

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: 3908438
Chamberlain Homes / 146 Montana

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: T33374518 thru T33374561

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

North Carolina COA: C-0844



March 28, 2024

Velez, Joaquin

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.

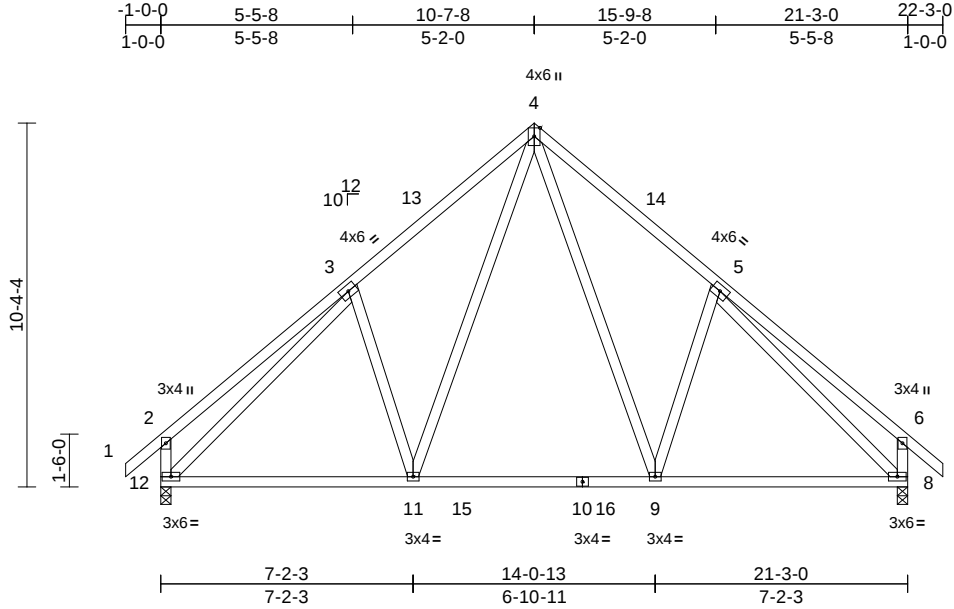
Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374518
3908438	A1	Common	4	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:36

Page: 1

ID:1Xlcr8XVFwevRO981b1quZzfH3k-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f



Scale = 1:65.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.08	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.12	8-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.01	9-11	>999	240	Weight: 150 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 5-9-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

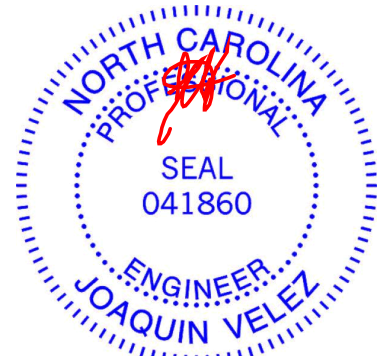
REACTIONS (size) 8=0-3-8, 12=0-3-8
Max Horiz 12=228 (LC 11)
Max Uplift 8=23 (LC 13), 12=23 (LC 12)
Max Grav 8=997 (LC 20), 12=997 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-279/132, 3-4=-932/157, 4-5=-932/157, 5-6=-279/132, 6-7=0/44, 2-12=-334/130, 6-8=-334/130
BOT CHORD 11-12=-46/795, 9-11=0/571, 8-9=0/702
WEBS 5-9=-197/208, 3-11=-197/208, 3-12=-867/0, 5-8=-867/0, 4-9=-115/498, 4-11=-115/498

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 10-7-8, Exterior(2R) 10-7-8 to 13-7-8, Interior (1) 13-7-8 to 22-3-0 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=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 23 lb uplift at joint 8 and 23 lb uplift at joint 12.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

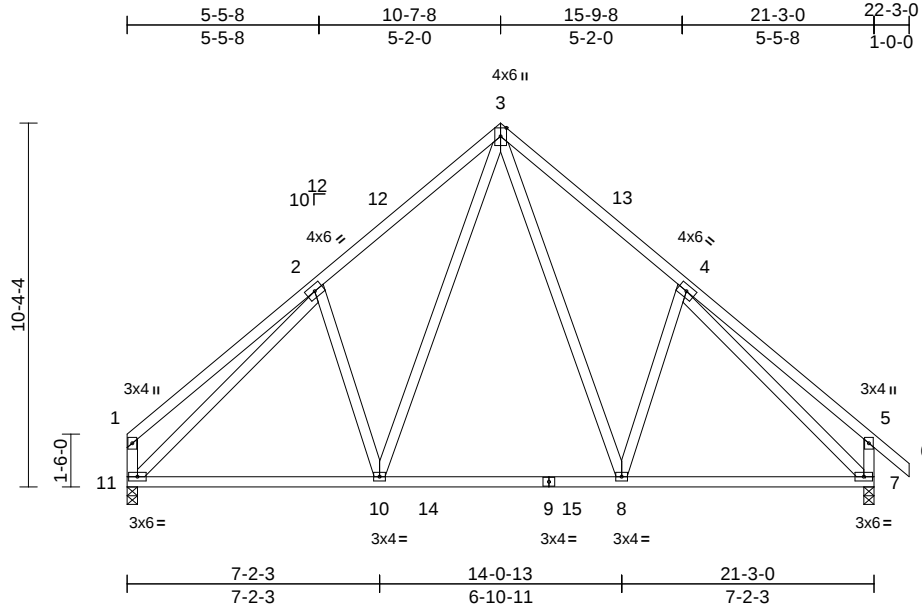
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374519
3908438	A2	Common	3	1	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. Wed Mar 27 11:29:37
ID:Ep7BiPjje592a_uO9zAILZzfH1R-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:65.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.08	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.12	10-11	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.02	8-10	>999	240	Weight: 148 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 5-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7=0-3-8, 11=0-3-8

