

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: ELV C EP B2  
628 ELV C EP B2

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Apex,NC).

Pages or sheets covered by this seal: I66014010 thru I66014051

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

North Carolina COA: C-0844



June 5,2024

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Gilbert, Eric

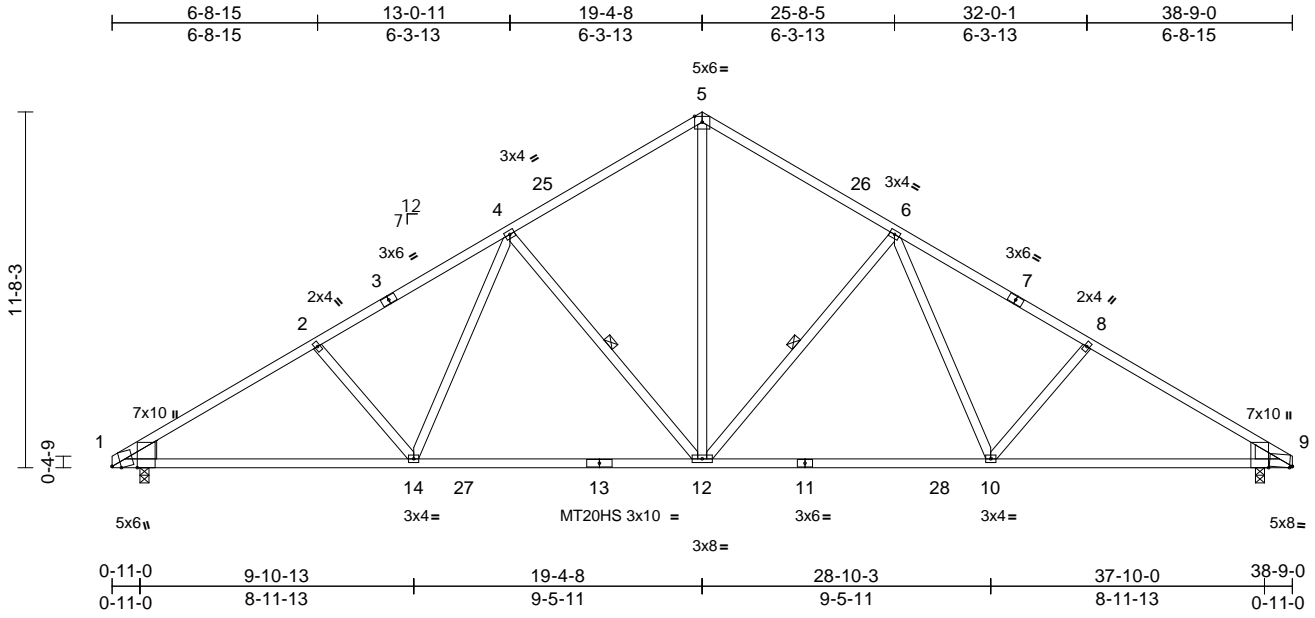
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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 ELV C EP B2	Truss A01	Truss Type Common	Qty 4	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014010
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:30  
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Page: 1



Scale = 1:75.6

Plate Offsets (X, Y): [1:0-1-7,Edge], [1:0-0-8,Edge], [9:0-1-1,Edge], [9:0-0-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.93	Vert(LL)	-0.36	10-12	>999	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.63	10-12	>743	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.09	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 213 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 1-3,7-9;2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
WEDGE Left: 2x8 SP DSS  
Right: 2x6 SP DSS

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
2-2-0 oc bracing: 9-10.  
WEBS 1 Row at midpt 6-12, 4-12

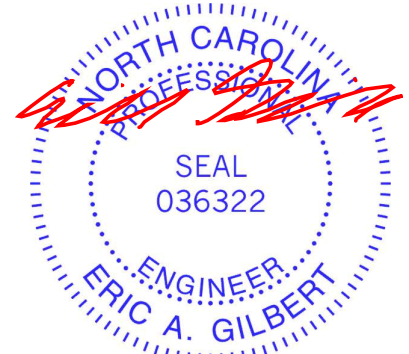
**REACTIONS**  
(size) 1=0-3-8, 9=0-3-8  
Max Horiz 1=219 (LC 13)  
Max Uplift 1=-38 (LC 16), 9=-38 (LC 17)  
Max Grav 1=1555 (LC 29), 9=1555 (LC 30)

**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-2246/179, 2-4=-2070/197,  
4-5=-1555/225, 5-6=-1556/225,  
6-8=-2068/197, 8-9=-2251/179  
BOT CHORD 1-14=-166/1983, 12-14=-43/1727,  
10-12=0/1614, 9-10=-73/1819  
WEBS 5-12=-117/1189, 6-12=-628/176,  
6-10=-4/376, 8-10=-210/147, 4-12=-628/177,  
4-14=-4/377, 2-14=-209/145

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=13.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 9 and 38 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33



June 5, 2024

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818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss A03H	Truss Type Common	Qty 6	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014011
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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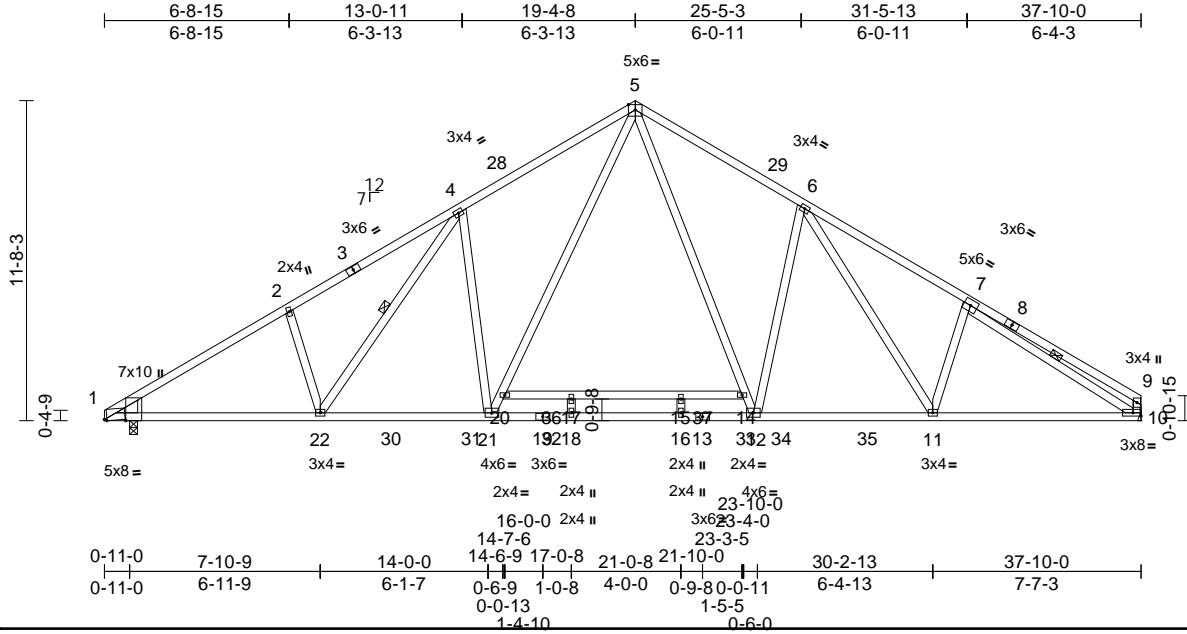


Plate Offsets (X, Y): [1:0-1-1,Edge], [1:0-0-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.90	Vert(LL)	-0.43	16-18	>999	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.78	16-18	>580	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.09	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 246 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 1-3:2x4 SP No.1  
BOT CHORD 2x4 SP SS \*Except\* 20-14,19-13:2x4 SP No.1  
WEBS 2x4 SP No.3 \*Except\* 21-5:2x4 SP No.2  
WEDGE Left: 2x6 SP 2400F 2.0E or DSS

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
2-2-0 oc bracing: 1-22.  
WEBS 1 Row at midpt 7-10, 4-22

**REACTIONS**  
(size) 1=0-3-8, 10= Mechanical  
Max Horiz 1=226 (LC 15)  
Max Grav 1=1767 (LC 29), 10=1686 (LC 30)

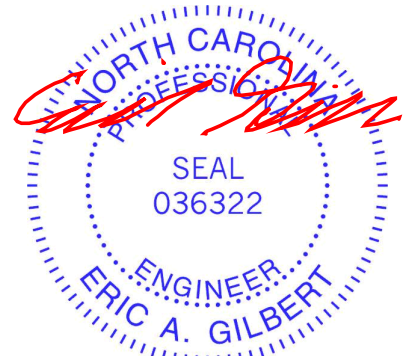
**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-2566/78, 2-4=-2457/150,  
4-5=-2364/188, 5-6=-2243/176,  
6-7=-2502/149, 7-9=-521/89, 9-10=-396/79  
BOT CHORD 1-22=-150/2256, 21-22=0/2111,  
18-21=0/1509, 16-18=0/1509, 12-16=0/1509,  
11-12=0/1948, 10-11=-14/2091,  
17-20=-20/50, 15-17=-20/50, 14-15=-20/50  
WEBS 7-10=-2107/3, 2-22=-218/157,  
4-22=-122/245, 4-21=-532/241,  
20-21=-121/1103, 5-20=-81/1175,  
5-14=-59/1108, 12-14=-98/1025,  
6-12=-533/221, 6-11=-103/345,  
7-11=-195/170, 17-18=-78/0, 15-16=-78/0

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=13.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 1 SP SS crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**NOTES**

- Unbalanced roof live loads have been considered for this design.



June 5, 2024

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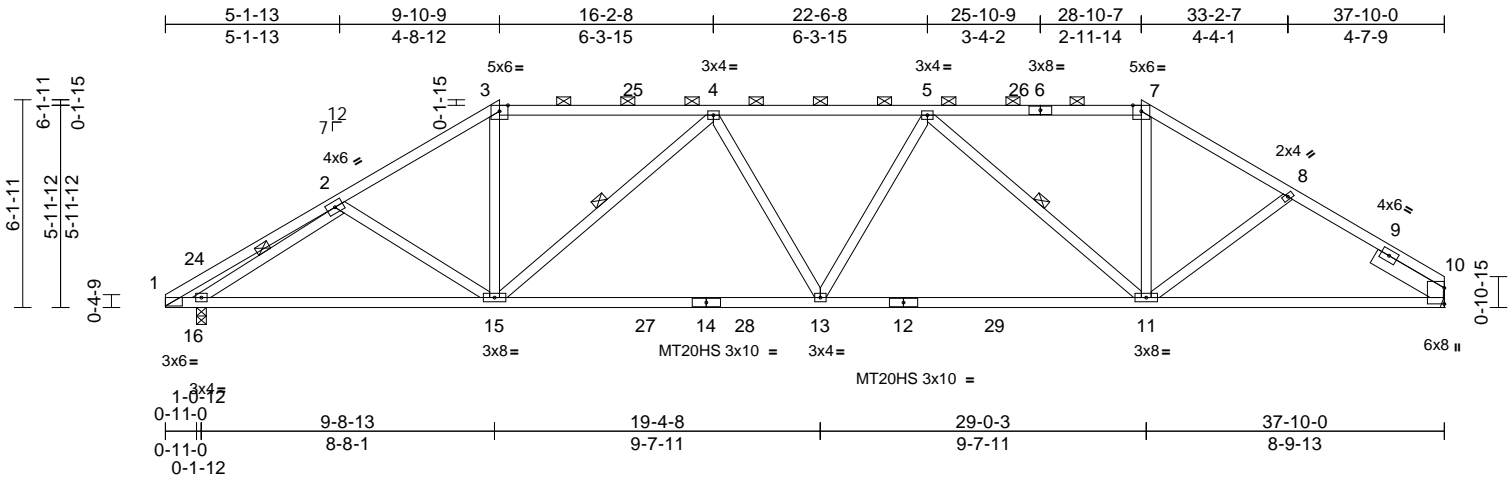
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss A06	Truss Type Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014012
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.95	Vert(LL)	-0.29	11-13	>999	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.54	11-13	>824	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.16	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 206 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 1-3:2x4 SP No.2  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Right 2x6 SP No.2 -- 2-5-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 1-5-5 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 3-7.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 4-15, 5-11, 2-16

**REACTIONS** (size) 10= Mechanical, 16=0-3-8  
Max Horiz 16=109 (LC 13)  
Max Grav 10=1640 (LC 37), 16=1677 (LC 37)

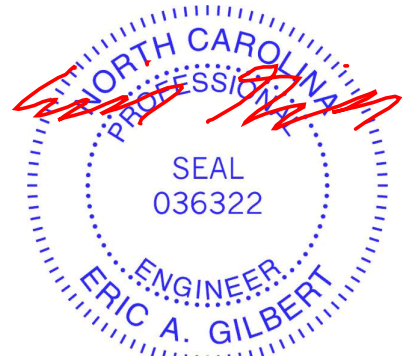
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-628/18, 2-3=-2628/208, 3-4=-2255/205, 4-5=-3261/251, 5-7=-2242/205, 7-8=-2589/208, 8-10=-2534/213  
BOT CHORD 1-16=-1/495, 15-16=-139/2125, 13-15=-138/3205, 11-13=-138/3203, 10-11=-123/2072  
WEBS 2-15=-240/238, 3-15=-6/917, 4-15=-1269/145, 4-13=0/233, 5-13=0/236, 5-11=-1279/143, 7-11=-5/853, 8-11=-190/282, 2-16=-2040/246

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 16 SP No.1 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2015 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.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-3=-46, 3-7=-60, 7-10=-46, 17-20=-20



June 5, 2024

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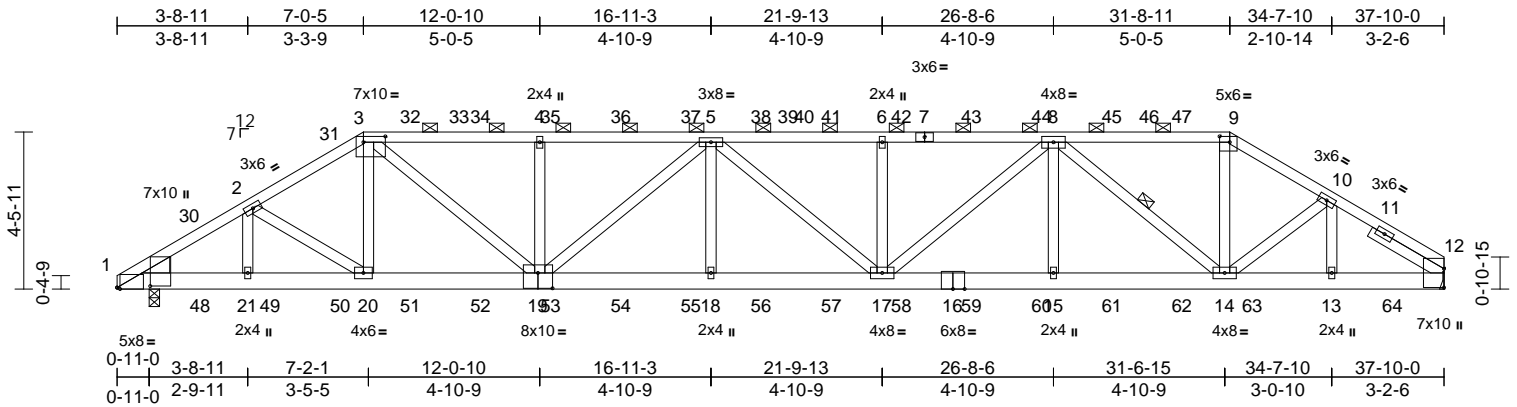
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss A06GR	Truss Type Hip Girder	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014013
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:65.7

Plate Offsets (X, Y): [1:0-1-0,Edge], [1:0-0-8,0-11-6], [3:0-7-8,0-2-0], [9:0-3-8,0-2-0], [19:0-5-0,0-5-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.93	Vert(LL)	-0.33	17-18	>999	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.56	17-18	>813	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.10	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
										Weight: 247 lb	FT = 20%	

**LUMBER**

TOP CHORD 2x4 SP No.2 \*Except\* 3-7:2x4 SP SS, 7-9:2x4 SP No.1  
 BOT CHORD 2x6 SP DSS  
 WEBS 2x4 SP No.3  
 WEDGE Left: 2x6 SP No.2  
 SLIDER Right 2x4 SP No.3 -- 2-5-0

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-6-8 oc purlins, except 2-0-0 oc purlins (2-1-8 max.): 3-9.  
 BOT CHORD Rigid ceiling directly applied or 7-0-8 oc bracing.  
 WEBS 1 Row at midpt 8-14

**REACTIONS**

(size) 1=0-3-8, 12= Mechanical  
 Max Horiz 1=79 (LC 54)  
 Max Uplift 1=-535 (LC 9), 12=-529 (LC 8)  
 Max Grav 1=2569 (LC 33), 12=2514 (LC 33)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-3221/743, 2-3=-3665/930, 3-4=-4865/1278, 4-5=-4872/1281, 5-6=-5727/1502, 6-8=-5727/1502, 8-9=-3228/808, 9-10=-3667/905, 10-12=-3493/800  
 BOT CHORD 1-21=-679/2660, 20-21=-679/2660, 18-20=-1509/5745, 17-18=-1509/5745, 15-17=-1233/4930, 14-15=-1233/4930, 13-14=-641/2913, 12-13=-641/2913  
 WEBS 2-21=-559/192, 2-20=-235/618, 3-20=0/241, 3-19=-632/2210, 4-19=-606/233, 5-19=-1135/325, 5-18=0/288, 5-17=-49/39, 6-17=-528/207, 8-17=-322/1040, 8-15=0/265, 8-14=-2223/662, 9-14=-344/1500, 10-14=-190/398, 10-13=-184/85

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 1 SP DSS crushing capacity of 660 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 529 lb uplift at joint 12 and 535 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 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.



