

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 3780767  
CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR

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

Pages or sheets covered by this seal: T32208148 thru T32208174

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844



November 29, 2023

O'Regan, Philip

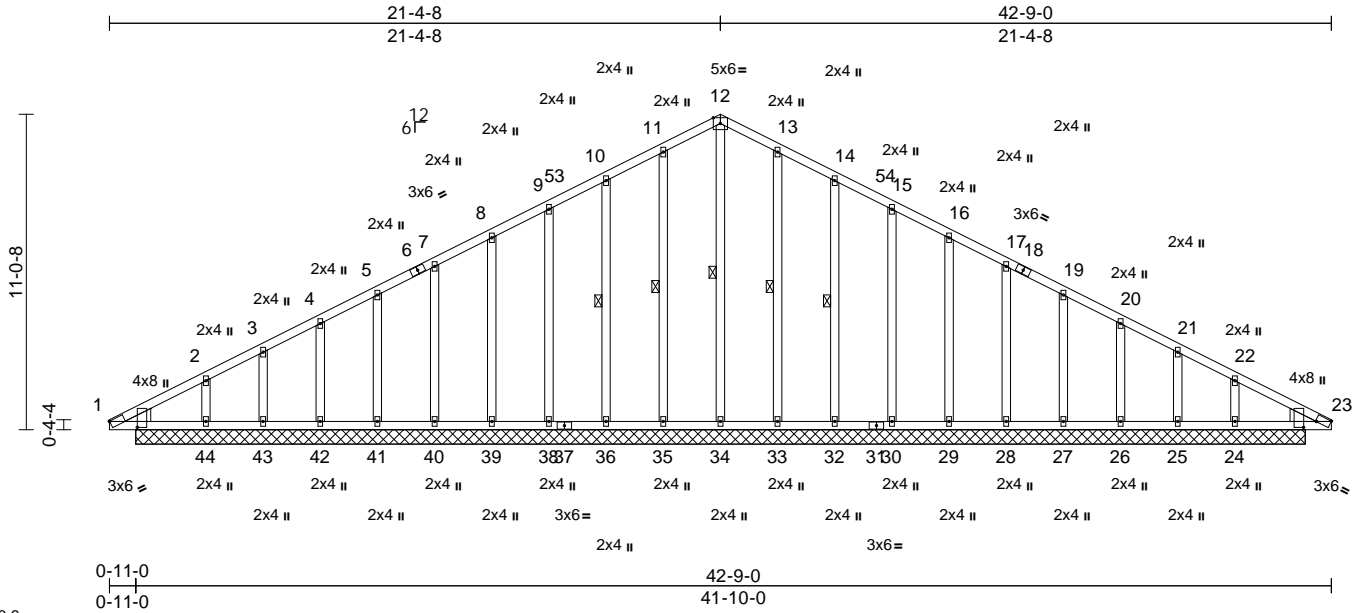
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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 3780767	Truss A1	Truss Type Common Supported Gable	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208148 Job Reference (optional)
----------------	-------------	--------------------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:42  
ID:50grVIMNJ6WdRj9H9e3QXqzckHt-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:80.6

Plate Offsets (X, Y): [1:Edge,0-0-1], [1:0-2-8,0-11-11], [23:Edge,0-2-15], [23:0-2-8,0-5-5]

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)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.01	23	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 302 lb	FT = 20%

LUMBER	TOP CHORD	BOT CHORD	OTHERS	WEDGE	BRACING	TOP CHORD	BOT CHORD	WEBS	REACTIONS	FORCES	TOP CHORD	BOT CHORD
Max Grav	1=163 (LC 31), 23=137 (LC 32), 24=197 (LC 34), 25=149 (LC 2), 26=163 (LC 34), 27=159 (LC 2), 28=160 (LC 34), 29=160 (LC 34), 30=160 (LC 2), 32=209 (LC 23), 33=221 (LC 23), 34=179 (LC 32), 35=221 (LC 22), 36=209 (LC 22), 38=160 (LC 2), 39=160 (LC 33), 40=160 (LC 33), 41=159 (LC 2), 42=163 (LC 33), 43=149 (LC 2), 44=197 (LC 33), 45=163 (LC 31), 49=137 (LC 32)					Structural wood sheathing directly applied or 6-0-0 oc purlins.	Rigid ceiling directly applied or 10-0-0 oc bracing.	1 Row at midpt 12-34, 11-35, 10-36, 13-33, 14-32	(size) 1=40-11-0, 23=40-11-0, 24=40-11-0, 25=40-11-0, 26=40-11-0, 27=40-11-0, 28=40-11-0, 29=40-11-0, 30=40-11-0, 32=40-11-0, 33=40-11-0, 34=40-11-0, 35=40-11-0, 36=40-11-0, 38=40-11-0, 39=40-11-0, 40=40-11-0, 41=40-11-0, 42=40-11-0, 43=40-11-0, 44=40-11-0, 45=40-11-0, 49=40-11-0	(lb) - Maximum Compression/Maximum Tension	1-2=-171/62, 2-3=-124/66, 3-4=-106/77, 4-5=-88/96, 5-7=-73/115, 7-8=-64/134, 8-9=-70/153, 9-10=-83/182, 10-11=-97/222, 11-12=-109/255, 12-13=-109/255, 13-14=-97/222, 14-15=-83/182, 15-16=-70/145, 16-17=-57/108, 17-19=-54/71, 19-20=-54/46, 20-21=-69/27, 21-22=-87/19, 22-23=-118/31	1-44=-64/117, 43-44=-23/117, 42-43=-23/117, 41-42=-23/117, 40-41=-23/117, 39-40=-23/117, 38-39=-23/117, 36-38=-23/117, 35-36=-23/117, 34-35=-23/117, 33-34=-23/117, 32-33=-23/117, 30-32=-23/117, 29-30=-23/117, 28-29=-23/117, 27-28=-23/117, 26-27=-23/117, 25-26=-23/117, 24-25=-23/117, 23-24=-23/117
Max Horiz	1=-134 (LC 17), 45=-134 (LC 17)											
Max Uplift	24=-80 (LC 17), 25=-12 (LC 17), 26=-32 (LC 17), 27=-27 (LC 17), 28=-28 (LC 17), 29=-28 (LC 17), 30=-27 (LC 17), 32=-32 (LC 17), 33=-20 (LC 17), 35=-23 (LC 16), 36=-31 (LC 16), 38=-27 (LC 16), 39=-28 (LC 16), 40=-28 (LC 16), 41=-26 (LC 16), 42=-33 (LC 16), 43=-7 (LC 16), 44=-95 (LC 16)											
WEBS	12-34=-170/25, 11-35=-181/49, 10-36=-169/65, 9-38=-120/59, 8-39=-120/60, 7-40=-120/60, 5-41=-120/59, 4-42=-121/61, 3-43=-115/53, 2-44=-137/83, 13-33=-181/49, 14-32=-169/65, 15-30=-120/59, 16-29=-120/60, 17-28=-120/60, 19-27=-120/59, 20-26=-121/61, 21-25=-115/53, 22-24=-137/82											

- 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.



November 29, 2023

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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 3780767	Truss A1	Truss Type Common Supported Gable	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208148 Job Reference (optional)
----------------	-------------	--------------------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:42  
ID:50grVIMNJV6WdRj9He3QXQzckHt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

- 4) TCLK: 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=14.5 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.
- 6) Unbalanced snow loads have been considered for this design.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 23 lb uplift at joint 35, 31 lb uplift at joint 36, 27 lb uplift at joint 38, 28 lb uplift at joint 39, 28 lb uplift at joint 40, 26 lb uplift at joint 41, 33 lb uplift at joint 42, 7 lb uplift at joint 43, 95 lb uplift at joint 44, 20 lb uplift at joint 33, 32 lb uplift at joint 32, 27 lb uplift at joint 30, 28 lb uplift at joint 29, 28 lb uplift at joint 28, 27 lb uplift at joint 27, 32 lb uplift at joint 26, 12 lb uplift at joint 25 and 80 lb uplift at joint 24.
- 12) N/A
- 13) 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

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

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



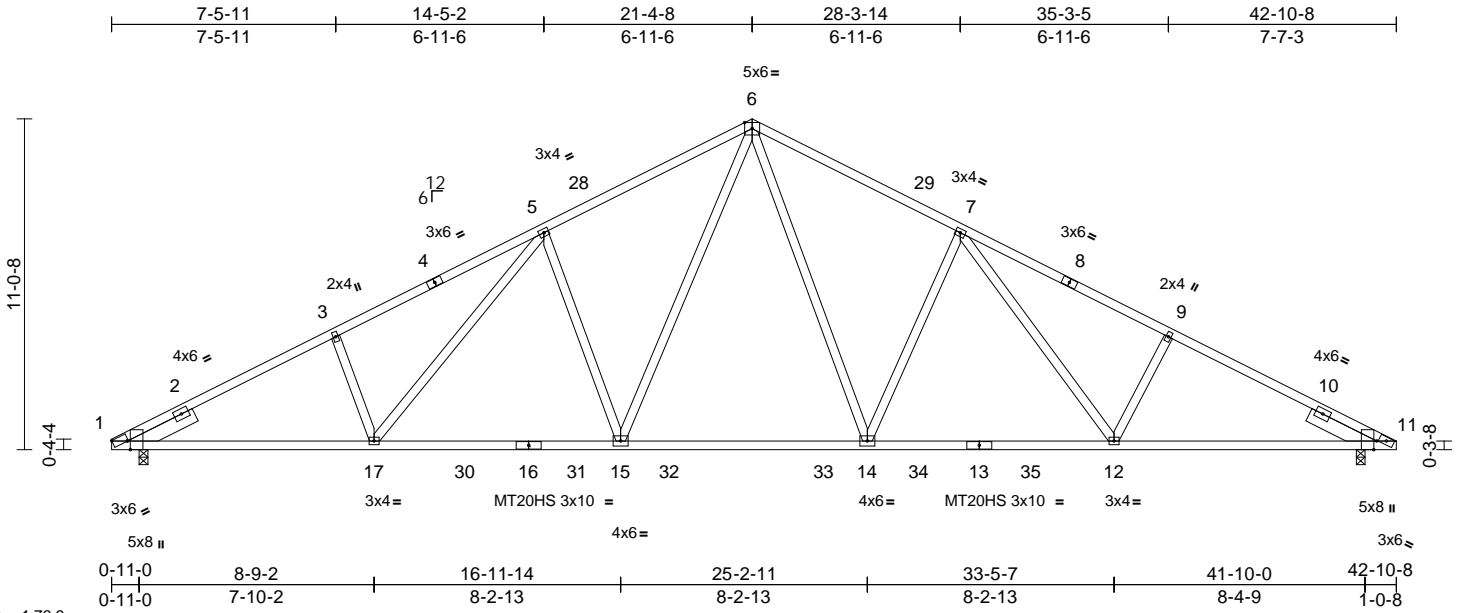
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss A2	Truss Type Common	Qty 4	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208149
					Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:47  
ID:s5DjKfsjQPOYfuwEkSpGEHczkHD-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?

Page: 1



Scale = 1:76.9  
Plate Offsets (X, Y): [1:0-3-8,Edge], [1:Edge,0-2-15], [11:0-3-8,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	0.89	Vert(LL)	-0.30	12-14	>999	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.56	12-14	>926	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.11	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 240 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 8-11,4-1:2x4 SP SS  
BOT CHORD 2x4 SP SS \*Except\* 16-13:2x4 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 -- 2-5-0, Right 2x6 SP No.2 -- 2-5-0

**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.

**REACTIONS** (size) 1=0-3-8, 11=0-3-8  
Max Horiz 1=-133 (LC 17)  
Max Uplift 1=-29 (LC 16), 11=-28 (LC 17)  
Max Grav 1=1646 (LC 2), 11=1649 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-3=-2726/360, 3-5=-2615/417, 5-6=-2265/426, 6-7=-2218/415, 7-9=-2594/403, 9-11=-2720/366  
BOT CHORD 1-17=-248/2343, 15-17=-156/2116, 14-15=-30/1613, 12-14=-157/2108, 11-12=-252/2338  
WEBS 3-17=-221/158, 5-17=-67/387, 5-15=-612/232, 6-15=-130/898, 6-14=-116/878, 7-14=-619/225, 7-12=-48/372, 9-12=-219/155

- 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=14.5 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 SS crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 1 and 28 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.