Max Horiz 11=-222 (LC 8)
Max Uplift 7=-22 (LC 13), 11=-7 (LC 12)
Max Grav 7=999 (LC 20), 11=933 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-250/98, 2-3=-939/156, 3-4=-934/156,
4-5=-279/132, 5-6=0/44, 1-11=-245/86,
5-7=-334/130

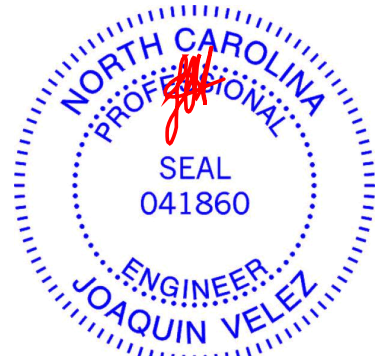
BOT CHORD 10-11=-46/801, 8-10=0/573, 7-8=0/704
WEBS 4-8=-198/208, 2-10=-206/209, 2-11=-882/0,
4-7=-870/0, 3-8=-115/498, 3-10=-115/506

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 10-7-8, Exterior(2R) 10-7-8 to 13-7-8, Interior (1) 13-7-8 to 22-3-0 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=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 22 lb uplift at joint 7 and 7 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

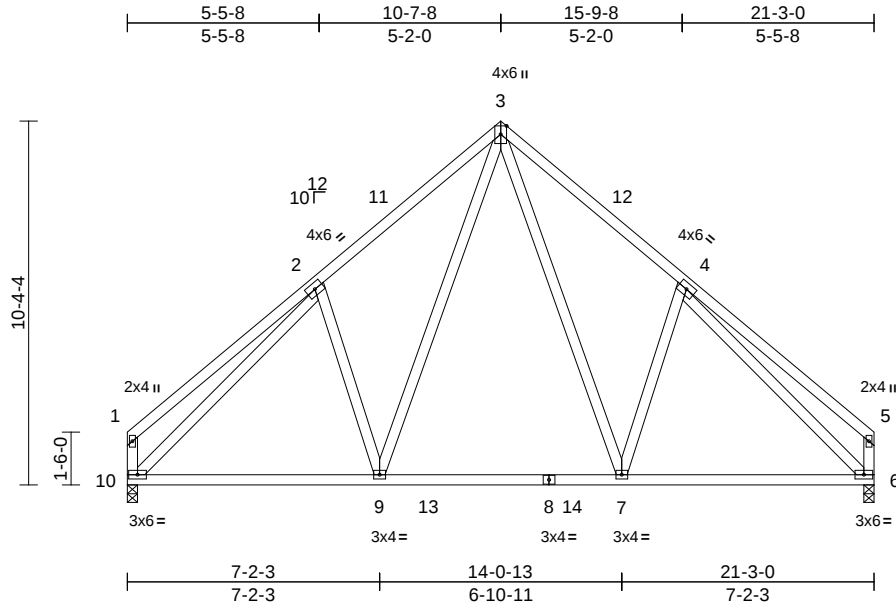
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374520
3908438	A3	Common	3	1	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. Wed Mar 27 11:29:37
ID:exsAT3mwwSpoWgDWpEKzLMzfH0s-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCD0i7J4zJC?f

Page: 1



Scale = 1:65.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.08	7-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.12	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.02	7-9	>999	240	Weight: 146 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 5-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 10=0-3-8
Max Horiz 10=-209 (LC 8)
Max Uplift 6=-6 (LC 13), 10=-6 (LC 12)
Max Grav 6=934 (LC 20), 10=934 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-250/98, 2-3=-941/156, 3-4=-941/156,
4-5=-250/98, 1-10=-245/86, 5-6=-245/86
BOT CHORD 9-10=-58/794, 7-9=0/565, 6-7=-8/701
WEBS 4-7=-206/209, 2-9=-206/209, 2-10=-884/0,
4-6=-884/0, 3-7=-116/506, 3-9=-116/506

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 10-7-8, Exterior(2R) 10-7-8 to 13-7-8, Interior (1) 13-7-8 to 21-1-4 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=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 6 and 6 lb uplift at joint 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