June 5, 2024

Continued on page 2

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818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss A06GR	Truss Type Hip Girder	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014013
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:33  
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Page: 2

14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 155 lb down and 43 lb up at 2-4-8, 97 lb down and 62 lb up at 6-4-8, 86 lb down and 68 lb up at 8-4-8, 86 lb down and 68 lb up at 10-4-8, 86 lb down and 68 lb up at 12-4-8, 86 lb down and 68 lb up at 14-4-8, 86 lb down and 68 lb up at 16-4-8, 86 lb down and 68 lb up at 18-4-8, 86 lb down and 68 lb up at 20-4-8, 86 lb down and 68 lb up at 22-4-8, 86 lb down and 68 lb up at 24-4-8, 86 lb down and 68 lb up at 26-4-8, and 86 lb down and 68 lb up at 28-4-8, and 86 lb down and 68 lb up at 30-4-8 on top chord, and 49 lb down at 2-4-8, 186 lb down and 43 lb up at 4-4-8, 37 lb down and 14 lb up at 6-4-8, 36 lb down and 17 lb up at 8-4-8, 36 lb down and 17 lb up at 10-4-8, 36 lb down and 17 lb up at 12-4-8, 36 lb down and 17 lb up at 14-4-8, 36 lb down and 17 lb up at 16-4-8, 36 lb down and 17 lb up at 18-4-8, 36 lb down and 17 lb up at 20-4-8, 36 lb down and 17 lb up at 22-4-8, 36 lb down and 17 lb up at 24-4-8, 36 lb down and 17 lb up at 26-4-8, 36 lb down and 17 lb up at 28-4-8, 36 lb down and 17 lb up at 30-4-8, 37 lb down and 14 lb up at 32-4-8, and 186 lb down and 43 lb up at 34-4-8, and 232 lb down and 32 lb up at 36-4-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

15) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00

Uniform Loads (lb/ft)

Vert: 1-3=-46, 3-9=-60, 9-12=-46, 1-22=-20

Concentrated Loads (lb)

Vert: 13=-186 (F), 30=-137 (F), 31=-17 (F), 32=-15 (F), 34=-15 (F), 35=-15 (F), 36=-15 (F), 37=-15 (F), 38=-15 (F), 41=-15 (F), 42=-15 (F), 43=-15 (F), 44=-15 (F), 45=-15 (F), 47=-15 (F), 48=-49 (F), 49=-186 (F), 50=-23 (F), 51=-23 (F), 52=-23 (F), 53=-23 (F), 54=-23 (F), 55=-23 (F), 56=-23 (F), 57=-23 (F), 58=-23 (F), 59=-23 (F), 60=-23 (F), 61=-23 (F), 62=-23 (F), 63=-23 (F), 64=-232 (F)

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

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



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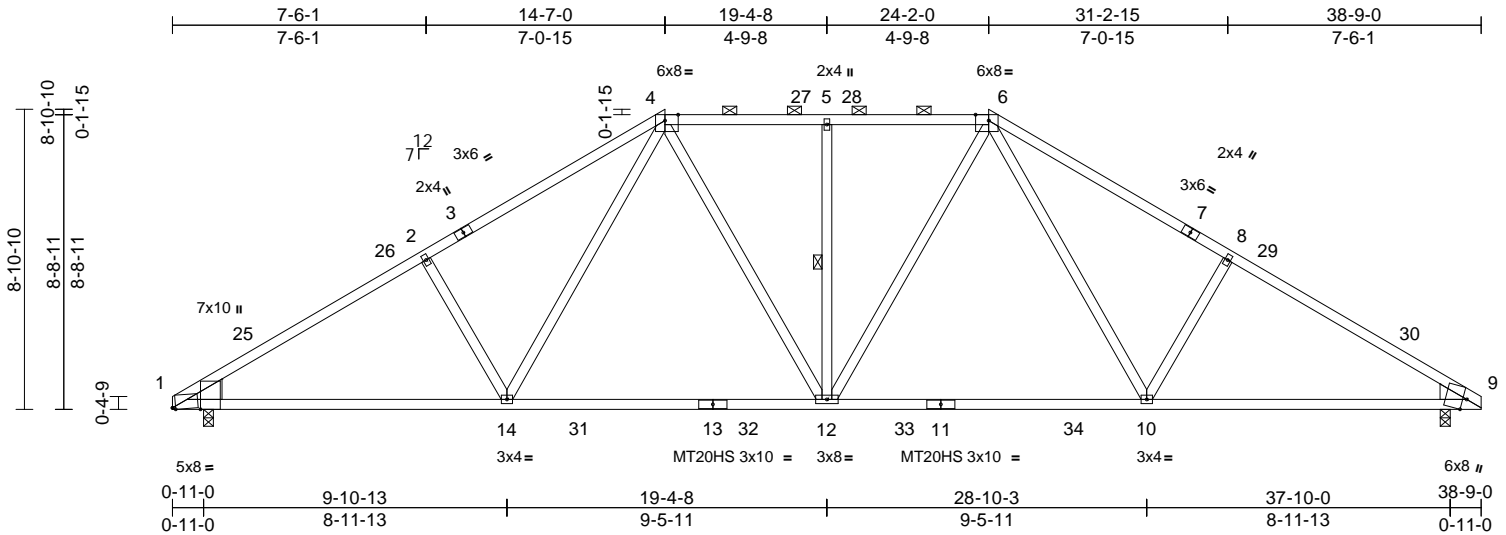


Job ELV C EP B2	Truss A07	Truss Type Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014015
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:34  
ID:Be0VNTUdJV1PMEHydyXfzIBVu-RIC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:68.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.91	Vert(LL)	-0.38	10-12	>999	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.63	10-12	>740	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.10	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 210 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP SS \*Except\* 4-6:2x4 SP No.2  
 BOT CHORD 2x4 SP SS \*Except\* 13-11:2x4 SP No.1  
 WEBS 2x4 SP No.3  
 WEDGE Left: 2x8 SP DSS  
 Right: 2x6 SP DSS

**BRACING**

TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (3-11-6 max.): 4-6.  
 Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 5-12

**REACTIONS**

(size) 1=0-3-8, 9=0-3-8  
 Max Horiz 1=163 (LC 13)  
 Max Uplift 1=-13 (LC 16), 9=-13 (LC 17)  
 Max Grav 1=1790 (LC 38), 9=1790 (LC 38)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-2645/200, 2-4=-2395/245,  
 4-5=-1785/228, 5-6=-1785/228,  
 6-8=-2393/245, 8-9=-2649/200  
 BOT CHORD 1-14=-121/2155, 12-14=0/1647,  
 10-12=0/1647, 9-10=-86/2154  
 WEBS 4-14=-64/635, 2-14=-464/186, 4-12=-74/532,  
 5-12=-611/105, 6-12=-74/533, 6-10=-64/633,  
 8-10=-465/188

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust)  
 Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP SS crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 9 and 13 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 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.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
 Uniform Loads (lb/ft)  
 Vert: 1-4=-46, 4-6=-60, 6-9=-46, 15-20=-20



June 5, 2024

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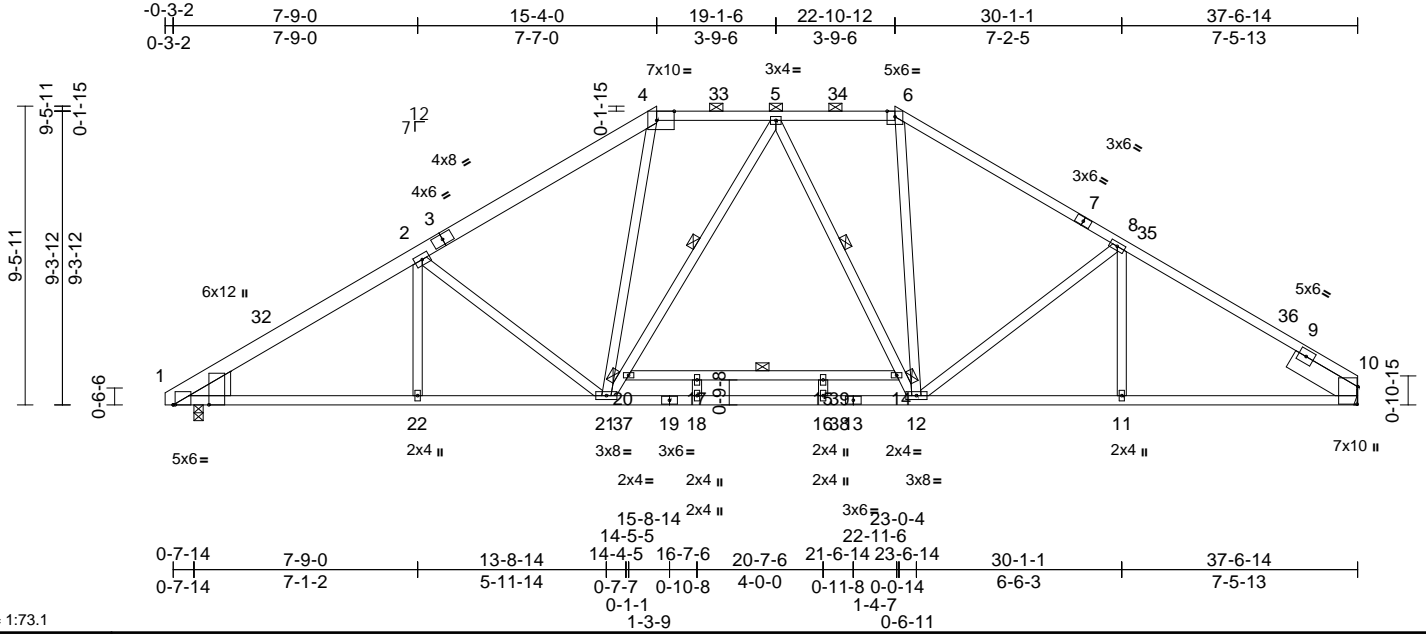


Job ELV C EP B2	Truss A07H	Truss Type Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014016
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:73.1

Plate Offsets (X, Y): [1:0-0-12,Edge], [4:0-6-10,Edge], [10:0-6-11,0-0-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.86	Vert(LL)	-0.38	15-17	>999	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.71	15-17	>636	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.14	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 254 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2 \*Except\* 4-6:2x4 SP No.2, 6-7,7-10:2x4 SP SS  
BOT CHORD 2x4 SP No.1 \*Except\* 13-10:2x4 SP SS  
WEBS 2x4 SP No.3  
WEDGE Left: 2x10 SP DSS  
SLIDER Right 2x8 SP DSS -- 2-5-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (3-11-1 max.): 4-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
2-2-0 oc bracing: 21-22,16-18.  
6-0-0 oc bracing: 14-20  
WEBS 1 Row at midpt 5-20, 5-14

**REACTIONS**  
(size) 1=0-3-8, 10= Mechanical  
Max Horiz 1=173 (LC 13)  
Max Grav 1=1878 (LC 39), 10=1829 (LC 39)

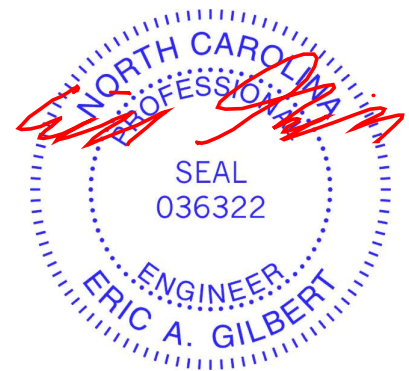
**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-2894/98, 2-4=-2413/114, 4-5=-1806/144, 5-6=-1814/139, 6-8=-2325/117, 8-10=-2803/102  
BOT CHORD 1-22=-78/2387, 21-22=-12/2387, 18-21=0/1856, 16-18=0/1856, 12-16=0/1856, 11-12=-6/2311, 10-11=-95/2311, 17-20=-69/0, 15-17=-69/0, 14-15=-69/0  
WEBS 2-22=-2/74, 2-21=-585/184, 4-21=0/750, 20-21=-386/92, 5-20=-277/134, 5-14=-259/146, 12-14=-347/103, 6-12=0/728, 8-12=-563/179, 8-11=-12/159, 17-18=-43/0, 15-16=-62/0

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

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 1 SP No.1 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2015 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.

**LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)

Vert: 1-4=-46, 4-6=-60, 6-10=-46, 23-27=-20, 14-20=-20



June 5, 2024

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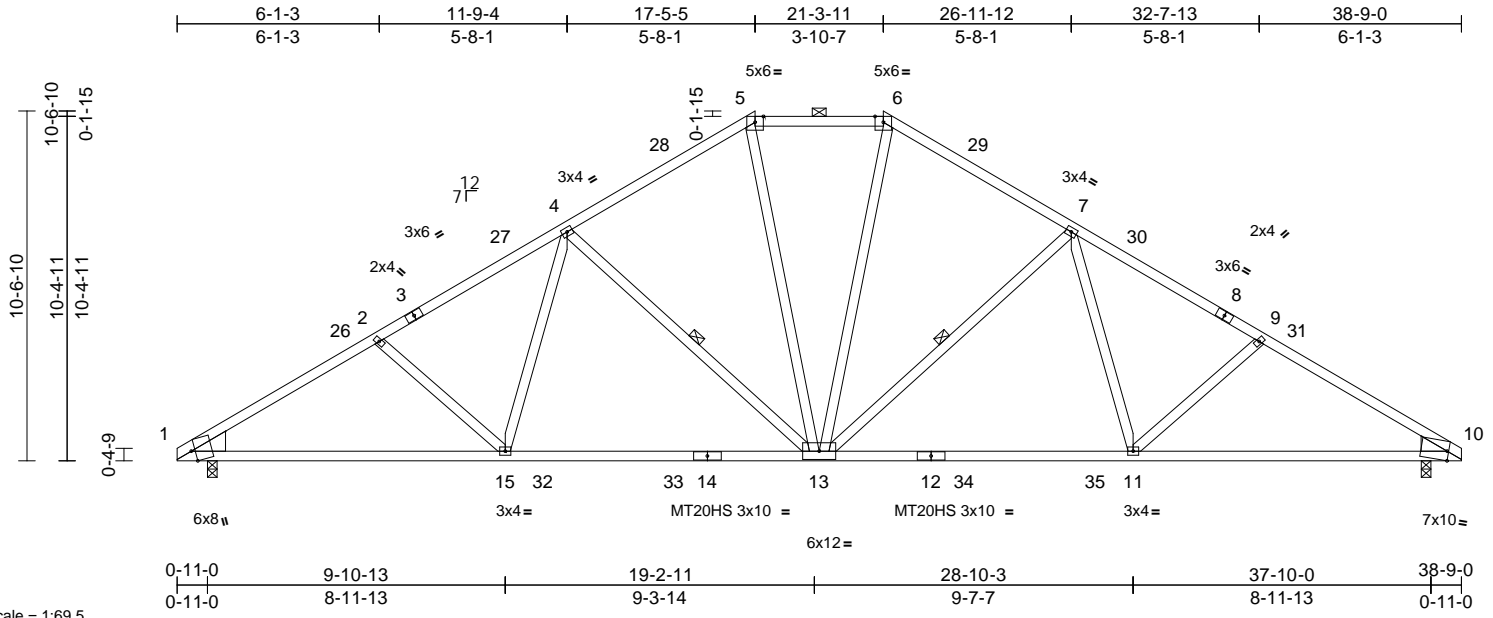
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss A08	Truss Type Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014017
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:34  
ID:Be0VNTUdJV1PMehyOdfzIBVu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:69.5

Plate Offsets (X, Y): [1:0-4-0,Edge], [10:0-0-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.84	Vert(LL)	-0.37	11-13	>999	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.61	11-13	>761	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.11	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 224 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 1-3,8-10:2x4 SP SS  
BOT CHORD 2x4 SP SS \*Except\* 14-12:2x4 SP No.1  
WEBS 2x4 SP No.3  
WEDGE Left: 2x8 SP DSS  
Right: 2x6 SP DSS

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (4-4-15 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 4-13, 7-13

**REACTIONS**  
(size) 1=0-3-8, 10=0-3-8  
Max Horiz 1=195 (LC 13)  
Max Uplift 1=-29 (LC 16), 10=-29 (LC 17)  
Max Grav 1=1831 (LC 38), 10=1831 (LC 38)

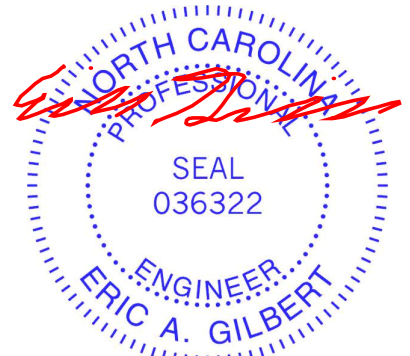
**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-2766/187, 2-4=-2568/189, 4-5=-1950/217, 5-6=-1675/220, 6-7=-1950/217, 7-9=-2566/189, 9-10=-2769/188  
BOT CHORD 1-15=-147/2273, 13-15=-26/2099, 11-13=-14/2098, 10-11=-86/2272  
WEBS 4-15=0/346, 2-15=-160/132, 4-13=-755/146, 5-13=-24/652, 6-13=-24/652, 7-13=-755/146, 7-11=0/344, 9-11=-160/134

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

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP SS crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 10 and 29 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 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.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-5=-46, 5-6=-60, 6-10=-46, 16-21=-20



June 5, 2024

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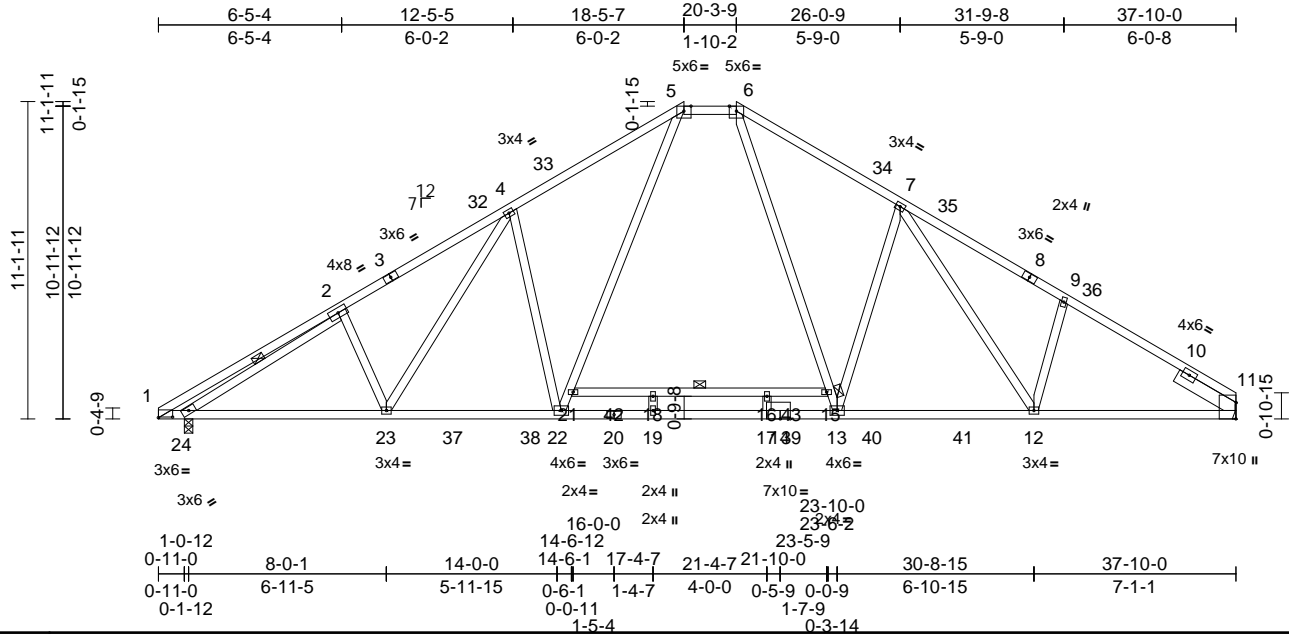
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss A08H	Truss Type Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014018
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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ID: jNLPutSCt6pqqdSQQ1DRE6ziBWz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwrcDoi7J4zJC?f

Page: 1



Scale = 1:80.9

Plate Offsets (X, Y): [1:0-6-0,0-0-4], [17:0-4-4,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.90	Vert(LL)	-0.47	17-19	>941	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.81	17-19	>546	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.15	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 244 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 8-11:2x4 SP SS  
BOT CHORD 2x4 SP SS \*Except\* 21-15:2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Right 2x6 SP No.2 -- 2-5-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (3-11-15 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:  
6-0-0 oc bracing: 15-21  
WEBS 1 Row at midpt 2-24

**REACTIONS**  
(size) 11= Mechanical, 24=0-3-8  
Max Horiz 24=206 (LC 13)  
Max Grav 11=1938 (LC 48), 24=1989 (LC 46)

**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-822/37, 2-4=-3056/132, 4-5=-2809/166, 5-6=-1867/164, 6-7=-2715/156, 7-9=-2944/153, 9-11=-3018/82  
BOT CHORD 1-24=-10/639, 23-24=-56/2724, 22-23=0/2538, 19-22=0/1934, 17-19=0/1934, 13-17=0/1934, 12-13=0/2379, 11-12=-69/2497, 18-21=-28/4, 16-18=-28/4, 15-16=-28/4  
WEBS 2-24=-2342/46, 2-23=-175/147, 4-23=-93/296, 4-22=-683/235, 21-22=-98/1146, 5-21=-60/1252, 6-15=-36/1254, 13-15=-63/1168, 7-13=-658/225, 7-12=-114/281, 9-12=-189/150, 18-19=-84/0, 16-17=-128/0

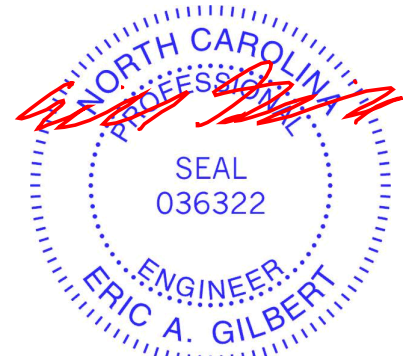
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 24 SP SS crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2015 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.