**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

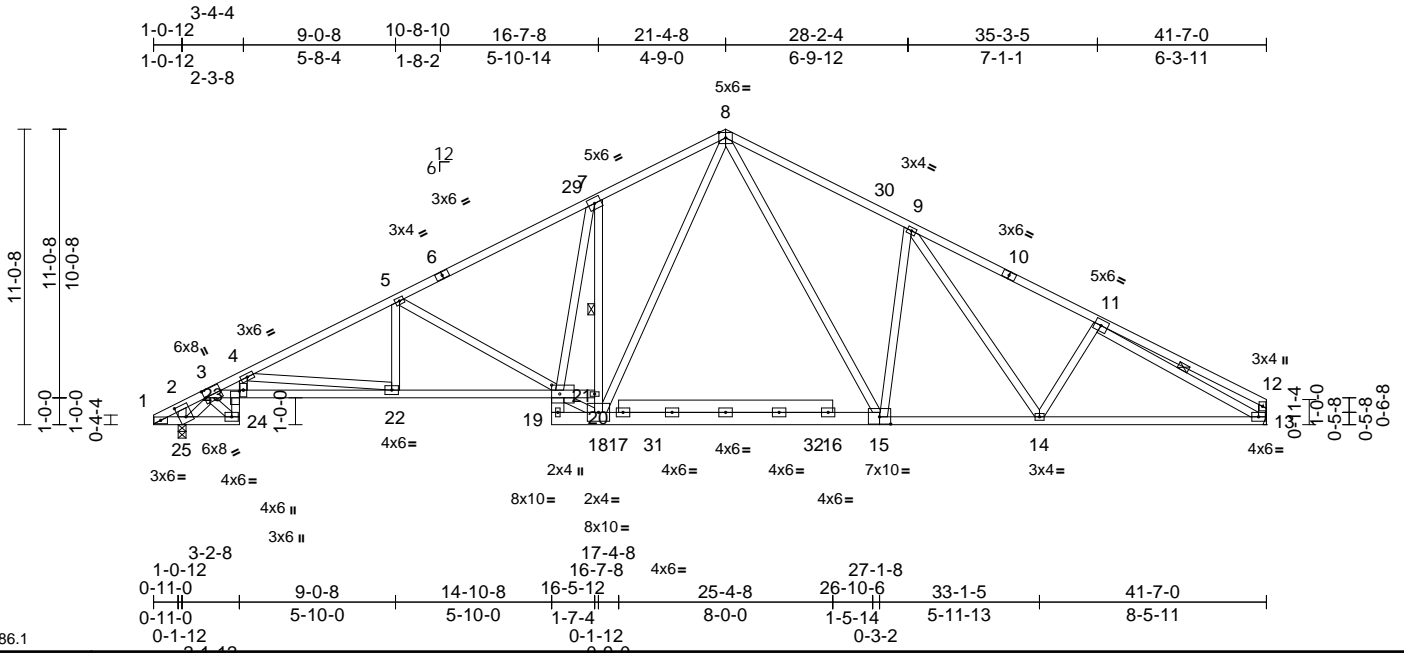


Job 3780767	Truss A4	Truss Type Roof Special	Qty 4	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208150
					Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:47  
ID:6bj6EcNbjADCCZ2dFSTR1kzck8p-RfC?PsB70Hq3NSgPqnL8w3lTXbGKWRcDoi7J4zJC?f

Page: 1



Scale = 1:86.1

Plate Offsets (X, Y): [2:0-5-9,0-3-0], [3:0-0-8,0-3-4], [15:0-5-0,0-3-4], [21:0-3-10,0-4-0], [23:0-0-8,0-1-12]

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	0.79	Vert(LL)	-0.24	21-22	>999	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.49	21-22	>982	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.28	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 293 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 10-12,6-1:2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 3-20:2x4 SP SS, 21-19,19-15,17-16:2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 12-13:2x4 SP No.2

**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:  
9-3-4 oc bracing: 22-23  
6-0-0 oc bracing: 19-21.

**WEBS**  
1 Row at midpt 7-18, 11-13

**REACTIONS**  
(size) 13= Mechanical, 25=0-3-8  
Max Horiz 25=141 (LC 20)  
Max Uplift 13=41 (LC 17), 25=-51 (LC 16)  
Max Grav 13=1614 (LC 2), 25=1698 (LC 2)

**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-72/4, 2-3=-275/29, 3-4=-5073/578,  
4-5=-3391/432, 5-7=-2587/384,  
7-8=-2221/465, 8-9=-2243/463,  
9-11=-2535/393, 11-12=-453/95,  
12-13=-338/91  
BOT CHORD 1-25=0/134, 24-25=-167/1364,  
23-24=-146/1334, 3-23=-479/4212,  
22-23=-519/4390, 21-22=-306/3000,  
20-21=-16/111, 19-21=-242/0,  
18-19=-59/199, 14-18=-157/2001,  
13-14=-265/2267

**WEBS**  
5-22=0/447, 5-21=-903/189, 9-14=-47/369,  
11-14=-190/159, 4-23=-15/766,  
4-22=-1401/215, 2-25=-487/92,  
3-25=-1757/220, 3-24=-1613/191,  
8-15=-163/856, 9-15=-626/238,  
18-20=-1567/296, 7-20=-1607/291,  
8-18=-167/987, 18-21=-56/1943,  
7-21=-113/1398, 11-13=-2267/285

- 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=14.5 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
  - 4) Roof design snow load has been reduced to account for slope.
  - 5) Unbalanced snow loads have been considered for this design.
  - 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, with BCDL = 10.0psf.
  - 8) Bearings are assumed to be: Joint 25 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 51 lb uplift at joint 25 and 41 lb uplift at joint 13.
  - 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



November 29, 2023

**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)



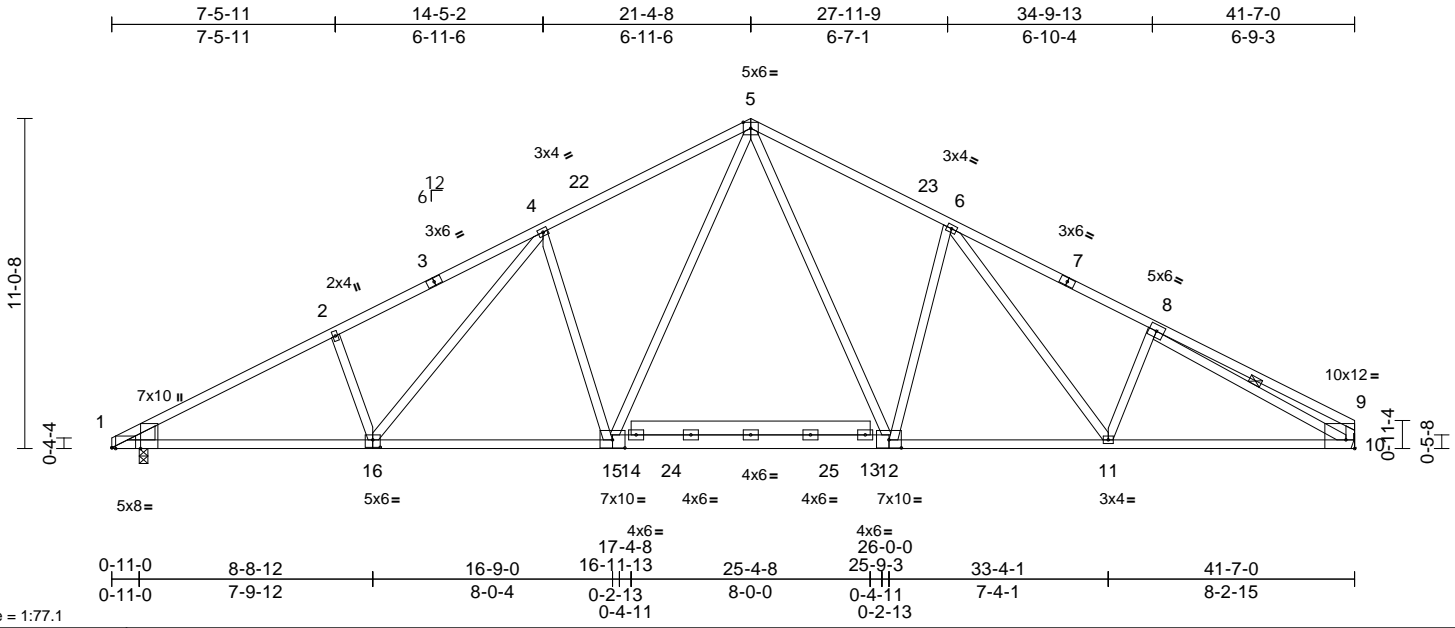
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss A5	Truss Type Common	Qty 2	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208151 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:49  
ID:o6fTuwNWHxcIDT60vCwA95zjzz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:77.1

Plate Offsets (X, Y): [1:0-1-8,Edge], [1:0-0-5,Edge], [9:Edge,0-3-8], [12:0-5-0,0-3-4], [15:0-5-0,0-3-4], [16:0-3-0,0-3-0]

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	0.89	Vert(LL)	-0.21	15-16	>999	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.46	15-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.11	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 265 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 7-9:2x4 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\* 1-16:2x4 SP SS, 12-10,16-15:2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE Left: 2x6 SP No.2

**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.  
WEBS 1 Row at midpt 8-10

**REACTIONS** (size) 1=0-3-8, 10= Mechanical  
Max Horiz 1=141 (LC 20)  
Max Uplift 1=-49 (LC 16), 10=-41 (LC 17)  
Max Grav 1=1695 (LC 2), 10=1620 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-2751/362, 2-4=-2623/421, 4-5=-2192/431, 5-6=-2157/434, 6-8=-2572/412, 8-9=-484/121, 9-10=-365/108  
BOT CHORD 1-11=-264/2357, 10-11=-256/2286  
WEBS 2-16=-265/165, 4-16=-69/415, 4-15=-618/235, 5-15=-130/861, 5-12=-134/811, 6-12=-606/225, 6-11=-66/427, 8-11=-210/168, 8-10=-2255/252

- 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=14.5 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 10 and 49 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



November 29, 2023

**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)



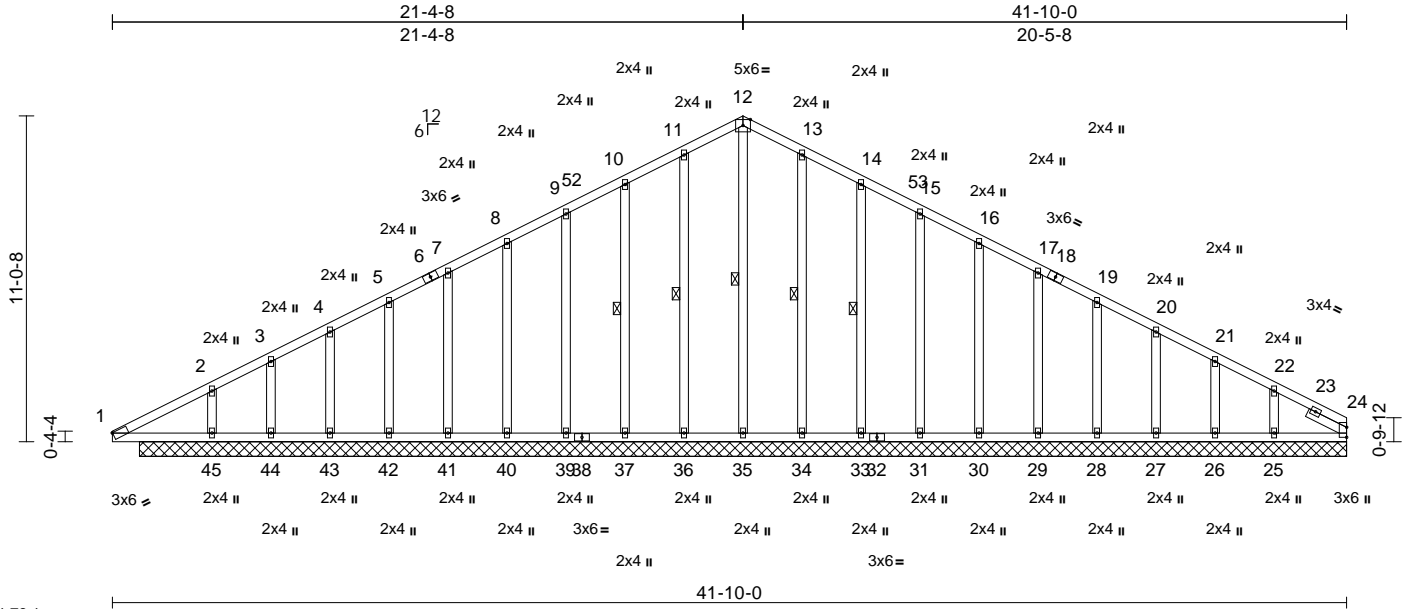
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss A8	Truss Type Common Supported Gable	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208152 Job Reference (optional)
----------------	-------------	--------------------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:49  
ID:50grVIMNJ6WdRj9He3QXqzckHt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRcDoi7J4zJC?f

Page: 1



Scale = 1:78.1

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

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	-0.01	24	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 297 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3  
SLIDER Right 2x4 SP No.3 -- 1-6-0

**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 12-35, 11-36, 10-37, 13-34, 14-33

**REACTIONS** (size)  
24=40-11-0, 25=40-11-0,  
26=40-11-0, 27=40-11-0,  
28=40-11-0, 29=40-11-0,  
30=40-11-0, 31=40-11-0,  
33=40-11-0, 34=40-11-0,  
35=40-11-0, 36=40-11-0,  
37=40-11-0, 39=40-11-0,  
40=40-11-0, 41=40-11-0,  
42=40-11-0, 43=40-11-0,  
44=40-11-0, 45=40-11-0,  
48=40-11-0  
Max Horiz 45=149 (LC 16)  
Max Uplift 24=81 (LC 33), 25=76 (LC 17),  
26=13 (LC 17), 27=31 (LC 17),  
28=27 (LC 17), 29=28 (LC 17),  
30=28 (LC 17), 31=27 (LC 17),  
33=32 (LC 17), 34=20 (LC 17),  
36=17 (LC 16), 37=33 (LC 16),  
39=27 (LC 16), 40=28 (LC 16),  
41=27 (LC 16), 42=30 (LC 16),  
43=18 (LC 16), 44=65 (LC 16),  
48=81 (LC 33)

Max Grav 24=76 (LC 17), 25=262 (LC 2),  
26=138 (LC 34), 27=167 (LC 2),  
28=159 (LC 34), 29=160 (LC 2),  
30=160 (LC 34), 31=162 (LC 23),  
33=210 (LC 23), 34=229 (LC 23),  
35=332 (LC 31), 36=229 (LC 22),  
37=205 (LC 22), 39=161 (LC 2),  
40=159 (LC 33), 41=162 (LC 2),  
42=153 (LC 33), 43=191 (LC 2),  
44=46 (LC 29), 45=368 (LC 2),  
48=76 (LC 17)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-85/233, 2-3=-14/185, 3-4=0/211,  
4-5=0/205, 5-7=0/206, 7-8=0/215, 8-9=0/233,  
9-10=0/251, 10-11=0/278, 11-12=-10/310,  
12-13=-10/310, 13-14=0/288, 14-15=0/278,  
15-16=0/271, 16-17=0/264, 17-19=0/257,  
19-20=-12/250, 20-21=-47/244,  
21-22=-77/230, 22-24=-122/250  
BOT CHORD 1-45=-160/71, 44-45=-182/119,  
43-44=-182/119, 42-43=-182/119,  
41-42=-182/119, 40-41=-182/119,  
39-40=-182/119, 37-39=-182/119,  
36-37=-182/119, 35-36=-182/119,  
34-35=-182/119, 33-34=-182/119,  
31-33=-182/119, 30-31=-182/119,  
29-30=-182/119, 28-29=-182/119,  
27-28=-182/119, 26-27=-182/119,  
25-26=-182/119, 24-25=-182/119  
WEBS 12-35=-292/0, 11-36=-189/46,  
10-37=-165/66, 9-39=-121/58, 8-40=-120/60,  
7-41=-121/59, 5-42=-117/60, 4-43=-134/59,  
3-44=-62/65, 2-45=-228/71, 13-34=-189/46,  
14-33=-170/66, 15-31=-122/58,  
16-30=-120/60, 17-29=-120/59,  
19-28=-119/59, 20-27=-124/61,  
21-26=-108/54, 22-25=-182/84

- 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=14.5 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.