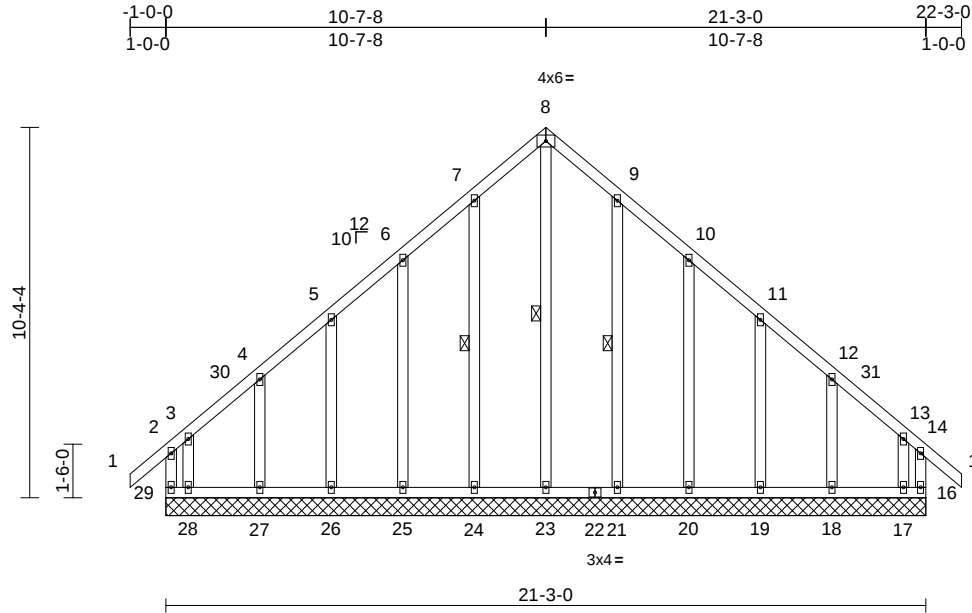
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374521
3908438	AG1	Common Supported Gable	1	1	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. Wed Mar 27 11:29:37
ID:Xzd6tE05_vTpXuKY9CvinzfH0X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:64.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	16	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							
Weight: 166 lb FT = 20%											

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

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 8-23, 7-24, 9-21

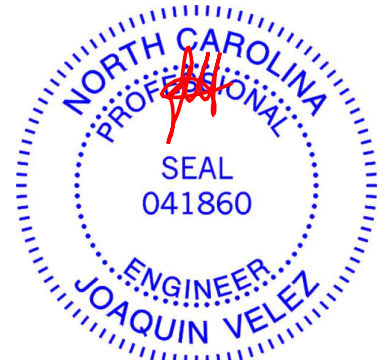
REACTIONS	(size)
Max Horiz	29=-228 (LC 10)
Max Uplift	16=-284 (LC 11), 17=-290 (LC 8), 18=-56 (LC 13), 19=-56 (LC 13), 20=-62 (LC 13), 21=-46 (LC 13), 24=-47 (LC 12), 25=-62 (LC 12), 26=-56 (LC 12), 27=-55 (LC 12), 28=-331 (LC 9), 29=-340 (LC 10)
Max Grav	16=346 (LC 8), 17=336 (LC 11), 18=170 (LC 20), 19=168 (LC 20), 20=167 (LC 20), 21=175 (LC 20), 23=276 (LC 13), 24=176 (LC 19), 25=167 (LC 19), 26=168 (LC 19), 27=170 (LC 19), 28=380 (LC 10), 29=399 (LC 9)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/44, 2-3=-215/201, 3-4=-122/123, 4-5=-102/129, 5-6=-89/177, 6-7=-128/249, 7-8=-161/308, 8-9=-161/308, 9-10=-128/249, 10-11=-89/177, 11-12=-83/120, 12-13=-102/104, 13-14=-184/168, 14-15=0/44, 14-16=-211/157, 2-29=-235/187

BOT CHORD	28-29=-112/115, 27-28=-112/115, 26-27=-112/115, 25-26=-112/115, 24-25=-112/115, 23-24=-112/115, 21-23=-112/115, 20-21=-112/115, 19-20=-112/115, 18-19=-112/115, 17-18=-112/115, 16-17=-112/115
WEBS	8-23=-334/123, 7-24=-136/71, 6-25=-127/91, 5-26=-127/80, 4-27=-133/90, 3-28=-166/163, 9-21=-135/70, 10-20=-128/91, 11-19=-127/80, 12-18=-133/90, 13-17=-147/145

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 10-7-8, Corner(3R) 10-7-8 to 13-7-8, Exterior(2N) 13-7-8 to 22-3-0 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=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 284 lb uplift at joint 16, 340 lb uplift at joint 29, 47 lb uplift at joint 24, 62 lb uplift at joint 25, 56 lb uplift at joint 26, 55 lb uplift at joint 27, 331 lb uplift at joint 28, 46 lb uplift at joint 21, 62 lb uplift at joint 20, 56 lb uplift at joint 19, 56 lb uplift at joint 18 and 290 lb uplift at joint 17.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

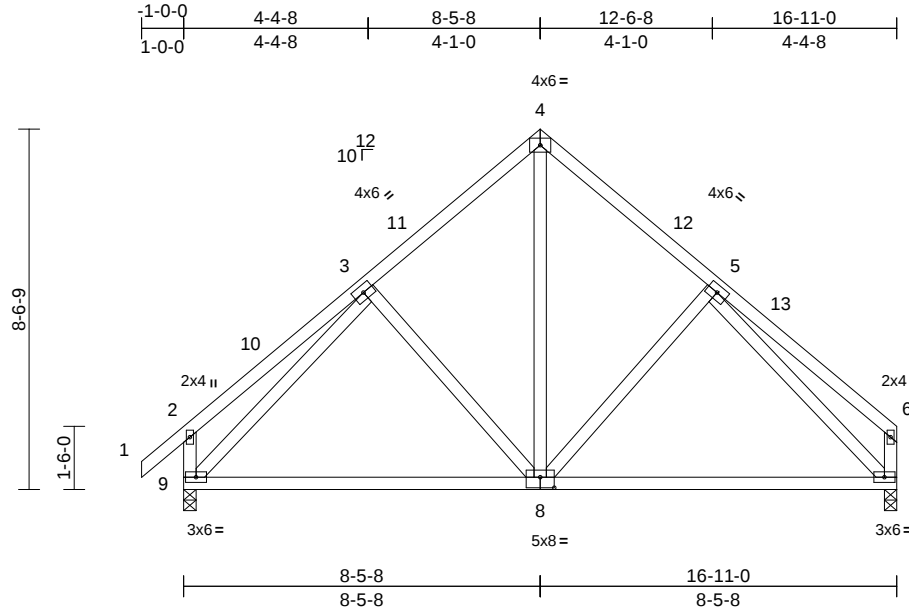
Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	B1	Common	1	1	T33374522
Job Reference (optional)					