Vert: 1-5=-46, 5-6=-60, 6-11=-46, 25-28=-20, 15-21=-20

- NOTES**
- Unbalanced roof live loads have been considered for this design.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)



June 5, 2024

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

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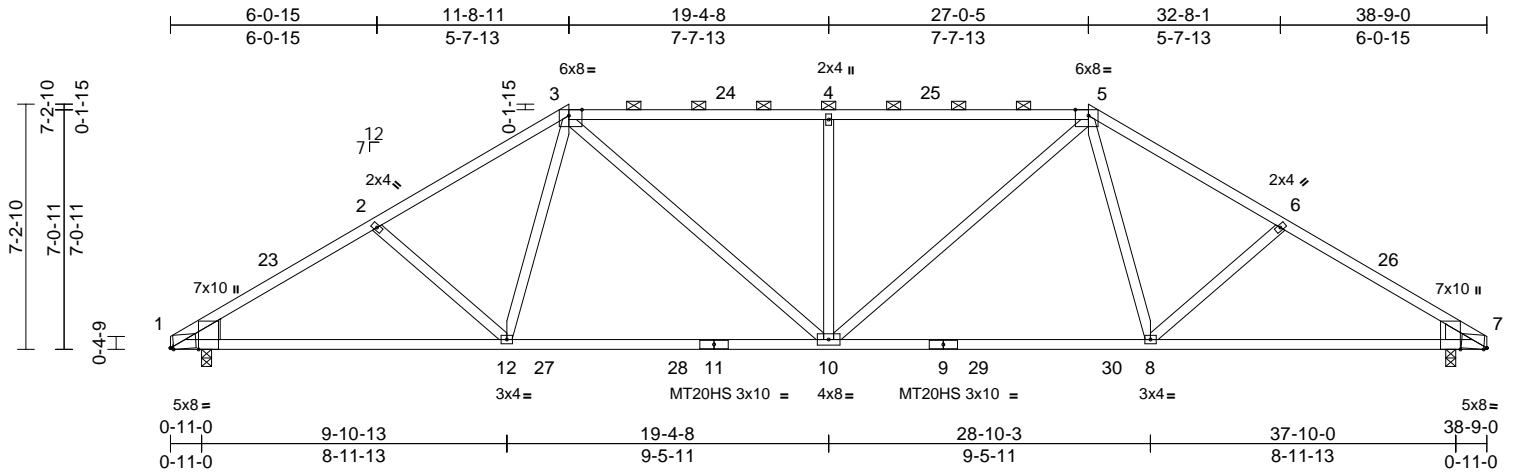
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss A09	Truss Type Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014019
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:35  
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Page: 1



Scale = 1:67.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.93	Vert(LL)	-0.34	8-10	>999	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.60	8-10	>781	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.11	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 201 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP SS  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
WEDGE Left: 2x8 SP DSS  
Right: 2x6 SP DSS

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-3-3 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 7-8.

**REACTIONS**

(size) 1=0-3-8, 7=0-3-8  
Max Horiz 1=131 (LC 13)  
Max Grav 1=1730 (LC 38), 7=1730 (LC 38)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2385/212, 2-3=-2280/211, 3-4=-2645/256, 4-5=-2645/256, 5-6=-2278/211, 6-7=-2395/212  
BOT CHORD 1-12=-113/1919, 10-12=-33/1965, 8-10=-33/1964, 7-8=-107/1918  
WEBS 3-12=0/425, 2-12=-302/196, 3-10=-103/907, 4-10=-985/166, 5-10=-103/908, 5-8=0/423, 6-8=-303/196

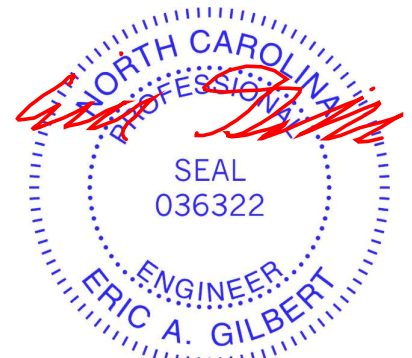
**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2015 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.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-3=-46, 3-5=-60, 5-7=-46, 13-18=-20



June 5, 2024

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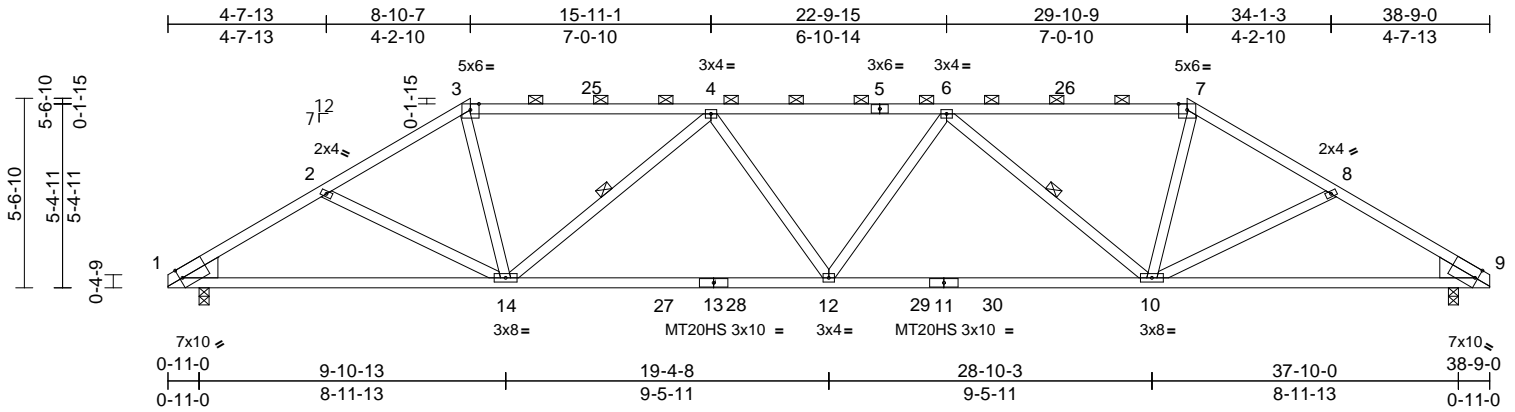
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss A10	Truss Type Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014020
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:35  
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Page: 1



Scale = 1:67.5

Plate Offsets (X, Y): [1:0-0-15,Edge], [9:0-0-15,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.84	Vert(LL)	-0.31	10-12	>999	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.57	10-12	>819	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.15	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 199 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP SS  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.3  
 WEDGE Left: 2x8 SP DSS  
 Right: 2x8 SP DSS

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-5-14 oc purlins, except 2-0-0 oc purlins (2-11-8 max.): 3-7.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 4-14, 6-10

**REACTIONS** (size) 1=0-3-8, 9=0-3-8  
 Max Horiz 1=99 (LC 13)  
 Max Grav 1=1760 (LC 37), 9=1760 (LC 37)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2596/214, 2-3=-2762/209,  
 3-4=-2610/208, 4-6=-3751/267,  
 6-7=-2610/208, 7-8=-2762/209,  
 8-9=-2596/214  
 BOT CHORD 1-14=-114/2086, 12-14=-161/3679,  
 10-12=-161/3679, 9-10=-114/2086  
 WEBS 3-14=0/906, 4-14=-1410/158, 2-14=-134/379,  
 4-12=0/238, 6-12=0/238, 6-10=-1410/158,  
 7-10=0/906, 8-10=-135/379

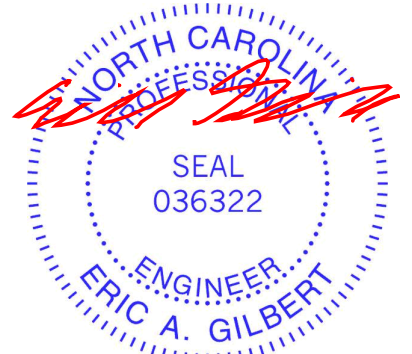
**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2015 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.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
 Uniform Loads (lb/ft)  
 Vert: 1-3=-46, 3-7=-60, 7-9=-46, 15-20=-20



June 5, 2024

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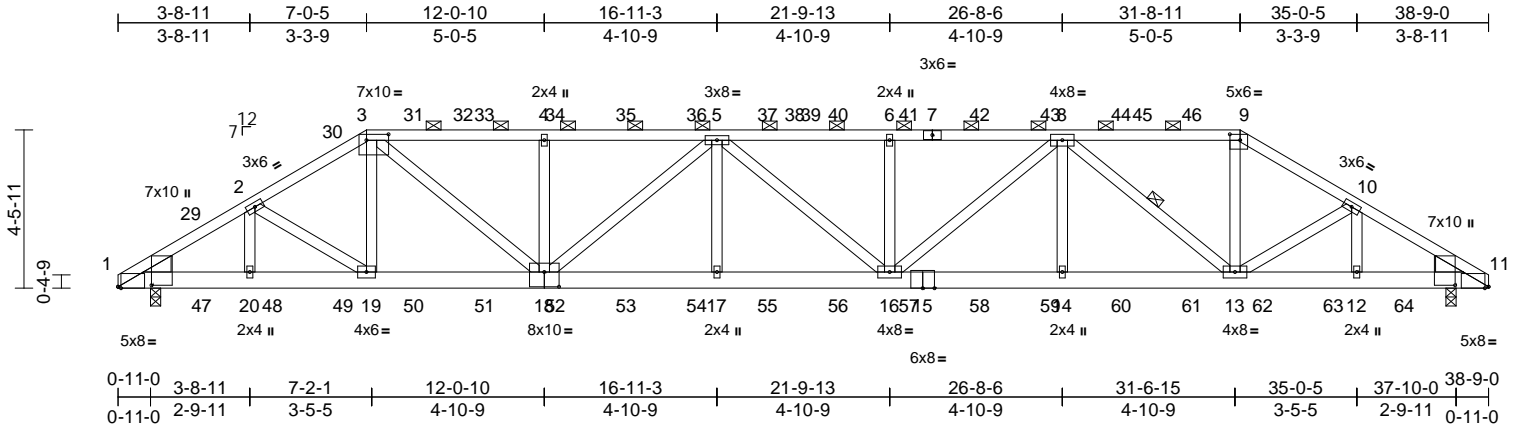
818 Soundside Road  
 Edenton, NC 27932

Job ELV C EP B2	Truss A10GR	Truss Type Hip Girder	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014021
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:36  
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Page: 1



Scale = 1:65.1

Plate Offsets (X, Y): [1:0-1-0,Edge], [1:0-0-8,0-11-6], [3:0-7-8,0-2-0], [9:0-3-8,0-2-0], [11:0-1-4,Edge], [11:0-0-8,0-11-6], [18:0-5-0,0-5-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.91	Vert(LL)	-0.33	16-17	>999	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.55	16-17	>842	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.11	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 249 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2 \*Except\* 3-7:2x4 SP SS, 7-9:2x4 SP No.1

BOT CHORD 2x6 SP DSS

WEBS 2x4 SP No.3

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-7-12 oc purlins, except 2-0-0 oc purlins (2-1-13 max.): 3-9.

BOT CHORD Rigid ceiling directly applied or 7-0-12 oc bracing.

WEBS 1 Row at midpt 8-13

**REACTIONS** (size) 1=0-3-8, 11=0-3-8  
Max Horiz 1=-80 (LC 8)  
Max Uplift 1=-533 (LC 9), 11=-492 (LC 13)  
Max Grav 1=2553 (LC 33), 11=2391 (LC 33)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-3199/740, 2-3=-3638/926, 3-4=-4839/1276, 4-5=-4839/1276, 5-6=-5647/1485, 6-8=-5647/1485, 8-9=-3118/786, 9-10=-3555/880, 10-11=-3024/690

BOT CHORD 1-20=-677/2642, 19-20=-677/2642, 17-19=-1500/5683, 16-17=-1500/5683, 14-16=-1217/4829, 13-14=-1217/4829, 12-13=-549/2536, 11-12=-549/2536

WEBS 2-20=-554/191, 2-19=-234/613, 3-19=0/243, 3-18=-631/2198, 4-18=-605/233, 5-18=-1102/319, 5-17=0/286, 5-16=-68/43, 6-16=-527/206, 8-16=-326/1069, 8-14=0/257, 8-13=-2234/665, 9-13=-335/1454, 10-13=-242/645, 10-12=-537/171

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP DSS crushing capacity of 660 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 533 lb uplift at joint 1 and 492 lb uplift at joint 11.
- This truss is designed in accordance with the 2015 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.

**NOTES**



June 5, 2024

Continued on page 2

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	628 ELV C EP B2	I66014021
ELV C EP B2	A10GR	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:36  
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Page: 2

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 155 lb down and 43 lb up at 2-4-8, 97 lb down and 62 lb up at 6-4-8, 86 lb down and 68 lb up at 8-4-8, 86 lb down and 68 lb up at 10-4-8, 86 lb down and 68 lb up at 12-4-8, 86 lb down and 68 lb up at 14-4-8, 86 lb down and 68 lb up at 16-4-8, 86 lb down and 68 lb up at 18-4-8, 86 lb down and 68 lb up at 20-4-8, 86 lb down and 68 lb up at 22-4-8, 86 lb down and 68 lb up at 24-4-8, 86 lb down and 68 lb up at 26-4-8, and 86 lb down and 68 lb up at 28-4-8, and 86 lb down and 68 lb up at 30-4-8 on top chord, and 49 lb down at 2-4-8, 186 lb down and 43 lb up at 4-4-8, 37 lb down and 14 lb up at 6-4-8, 36 lb down and 17 lb up at 8-4-8, 36 lb down and 17 lb up at 10-4-8, 36 lb down and 17 lb up at 12-4-8, 36 lb down and 17 lb up at 14-4-8, 36 lb down and 17 lb up at 16-4-8, 36 lb down and 17 lb up at 18-4-8, 36 lb down and 17 lb up at 20-4-8, 36 lb down and 17 lb up at 22-4-8, 36 lb down and 17 lb up at 24-4-8, 36 lb down and 17 lb up at 26-4-8, 36 lb down and 17 lb up at 28-4-8, 36 lb down and 17 lb up at 30-4-8, 37 lb down and 14 lb up at 32-4-8, and 186 lb down and 43 lb up at 34-4-8, and 49 lb down at 36-4-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

14) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00

Uniform Loads (lb/ft)

Vert: 1-3=-46, 3-9=-60, 9-11=-46, 1-11=-20

Concentrated Loads (lb)

Vert: 29=-137 (B), 30=-17 (B), 31=-15 (B), 33=-15 (B), 34=-15 (B), 35=-15 (B), 36=-15 (B), 37=-15 (B), 40=-15 (B), 41=-15 (B), 42=-15 (B), 43=-15 (B), 44=-15 (B), 46=-15 (B), 47=-49 (B), 48=-186 (B), 49=-23 (B), 50=-23 (B), 51=-23 (B), 52=-23 (B), 53=-23 (B), 54=-23 (B), 55=-23 (B), 56=-23 (B), 57=-23 (B), 58=-23 (B), 59=-23 (B), 60=-23 (B), 61=-23 (B), 62=-23 (B), 63=-186 (B), 64=-49 (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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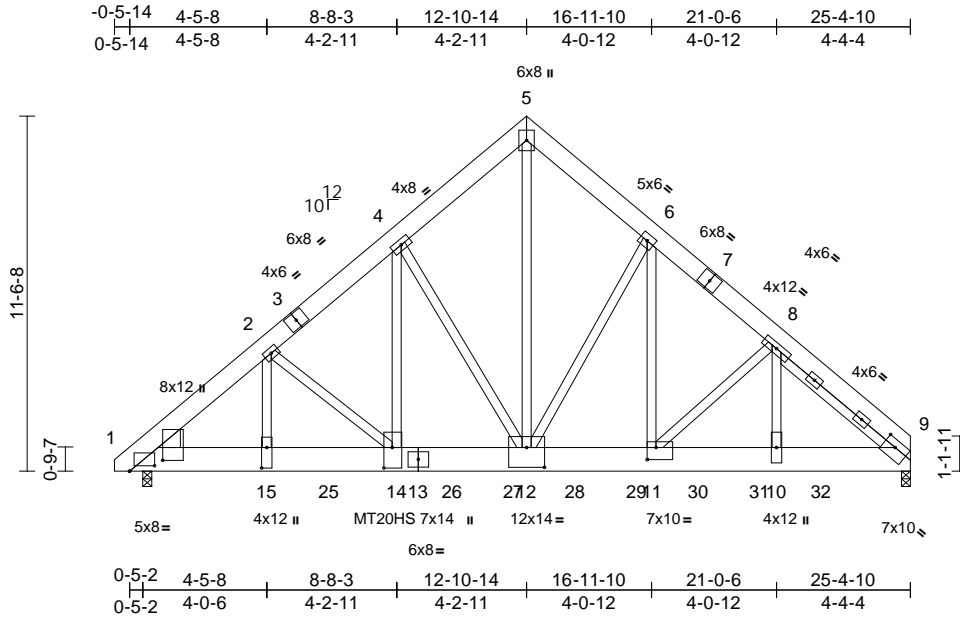
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss B01GRC	Truss Type Common Girder	Qty 1	Ply 3	628 ELV C EP B2 Job Reference (optional)	166014022
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:37  
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Page: 1