November 29, 2023

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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 3780767	Truss A8	Truss Type Common Supported Gable	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208152 Job Reference (optional)
----------------	-------------	--------------------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:49  
ID:50grVIMNJV6WdRj9He3QXQzckHt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDoi7J4zJC?f

Page: 2

- 6) Unbalanced snow loads have been considered for this design.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 81 lb uplift at joint 24, 17 lb uplift at joint 36, 33 lb uplift at joint 37, 27 lb uplift at joint 39, 28 lb uplift at joint 40, 27 lb uplift at joint 41, 30 lb uplift at joint 42, 18 lb uplift at joint 43, 65 lb uplift at joint 44, 20 lb uplift at joint 34, 32 lb uplift at joint 33, 27 lb uplift at joint 31, 28 lb uplift at joint 30, 28 lb uplift at joint 29, 27 lb uplift at joint 28, 31 lb uplift at joint 27, 13 lb uplift at joint 26, 76 lb uplift at joint 25 and 81 lb uplift at joint 24.
- 12) N/A
- 13) 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

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

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



818 Soundside Road  
Edenton, NC 27932

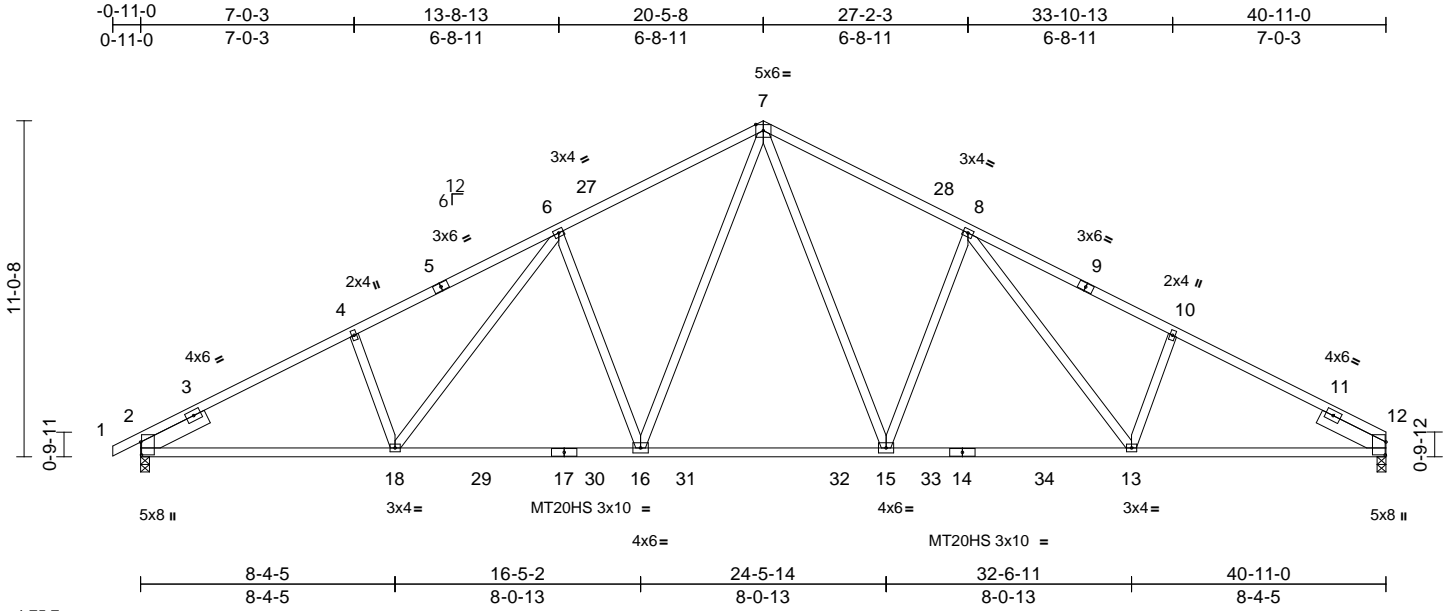


Job 3780767	Truss A9	Truss Type Roof Special	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208153 Job Reference (optional)
----------------	-------------	----------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:52  
ID:s5DjKtsjQPOYfuwEkSpGEHczkHD-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:75.7  
Plate Offsets (X, Y): [2:0-5-1,0-0-6], [4:0-0-0,0-0-0], [6:0-0-0,0-0-0], [9:0-0-0,0-0-0], [12:0-5-1,0-0-5], [12:0-0-0,0-0-0]

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	0.98	Vert(LL)	-0.28	16-18	>999	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.51	16-18	>955	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.15	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 236 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 5-1,9-12:2x4 SP SS  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 -- 2-5-1, Right 2x6 SP No.2 -- 2-5-0

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

**REACTIONS** (size) 2=0-3-8, 12=0-3-8  
Max Horiz 2=146 (LC 16)  
Max Uplift 2=-55 (LC 16), 12=-43 (LC 17)  
Max Grav 2=1692 (LC 2), 12=1636 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/41, 2-4=-2780/368, 4-6=-2673/425, 6-7=-2259/423, 7-8=-2259/423, 8-10=-2676/426, 10-12=-2783/368  
BOT CHORD 2-18=-248/2406, 16-18=-151/2126, 15-16=-29/1634, 13-15=-151/2127, 12-13=-248/2409  
WEBS 8-15=-632/228, 8-13=-72/462, 10-13=-262/165, 7-15=-126/897, 7-16=-125/896, 6-16=-631/228, 6-18=-72/458, 4-18=-260/165

**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

- 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=14.5 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 greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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 55 lb uplift at joint 2 and 43 lb uplift at joint 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



November 29, 2023

Job 3780767	Truss A10	Truss Type Roof Special	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208154 Job Reference (optional)
----------------	--------------	----------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:52

Page: 1

ID:lYzXRGuTXTKlyQ3ya698TzckG5-RfC?PsB70Hq3NSgPqnl8w3u1TXbGKWrCDoi7J4zJC?f

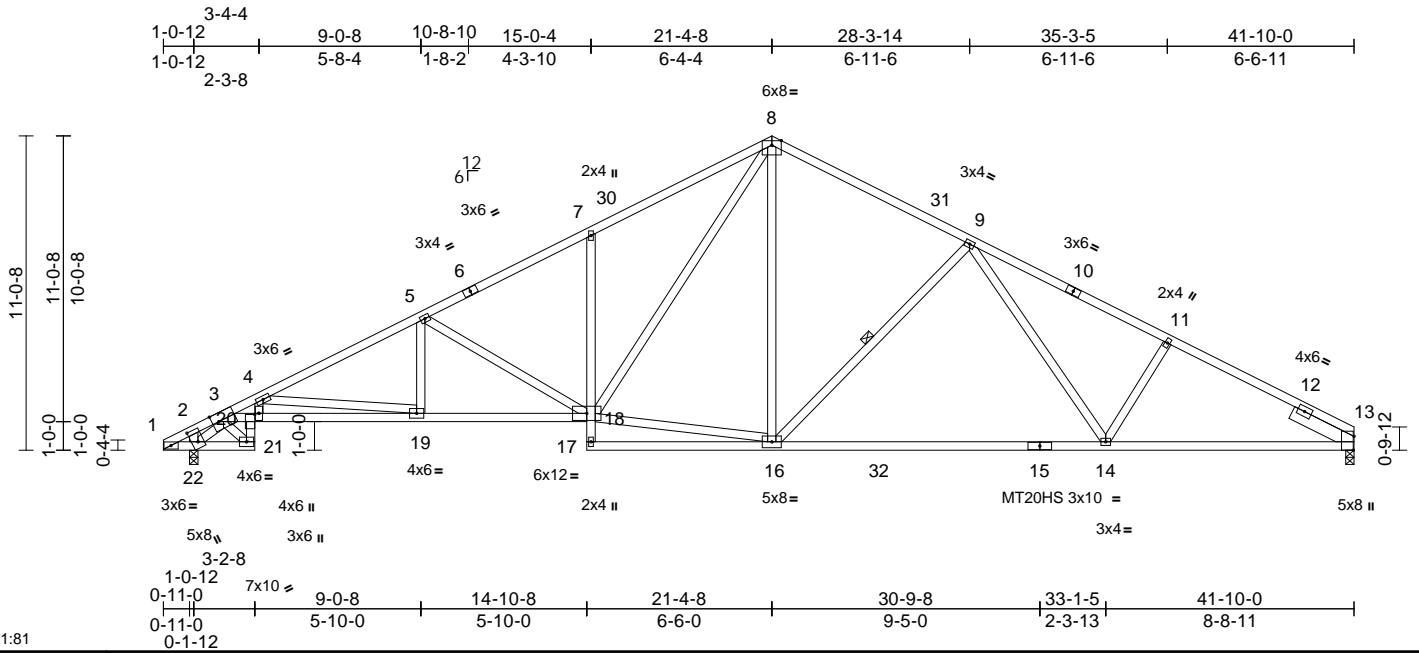


Plate Offsets (X, Y): [3:0-2-12,Edge], [13:0-5-13,Edge], [20:0-0-8,0-1-12], [22:0-5-5,0-2-8]

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	0.82	Vert(LL)	-0.61	14-16	>805	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-1.11	14-16	>442	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.30	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 253 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 10-13:2x4 SP SS, 6-1:2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 3-18,15-17:2x4 SP SS, 7-17:2x4 SP No.3, 15-13:2x4 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 2-2-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 9-16

**REACTIONS**  
(size) 13=0-3-8, 22=0-3-8  
Max Horiz 22=148 (LC 16)  
Max Uplift 13=43 (LC 17), 22=-50 (LC 16)  
Max Grav 13=1630 (LC 2), 22=1714 (LC 2)

**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-72/4, 2-3=-281/30, 3-4=-5154/577, 4-5=-3411/422, 5-7=-2657/392, 7-8=-2657/512, 8-9=-1876/357, 9-11=-2607/391, 11-13=-2766/365  
BOT CHORD 1-22=0/137, 21-22=-161/1374, 20-21=-145/1345, 3-20=-474/4297, 19-20=-513/4476, 18-19=-279/3012, 17-18=-771, 7-18=-420/192, 16-17=-18/89, 14-16=-163/2047, 13-14=-251/2389  
WEBS 5-19=0/449, 5-18=-822/147, 8-16=-40/619, 16-18=0/1507, 11-14=-236/160, 8-18=-253/1311, 9-16=-696/217, 9-14=-10/520, 2-22=-497/94, 3-22=-1768/219, 3-21=-1627/187, 4-20=-14/762, 4-19=-1477/245

- 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=14.5 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.
- Bearings are assumed to be: Joint 22 SP No.2 crushing capacity of 565 psi, Joint 13 SP No.1 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 13 and 50 lb uplift at joint 22.
- 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.



