60, 4-9=-60, 16-19=-20

Concentrated Loads (lb)

Vert: 13=-469(B) 12=-469(B) 11=-909(B) 10=-909(B) 14=-470(B) 15=-470(B) 22=-470(B) 23=-470(B) 26=-469(B) 27=-909(B) 28=-909(B) 28=-900(B) 28=-9





Vert: 1-3=-60, 3-5=-60, 9-12=-20

#### Continued on page 2

ᄊ WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road Edenton, NC 27932

August 24,2021

Job	Truss	Truss Type	Qty	Ply	FREEDOM CONSTRUCTORS/WILDWOOD LOT #14	
						147585568
26156	GR3	Common Girder	1	2		
				<b>_</b>	Job Reference (optional)	
C&R Truss, Autryville,	NC - 28318,		8.4	30 s Aug	16 2021 MiTek Industries, Inc. Mon Aug 23 13:27:40 2021	Page 2
		ID:F_kzji0liblMsA9nfTFnH2yF3gm-WIgpJ2zSLTdfKNYKQX_WAdpYLLDYfLWNNHwS7AykyLX				

LOAD CASE(S) Standard

Concentrated Loads (lb) Vert: 6=-928(B) 11=-910(B) 15=-910(B) 16=-910(B) 17=-910(B) 18=-972





TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2OTHERS2x4 SP No.3

TOP CHORD BOT CHORD

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

REACTIONS. All bearings 6-4-12. (lb) - Max Horz 1=-44(LC 6)

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 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) 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, 2, 4.
- 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.







TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2OTHERS2x4 SP No.3

TOP CHORD BOT CHORD

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

REACTIONS. All bearings 6-4-12. (lb) - Max Horz 1=-44(LC 6)

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 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) 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, 2, 4.
- 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.







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- 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 305 lb uplift at joint 1, 274 lb uplift at joint 5, 197 lb uplift at joint 2 and 197 lb uplift at joint 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.







- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

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6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 305 lb uplift at joint 1, 274 lb uplift at joint 5, 197 lb uplift at joint 2 and 197 lb uplift at joint 4.

 See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.









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Max Grav 2=579(LC 1), 4=579(LC 1)

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

TOP CHORD 2-3=-700/66, 3-4=-700/66

BOT CHORD 2-6=0/558, 4-6=0/558 WEBS 3-6=0/288

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

6) 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.







			<u>36-0-0</u> 36-0-0			
Plate Offsets (X,Y)	[11:0-3-0,0-0-2], [15:0-3-0,0-0-2]					
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014	<b>CSI.</b> TC 0.04 BC 0.02 WB 0.11 Matrix-S	DEFL.         ir           Vert(LL)         -0.00           Vert(CT)         -0.00           Horz(CT)         0.01	n (loc) l/defl L/d ) 25 n/r 120 ) 25 n/r 120 24 n/a n/a	PLATES         GRIP           MT20         244/190           Weight: 304 lb         FT = 20%	
LUMBER-           TOP CHORD         2x4 SP 2400F 2.0E           BOT CHORD         2x6 SP No.1           OTHERS         2x4 SP No.3			BRACING- TOP CHORD BOT CHORD WEBS	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 11-15. Rigid ceiling directly applied or 10-0-0 oc bracing. 1 Row at midpt 13-35, 12-36, 10-38, 9-39, 14-34, 16-32, 17-31		

#### REACTIONS. All bearings 36-0-0.

(lb) - Max Horz 2=-251(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 2, 35, 39, 40, 41, 42, 43, 44, 31, 30, 29, 28, 27, 26 Max Grav All reactions 250 lb or less at joint(s) 2, 24, 35, 36, 38, 39, 40, 41, 42, 43, 44, 34, 32, 31, 30, 29, 28, 27, 26

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 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=36ft; 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) Provide adequate drainage to prevent water ponding.
- 5) All plates are 1.5x4 MT20 unless otherwise indicated. 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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) 2, 35, 39, 40, 41, 42, 43, 44, 31, 30, 29, 28, 27, 26.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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 Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=36ft; 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.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=152, 9=152.

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.

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







August 24,2021





REACTIONS. (size) 2=0-3-8, 12=0-3-8 Max Horz 2=248(LC 7) Max Uplift 2=-143(LC 8), 12=-145(LC 8)

Max Grav 2=1423(LC 13), 12=1889(LC 1)

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

 TOP CHORD
 2-3=-1978/184, 3-5=-1530/219, 5-6=-1210/229, 6-7=-914/209, 7-8=-1178/192, 10-11=-59/391

 BOT CHORD
 2-16=-58/1717, 15-16=-58/1717, 14-15=0/1178

 WEBS
 3-16=0/274, 3-15=-535/155, 5-15=0/476, 6-14=-528/65, 7-14=0/342, 8-14=0/956, 8-13=-1261/137, 10-13=-50/1110, 10-12=-1488/125

# NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=40ft; 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) except (jt=lb) 2=143, 12=145.