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Plate Offsets (X, Y): [1:0-9-12,0-2-2], [1:0-4-4,1-0-14], [9:0-4-10,0-2-12], [11:0-3-8,0-4-12], [12:0-7-0,0-7-12], [14:0-8-0,0-3-4], [15:0-8-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.15	Vert(LL)	-0.07	12-14	>999	240	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.14	10-11	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.98	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 892 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x8 SP DSS  
BOT CHORD 2x10 SP 2400F 2.0E or 2x10 SP DSS  
WEBS 2x4 SP No.3 \*Except\* 12-5:2x4 SP No.2  
WEDGE Left: 2x8 SP DSS  
SLIDER Right 2x4 SP No.3 -- 4-10-0

**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=0-3-8, 9=0-3-8, (req. 0-3-12)  
Max Horiz 1=207 (LC 7)  
Max Grav 1=9131 (LC 1), 9=11145 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-12238/0, 2-4=-10539/0, 4-5=-8206/0, 5-6=-8196/0, 6-8=-10459/0, 8-9=-10379/0  
BOT CHORD 1-15=0/9189, 14-15=0/9189, 12-14=0/8083, 11-12=0/8041, 10-11=0/9116, 9-10=0/9152  
WEBS 2-15=-361/2180, 2-14=-1516/432, 4-14=0/4720, 4-12=-3503/0, 5-12=0/9762, 6-12=-3333/0, 6-11=0/4359, 8-11=-1618/0, 8-10=0/2549

**NOTES**  
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x10 - 5 rows staggered at 0-5-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 2-15 2x4 - 2 rows staggered at 0-4-0 oc, member 4-14 2x4 - 1 row at 0-5-0 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 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- WARNING: Required bearing size at joint(s) 9 greater than input bearing size.
- All bearings are assumed to be SP DSS or 2400F 2.0E crushing capacity of 660 psi.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2494 lb down and 541 lb up at 4-11-12, 1620 lb down at 6-11-12, 1791 lb down at 8-11-12, 1809 lb down at 10-11-12, 1918 lb down at 12-11-12, 1667 lb down at 14-11-12, 1667 lb down at 16-11-12, 1667 lb down at 18-11-12, 1667 lb down at 20-11-12, and 1667 lb down at 22-11-12, and 1669 lb down at 24-11-12 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-5=-40, 5-9=-40, 16-20=-20  
Concentrated Loads (lb)  
Vert: 15=-2494 (B), 14=-1791 (B), 18=-1310 (B), 25=-1620 (B), 26=-1809 (B), 27=-1859 (B), 28=-1307 (B), 29=-1307 (B), 30=-1307 (B), 31=-1307 (B), 32=-1307 (B)



June 5, 2024

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

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



818 Soundside Road  
Edenton, NC 27932



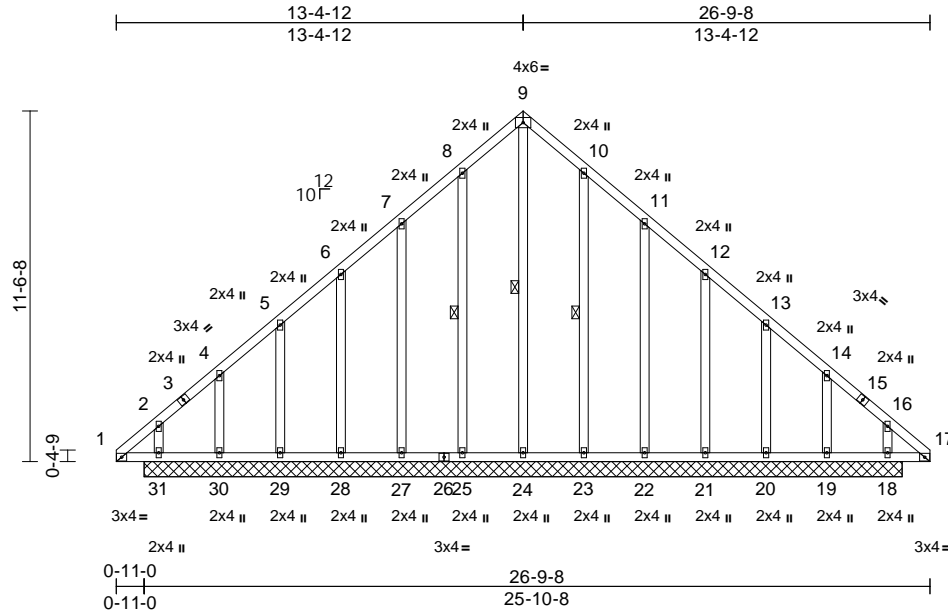


Job ELV C EP B2	Truss B02GC	Truss Type Common Supported Gable	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014024
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Scale = 1:75.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	18	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 201 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 9-24, 8-25, 10-23
REACTIONS (size)	
18-24-11-8, 19-24-11-8, 20-24-11-8, 21-24-11-8, 22-24-11-8, 23-24-11-8, 24-24-11-8, 25-24-11-8, 27-24-11-8, 28-24-11-8, 29-24-11-8, 30-24-11-8, 31-24-11-8	
Max Horiz	31-216 (LC 10)
Max Uplift	18-91 (LC 11), 19-151 (LC 15), 20-30 (LC 15), 21-59 (LC 15), 22-60 (LC 15), 23-41 (LC 15), 25-41 (LC 14), 27-60 (LC 14), 28-60 (LC 14), 29-28 (LC 14), 30-160 (LC 14), 31-114 (LC 10)
Max Grav	18-253 (LC 25), 19-226 (LC 26), 20-166 (LC 30), 21-172 (LC 26), 22-165 (LC 26), 23-176 (LC 26), 24-317 (LC 15), 25-177 (LC 25), 27-165 (LC 25), 28-172 (LC 25), 29-166 (LC 29), 30-236 (LC 25), 31-270 (LC 26)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-129/146, 2-4=-156/173, 4-5=-100/131, 5-6=-91/167, 6-7=-142/202, 7-8=-197/243, 8-9=-241/288, 9-10=-241/288, 10-11=-197/235, 11-12=-142/190, 12-13=-91/154, 13-14=-82/122, 14-16=-135/152, 16-17=-113/130

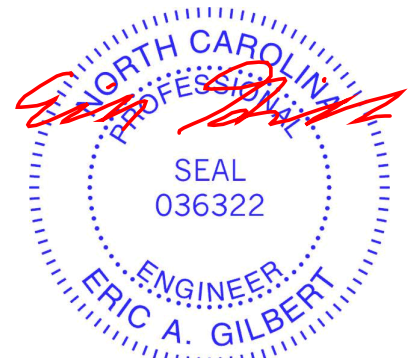
BOT CHORD	
1-31=-128/128, 30-31=-113/116, 29-30=-113/116, 28-29=-113/116, 27-28=-113/116, 25-27=-113/116, 24-25=-113/116, 23-24=-113/116, 22-23=-113/116, 21-22=-113/116, 20-21=-113/116, 19-20=-113/116, 18-19=-113/116, 17-18=-113/116	
WEBS	
9-24=-313/198, 8-25=-137/65, 7-27=-126/85, 6-28=-130/79, 5-29=-122/69, 4-30=-158/124, 2-31=-137/52, 10-23=-136/64, 11-22=-126/86, 12-21=-129/79, 13-20=-122/69, 14-19=-154/120, 16-18=-130/45	

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow; Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 25, 60 lb uplift at joint 27, 60 lb uplift at joint 28, 28 lb uplift at joint 29, 160 lb uplift at joint 30, 114 lb uplift at joint 31, 41 lb uplift at joint 23, 60 lb uplift at joint 22, 59 lb uplift at joint 21, 30 lb uplift at joint 20, 151 lb uplift at joint 19 and 91 lb uplift at joint 18.
- Non Standard bearing condition. Review required.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 5, 2024

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

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



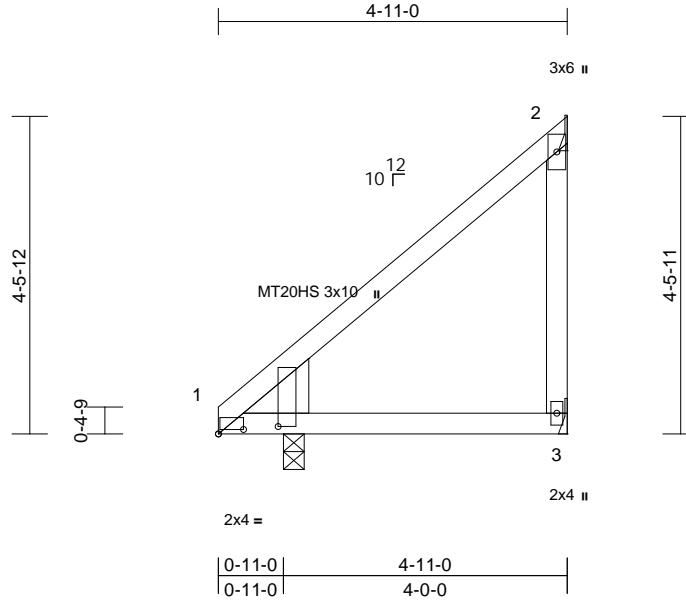
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss J01	Truss Type Jack-Open	Qty 24	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014025
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Page: 1



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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	Vert(LL)	0.02	3-8	>999	240	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.03	3-8	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	-0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 26 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x10 SP DSS

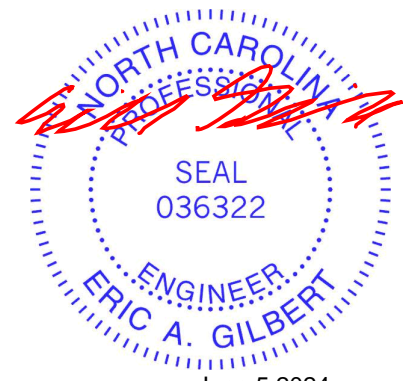
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-11-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-8, 2= Mechanical, 3= Mechanical  
Max Horiz 1=120 (LC 14)  
Max Uplift 2=-69 (LC 14), 3=-5 (LC 14)  
Max Grav 1=236 (LC 2), 2=106 (LC 25), 3=70 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-91/68  
BOT CHORD 1-3=-114/94  
WEBS 2-3=0/0

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Bearings are assumed to be: , Joint 1 SP No.2 crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 69 lb uplift at joint 2 and 5 lb uplift at joint 3.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- LOAD CASE(S)** Standard

- NOTES**
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
  - Roof design snow load has been reduced to account for slope.
  - All plates are MT20 plates unless otherwise indicated.

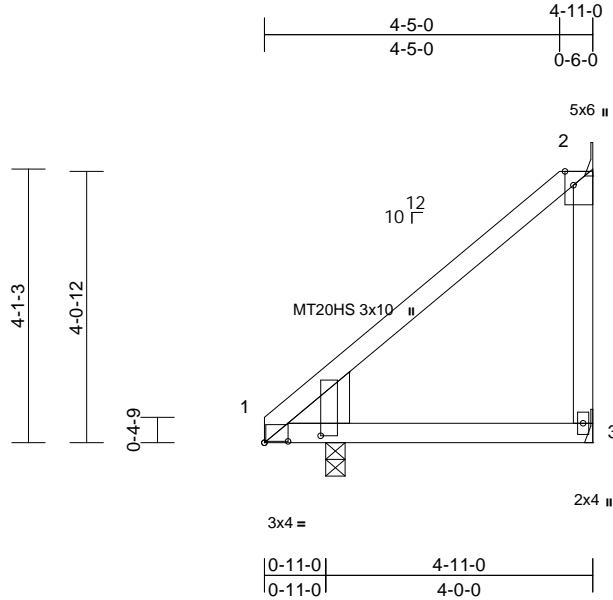


Job ELV C EP B2	Truss J02	Truss Type Half Hip	Qty 4	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014026
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:34.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.22	Vert(LL)	0.02	3-8	>999	240	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.03	3-8	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
												Weight: 26 lb FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE Left: 2x10 SP DSS

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-11-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 1=0-3-8, 2= Mechanical, 3= Mechanical  
 Max Horiz 1=118 (LC 13)  
 Max Uplift 2=-53 (LC 11), 3=-2 (LC 14)  
 Max Grav 1=236 (LC 2), 2=116 (LC 25), 3=70 (LC 5)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

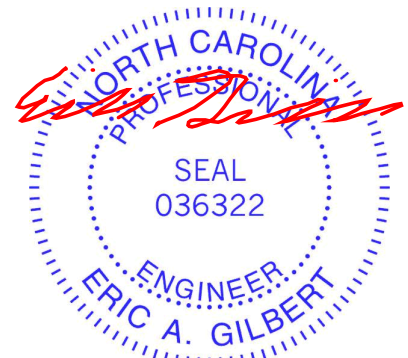
TOP CHORD 1-2=-129/129, 2-3=0/0  
 BOT CHORD 1-3=-179/167

**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.
- 4) All plates are MT20 plates unless otherwise indicated.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: , Joint 1 SP No.2 crushing capacity of 565 psi.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 2 and 2 lb uplift at joint 3.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

**LOAD CASE(S)** Standard



June 5, 2024

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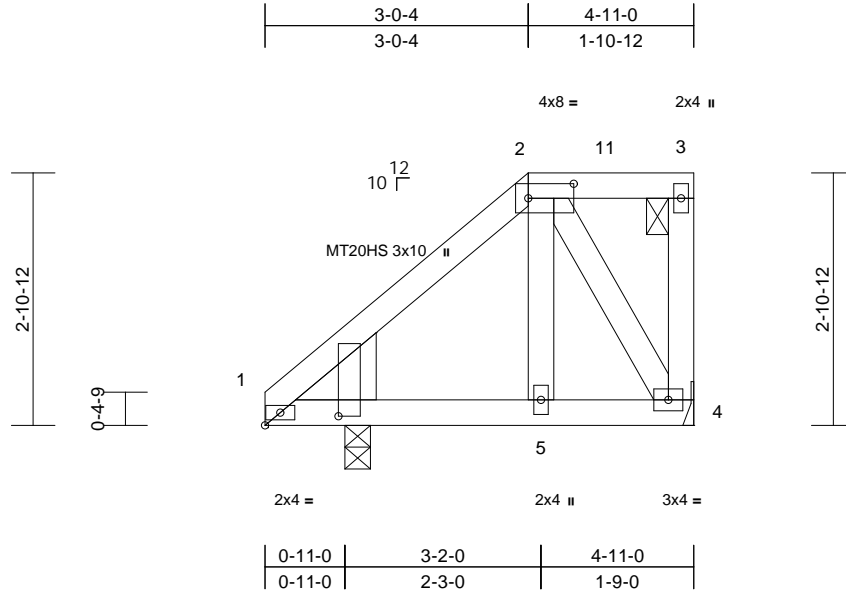
818 Soundside Road  
 Edenton, NC 27932

Job ELV C EP B2	Truss J03	Truss Type Half Hip	Qty 4	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014027
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Page: 1



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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	0.00	6	>999	240	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	6	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 31 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x10 SP DSS

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-11-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-8, 4= Mechanical  
Max Horiz 1=76 (LC 15)  
Max Uplift 1=-4 (LC 16), 4=-31 (LC 13)  
Max Grav 1=318 (LC 35), 4=206 (LC 34)

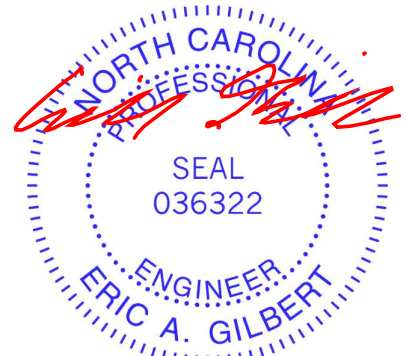
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-137/45, 2-3=-37/40, 3-4=-102/31  
BOT CHORD 1-5=-118/116, 4-5=-71/101  
WEBS 2-5=-8/68, 2-4=-130/81

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33  
3) \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=10.1 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface

- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 4 and 4 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 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.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-40, 2-3=-60, 4-6=-20



June 5, 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)



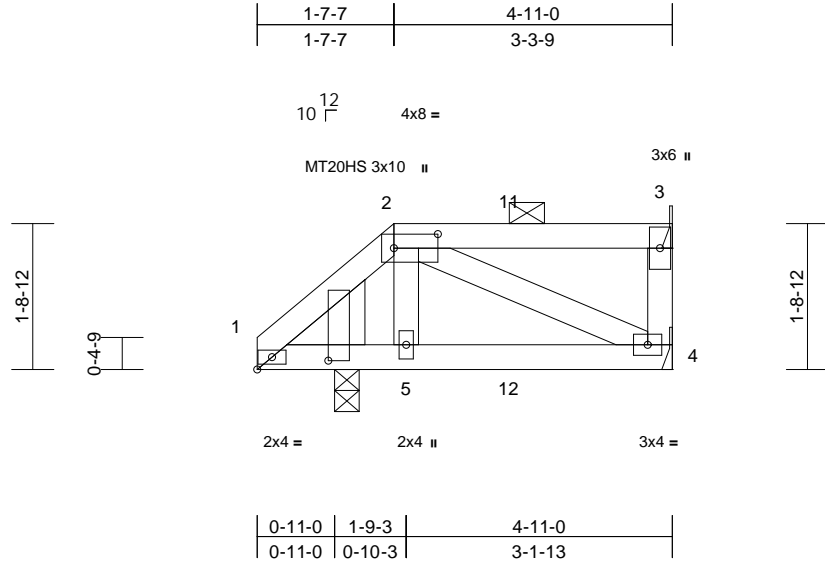
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss J03GR	Truss Type Half Hip Girder	Qty 3	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014028
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:38  
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Page: 1



Scale = 1:27.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.68	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	4-5	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 27 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 2-3:2x4 SP No.3  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x10 SP DSS

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-11-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-8, 3= Mechanical, 4= Mechanical  
Max Horiz 1=42 (LC 11)  
Max Uplift 1=-14 (LC 12), 3=-29 (LC 8)  
Max Grav 1=261 (LC 31), 3=183 (LC 30), 4=78 (LC 7)