November 29, 2023

**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 3780767	Truss A11	Truss Type Roof Special	Qty 3	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208155 Job Reference (optional)
----------------	--------------	----------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:53

Page: 1

ID:6bj6EcNBjiADCZ2dFSTR1kzck8p-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDoi7J4zJC7f

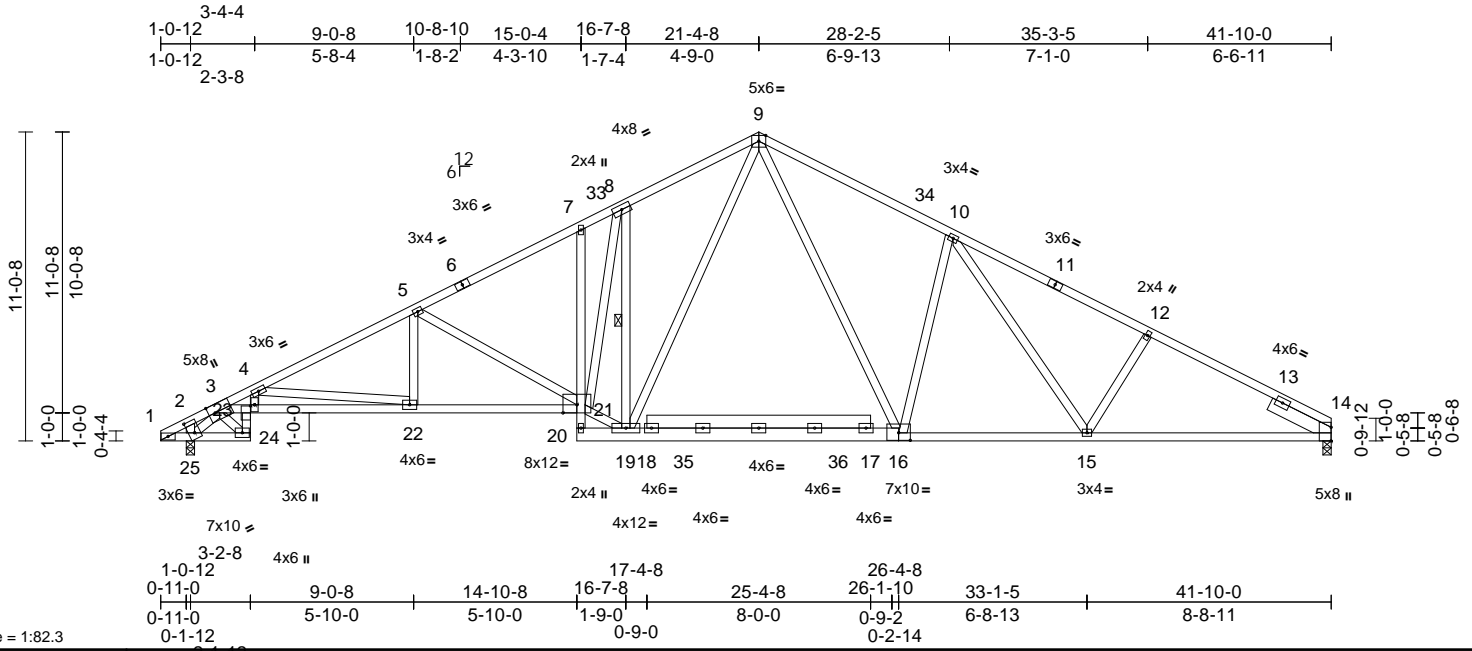


Plate Offsets (X, Y): [2:0-5-5,0-2-8], [3:0-2-12,Edge], [14:0-5-13,Edge], [16:0-5-0,0-3-4], [23:0-0-8,0-1-12]

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	0.99	Vert(LL)	-0.26	7	>999	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.52	21-22	>948	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.30	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 295 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2 *Except* 11-14:2x4 SP No.1
BOT CHORD	2x4 SP No.2 *Except* 3-21:2x4 SP SS, 7-20:2x4 SP No.3, 20-16,18-17:2x6 SP No.2, 16-14:2x4 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.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 9-4-10 oc bracing: 22-23 6-0-0 oc bracing: 20-21.
WEBS	1 Row at midpt 8-19
REACTIONS	
(size)	14=0-3-8, 25=0-3-8
Max Horiz	25=148 (LC 16)
Max Uplift	14=43 (LC 17), 25=50 (LC 16)
Max Grav	14=1630 (LC 2), 25=1714 (LC 2)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-73/4, 2-3=-280/30, 3-4=-5144/574, 4-5=-3418/425, 5-7=-2648/389, 7-8=-2530/436, 8-9=-2227/457, 9-10=-2240/448, 10-12=-2605/403, 12-14=-2746/376
BOT CHORD	1-25=0/136, 24-25=-162/1376, 23-24=-145/1346, 3-23=-469/4282, 22-23=-507/4461, 21-22=-282/3021, 20-21=-183/0, 7-21=-147/99, 19-20=-51/185, 15-19=-151/2060, 14-15=-259/2377
WEBS	5-22=0/450, 5-21=-852/158, 12-15=-258/158, 4-23=-177/68, 4-22=-1452/236, 2-25=-495/93, 10-15=-49/396, 8-19=-1584/266, 9-19=-157/941, 8-21=-195/1545, 10-16=-642/235, 9-16=-145/859, 3-25=-1771/220, 3-24=-1628/188, 19-21=-61/2062

- 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=14.5 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 25 SP No.2 crushing capacity of 565 psi, Joint 14 SP No.1 crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 14 and 50 lb uplift at joint 25.
  - 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



November 29, 2023

**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)



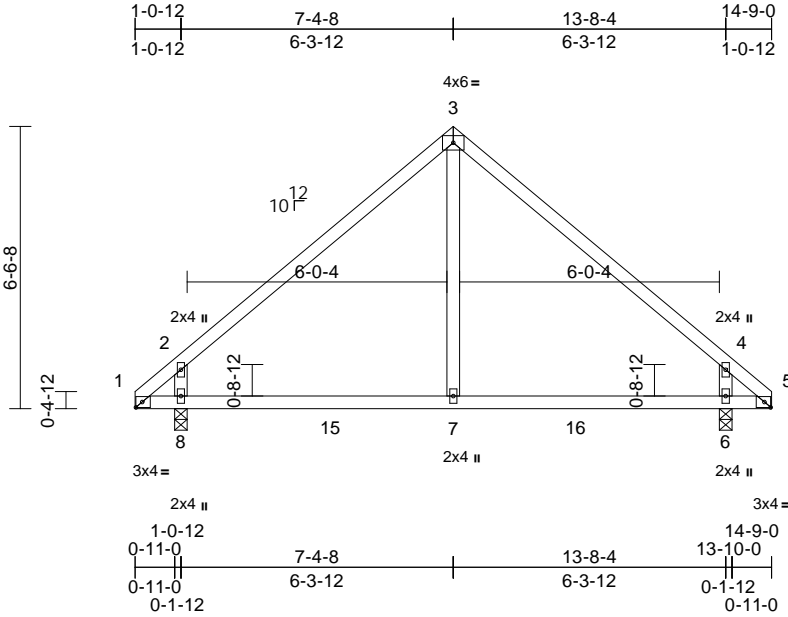
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss B2	Truss Type Common	Qty 2	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208156 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:54  
ID:LBgXbAb9XghSG2FzYzDbqvzcxrB-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:53.4

Plate Offsets (X, Y): [1:0-1-12,0-1-8], [5:0-1-12,0-1-8]

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	0.49	Vert(LL)	0.04	7-8	>999	240	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.07	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	6	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  
WEBS 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(size) 6=0-3-8, 8=0-3-8  
Max Horiz 8=-119 (LC 10)  
Max Uplift 6=-6 (LC 15), 8=-6 (LC 14)  
Max Grav 6=605 (LC 26), 8=605 (LC 25)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-343/11, 2-3=-553/78, 3-4=-553/78, 4-5=-343/11  
BOT CHORD 1-8=-2/360, 7-8=0/360, 6-7=0/360, 5-6=-2/360  
WEBS 3-7=0/295, 2-8=-548/308, 4-6=-548/308

**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=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.

- 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 6 lb uplift at joint 8 and 6 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



November 29, 2023

**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)



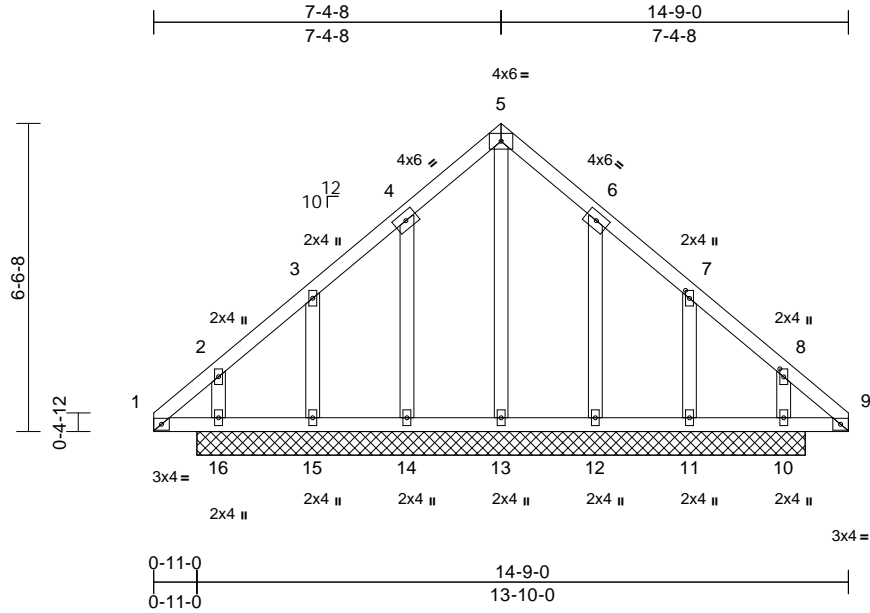
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss B4	Truss Type Common Supported Gable	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208157 Job Reference (optional)
----------------	-------------	--------------------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:55  
ID:ej?uM83Zu88h\_HuWzjQG2dzcrrt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcDoi7J4zJC?f

Page: 1



Scale = 1:48.9  
Plate Offsets (X, Y): [4:0-0-0,0-0-0], [7:0-2-1,0-1-0], [8:0-2-1,0-1-0]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 84 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)  
10=12-11-0, 11=12-11-0,  
12=12-11-0, 13=12-11-0,  
14=12-11-0, 15=12-11-0,  
16=12-11-0  
Max Horiz 16=119 (LC 10)  
Max Uplift 10=42 (LC 14), 11=100 (LC 15),  
12=43 (LC 15), 14=42 (LC 14),  
15=103 (LC 14), 16=46 (LC 15)  
Max Grav 10=193 (LC 25), 11=197 (LC 26),  
12=175 (LC 30), 13=226 (LC 28),  
14=175 (LC 29), 15=200 (LC 25),  
16=198 (LC 26)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-62/102, 2-3=-67/111, 3-4=-71/119,  
4-5=-123/151, 5-6=-123/147, 6-7=-71/117,  
7-8=-60/107, 8-9=-57/99  
BOT CHORD 1-16=-75/66, 15-16=-71/62, 14-15=-71/62,  
13-14=-71/62, 12-13=-71/61, 11-12=-71/61,  
10-11=-71/61, 9-10=-71/61  
WEBS 6-12=-134/73, 5-13=-187/56, 4-14=-134/73,  
3-15=-142/101, 2-16=-122/65,  
7-11=-140/100, 8-10=-121/65

**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 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 43 lb uplift at joint 12, 42 lb uplift at joint 14, 103 lb uplift at joint 15, 46 lb uplift at joint 16, 100 lb uplift at joint 11 and 42 lb uplift at joint 10.
- N/A
- 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



November 29, 2023

**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)



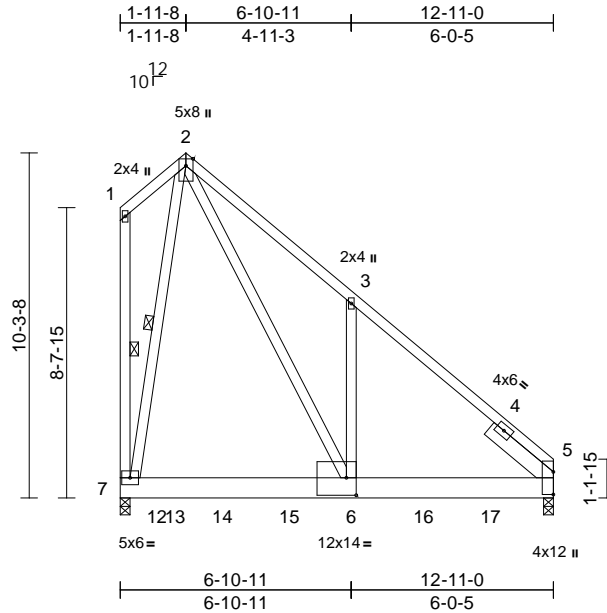
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss B5	Truss Type Common Girder	Qty 1	Ply 2	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208158 Job Reference (optional)
----------------	-------------	-----------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:55  
ID:zq3Ch3gw83WQxJ\_fa2AwXHzcjtf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC7f

Page: 1



Scale = 1:68.7

Plate Offsets (X, Y): [6:0-3-8,0-6-4]

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	0.54	Vert(LL)	-0.11	6-7	>999	240	244/190	
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.22	6-7	>697	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 241 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x8 SP DSS  
 WEBS 2x4 SP No.3 \*Except\* 2-6:2x4 SP No.2  
 SLIDER Right 2x6 SP No.2 -- 2-5-0

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-11-5 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 1-7, 2-7

**REACTIONS**

(size) 5=0-3-8, 7=0-3-8  
 Max Horiz 7=-268 (LC 8)  
 Max Uplift 5=-132 (LC 11), 7=-242 (LC 11)  
 Max Grav 5=4999 (LC 2), 7=5597 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-175/129, 2-3=-4922/340,  
 3-5=-4966/180, 1-7=-158/102  
 BOT CHORD 6-7=-80/666, 5-6=-88/3730  
 WEBS 2-7=-3306/235, 2-6=-421/6899, 3-6=-262/265

**NOTES**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-7-0 oc.  
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 3-6 2x4 - 1 row at 0-7-0 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.
- 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 DSS crushing capacity of 660 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 5 and 242 lb uplift at joint 7.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1594 lb down and 53 lb up at 1-7-12, 1594 lb down and 53 lb up at 3-0-11, 1594 lb down and 53 lb up at 5-0-11, 1594 lb down and 53 lb up at 7-0-11, and 1600 lb down and 53 lb up at 9-0-11, and 1600 lb down and 53 lb up at 11-0-11 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: 1-2=-40, 2-5=-40, 7-8=-20  
 Concentrated Loads (lb)  
 Vert: 6=-1386 (B), 13=-1386 (B), 14=-1386 (B),  
 15=-1386 (B), 16=-1391 (B), 17=-1391 (B)