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.

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



ENGINEERING BY AMITek Affiliate 818 Soundside Road

Edenton, NC 27932



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 Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=40ft; 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) 1, 9 except (jt=lb) 11=130.

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.







2) Wind: ASCE 7-10, Vulte (40inpli) Vasue (11 mpl), TCDL=0.0ps), BCDL=0.0ps), n=20it, D=40it, E=40it, eave=0it, 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 75 lb uplift at joint 1, 130 lb uplift at joint 11 and 42 lb uplift at joint 9.

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.







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 116 lb uplift at joint 2, 131 lb uplift at joint 12 and 41 lb uplift at joint 10.

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.







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Edenton, NC 27932



	L		40-0-0		
			40-0-0		
Plate Offsets (X,Y)	[11:0-6-8,0-2-8], [17:0-4-4,0-2-4], [32:0-4	4-0,0-1-4], [39:0-4-0,0-1-4]			
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014	CSI. TC 0.04 BC 0.02 WB 0.14 Matrix-S	<b>DEFL.</b> i Vert(LL) -0.0 Vert(CT) -0.0 Horz(CT) 0.0	n (loc) l/defl L/d 0 1 n/r 120 0 1 n/r 120 0 25 n/a n/a	PLATES         GRIP           MT20         244/190           Weight: 346 lb         FT = 20%
LUMBER-           TOP CHORD         2x4 SP 2400F 2.0E           BOT CHORD         2x6 SP No.1           OTHERS         2x4 SP No.3			BRACING- TOP CHORD BOT CHORD WEBS	Structural wood sheathin 2-0-0 oc purlins (6-0-0 m Rigid ceiling directly app 1 Row at midpt	g directly applied or 6-0-0 oc purlins, except ax.): 11-17. lied or 10-0-0 oc bracing. 17-32, 16-34, 15-35, 14-36, 13-37, 12-38, 10-40, 18-31

REACTIONS. All bearings 40-0-0.

(lb) - Max Horz 2=249(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 2, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 46, 31, 30, 29, 28, 27, 26

Max Grav All reactions 250 lb or less at joint(s) 2, 32, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 31, 30, 29, 28, 27, 26, 25

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

# NOTES-

1) Unbalanced roof live loads have been considered for this design.

 Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=40ft; 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.

- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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) 2, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 46, 31, 30, 29, 28, 27, 26.
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.







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

- TOP CHORD 2-3=-1068/269, 3-4=-1060/264, 2-7=-903/253, 4-5=-811/201
- BOT CHORD 6-7=-234/476, 5-6=-144/448

WEBS 3-6=-214/894, 2-6=-198/347, 4-6=-161/337

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=292, 5=254.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 255 lb down and 94 lb up at 2-0-12, 255 lb down and 94 lb up at 4-0-12, 255 lb down and 94 lb up at 6-0-12, and 255 lb down and 94 lb up at 8-0-12, and 255 lb down and 94 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf) Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-7=-20

Concentrated Loads (lb) Vert: 6=-255(B) 8=-255(B) 9=-255(B) 10=-255(B) 11=-255(B)









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- 2) Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 141 lb uplift at joint 8 and 145 lb uplift at joint 6.



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Edenton, NC 27932

August 24,2021









Max Grav 1=181(LC 1), 3=181(LC 1), 4=269(LC 1)

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

# NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) 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.



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REACTIONS. (size) 1=5-5-3, 3=5-5-3, 4=5-5-3 Max Horz 1=47(LC 7) Max Uplift 1=-22(LC 8), 3=-22(LC 8) Max Grav 1=107(LC 1), 3=107(LC 1), 4=160(LC 1)

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

# NOTES-

1) Unbalanced roof live loads have been considered for this design.

 Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) 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.







Max Uplift 1=-28(LC 8), 3=-28(LC 8)

Max Grav 1=177(LC 1), 3=177(LC 1), 4=314(LC 1)

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

# NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) 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.







REACTIONS. (size) 1=5-10-13, 3=5-10-13, 4=5-10-13 Max Horz 1=51(LC 7) Max Uplift 1=-24(LC 8), 3=-24(LC 8) Max Grav 1=118(LC 1), 3=118(LC 1), 4=175(LC 1)

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

# NOTES-

1) Unbalanced roof live loads have been considered for this design.

 Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) 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.







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

REACTIONS. 1=7-1-5, 3=7-1-5, 4=7-1-5 (size) Max Horz 1=29(LC 7) Max Uplift 1=-21(LC 8), 3=-21(LC 8)

Max Grav 1=120(LC 1), 3=120(LC 1), 4=234(LC 1)

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

# NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=140mph Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) 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.

\* 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 5)

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.



Rigid ceiling directly applied or 10-0-0 oc bracing.