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:37

Page: 1

ID:3K7aoXQoC2d8_zMu_aleXlzfH00-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:54.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.10	7-8	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.19	8-9	>999	240	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.01	7	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.01	8	>999	240	Weight: 111 lb FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size)

7=0-3-8, 9=0-3-8
Max Horiz 9=186 (LC 9)
Max Uplift 7=-4 (LC 13), 9=-20 (LC 12)
Max Grav 7=663 (LC 1), 9=736 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

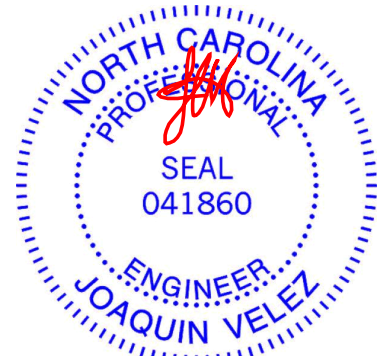
TOP CHORD 1-2=0/44, 2-3=-196/92, 3-4=-553/103, 4-5=-554/103, 5-6=-185/69, 2-9=-263/94, 6-7=-186/55
BOT CHORD 7-9=-51/477
WEBS 4-8=-50/402, 3-8=-152/151, 3-9=-546/4, 5-8=-160/151, 5-7=-553/38

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 8-5-8, Exterior(2R) 8-5-8 to 11-5-8, Interior (1) 11-5-8 to 16-9-4 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=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 20 lb uplift at joint 9 and 4 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

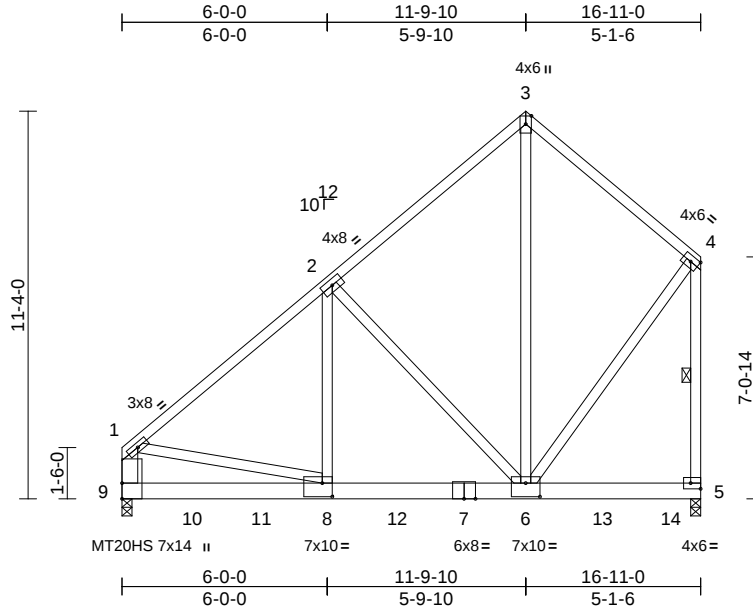
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374523
3908438	B2	Common Girder	1	2	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. Wed Mar 27 11:29:37
ID:6cCD_4EDWPtXjHsu9RWUBrZfE6K-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrdOoi7J4zJC?f

Page: 1



Scale = 1:67.4

Plate Offsets (X, Y): [5:Edge,0-2-0], [6:0-5-0,0-4-12], [8:0-3-8,0-4-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.08	6-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.13	6-8	>999	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.04	6-8	>999	240	Weight: 282 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS
WEBS 2x4 SP No.2 *Except* 9-1:2x6 SP 2400F 2.0E or 2x6 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-8-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-5

REACTIONS

(size) 5=0-3-8, 9=0-3-8
Max Horiz 9=284 (LC 7)
Max Uplift 5=-146 (LC 8), 9=-83 (LC 8)
Max Grav 5=6139 (LC 15), 9=5455 (LC 16)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5348/108, 2-3=-2842/138, 3-4=-2785/172, 1-9=-4205/93, 4-5=-4683/154
BOT CHORD 8-9=-280/983, 6-8=-174/4132, 5-6=-64/63
WEBS 2-8=-25/3363, 3-6=-113/3220, 2-6=-2896/206, 4-6=-92/3537, 1-8=-18/3320