November 29, 2023

**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)



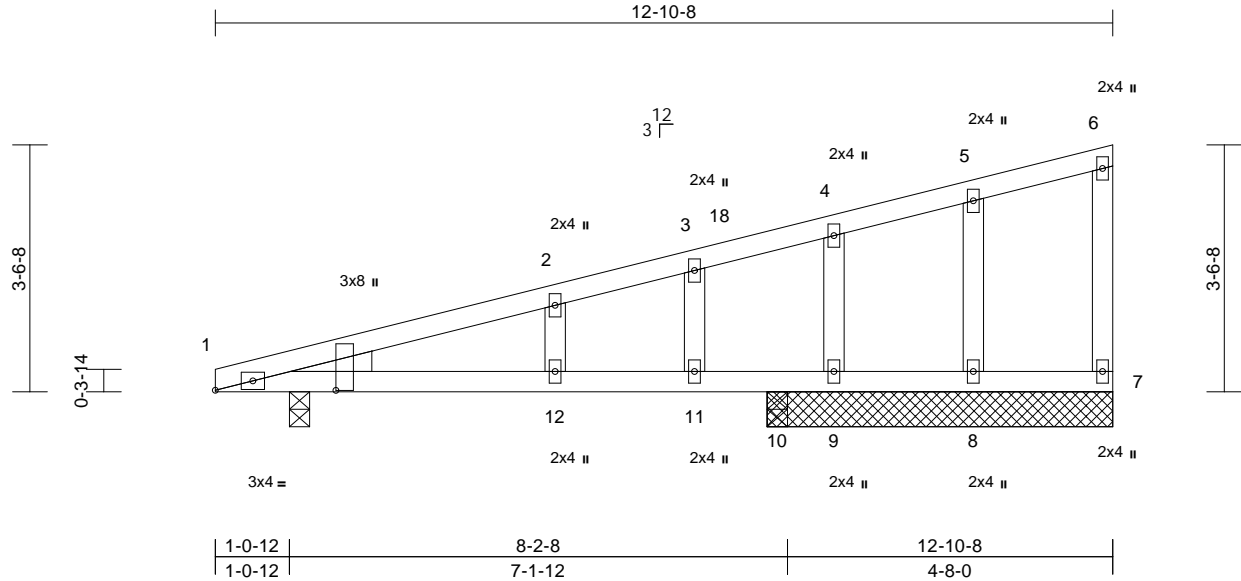
818 Soundside Road  
 Edenton, NC 27932

Job 3780767	Truss D1	Truss Type Monopitch Structural Gable	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208159 Job Reference (optional)
----------------	-------------	--	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:56  
ID:E7FL3vfi3JtDBg3mJMH?Vzcy3?RfC?PsB70Hq3NSgPqnL8w3uTXbGKWRcDoi7J4zJC?f

Page: 1



Scale = 1:33.1

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

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	0.38	Vert(LL)	0.10	12-17	>951	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.14	12-17	>690	180		
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-MS								
BCDL	10.0											
										Weight: 55 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=0-3-8, 7=4-11-8, 8=4-11-8, 9=4-11-8, 10=0-3-8  
 Max Horiz 1=102 (LC 15)  
 Max Uplift 1=-68 (LC 12), 7=-6 (LC 13), 8=-11 (LC 16), 9=-278 (LC 2), 10=-227 (LC 12)  
 Max Grav 1=320 (LC 2), 7=87 (LC 22), 8=168 (LC 22), 9=111 (LC 12), 10=766 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

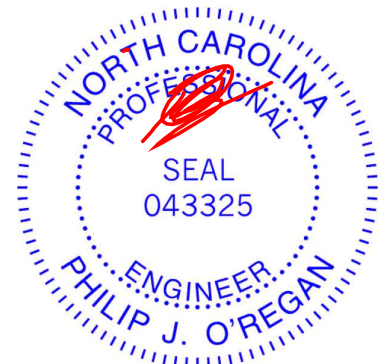
TOP CHORD 1-2=-109/59, 2-3=-108/70, 3-4=-71/48, 4-5=-57/36, 5-6=-45/41, 6-7=-73/34  
 BOT CHORD 1-12=-131/102, 11-12=-36/40, 10-11=-36/40, 9-10=-36/40, 8-9=-36/40, 7-8=-36/40  
 WEBS 5-8=-93/29, 4-9=-206/92, 3-11=-217/128, 2-12=-27/51

**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; porch left 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=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.
- 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 6 lb uplift at joint 7, 68 lb uplift at joint 1, 11 lb uplift at joint 8, 278 lb uplift at joint 9 and 227 lb uplift at joint 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



November 29, 2023

**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)



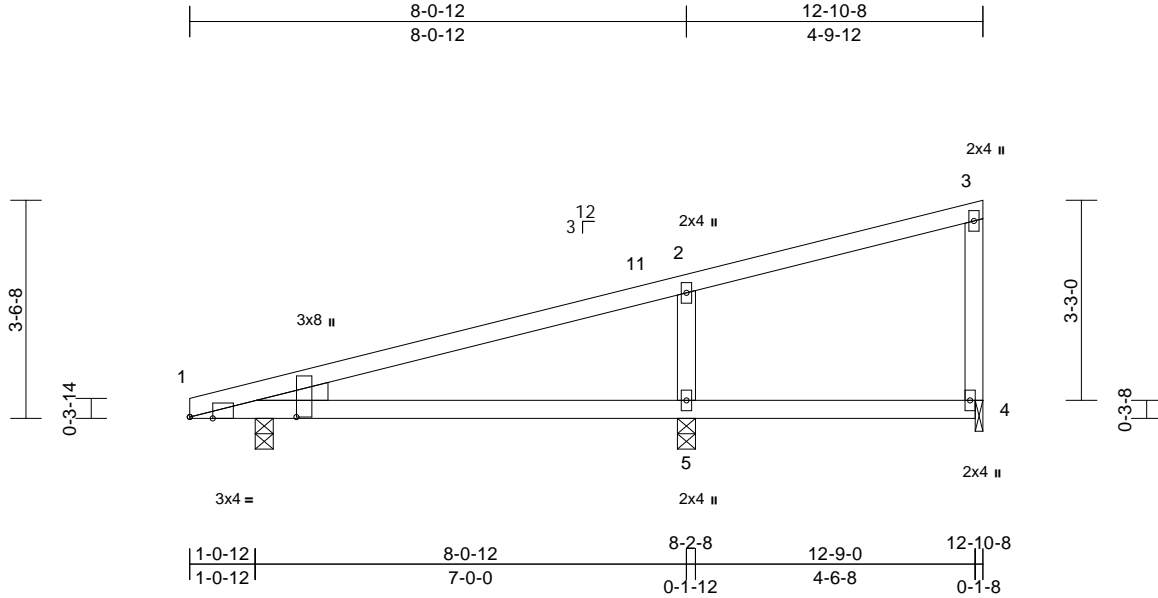
818 Soundside Road  
 Edenton, NC 27932

Job 3780767	Truss D2	Truss Type Monopitch	Qty 4	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208160 Job Reference (optional)
----------------	-------------	-------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:57  
ID:N3H5vgnc3DK7iMzUAKDjVzcy0P-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:37.4

Plate Offsets (X, Y): [1:0-4-7,Edge], [1:0-0-0,1-8-12]

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	0.51	Vert(LL)	0.12	5-10	>819	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.13	5-10	>733	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	1	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  
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, 4=0-1-8, 5=0-3-8  
Max Horiz 1=102 (LC 15)  
Max Uplift 1=-70 (LC 12), 4=-4 (LC 16), 5=-133 (LC 12)  
Max Grav 1=323 (LC 2), 4=149 (LC 23), 5=620 (LC 23)

**FORCES**

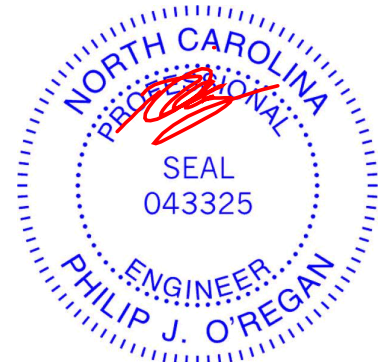
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-120/71, 2-3=-74/35, 3-4=-127/42  
BOT CHORD 1-5=-132/105, 4-5=-34/49  
WEBS 2-5=-447/208

**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; porch left 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 5 SP No.2 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 133 lb uplift at joint 5, 70 lb uplift at joint 1 and 4 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.

**LOAD CASE(S)** Standard



November 29, 2023

**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](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))



818 Soundside Road  
Edenton, NC 27932

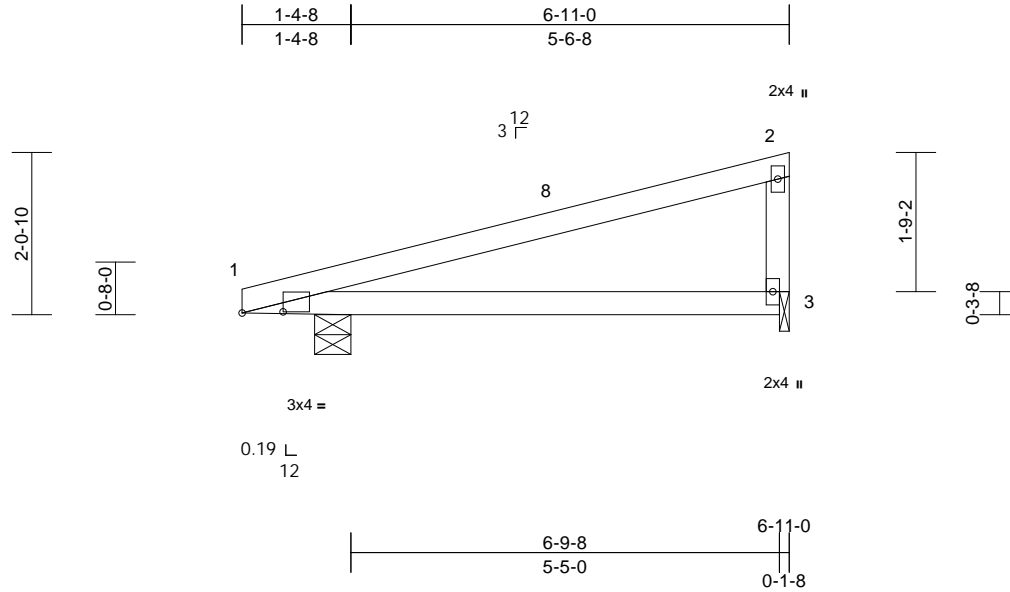


Job 3780767	Truss D3	Truss Type Monopitch	Qty 10	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208161 Job Reference (optional)
----------------	-------------	-------------------------	-----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:57  
ID:JF\_81oY17Lup\_rv95oneNgzcy?a-RfC?PsB70Hq3NSgPqnL8w3uITXbGkWRcDoi7J4zJC?f

Page: 1



Scale = 1:29.1

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

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	0.54	Vert(LL)	-0.04	3-7	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.10	3-7	>851	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: 23 lb	FT = 20%

**LUMBER**

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

**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=0-5-8, 3=0-1-8  
Max Horiz 1=54 (LC 15)  
Max Uplift 1=-22 (LC 12), 3=-21 (LC 16)  
Max Grav 1=326 (LC 2), 3=228 (LC 23)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-59/39, 2-3=-165/87  
BOT CHORD 1-3=-45/90

**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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 8) Bearing at joint(s) 1, 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 22 lb uplift at joint 1 and 21 lb uplift at joint 3.
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 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.