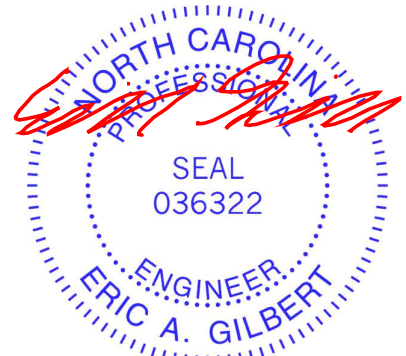
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-180/45, 2-3=-15/11, 3-4=0/0  
BOT CHORD 1-5=-37/91, 4-5=-27/92  
WEBS 2-5=0/100, 2-4=-101/20

- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: , Joint 1 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 3 and 14 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 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.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 38 lb down and 7 lb up at 2-11-12 on top chord, and 4 lb down and 10 lb up at 2-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Vert: 1-2=-40, 2-3=-60, 4-6=-20  
Concentrated Loads (lb)  
Vert: 12=0 (B)

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)



June 5, 2024

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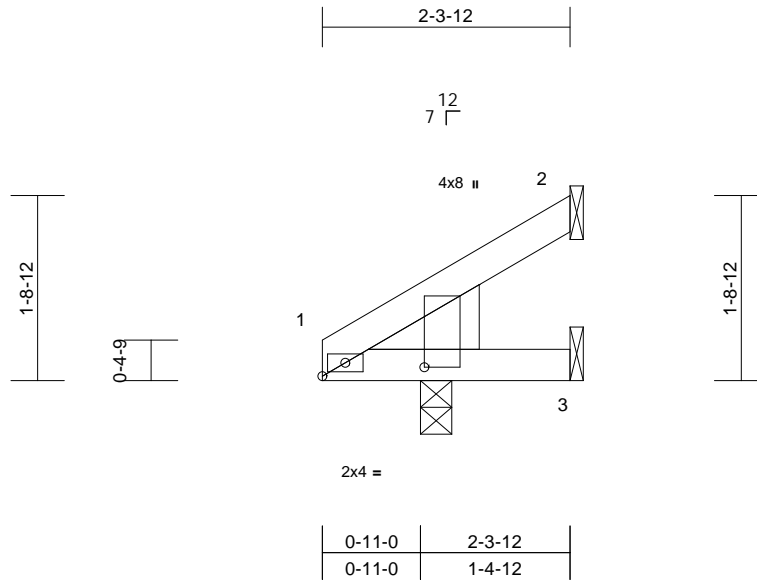
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss J04	Truss Type Jack-Open	Qty 3	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014029
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:21.5

Plate Offsets (X, Y): [1:0-4-9,0-0-8], [1:0-1-0,0-11-7]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.04	Vert(LL)	0.00	4	>999	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 11 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEDGE Left: 2x8 SP DSS

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-3-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 1=0-3-8, 2= Mechanical, 3= Mechanical  
Max Horiz 1=40 (LC 16)  
Max Uplift 2=-18 (LC 16), 3=-6 (LC 16)  
Max Grav 1=152 (LC 2), 2=23 (LC 29), 3=14 (LC 7)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-17/27  
BOT CHORD 1-3=-27/14

**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=13.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: , Joint 1 SP No.2 crushing capacity of 565 psi.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 2 and 6 lb uplift at joint 3.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 5, 2024

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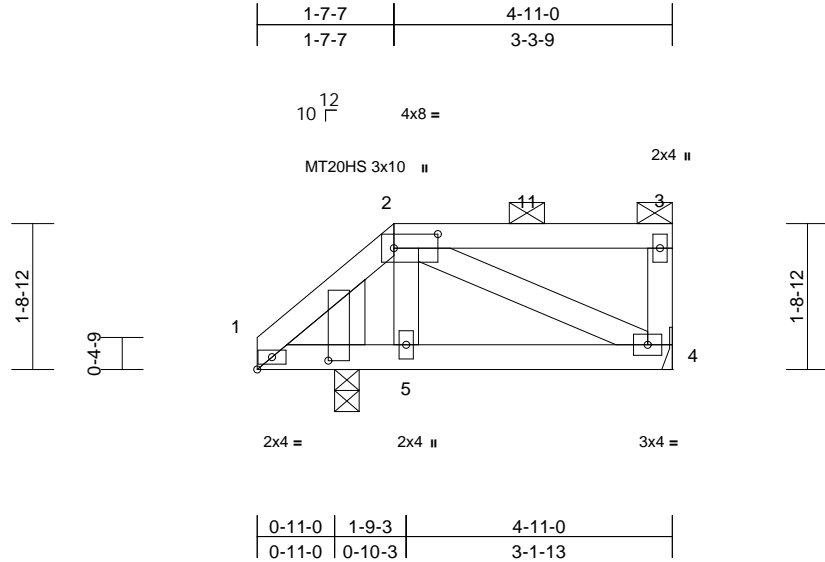
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss J05	Truss Type Half Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014030
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:38  
ID:YTKn9GRDW48gtgl87ZaTF5z9hOj-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?I

Page: 1



Scale = 1:27.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	4-5	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 27 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x10 SP DSS

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-11-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-8, 4= Mechanical  
Max Horiz 1=42 (LC 15)  
Max Uplift 1=-10 (LC 16), 4=-20 (LC 13)  
Max Grav 1=261 (LC 35), 4=252 (LC 34)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-179/45, 2-3=-21/22, 3-4=-183/57  
BOT CHORD 1-5=-58/90, 4-5=-48/92  
WEBS 2-5=0/100, 2-4=-101/37

**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=10.1 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.

- 4) Unbalanced snow loads have been considered for this design.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi.
- 10) Refer to girder(s) for truss to truss connections.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 4 and 10 lb uplift at joint 1.
- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-40, 2-3=-60, 4-6=-20



June 5, 2024

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818 Soundside Road  
Edenton, NC 27932

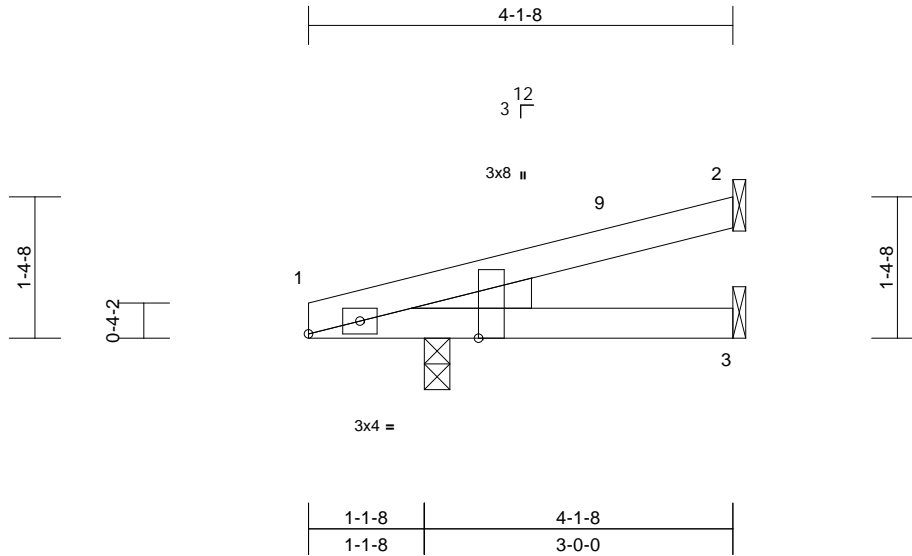


Job ELV C EP B2	Truss J06	Truss Type Jack-Open	Qty 2	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014031
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:22.4  
Plate Offsets (X, Y): [1:0-4-0,Edge], [1:0-0-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	0.00	3-8	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	3-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 14 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEDGE Left: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-1-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-0, 2= Mechanical, 3= Mechanical  
Max Horiz 1=31 (LC 12)  
Max Uplift 1=-12 (LC 12), 2=-19 (LC 12)  
Max Grav 1=225 (LC 2), 2=65 (LC 22), 3=45 (LC 7)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-14/14  
BOT CHORD 1-3=-22/8

- NOTES**
- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
  - 3) Roof design snow load has been reduced to account for slope.
  - 4) Unbalanced snow loads have been considered for this design.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: , Joint 1 SP No.2 crushing capacity of 565 psi.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 2 and 12 lb uplift at joint 1.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 5, 2024

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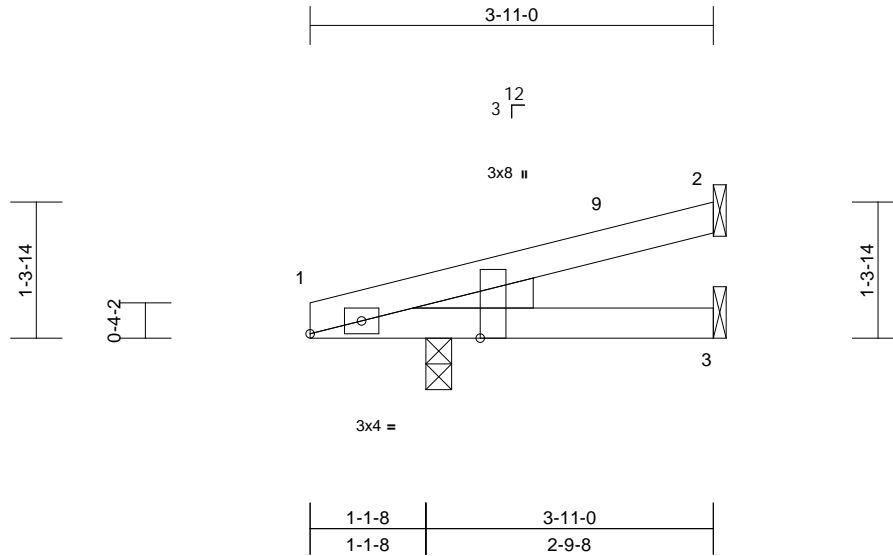
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss J07	Truss Type Jack-Open	Qty 4	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014032
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:22.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	0.00	3-8	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	3-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 14 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEDGE Left: 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(size) 1=0-3-0, 2= Mechanical, 3= Mechanical  
Max Horiz 1=29 (LC 12)  
Max Uplift 1=-11 (LC 12), 2=-17 (LC 12)  
Max Grav 1=218 (LC 2), 2=58 (LC 2), 3=41 (LC 7)

**FORCES**

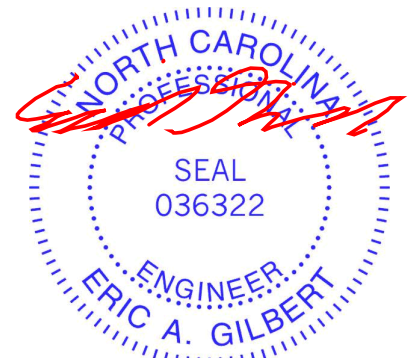
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-12/14  
BOT CHORD 1-3=-19/4

**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: , Joint 1 SP No.2 crushing capacity of 565 psi.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 2 and 11 lb uplift at joint 1.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 5, 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)



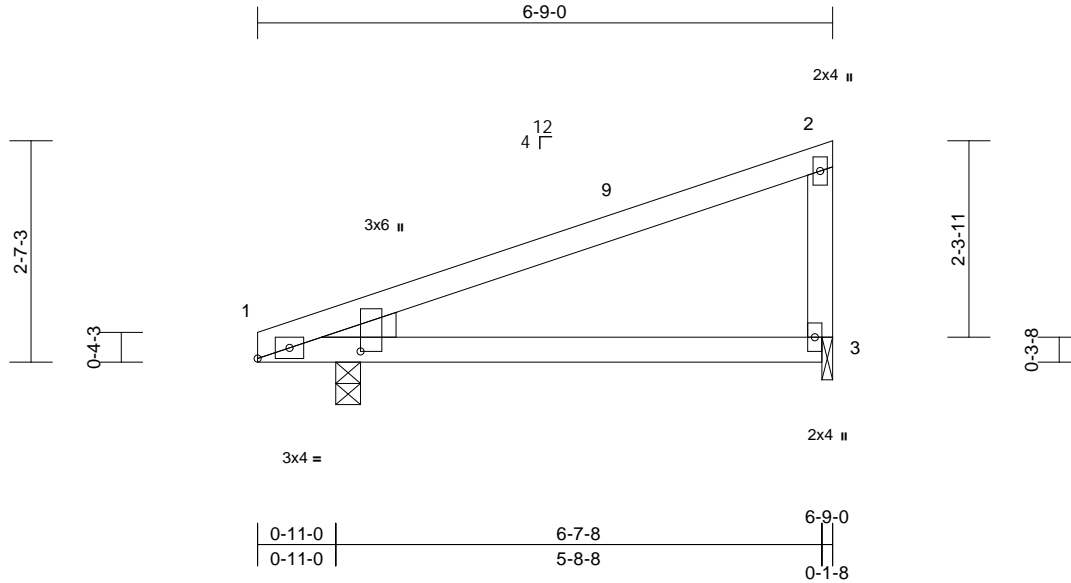
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss M01	Truss Type Monopitch	Qty 6	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014033
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:38  
ID:naDdeTJuPVQitDNhGAXPfzUz9hQA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:27

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.47	Vert(LL)	-0.05	3-8	>999	240	MT20	244/190
Snow (Ps/Pf)	17.2/20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.11	3-8	>752	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 25 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=0-3-8, 3=0-1-8  
 Max Horiz 1=74 (LC 15)  
 Max Uplift 1=-18 (LC 12), 3=-24 (LC 16)  
 Max Grav 1=307 (LC 2), 3=226 (LC 23)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

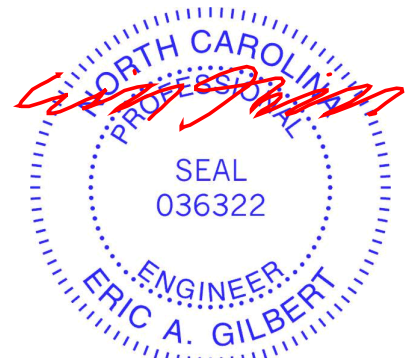
TOP CHORD 1-2=-68/53, 2-3=-153/89  
 BOT CHORD 1-3=-111/91

**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=17.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi, Joint 3 SP No.3 crushing capacity of 565 psi.
- 8) Bearing at joint(s) 3 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 24 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 5, 2024

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

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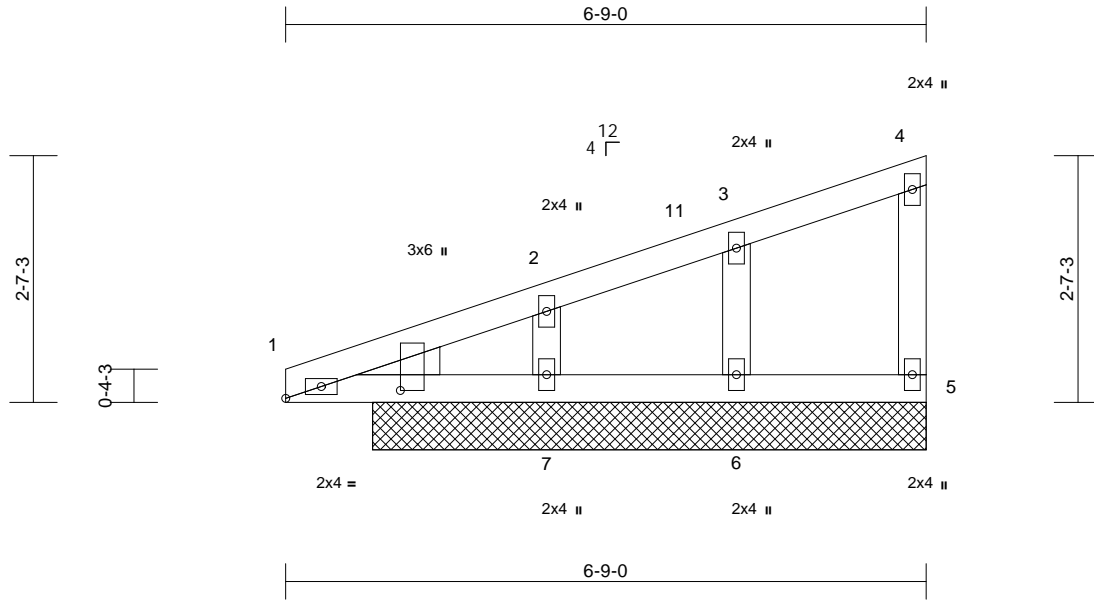
818 Soundside Road  
 Edenton, NC 27932

Job ELV C EP B2	Truss M01G	Truss Type Monopitch Supported Gable	Qty 2	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014034
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:38  
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Page: 1



Scale = 1:24.3  
Plate Offsets (X, Y): [1:0-2-8,0-0-8], [1:0-1-0,1-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	17.2/20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 28 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  
WEDGE Left: 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) 1=5-10-0, 5=5-10-0, 6=5-10-0, 7=5-10-0, 10=5-10-0  
Max Horiz 1=74 (LC 15), 10=74 (LC 15)  
Max Uplift 5=-5 (LC 13), 6=-19 (LC 12), 7=-41 (LC 13)  
Max Grav 1=268 (LC 2), 5=59 (LC 22), 6=196 (LC 22), 7=14 (LC 2), 10=268 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-99/66, 2-3=-70/49, 3-4=-39/33, 4-5=-46/33  
BOT CHORD 1-7=-45/34, 6-7=-31/34, 5-6=-31/34  
WEBS 3-6=-144/80, 2-7=-42/79

**NOTES**  
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33  
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=17.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 5, 19 lb uplift at joint 6 and 41 lb uplift at joint 7.
- Non Standard bearing condition. Review required.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 5, 2024

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

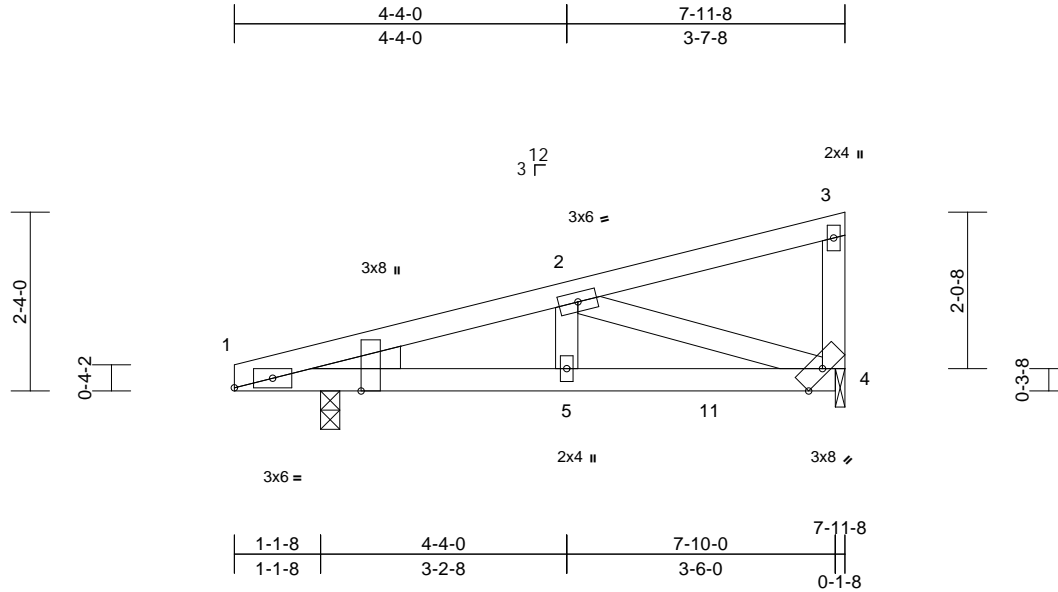
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss M01GR	Truss Type Monopitch Girder	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014035
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Page: 1