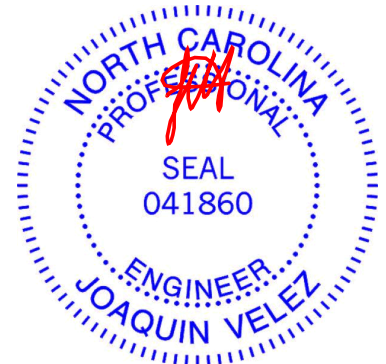
NOTES

- 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, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; 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=1.60
- 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.
- All bearings are assumed to be SP 2400F 2.0E or DSS crushing capacity of 660 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 146 lb uplift at joint 5 and 83 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1294 lb down and 23 lb up at 2-0-12, 1294 lb down and 23 lb up at 4-0-12, 1294 lb down and 23 lb up at 6-0-12, 1294 lb down and 23 lb up at 8-0-12, 1294 lb down and 23 lb up at 10-0-12, 1294 lb down and 23 lb up at 12-0-12, and 1294 lb down and 23 lb up at 14-0-12, and 1297 lb down and 21 lb up at 16-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-4=-60, 5-9=-20
Concentrated Loads (lb)
Vert: 7=-1097 (B), 8=-1097 (B), 6=-1097 (B), 10=-1097 (B), 11=-1097 (B), 12=-1097 (B), 13=-1097 (B), 14=-1100 (B)



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	BG1	Common Girder	1	1	Job Reference (optional)

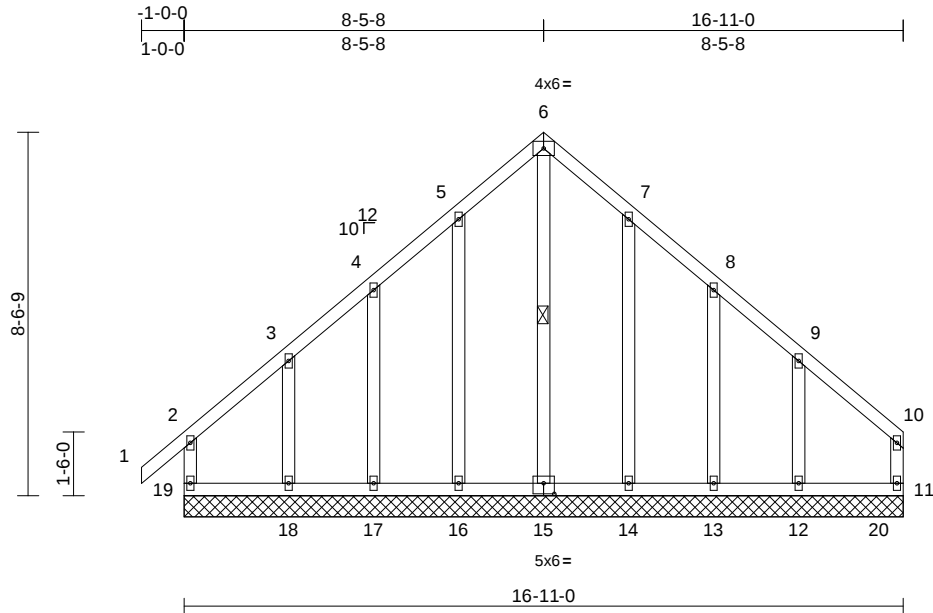
T33374524

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:37

Page: 1

ID:3TQ?QXaefQYjaVyVmTmLozfGvL-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f



Scale = 1:54.2

Plate Offsets (X, Y): [15:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.00	11	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							
										Weight: 117 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.
WEBS	1 Row at midpt 6-15

REACTIONS	(size)	11=16-11-0, 12=16-11-0, 13=16-11-0, 14=16-11-0, 15=16-11-0, 16=16-11-0, 17=16-11-0, 18=16-11-0, 19=16-11-0
	Max Horiz	19=186 (LC 5)
	Max Uplift	11=95 (LC 5), 12=114 (LC 9), 13=45 (LC 28), 14=54 (LC 9), 16=55 (LC 27), 17=42 (LC 8), 18=119 (LC 27), 19=89 (LC 4)
	Max Grav	11=157 (LC 15), 12=258 (LC 16), 13=147 (LC 22), 14=181 (LC 16), 15=238 (LC 9), 16=181 (LC 15), 17=158 (LC 1), 18=240 (LC 15), 19=225 (LC 16)

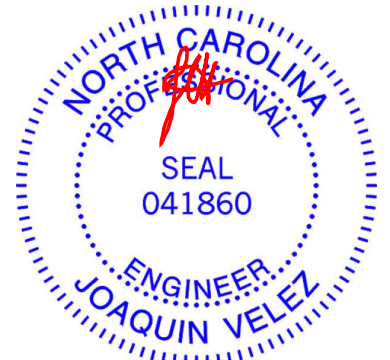
FORCES	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/44, 2-3=-137/127, 3-4=-84/130, 4-5=-83/171, 5-6=-68/203, 6-7=-56/196, 7-8=-67/163, 8-9=-80/122, 9-10=-108/99, 2-19=-179/74, 10-11=-102/62	
BOT CHORD	18-19=-81/81, 17-18=-81/81, 16-17=-81/81, 14-16=-81/81, 13-14=-81/81, 12-13=-81/81, 11-12=-81/81	
WEBS	6-15=-213/13, 5-16=-138/77, 4-17=-119/74, 3-18=-165/119, 7-14=-138/76, 8-13=-114/75, 9-12=-176/113	

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=32ft; 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 95 lb uplift at joint 11, 89 lb uplift at joint 19, 55 lb uplift at joint 16, 42 lb uplift at joint 17, 119 lb uplift at joint 18, 54 lb uplift at joint 14, 45 lb uplift at joint 13 and 114 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 37 lb down and 30 lb up at 16-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S)

- Standard
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-6=-60, 6-10=-60, 11-19=-20
Concentrated Loads (lb)
Vert: 20=-37