**LOAD CASE(S)** Standard



November 29, 2023

**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)



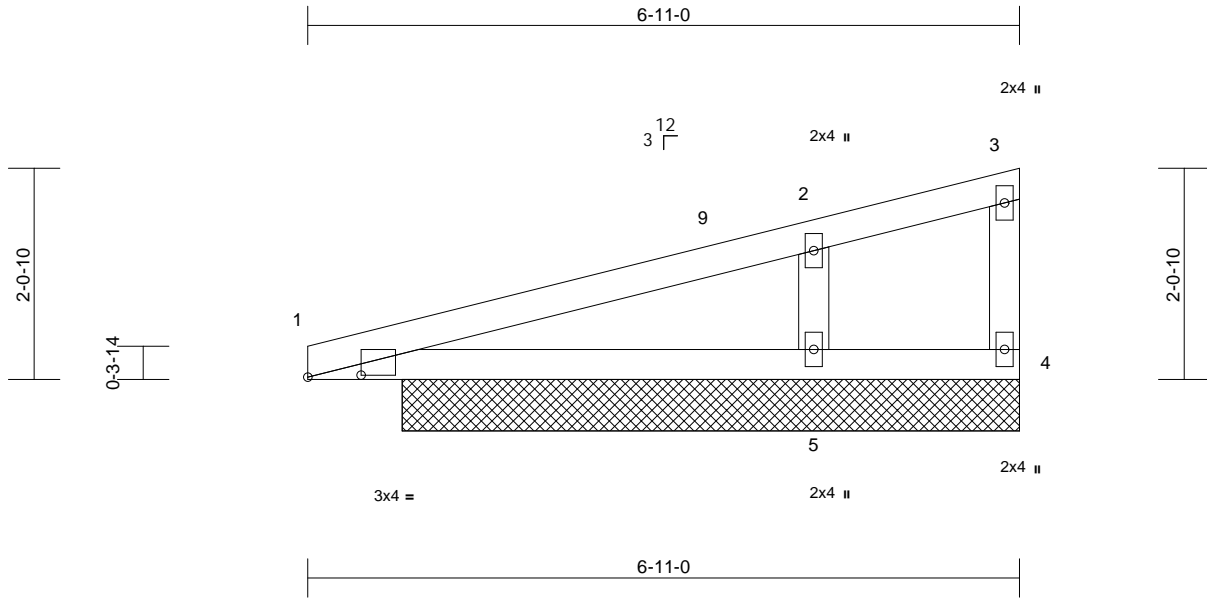
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss D4	Truss Type Monopitch	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208162 Job Reference (optional)
----------------	-------------	-------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:57  
ID: SqN11UXq3E6JClcjLJke9lzcy\_J-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCdoi7J4zJC?f

Page: 1



Scale = 1:22.4

Plate Offsets (X, Y): [1:0-6-3,0-0-4]

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	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	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.2  
OTHERS 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(size) 1=6-0-0, 4=6-0-0, 5=6-0-0, 8=6-0-0  
Max Horiz 1=54 (LC 15), 8=54 (LC 15)  
Max Uplift 1=-10 (LC 12), 5=-35 (LC 16),  
8=-10 (LC 12)  
Max Grav 1=227 (LC 2), 4=29 (LC 22), 5=301  
(LC 22), 8=227 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

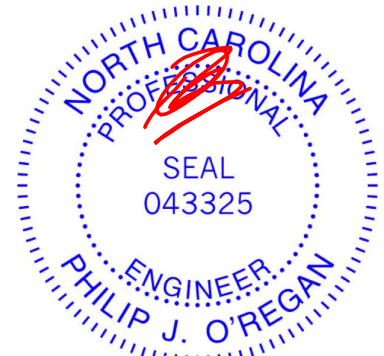
TOP CHORD 1-2=-66/45, 2-3=-33/23, 3-4=-26/15  
BOT CHORD 1-5=-25/26, 4-5=-24/26  
WEBS 2-5=-220/121

**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.

- 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=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
- 4) Roof design snow load has been reduced to account for slope.
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 35 lb uplift at joint 5 and 10 lb uplift at joint 1.
- 11) N/A
- 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



November 29, 2023

**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)



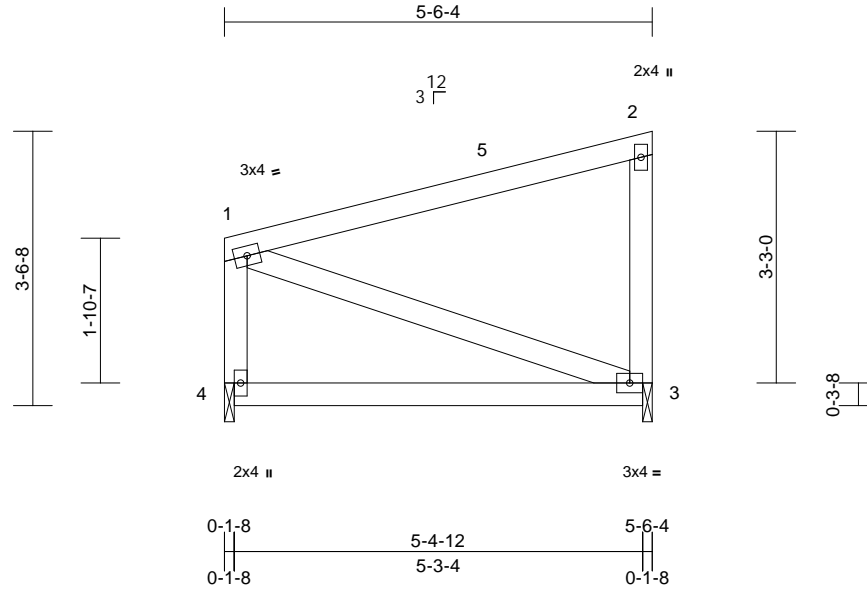
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss D6	Truss Type Monopitch	Qty 5	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208163 Job Reference (optional)
----------------	-------------	-------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:58  
ID:Tk3I?AzU1o5Q\_aCbppNYTszcxyS-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCdoi7J4zJC?f

Page: 1



Scale = 1:29.7

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	0.54	Vert(LL)	-0.04	3-4	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.09	3-4	>700	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	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 \*Except\* 1-4:2x4 SP No.2

**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) 3=0-1-8, 4=0-1-8  
 Max Horiz 4=95 (LC 13)  
 Max Uplift 3=-18 (LC 13), 4=-17 (LC 12)  
 Max Grav 3=212 (LC 23), 4=209 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-69/58, 2-3=-160/101, 1-4=-157/95  
 BOT CHORD 3-4=-151/119  
 WEBS 1-3=-89/127

**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 4 SP No.2 crushing capacity of 565 psi, Joint 3 SP No.3 crushing capacity of 565 psi.
- 8) Bearing at joint(s) 4, 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) 4, 3.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 4 and 18 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



November 29, 2023

**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)



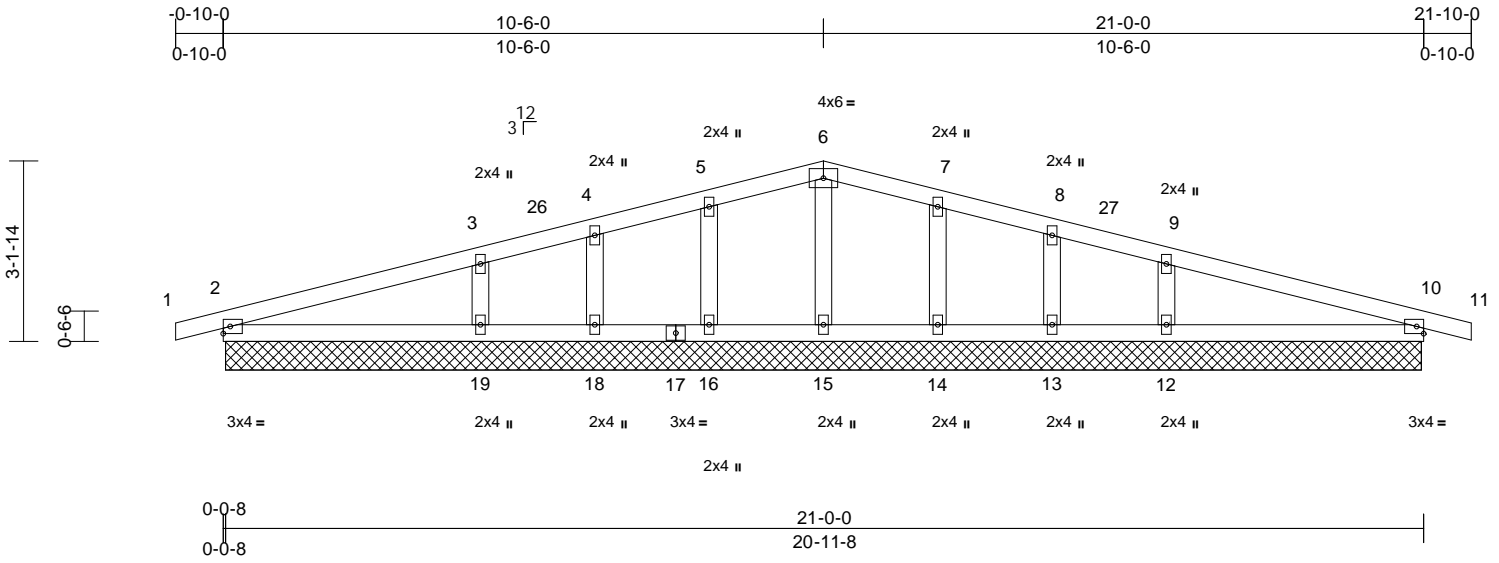
818 Soundside Road  
 Edenton, NC 27932

Job 3780767	Truss E1	Truss Type Common Supported Gable	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208164 Job Reference (optional)
----------------	-------------	--------------------------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:58  
ID:XealFa5EYQUAEZMW7I?snYehjK-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

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	0.52	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.01	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 84 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) 2=20-11-0, 10=20-11-0, 12=20-11-0, 13=20-11-0, 14=20-11-0, 15=20-11-0, 16=20-11-0, 18=20-11-0, 19=20-11-0, 20=20-11-0  
Max Horiz 2=-37 (LC 17), 20=-37 (LC 17)  
Max Uplift 2=-78 (LC 36), 12=-66 (LC 13), 13=-94 (LC 2), 14=-28 (LC 13), 15=-17 (LC 13), 16=-20 (LC 16), 18=-7 (LC 12), 19=-37 (LC 16), 20=-78 (LC 36)  
Max Grav 2=128 (LC 35), 12=558 (LC 2), 13=17 (LC 13), 14=266 (LC 24), 15=382 (LC 2), 16=232 (LC 23), 18=68 (LC 23), 19=428 (LC 2), 20=128 (LC 35)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/20, 2-3=-151/580, 3-4=-115/541, 4-5=-103/560, 5-6=-84/552, 6-7=-84/552, 7-8=-103/566, 8-9=-112/533, 9-10=-151/588, 10-11=0/20  
BOT CHORD 2-19=-528/170, 18-19=-528/170, 16-18=-528/170, 15-16=-528/170, 14-15=-528/170, 13-14=-528/170, 12-13=-528/170, 10-12=-528/170  
WEBS 6-15=-354/74, 5-16=-178/56, 4-18=-74/27, 3-19=-282/97, 7-14=-195/59, 8-13=-12/40, 9-12=-345/110

- 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=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.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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 78 lb uplift at joint 2, 17 lb uplift at joint 15, 20 lb uplift at joint 16, 7 lb uplift at joint 18, 37 lb uplift at joint 19, 28 lb uplift at joint 14, 94 lb uplift at joint 13, 66 lb uplift at joint 12 and 78 lb uplift at joint 2.
  - N/A
  - 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



November 29, 2023

**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)



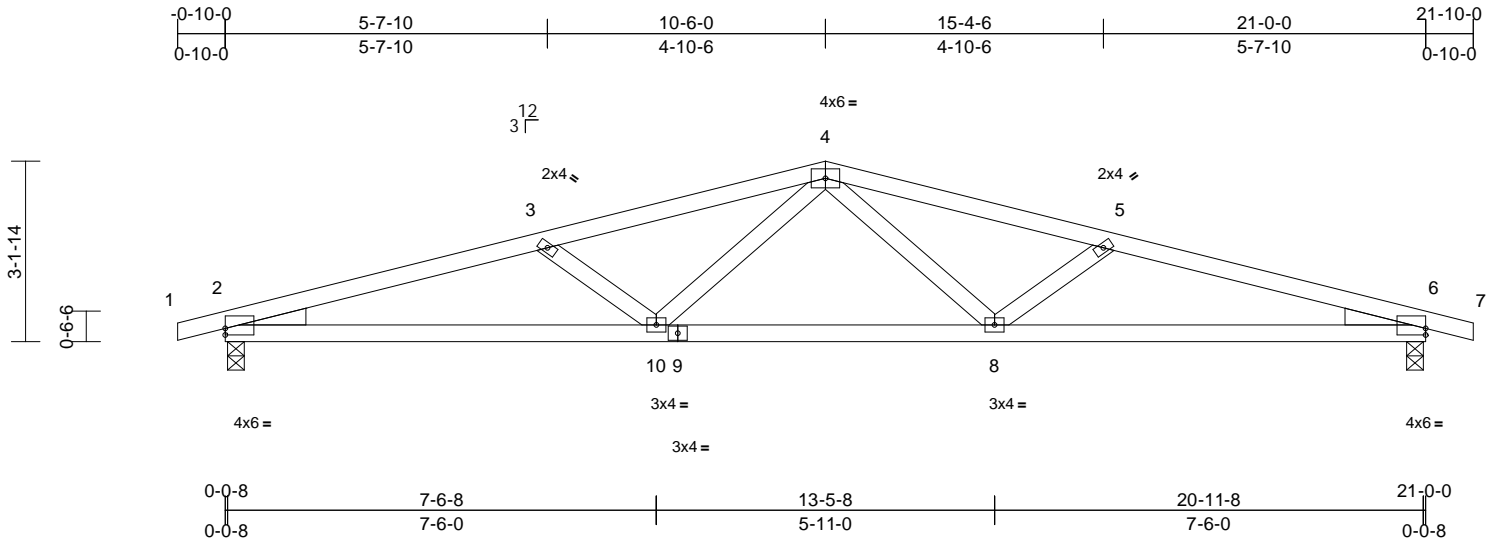
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss E2	Truss Type Common	Qty 6	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208165 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:59  
ID:J7e2dioEfYv6JahU0JrDyEhIP-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:40.3

Plate Offsets (X, Y): [2:Edge,0-1-6], [6:Edge,0-1-6]

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	0.61	Vert(LL)	-0.17	8-10	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.32	8-10	>789	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.06	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 89 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  
Right: 2x4 SP No.3

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

**REACTIONS** (size) 2=0-3-8, 6=0-3-8  
Max Horiz 2=-37 (LC 17)  
Max Uplift 2=-59 (LC 12), 6=-59 (LC 13)  
Max Grav 2=890 (LC 2), 6=890 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/20, 2-3=-2228/302, 3-4=-1954/232, 4-5=-1954/232, 5-6=-2228/302, 6-7=0/20  
BOT CHORD 2-10=-251/2115, 8-10=-142/1542, 6-8=-254/2115  
WEBS 4-8=-4/488, 5-8=-374/138, 4-10=-4/488, 3-10=-374/138