Scale = 1:30

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.43	Vert(LL)	-0.05	4-5	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.08	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 34 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP SS  
 WEBS 2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(size) 1=0-3-0, 4=0-1-8  
 Max Horiz 1=63 (LC 11)  
 Max Uplift 1=52 (LC 8), 4=72 (LC 12)  
 Max Grav 1=686 (LC 19), 4=771 (LC 19)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-1406/118, 2-3=-36/24, 3-4=-124/27  
 BOT CHORD 1-5=-116/1333, 4-5=-116/1333  
 WEBS 2-5=-18/681, 2-4=-1401/137

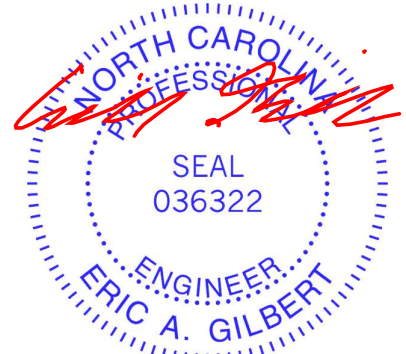
**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust)  
 Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: Joint 1 SP SS crushing capacity of 565 psi, Joint 4 SP No.3 crushing capacity of 565 psi.
- 8) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 1 and 72 lb uplift at joint 4.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 453 lb down and 35 lb up at 4-2-4, and 361 lb down and 40 lb up at 6-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 13) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
 Uniform Loads (lb/ft)  
 Vert: 1-3=-57, 4-6=-20  
 Concentrated Loads (lb)  
 Vert: 5=-453 (B), 11=-361 (B)



June 5, 2024

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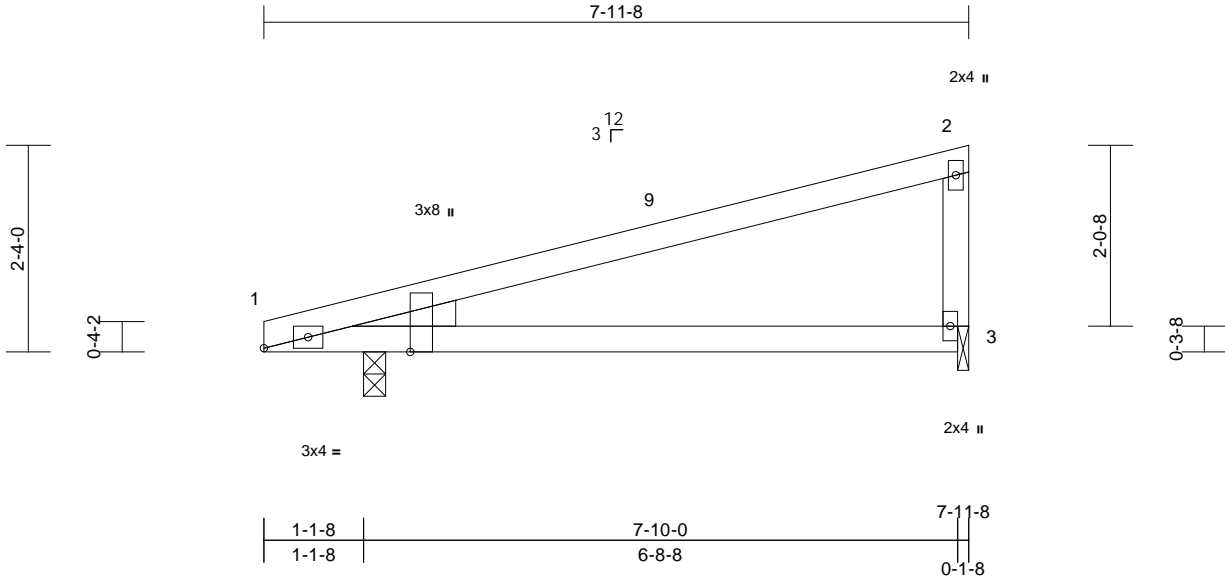
818 Soundside Road  
 Edenton, NC 27932

Job ELV C EP B2	Truss M02	Truss Type Monopitch	Qty 9	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014036
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:38  
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Page: 1



Scale = 1:26

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.10	3-8	>966	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.21	3-8	>451	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 28 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 1=0-3-0, 3=0-1-8  
Max Horiz 1=63 (LC 15)  
Max Uplift 1=-24 (LC 12), 3=-25 (LC 16)  
Max Grav 1=365 (LC 2), 3=279 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum Tension

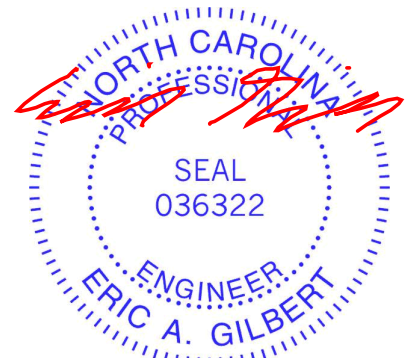
TOP CHORD 1-2=-89/45, 2-3=-190/87  
BOT CHORD 1-3=-91/109

#### NOTES

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi, Joint 3 SP No.3 crushing capacity of 565 psi.
- 8) Bearing at joint(s) 3 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1 and 25 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 5, 2024

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

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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

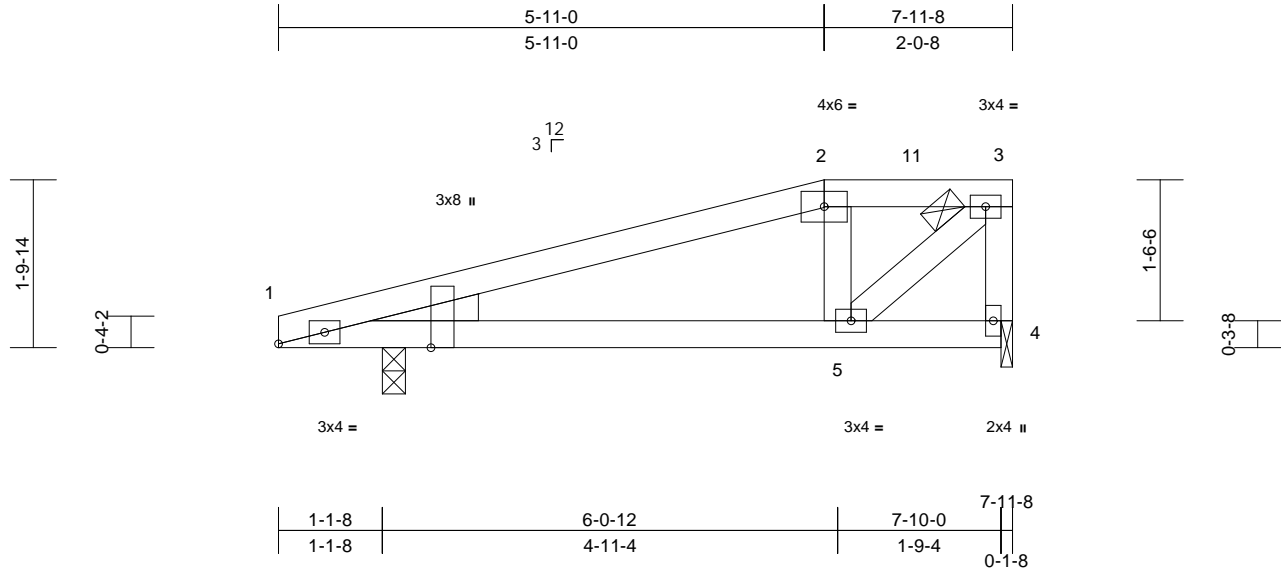
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss T01	Truss Type Half Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014037
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:39  
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Page: 1



Scale = 1:25  
Plate Offsets (X, Y): [1:0-4-0,Edge], [1:0-0-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	-0.02	5-10	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.04	5-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 32 lb	FT = 20%

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

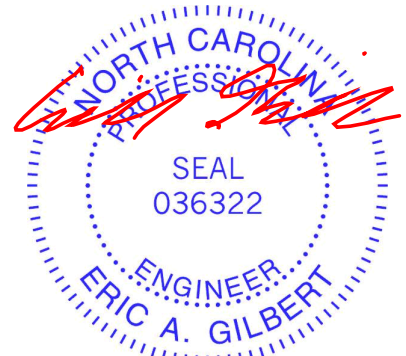
**REACTIONS** (size) 1=0-3-0, 4=0-1-8  
Max Horiz 1=48 (LC 15)  
Max Uplift 1=-26 (LC 12), 4=-23 (LC 12)  
Max Grav 1=478 (LC 36), 4=263 (LC 35)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-358/68, 2-3=-296/74, 3-4=-289/83  
BOT CHORD 1-5=-83/306, 4-5=-21/23  
WEBS 2-5=-109/69, 3-5=-83/393

- NOTES**
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=18.7 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
  - Roof design snow load has been reduced to account for slope.

- Unbalanced snow loads have been considered for this design.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi, Joint 4 SP No.3 crushing capacity of 565 psi.
- Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1 and 23 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 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.

**LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-57, 2-3=-60, 4-6=-20



June 5, 2024

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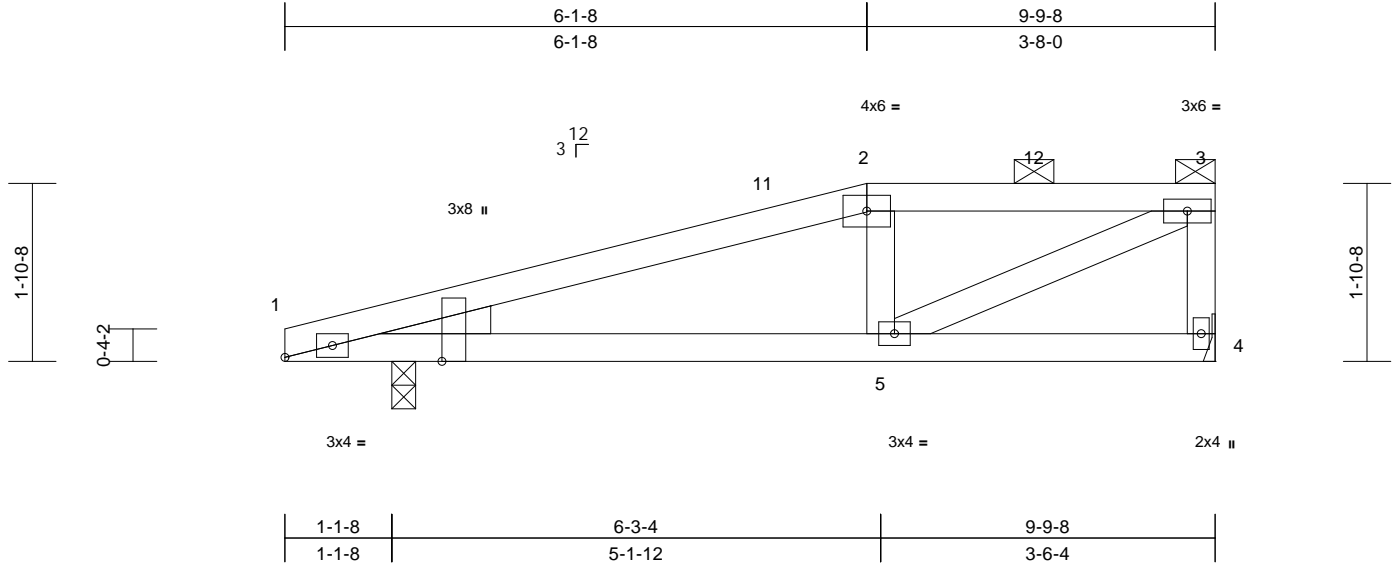
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss T02	Truss Type Half Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014038
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:24.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.03	5-10	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.04	5-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS							
BCDL	10.0									Weight: 40 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-0, 4= Mechanical

Max Horiz 1=50 (LC 15)  
Max Uplift 1=-32 (LC 12), 4=-28 (LC 12)  
Max Grav 1=550 (LC 35), 4=381 (LC 34)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-577/109, 2-3=-508/112, 3-4=-347/91  
BOT CHORD 1-5=-127/519, 4-5=-20/42  
WEBS 2-5=-115/87, 3-5=-109/549

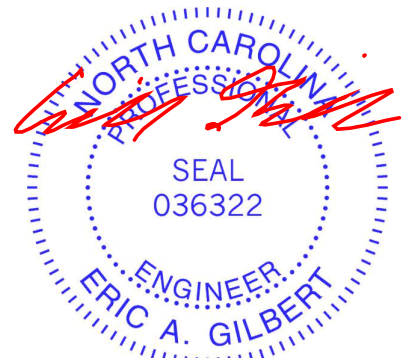
**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=18.7 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface

- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 4 and 32 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 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.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-57, 2-3=-60, 4-6=-20



June 5, 2024

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Edenton, NC 27932

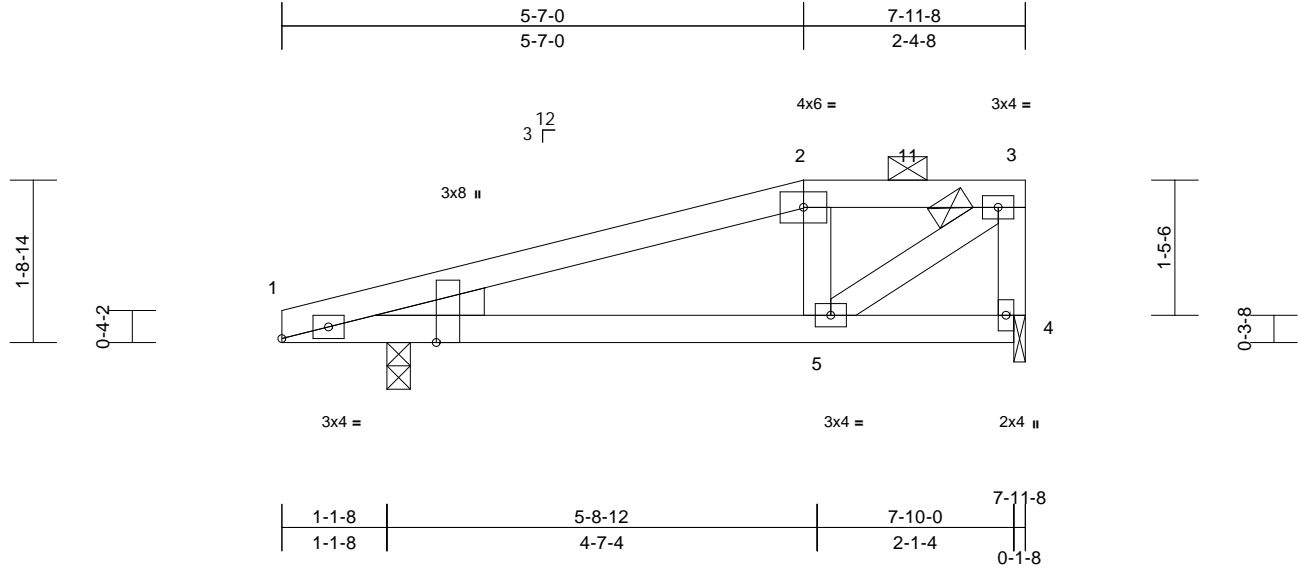


Job ELV C EP B2	Truss T03	Truss Type Half Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014039
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:39  
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Page: 1



Loading (psf)		Spacing		CSI		DEFL				PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	-0.02	5-10	>999	240	MT20	244/190	
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.03	5-10	>999	180			
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	4	n/a	n/a			
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							Weight: 32 lb	FT = 20%	
BCDL	10.0												

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-0, 4=0-1-8  
Max Horiz 1=46 (LC 15)  
Max Uplift 1=-26 (LC 12), 4=-23 (LC 12)  
Max Grav 1=473 (LC 36), 4=277 (LC 35)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-374/75, 2-3=-316/79, 3-4=-269/82  
BOT CHORD 1-5=-89/325, 4-5=-20/21  
WEBS 2-5=-95/68, 3-5=-84/384

- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi, Joint 4 SP No.3 crushing capacity of 565 psi.
- Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1 and 23 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 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.

**LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-57, 2-3=-60, 4-6=-20



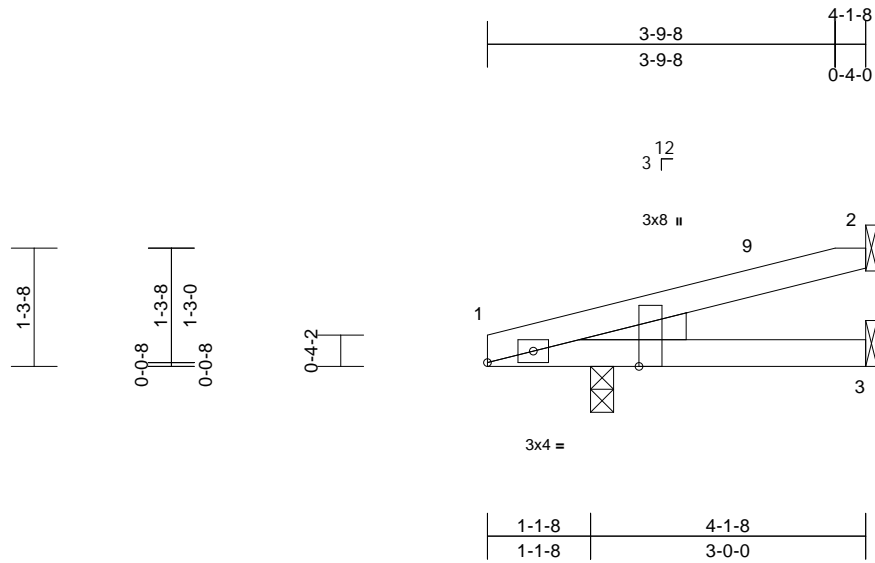
June 5, 2024

Job ELV C EP B2	Truss T04	Truss Type Half Hip	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014040
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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

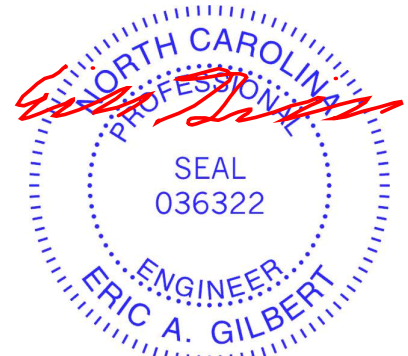
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	0.00	3-8	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	3-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 14 lb	FT = 20%

- LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEDGE Left: 2x4 SP No.3
- BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-1-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (size) 1=0-3-0, 2= Mechanical, 3= Mechanical  
Max Horiz 1=31 (LC 12)  
Max Uplift 1=-12 (LC 12), 2=-19 (LC 12)  
Max Grav 1=225 (LC 2), 2=65 (LC 22), 3=45 (LC 7)
- FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-14/14  
BOT CHORD 1-3=-22/8

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.  
8) Bearings are assumed to be: , Joint 1 SP No.2 crushing capacity of 565 psi.  
9) Refer to girder(s) for truss to truss connections.  
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 2 and 12 lb uplift at joint 1.  
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

**NOTES**

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.