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

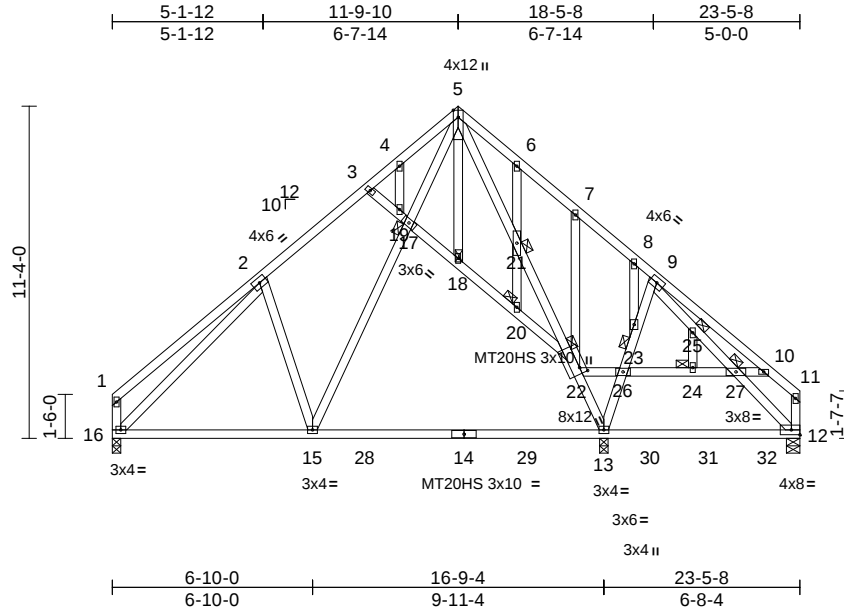
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374525
3908438	BG2	Common Girder	1	1	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. Wed Mar 27 11:29:37
ID:qOdadXr?d_bbIVbh48s1vzfGgp-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRCDoi7J4zJC?i

Page: 1



Scale = 1:78.6

Plate Offsets (X, Y): [22:0-2-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.33	13-15	>600	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.41	13-15	>483	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.14	12-13	>561	240	Weight: 208 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-11-2 oc bracing.
JOINTS	1 Brace at Jt(s): 17, 18, 20, 21, 22, 23, 24, 25, 27
REACTIONS	
(size)	12=0-5-8, 13=0-3-8, 16=0-3-8
Max Horiz	16=227 (LC 7)
Max Uplift	12=-33 (LC 8), 13=-141 (LC 9)
Max Grav	12=582 (LC 22), 13=1371 (LC 16), 16=728 (LC 15)
FORCES	
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-219/109, 2-3=-678/102, 3-4=-528/89, 4-5=-492/123, 5-6=-81/159, 6-7=-108/116, 7-8=-107/56, 8-9=-93/23, 9-10=-302/118, 10-11=-370/108, 1-16=-227/97, 11-12=-310/104
BOT CHORD	15-16=-88/624, 13-15=-61/346, 12-13=-45/138

WEBS		
13-26=-285/201, 23-26=-276/195,		
9-23=-205/141, 2-15=-159/176,		
15-17=-75/545, 5-17=-92/552, 5-21=-390/20,		
21-22=-419/16, 13-22=-636/123,		
9-25=-164/161, 25-27=-162/161,		
12-27=-189/190, 2-16=-647/0, 3-19=-166/85,		
17-19=-171/104, 17-18=-152/97,		
18-20=-142/91, 20-22=-164/103,		
5-18=-37/49, 4-19=-30/37, 6-21=-91/45,		
20-21=-58/41, 7-22=-127/73, 8-23=-74/57,		
24-25=-4/6, 22-26=-50/41, 24-26=-49/31,		
24-27=-49/31, 10-27=-67/44		

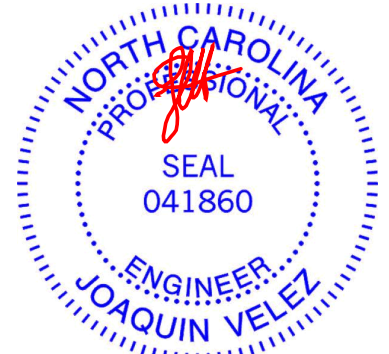
NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Vertical gable studs spaced at 2-0-0 oc and horizontal 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, 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 141 lb uplift at joint 13 and 33 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 207 lb down and 41 lb up at 18-4-4, and 207 lb down and 41 lb up at 20-4-4, and 208 lb down and 41 lb up at 22-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-60, 5-11=-60, 12-16=-20
Concentrated Loads (lb)
Vert: 30=-207 (F), 31=-207 (F), 32=-208 (F)