- 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.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 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 59 lb uplift at joint 2 and 59 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



November 29, 2023

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

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



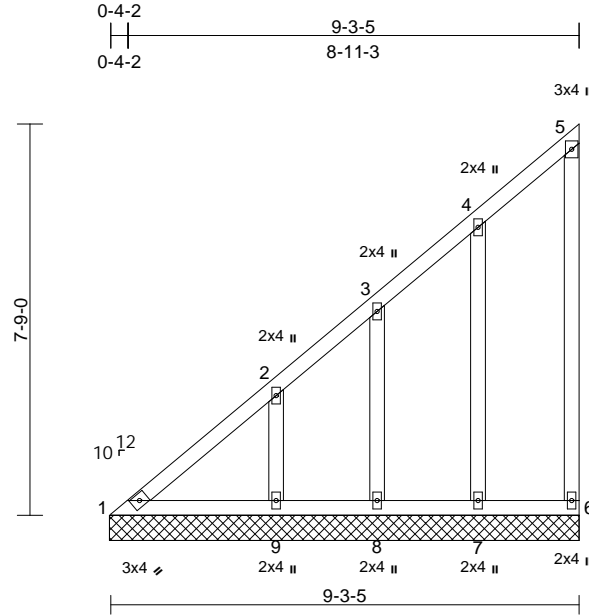
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss V1	Truss Type Valley	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208166 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:48:59  
ID:OKHB5a3jiPovXRVufwI8Kzchmt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?I

Page: 1



Scale = 1:45.6

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	0.48	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 59 lb	FT = 20%

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

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

**REACTIONS** (size) 1=9-3-10, 6=9-3-10, 7=9-3-10, 8=9-3-10, 9=9-3-10  
Max Horiz 1=218 (LC 11)  
Max Uplift 1=-22 (LC 10), 6=-49 (LC 13), 7=-60 (LC 14), 8=-49 (LC 14), 9=-68 (LC 14)  
Max Grav 1=164 (LC 26), 6=79 (LC 25), 7=185 (LC 25), 8=128 (LC 25), 9=274 (LC 25)

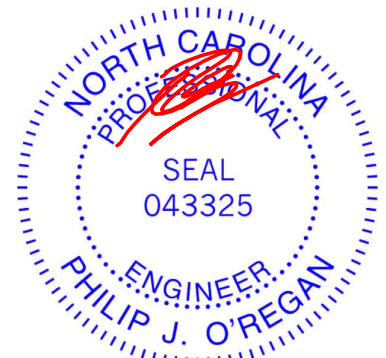
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-333/315, 2-3=-253/231, 3-4=-192/192, 4-5=-100/102, 5-6=-76/57  
BOT CHORD 1-9=-117/186, 8-9=-97/106, 7-8=-97/106, 6-7=-97/106  
WEBS 4-7=-173/120, 3-8=-119/89, 2-9=-181/95

**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.

- 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=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
- 4) Roof design snow load has been reduced to account for slope.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 6, 22 lb uplift at joint 1, 60 lb uplift at joint 7, 49 lb uplift at joint 8 and 68 lb uplift at joint 9.
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 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.

**LOAD CASE(S)** Standard



November 29, 2023

**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)



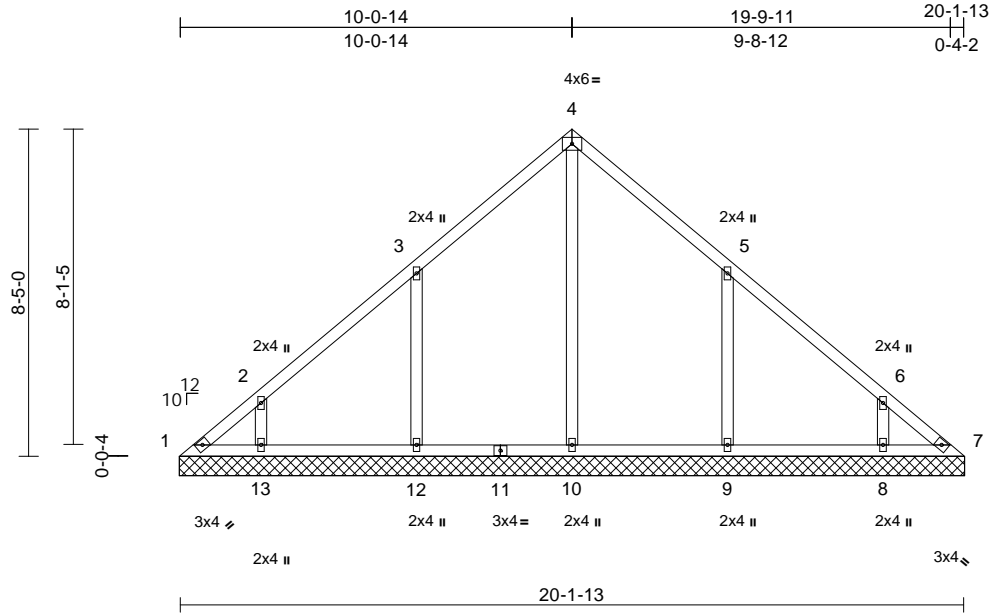
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss V2	Truss Type Valley	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208167 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:49:00  
ID:toN\_tkH?TxZxyipyRFzt7zchmb-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCDoi7J4zJC7f

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	0.19	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 96 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=20-2-6, 7=20-2-6, 8=20-2-6, 9=20-2-6, 10=20-2-6, 12=20-2-6, 13=20-2-6  
Max Horiz 1=-159 (LC 12)  
Max Uplift 1=-41 (LC 10), 7=-4 (LC 11), 8=-65 (LC 15), 9=-126 (LC 15), 12=-126 (LC 14), 13=-70 (LC 14)  
Max Grav 1=111 (LC 26), 7=90 (LC 28), 8=278 (LC 2), 9=423 (LC 26), 10=390 (LC 28), 12=423 (LC 25), 13=278 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-174/131, 2-3=-163/103, 3-4=-154/143, 4-5=-154/138, 5-6=-126/63, 6-7=-139/89  
BOT CHORD 1-13=-63/122, 12-13=-63/122, 10-12=-63/122, 9-10=-63/122, 8-9=-63/122, 7-8=-63/122  
WEBS 4-10=-175/4, 3-12=-282/174, 2-13=-216/124, 5-9=-282/174, 6-8=-215/122

**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 41 lb uplift at joint 1, 4 lb uplift at joint 7, 126 lb uplift at joint 12, 70 lb uplift at joint 13, 126 lb uplift at joint 9 and 65 lb uplift at joint 8.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 7.
- 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



November 29, 2023

**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)



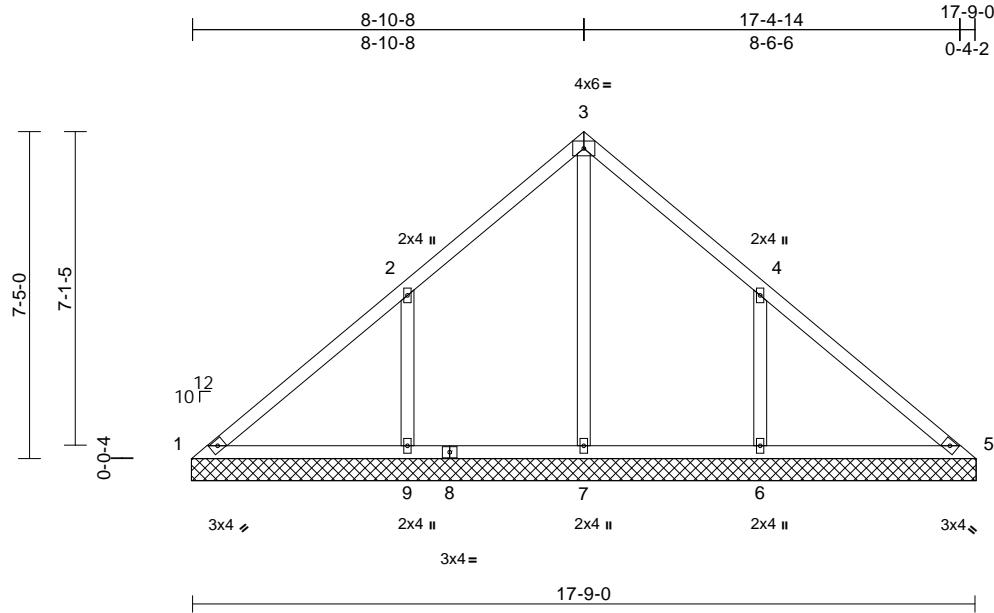
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss V3	Truss Type Valley	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208168 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:49:00  
ID:SUDHpXRnAEkyestfmNVFR4zchmN-RfC?PsB70Hq3NSgPqnL8w3uITxbGKwRCDi7J4zJC?f

Page: 1



Scale = 1:52.3

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	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 80 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=17-9-10, 5=17-9-10, 6=17-9-10,  
7=17-9-10, 9=17-9-10  
Max Horiz 1=-140 (LC 10)  
Max Uplift 1=-14 (LC 10), 6=-138 (LC 15),  
9=-140 (LC 14)  
Max Grav 1=104 (LC 26), 5=99 (LC 30),  
6=497 (LC 26), 7=513 (LC 25),  
9=499 (LC 25)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-124/258, 2-3=-8/191, 3-4=0/191,  
4-5=-99/225  
BOT CHORD 1-9=-172/120, 7-9=-172/120, 6-7=-172/120,  
5-6=-172/120  
WEBS 3-7=-360/0, 2-9=-313/179, 4-6=-312/178

**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'-0-0 tall by 2'-0-0 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, 140 lb uplift at joint 9 and 138 lb uplift at joint 6.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
- 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



November 29, 2023

**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

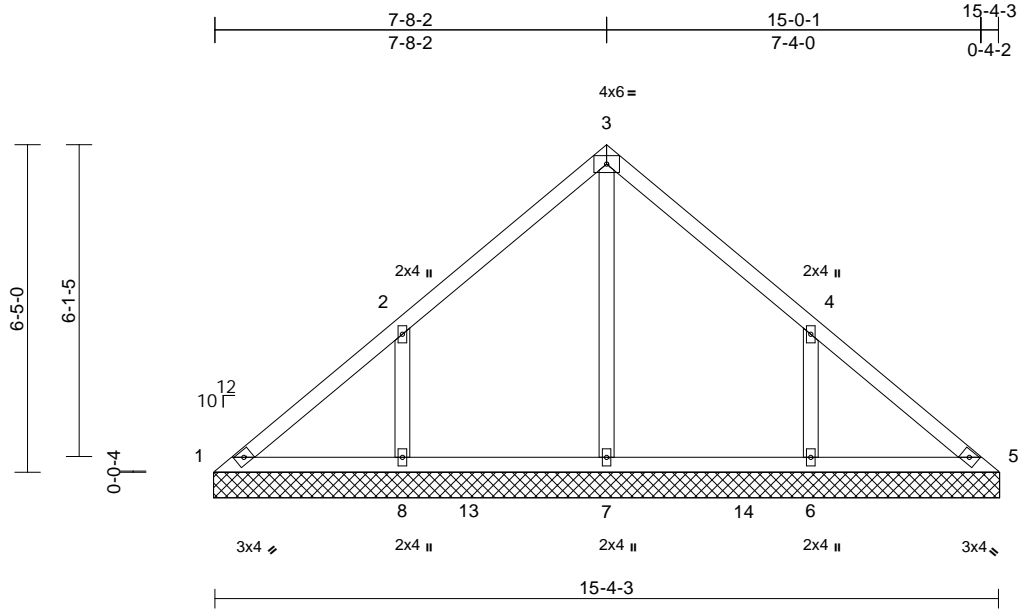


Job 3780767	Truss V4	Truss Type Valley	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208169 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:49:01  
ID:lr8wHwXAWODy\_xv?hL7uDZzchmG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC7f

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	0.22	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)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 67 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=15-4-13, 5=15-4-13, 6=15-4-13, 7=15-4-13, 8=15-4-13  
 Max Horiz 1=-121 (LC 10)  
 Max Uplift 1=-14 (LC 10), 6=-117 (LC 15), 8=-119 (LC 14)  
 Max Grav 1=113 (LC 26), 5=97 (LC 30), 6=397 (LC 26), 7=422 (LC 25), 8=399 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-137/152, 2-3=-78/123, 3-4=-62/106, 4-5=-112/121  
 BOT CHORD 1-8=-89/117, 7-8=-89/91, 6-7=-89/91, 5-6=-89/91  
 WEBS 3-7=-254/0, 2-8=-273/158, 4-6=-272/157

- 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, 119 lb uplift at joint 8 and 117 lb uplift at joint 6.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
- 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.