June 5, 2024

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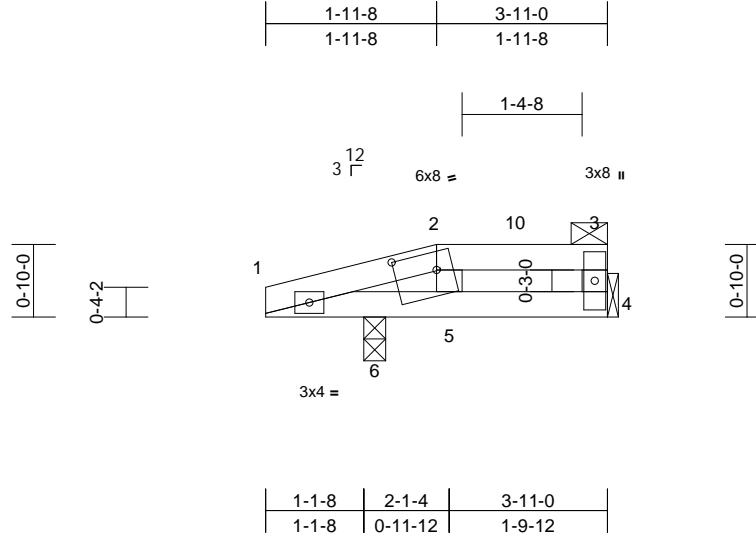
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss T05	Truss Type Half Hip	Qty 2	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014041
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:39  
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Page: 1



Scale = 1:26.4

Plate Offsets (X, Y): [2:0-5-12,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 13 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-11-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 4= Mechanical, 6=0-3-0  
Max Horiz 6=17 (LC 15)  
Max Uplift 4=-10 (LC 13), 6=-39 (LC 12)  
Max Grav 4=118 (LC 34), 6=268 (LC 35)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-29/48, 2-3=-8/8, 3-4=-82/33  
BOT CHORD 1-6=-30/22, 5-6=-11/18, 4-5=-8/8  
WEBS 2-5=-70/23

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=18.7 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.

- Unbalanced snow loads have been considered for this design.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 6 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 4 and 39 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 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.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-57, 2-3=-60, 4-7=-20



June 5, 2024

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

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



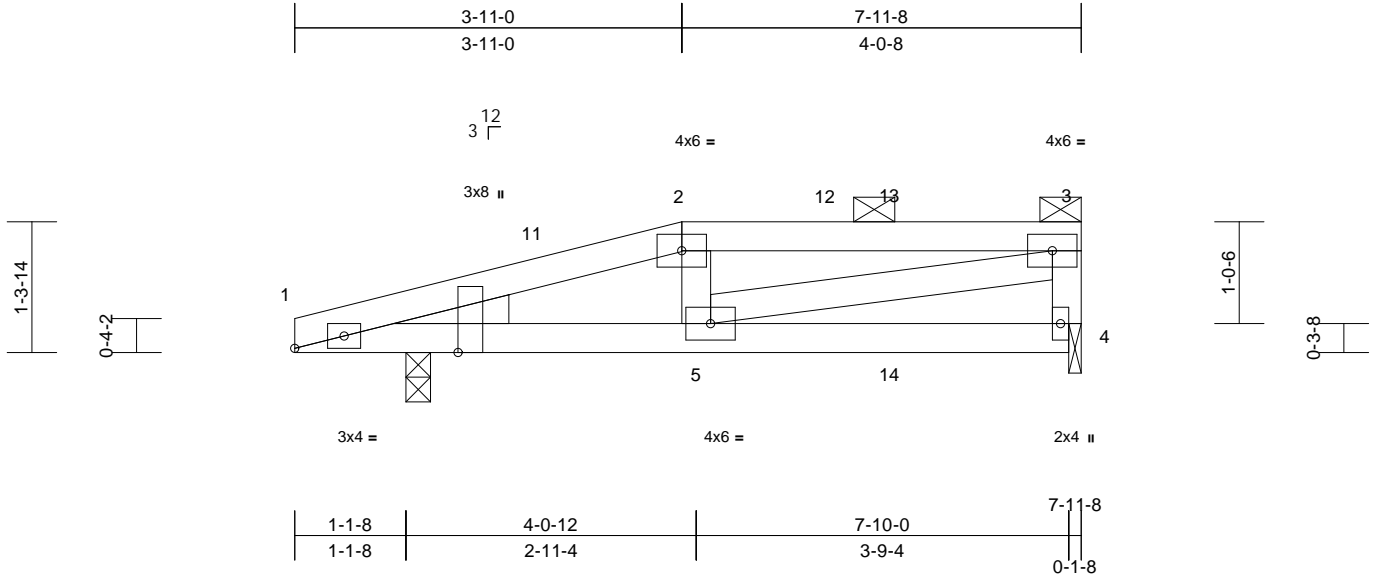
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss TG01	Truss Type Half Hip Girder	Qty 2	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014042
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:39  
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Page: 1



Scale = 1:23.3  
Plate Offsets (X, Y): [1:0-4-0,Edge], [1:0-0-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.90	Vert(LL)	-0.01	4-5	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.22	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 33 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 2-3:2x4 SP No.3  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-7 max.): 2-3.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

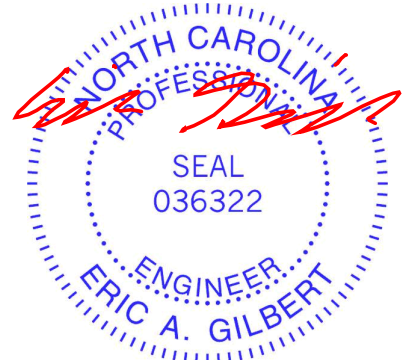
**REACTIONS** (size) 1=0-3-0, 4=0-1-8  
Max Horiz 1=32 (LC 11)  
Max Uplift 1=-43 (LC 8), 4=-21 (LC 8)  
Max Grav 1=531 (LC 32), 4=363 (LC 31)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-55/34, 2-3=-520/32, 3-4=-321/41  
BOT CHORD 1-5=-34/530, 4-5=-11/8  
WEBS 2-5=-67/47, 3-5=-24/539

- Unbalanced snow loads have been considered for this design.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi, Joint 4 SP No.3 crushing capacity of 565 psi.
- Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 4 and 43 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 38 lb down and 16 lb up at 3-11-0, and 38 lb down and 12 lb up at 6-0-4 on top chord, and 98 lb down and 22 lb up at 2-0-4, and 12 lb down at 4-0-4, and 12 lb down at 6-0-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Uniform Loads (lb/ft)  
Vert: 1-2=-57, 2-3=-60, 4-6=-20  
Concentrated Loads (lb)  
Vert: 2=-2 (F), 5=-12 (F), 10=-98 (F), 13=-2 (F), 14=-12 (F)

**LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00



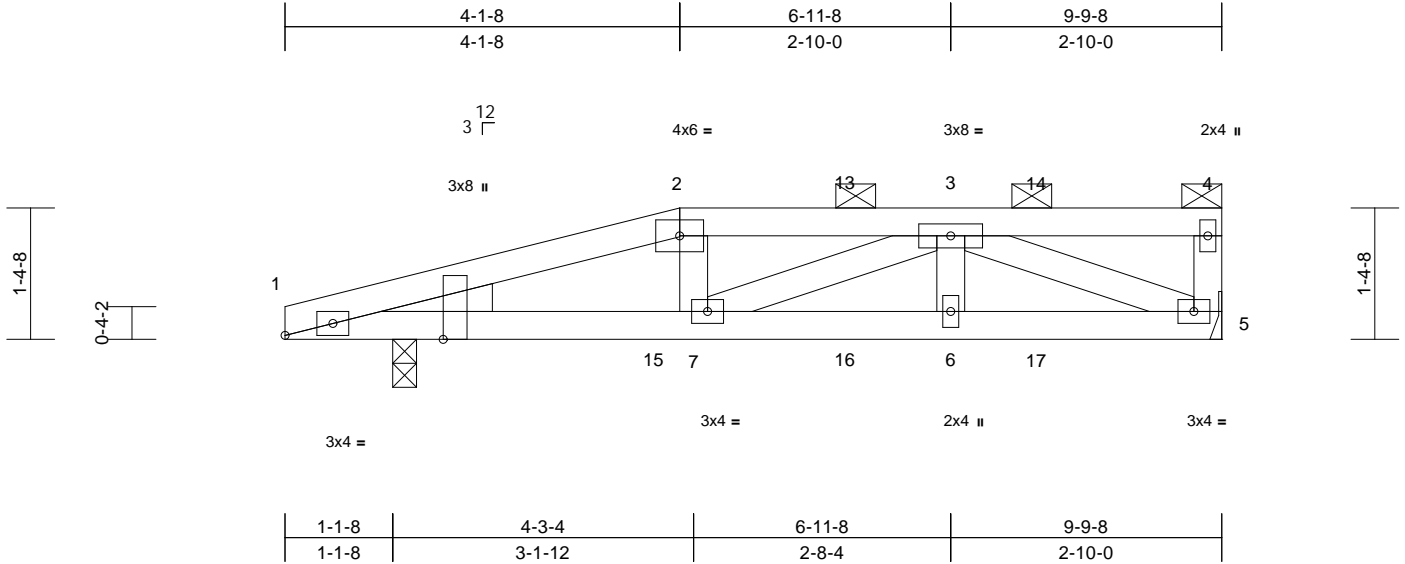
June 5, 2024

Job ELV C EP B2	Truss TG02	Truss Type Half Hip Girder	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014043
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:39  
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Page: 1



Scale = 1:24.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	-0.02	6-7	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.04	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.20	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 42 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 2-4:2x4 SP No.3  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-11-14 max.): 2-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=0-3-0, 5= Mechanical  
Max Horiz 1=34 (LC 11)  
Max Uplift 1=-29 (LC 8), 5=-23 (LC 8)  
Max Grav 1=535 (LC 31), 5=473 (LC 30)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-771/47, 2-3=-742/46, 3-4=-49/10, 4-5=-115/21  
BOT CHORD 1-7=-40/734, 6-7=-44/838, 5-6=-44/838  
WEBS 2-7=0/81, 3-7=-103/39, 3-6=0/121, 3-5=-851/41

- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 5 and 29 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 30 lb down and 17 lb up at 4-1-8, and 33 lb down and 17 lb up at 5-10-4, and 33 lb down and 17 lb up at 7-10-4 on top chord, and 16 lb down at 3-10-4, and 16 lb down at 5-10-4, and 16 lb down at 7-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Concentrated Loads (lb)  
Vert: 2=-7 (F), 13=-5 (F), 14=-5 (F), 15=-15 (F), 16=-15 (F), 17=-15 (F)

**LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-57, 2-4=-60, 5-8=-20



June 5, 2024

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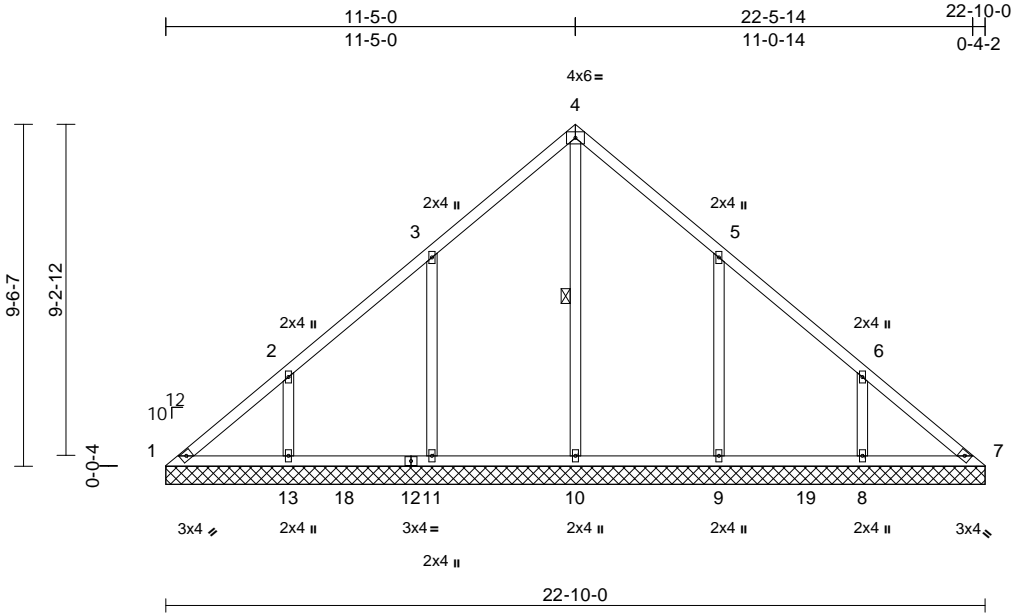
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss V01	Truss Type Valley	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014044
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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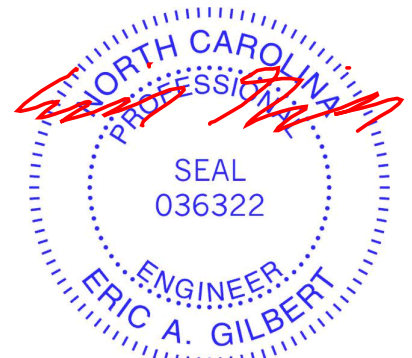
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 114 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 4-10
REACTIONS	(size)
	1=22-10-0, 7=22-10-0, 8=22-10-0, 9=22-10-0, 10=22-10-0, 11=22-10-0, 13=22-10-0
Max Horiz	1=-181 (LC 10)
Max Uplift	1=-33 (LC 10), 8=-90 (LC 15), 9=-124 (LC 15), 11=-123 (LC 14), 13=-94 (LC 14)
Max Grav	1=144 (LC 26), 7=117 (LC 28), 8=352 (LC 26), 9=472 (LC 26), 10=421 (LC 28), 11=471 (LC 25), 13=356 (LC 25)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-181/165, 2-3=-138/131, 3-4=-137/160, 4-5=-137/152, 5-6=-94/88, 6-7=-155/120
BOT CHORD	1-13=-102/147, 11-13=-102/143, 10-11=-102/143, 9-10=-102/143, 8-9=-102/143, 7-8=-102/143
WEBS	4-10=-219/0, 3-11=-278/173, 2-13=-237/135, 5-9=-278/173, 6-8=-236/133

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow; Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 1, 123 lb uplift at joint 11, 94 lb uplift at joint 13, 124 lb uplift at joint 9 and 90 lb uplift at joint 8.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 5, 2024

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

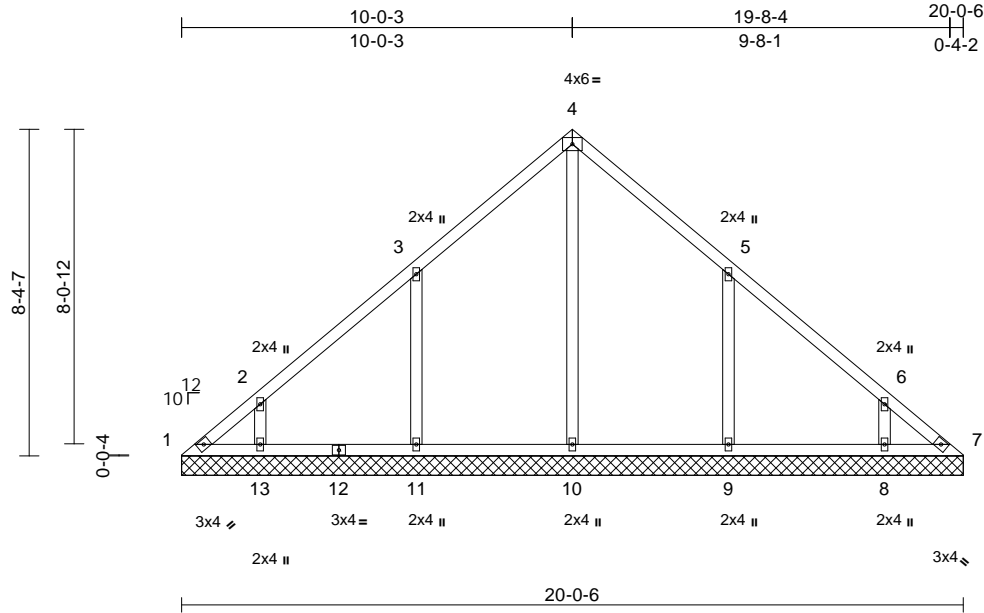
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss V02	Truss Type Valley	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014045
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:59

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 95 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=20-0-6, 7=20-0-6, 8=20-0-6, 9=20-0-6, 10=20-0-6, 11=20-0-6, 13=20-0-6  
Max Horiz 1=-158 (LC 10)  
Max Uplift 1=-43 (LC 10), 7=-5 (LC 11), 8=-65 (LC 15), 9=-126 (LC 15), 11=-126 (LC 14), 13=-70 (LC 14)  
Max Grav 1=109 (LC 26), 7=89 (LC 28), 8=276 (LC 2), 9=424 (LC 26), 10=387 (LC 28), 11=423 (LC 25), 13=276 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

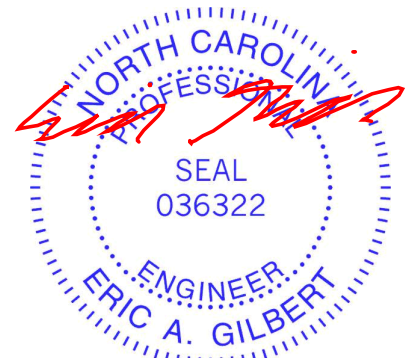
TOP CHORD 1-2=-175/131, 2-3=-164/102, 3-4=-154/142, 4-5=-154/136, 5-6=-127/62, 6-7=-141/90  
BOT CHORD 1-13=-62/122, 11-13=-62/122, 10-11=-62/122, 9-10=-62/122, 8-9=-62/122, 7-8=-62/122  
WEBS 4-10=-173/4, 3-11=-282/174, 2-13=-217/125, 5-9=-282/174, 6-8=-215/123