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

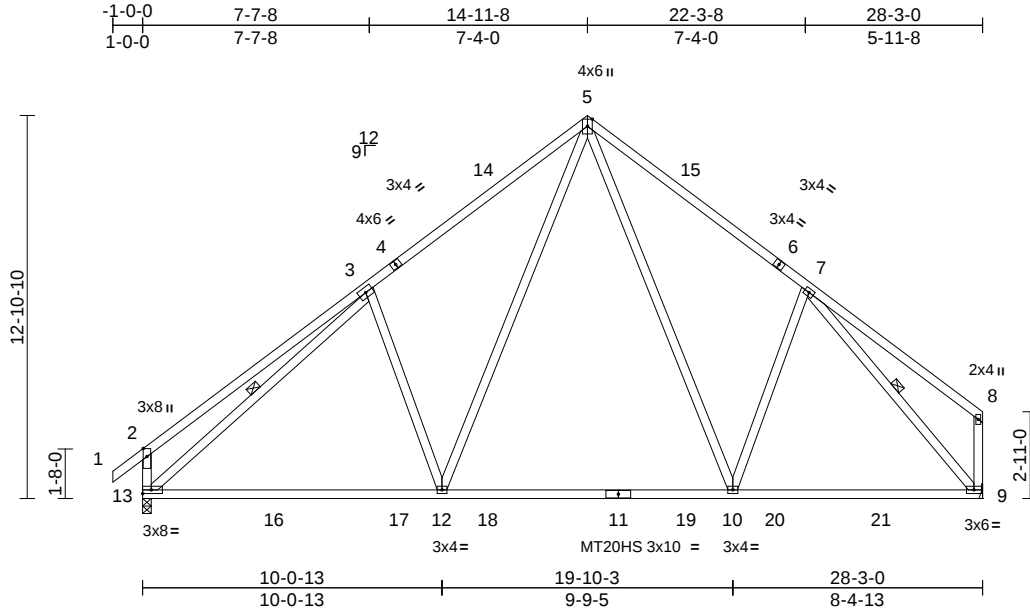
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374526
3908438	C1	Common	8	1	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. Wed Mar 27 11:29:38
ID:8pfxLAI2z12yn1q6tK?SajzfGfe-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:77.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.28	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.48	12-13	>703	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.03	10-12	>999	240	Weight: 191 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 10-5,12-5:2x4 SP No.2

BRACING

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

WEBS 1 Row at midpt 7-9, 3-13

REACTIONS

(size) 9= Mechanical, 13=0-3-8
Max Horiz 13=285 (LC 11)
Max Uplift 9=-11 (LC 13), 13=-34 (LC 12)
Max Grav 9=1314 (LC 20), 13=1387 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-3=-461/178, 3-5=-1389/189,
5-7=-1265/181, 7-8=-183/113, 8-9=-200/78,
2-13=-479/167
BOT CHORD 12-13=-87/1214, 10-12=0/821, 9-10=-34/918
WEBS 5-10=-120/536, 7-10=-152/240,
5-12=-128/799, 3-12=-310/264,
7-9=-1352/26, 3-13=-1202/0

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 14-11-8, Exterior(2R) 14-11-8 to 17-11-8, Interior (1) 17-11-8 to 28-1-4 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=1.60
- 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 13 SP No.1 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 11 lb uplift at joint 9 and 34 lb uplift at joint 13.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

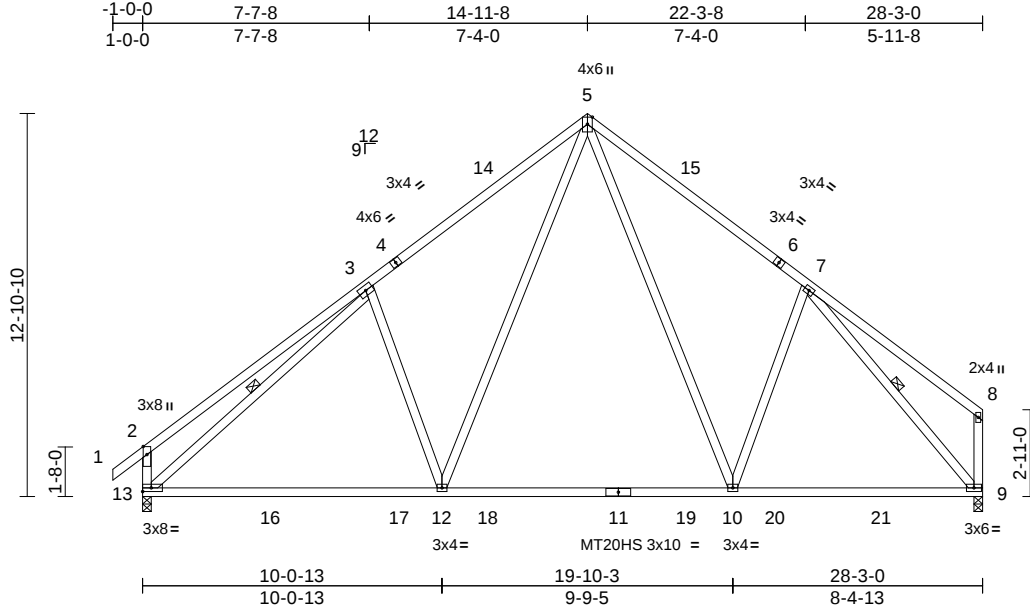
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374527
3908438	C2	Common	3	1	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. Wed Mar 27 11:29:38
ID:5eWXtAdGTfZyusAuSNHoMPzfGdD-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?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	1.15	TC	0.74	Vert(LL)	-0.28	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.48	12-13	>696	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.03	10-12	>999	240	Weight: 191 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3 *Except* 10-5,12-5:2x4 SP No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 3-10-3 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 7-9, 3-13
REACTIONS	(size) 9=0-3-8, 13=0-3-8 Max Horiz 13=285 (LC 11) Max Uplift 9=-11 (LC 13), 13=-34 (LC 12) Max Grav 9=1314 (LC 20), 13=1388 (LC 19)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/41, 2-3=-462/178, 3-5=-1390/189, 5-7=-1265/181, 7-8=-183/113, 8-9=-200/78, 2-13=-479/167
BOT CHORD	12-13=-87/1215, 10-12=0/821, 9-10=-34/918
WEBS	5-10=-120/535, 7-10=-152/240, 5-12=-128/800, 3-12=-310/264, 7-9=-1352/26, 3-13=-1202/0