November 29, 2023

**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)



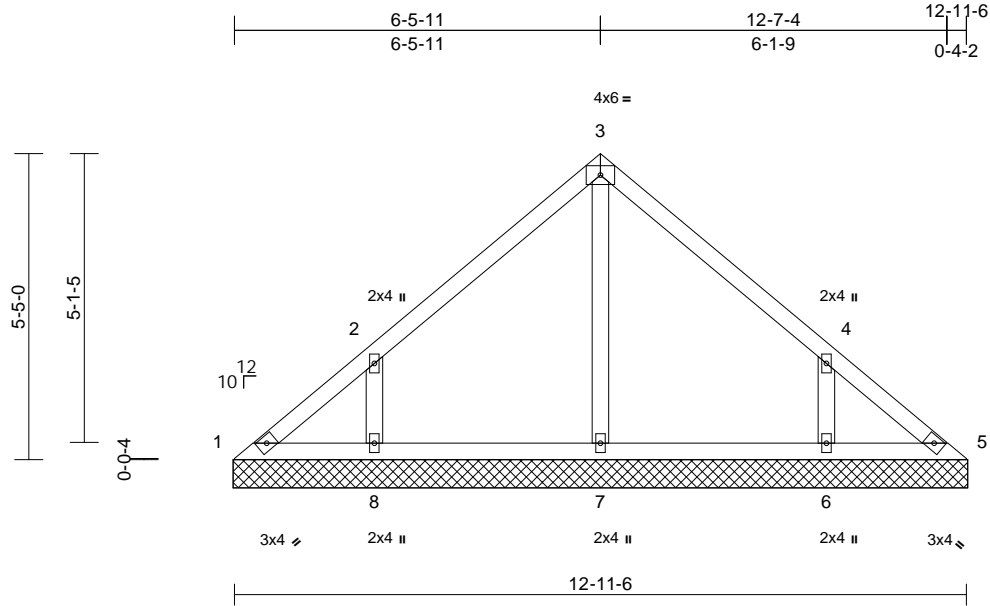
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss V5	Truss Type Valley	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208170 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:49:01  
ID:60xpKdbJLwrF4iozTvj3wczhmB-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:40.8

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	0.20	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	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 55 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=13-0-0, 5=13-0-0, 6=13-0-0, 7=13-0-0, 8=13-0-0  
Max Horiz 1=101 (LC 11)  
Max Uplift 1=-19 (LC 10), 6=-100 (LC 15), 8=-103 (LC 14)  
Max Grav 1=99 (LC 26), 5=81 (LC 25), 6=323 (LC 26), 7=259 (LC 2), 8=326 (LC 25)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-125/92, 2-3=-126/94, 3-4=-119/88, 4-5=-102/61  
BOT CHORD 1-8=-32/92, 7-8=-32/68, 6-7=-32/68, 5-6=-32/78  
WEBS 3-7=-177/0, 2-8=-253/150, 4-6=-252/149

**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 19 lb uplift at joint 1, 103 lb uplift at joint 8 and 100 lb uplift at joint 6.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
- 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



November 29, 2023

**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)



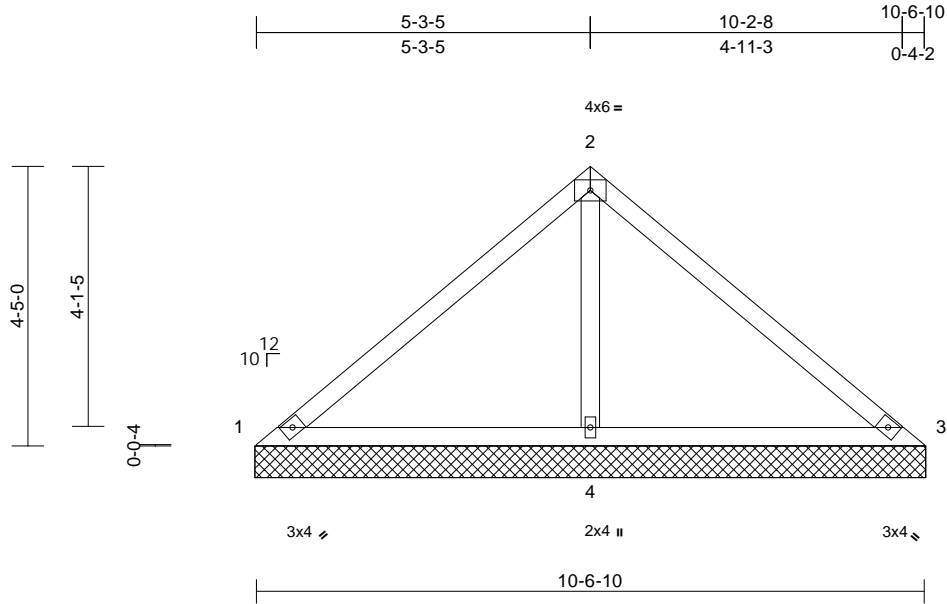
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss V6	Truss Type Valley	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208171 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:49:02  
ID:tLQr?MhKSNr62wPVxasxFlzchm3-RfC?PsB70Hq3NSgPqnL8w3uITxBkKwRcDoi7J4zJC7f

Page: 1



Scale = 1:36.4

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	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.30	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.00	3	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  
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=10-7-3, 3=10-7-3, 4=10-7-3  
Max Horiz 1=-82 (LC 12)  
Max Uplift 1=-45 (LC 30), 3=-45 (LC 29),  
4=-66 (LC 14)  
Max Grav 1=61 (LC 29), 3=61 (LC 30), 4=826 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-83/371, 2-3=-83/371  
BOT CHORD 1-4=-259/123, 3-4=-259/123  
WEBS 2-4=-645/165

**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 45 lb uplift at joint 1, 45 lb uplift at joint 3 and 66 lb uplift at joint 4.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 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.

**LOAD CASE(S)** Standard



November 29, 2023

**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)



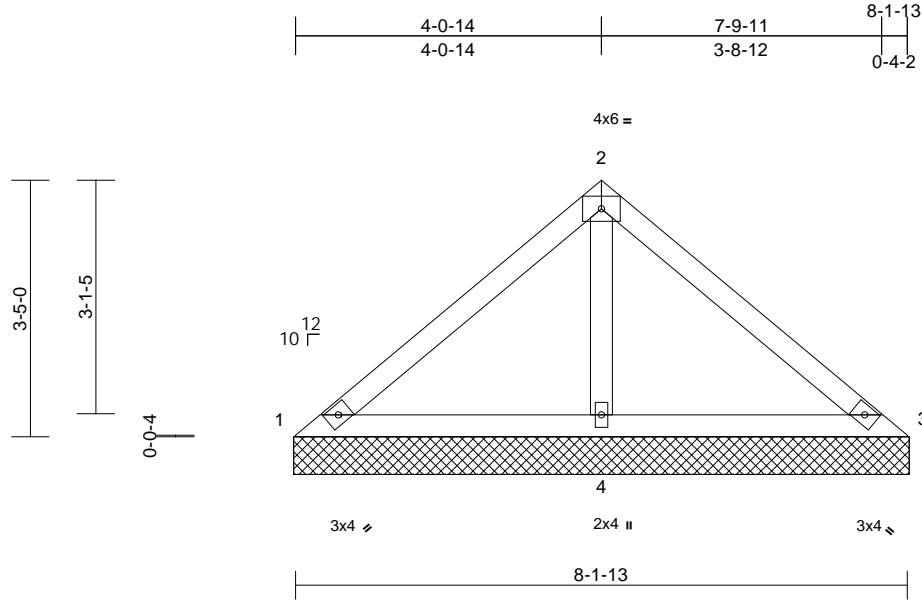
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss V7	Truss Type Valley	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208172 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:49:02  
ID:Eal9duy7H8d?gJ5kECF58xzhj-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:30.7

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	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	3	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  
OTHERS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 8-1-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS**

(size) 1=8-2-6, 3=8-2-6, 4=8-2-6  
Max Horiz 1=62 (LC 11)  
Max Uplift 1=-21 (LC 30), 3=-21 (LC 29),  
4=-47 (LC 14)  
Max Grav 1=61 (LC 29), 3=61 (LC 30), 4=602 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-62/250, 2-3=-62/250  
BOT CHORD 1-4=-193/102, 3-4=-193/102  
WEBS 2-4=-442/116

**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 21 lb uplift at joint 1, 21 lb uplift at joint 3 and 47 lb uplift at joint 4.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 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.

**LOAD CASE(S)** Standard



November 29, 2023

**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)



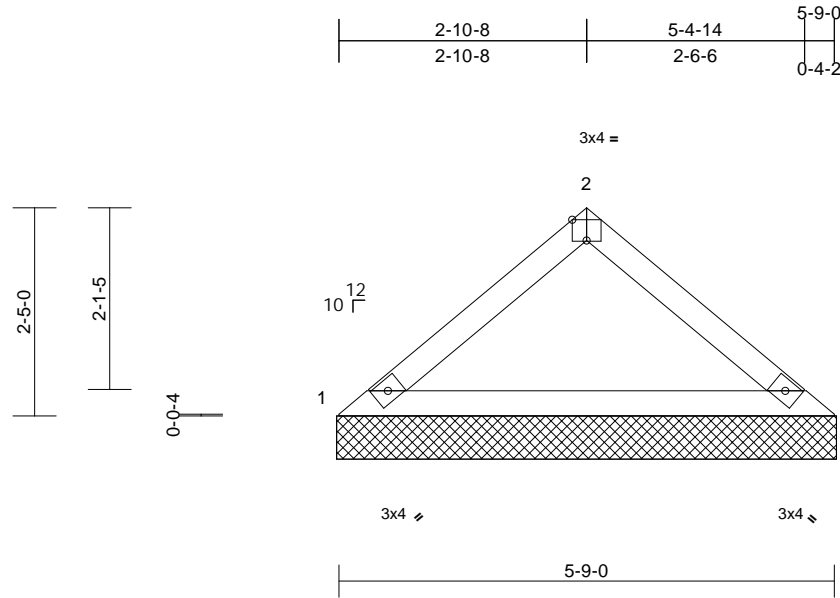
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss V8	Truss Type Valley	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208173 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:49:02  
ID:xDqW9Vtkw\_k\_LE2OKEdSMSzchlq-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:26.7

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	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 18 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 5-9-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=5-9-10, 3=5-9-10  
Max Horiz 1=43 (LC 12)  
Max Uplift 1=3 (LC 14), 3=3 (LC 15)  
Max Grav 1=232 (LC 2), 3=232 (LC 2)

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

TOP CHORD 1-2=-330/40, 2-3=-330/40  
BOT CHORD 1-3=-22/252

#### 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 3 lb uplift at joint 1 and 3 lb uplift at joint 3.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 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.

**LOAD CASE(S)** Standard



November 29, 2023

**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

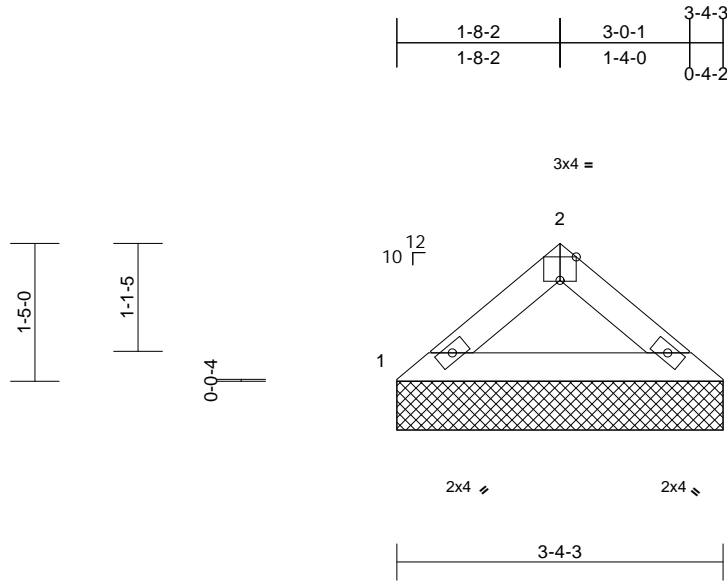
818 Soundside Road  
Edenton, NC 27932

Job 3780767	Truss V9	Truss Type Valley	Qty 1	Ply 1	CHESAPEAKE HOMES - PLAN 2343 B w/ 3 CAR T32208174 Job Reference (optional)
----------------	-------------	----------------------	----------	----------	--

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 09:49:03  
ID:iVn6GQm52DcGmrsfrzL.UZzchiz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?#

Page: 1



Scale = 1:23.7

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 3-4-3 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=3-4-3, 3=3-4-3  
Max Horiz 1=24 (LC 10)  
Max Uplift 1=2 (LC 14), 3=2 (LC 15)  
Max Grav 1=134 (LC 2), 3=134 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-176/22, 2-3=-176/22  
BOT CHORD 1-3=-10/131

- 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 2 lb uplift at joint 1 and 2 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.

**LOAD CASE(S)** Standard

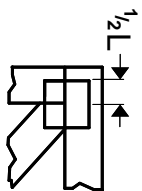
- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical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



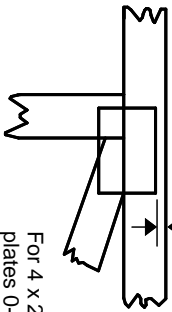
November 29, 2023

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

4 X 4

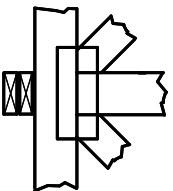
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



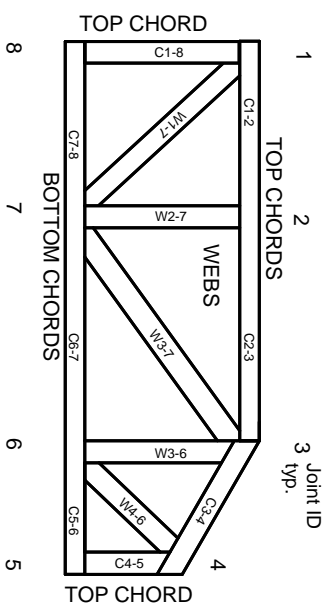
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System

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



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

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

# Product Code Approvals

ICC-ES Reports:

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

# Design General Notes

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

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

© 2023 MITek® All Rights Reserved

# 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.

**MITek**

ENGINEERING BY  
**TRENGO**  
A MITek Affiliate

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