**NOTES**

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

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow; Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 1, 5 lb uplift at joint 7, 126 lb uplift at joint 11, 70 lb uplift at joint 13, 126 lb uplift at joint 9 and 65 lb uplift at joint 8.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 5, 2024

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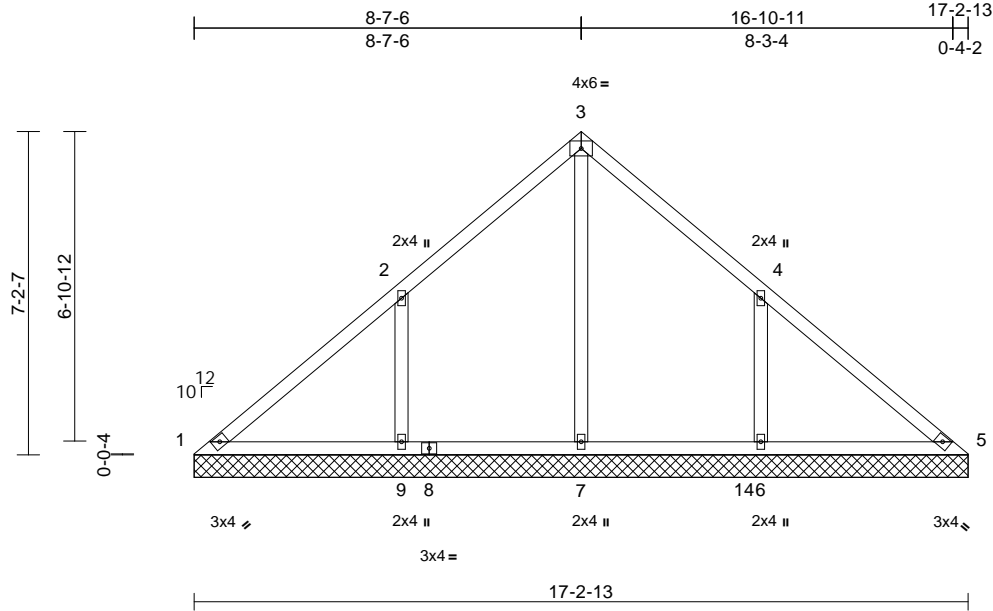
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss V03	Truss Type Valley	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014046
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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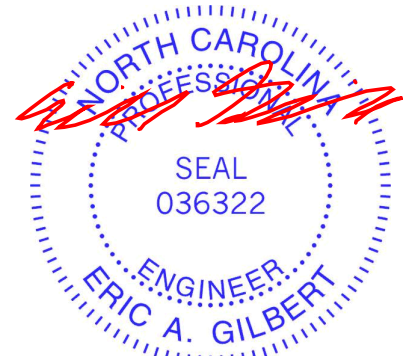
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 77 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
REACTIONS (size)	
	1=17-2-13, 5=17-2-13, 6=17-2-13, 7=17-2-13, 9=17-2-13
Max Horiz	1=-136 (LC 12)
Max Uplift	1=-14 (LC 10), 6=-133 (LC 15), 9=-136 (LC 14)
Max Grav	1=111 (LC 26), 5=103 (LC 30), 6=471 (LC 26), 7=484 (LC 25), 9=466 (LC 25)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-127/226, 2-3=-28/168, 3-4=-16/160, 4-5=-106/190
BOT CHORD	1-9=-147/117, 7-9=-147/113, 6-7=-147/113, 5-6=-147/113
WEBS	3-7=-324/0, 2-9=-303/174, 4-6=-302/173

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1, 136 lb uplift at joint 9 and 133 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - 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.



June 5, 2024

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

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ENGINEERING BY  
**TRENCO**  
A MITek Affiliate

818 Soundside Road  
Edenton, NC 27932

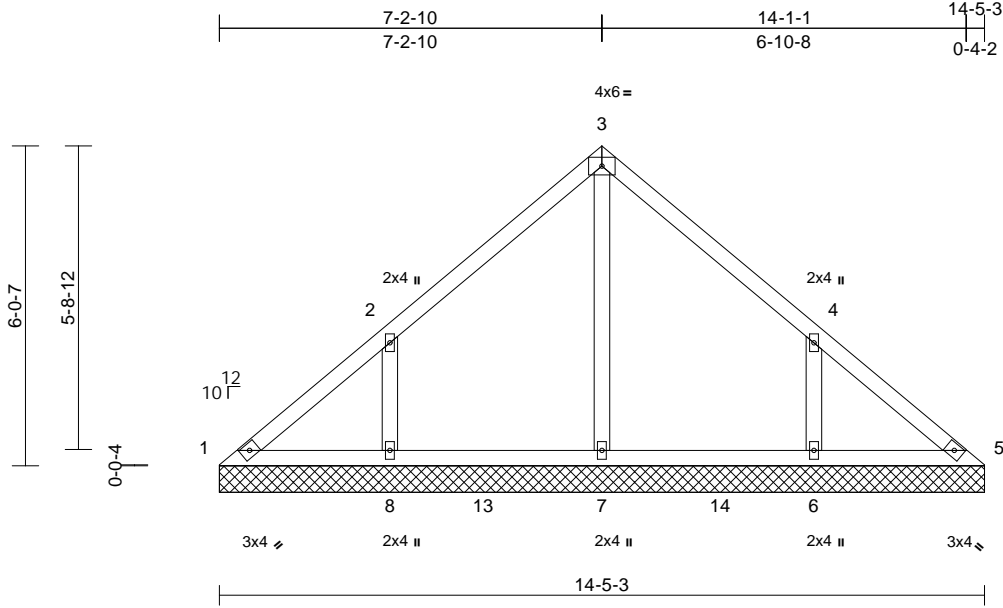


Job ELV C EP B2	Truss V04	Truss Type Valley	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014047
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:40  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 62 lb	FT = 20%

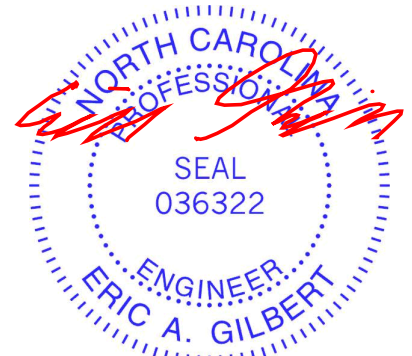
LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
REACTIONS (size)	
	1=14-5-3, 5=14-5-3, 6=14-5-3, 7=14-5-3, 8=14-5-3
Max Horiz	1=113 (LC 13)
Max Uplift	1=-15 (LC 10), 6=-110 (LC 15), 8=-112 (LC 14)
Max Grav	1=112 (LC 26), 5=95 (LC 2), 6=366 (LC 26), 7=383 (LC 25), 8=369 (LC 25)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-136/118, 2-3=-103/101, 3-4=-87/90, 4-5=-110/89
BOT CHORD	1-8=-62/112, 7-8=-62/82, 6-7=-62/82, 5-6=-62/86
WEBS	3-7=-216/0, 2-8=-261/153, 4-6=-260/152

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1, 112 lb uplift at joint 8 and 110 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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.



June 5, 2024

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

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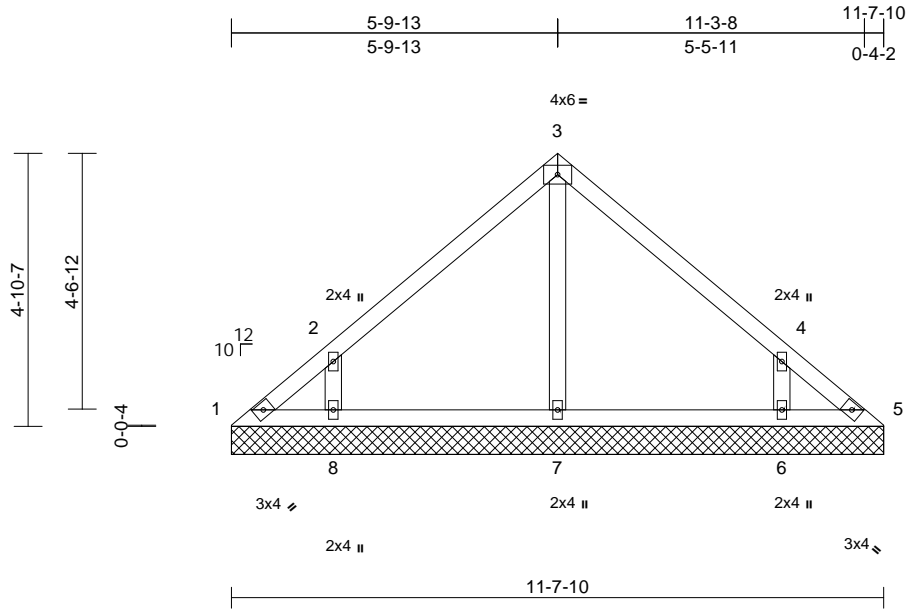
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss V05	Truss Type Valley	Qty 1	Ply 1	628 ELV C EP B2	166014048
					Job Reference (optional)	

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Tue Jun 04 10:59:40  
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 48 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=11-7-10, 5=11-7-10, 6=11-7-10, 7=11-7-10, 8=11-7-10  
Max Horiz 1=-91 (LC 10)  
Max Uplift 1=-28 (LC 10), 5=-5 (LC 11), 6=-96 (LC 15), 8=-99 (LC 14)  
Max Grav 1=75 (LC 26), 5=59 (LC 25), 6=309 (LC 26), 7=236 (LC 2), 8=313 (LC 25)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-98/83, 2-3=-143/85, 3-4=-140/82, 4-5=-78/53  
BOT CHORD 1-8=-25/67, 7-8=-20/67, 6-7=-20/67, 5-6=-21/67  
WEBS 3-7=-150/0, 2-8=-263/161, 4-6=-261/160

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1, 5 lb uplift at joint 5, 99 lb uplift at joint 8 and 96 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 5, 2024

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

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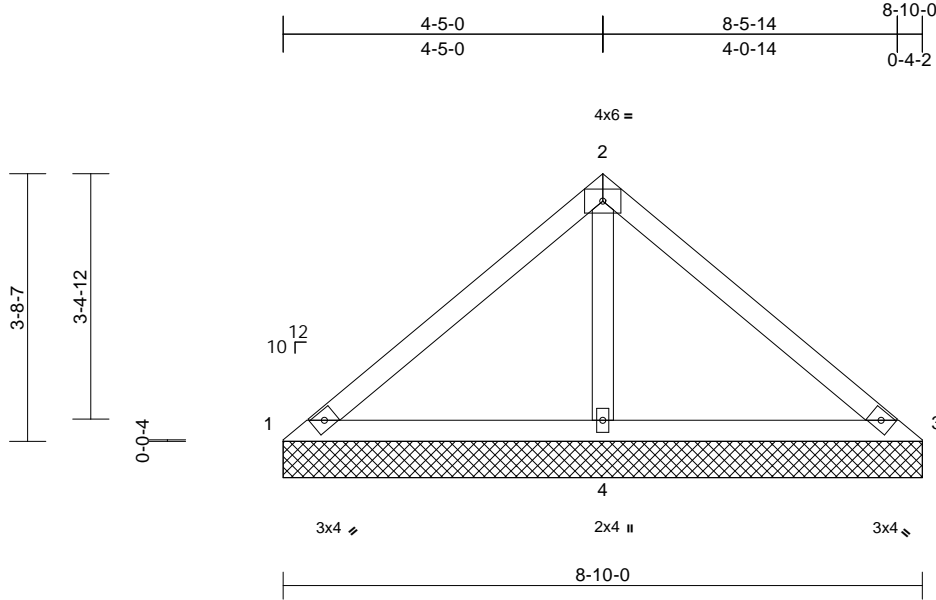
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss V06	Truss Type Valley	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014049
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:31.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 33 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 8-10-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS

(size) 1=8-10-0, 3=8-10-0, 4=8-10-0  
Max Horiz 1=-68 (LC 10)  
Max Uplift 1=-28 (LC 30), 3=-28 (LC 29),  
4=-56 (LC 14)  
Max Grav 1=60 (LC 29), 3=60 (LC 30), 4=664 (LC 2)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-73/280, 2-3=-73/280  
BOT CHORD 1-4=-217/113, 3-4=-217/113  
WEBS 2-4=-493/132

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1, 28 lb uplift at joint 3 and 56 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 5, 2024

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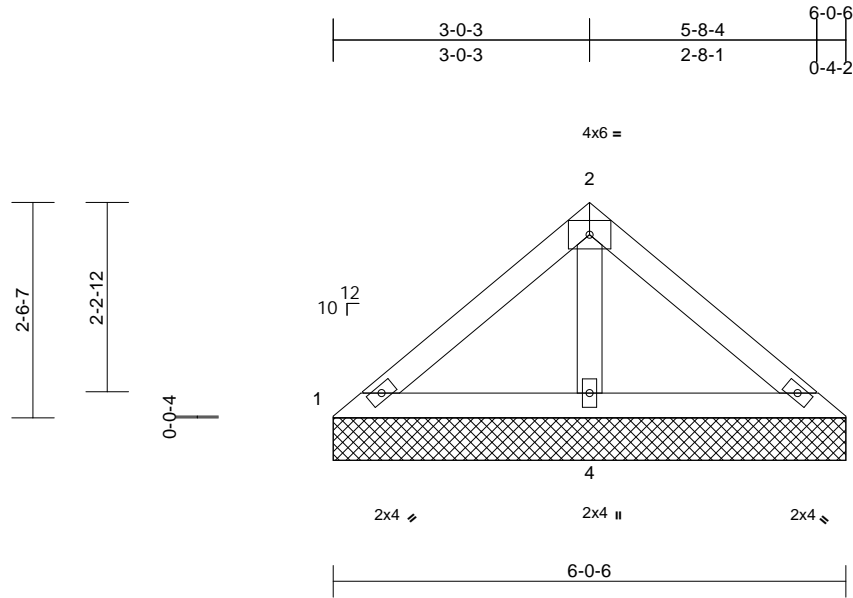
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss V07	Truss Type Valley	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	166014050
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:27.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 22 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=6-0-6, 3=6-0-6, 4=6-0-6  
Max Horiz 1=-45 (LC 10)  
Max Uplift 4=-22 (LC 14)  
Max Grav 1=66 (LC 29), 3=66 (LC 30), 4=385 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-57/133, 2-3=-57/133  
BOT CHORD 1-4=-106/63, 3-4=-106/63  
WEBS 2-4=-257/61

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface

- Roof design snow load has been reduced to account for slope.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 4.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



June 5, 2024

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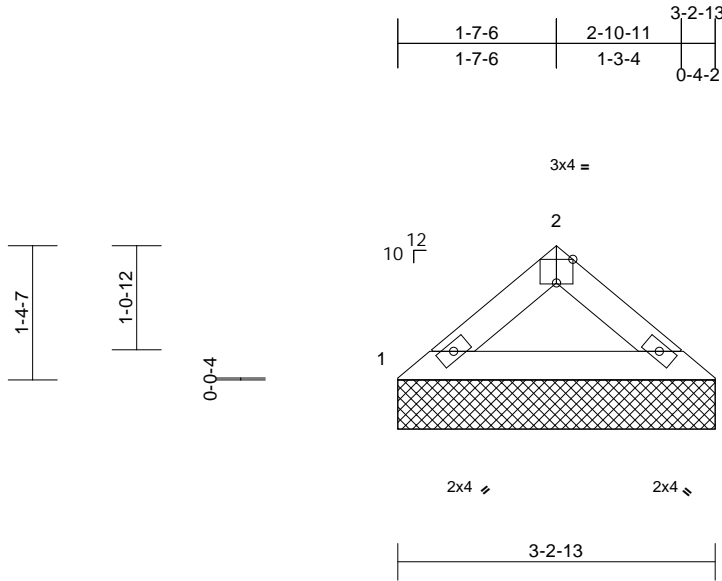
818 Soundside Road  
Edenton, NC 27932

Job ELV C EP B2	Truss V08	Truss Type Valley	Qty 1	Ply 1	628 ELV C EP B2 Job Reference (optional)	I66014051
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:23.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 10 lb	FT = 20%

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

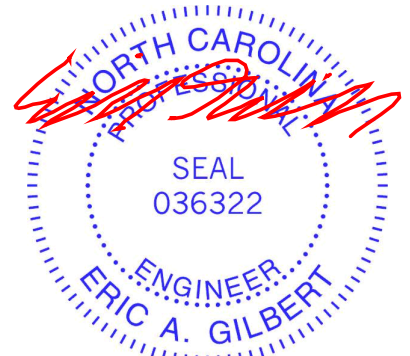
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-2-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=3-2-13, 3=3-2-13  
Max Horiz 1=23 (LC 11)  
Max Uplift 1=-2 (LC 14), 3=-2 (LC 15)  
Max Grav 1=129 (LC 2), 3=129 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-169/21, 2-3=-169/21  
BOT CHORD 1-3=-10/126

- 6) Gable requires continuous bottom chord bearing.
  - 7) Gable studs spaced at 4-0-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 1 and 2 lb uplift at joint 3.
  - 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
  - 5) Roof design snow load has been reduced to account for slope.



June 5, 2024

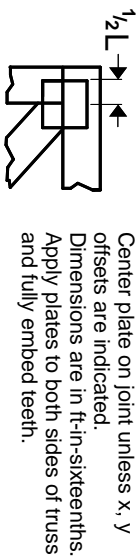
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before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



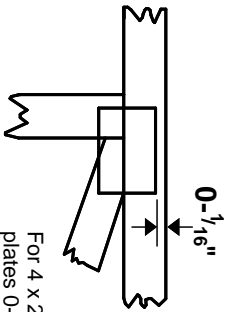
818 Soundside Road  
Edenton, NC 27932

# Symbols

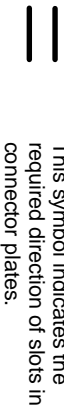
## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

4 X 4

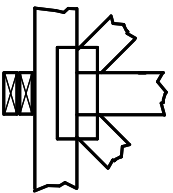
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



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

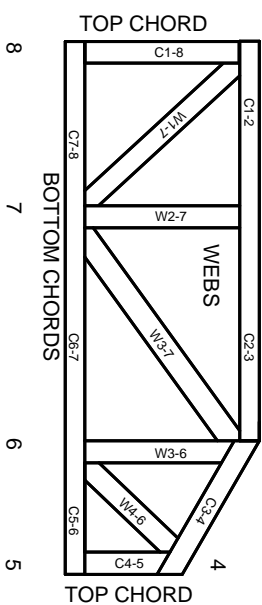
## Industry Standards:

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

# Numbering System



1 TOP CHORDS  
2 Joint ID typ.



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

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

# Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

# Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on Lumber values established by others.

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ENGINEERING BY  
**TRENGO**  
A MITek Affiliate

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

# General Safety Notes

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

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