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 14-11-8, Exterior(2R) 14-11-8 to 17-11-8, Interior (1) 17-11-8 to 28-1-4 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=1.60
- 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 11 lb uplift at joint 9 and 34 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

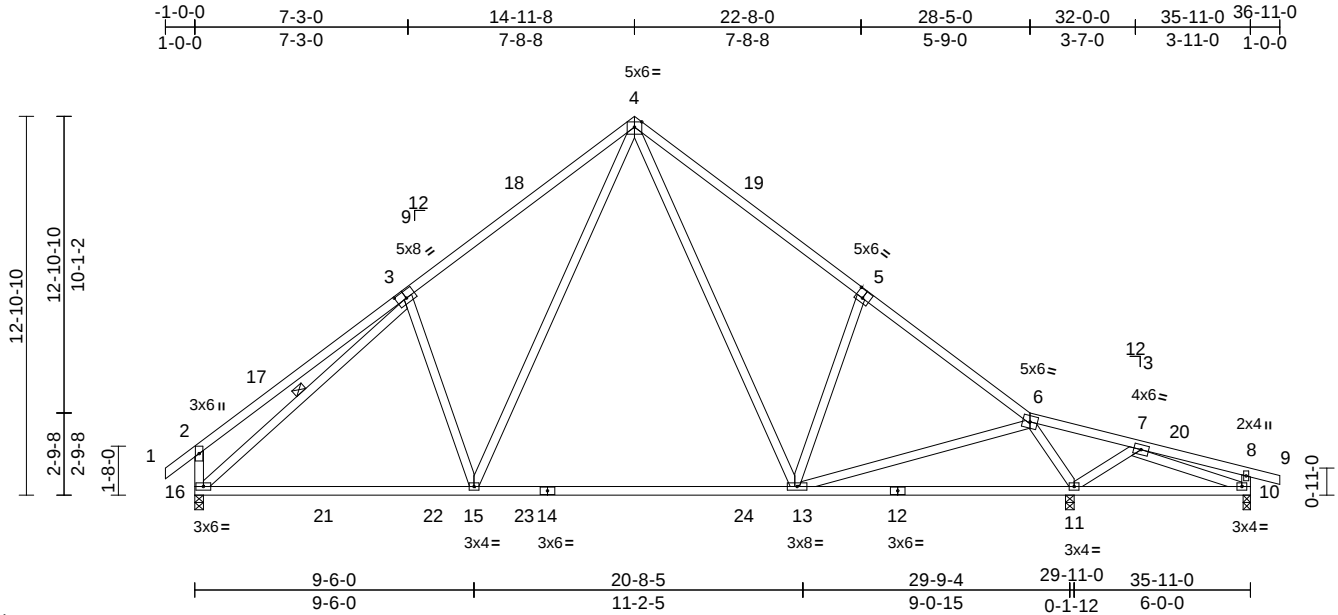
Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	C3	Roof Special	3	1	T33374528
Job Reference (optional)					

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:38

Page: 1

ID:y6JdDE_e?4bWEaQKkmG_d1zfGYT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:78.4

Plate Offsets (X, Y): [3:0-4-0,0-3-0], [5:0-3-0,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.47	13-15	>768	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.69	13-15	>516	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.03	13-15	>999	240	Weight: 224 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS
 WEBS 2x4 SP No.3 *Except* 15-4,13-4:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
 6-0-0 oc bracing: 10-11.
 WEBS 1 Row at midpt 3-16

REACTIONS

(size) 10=0-3-0, 11=0-3-8, 16=0-3-8
 Max Horiz 16=-276 (LC 10)
 Max Uplift 10=-94 (LC 9), 11=-58 (LC 13), 16=-34 (LC 12)
 Max Grav 10=140 (LC 26), 11=1843 (LC 2), 16=1416 (LC 19)

FORCES

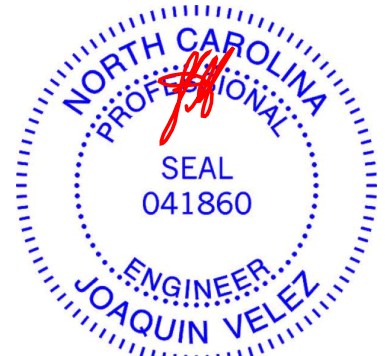
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/41, 2-4=-1476/299, 4-6=-1426/291, 6-7=-82/595, 7-8=-68/26, 8-9=0/17, 2-16=-420/224, 8-10=-178/99
 BOT CHORD 15-16=-82/1279, 13-15=0/858, 11-13=0/306, 10-11=-339/49
 WEBS 5-13=-426/245, 3-16=-1332/0, 7-10=-35/401, 3-15=-298/267, 4-15=-128/824, 4-13=-128/632, 6-13=-25/861, 7-11=-359/103, 6-11=-1613/202

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-7-2, Interior (1) 2-7-2 to 14-11-8, Exterior(2R) 14-11-8 to 18-6-10, Interior (1) 18-6-10 to 36-11-0 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=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 or SS or 2400F 2.0E crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 16, 94 lb uplift at joint 10 and 58 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
 A MiTek Affiliate

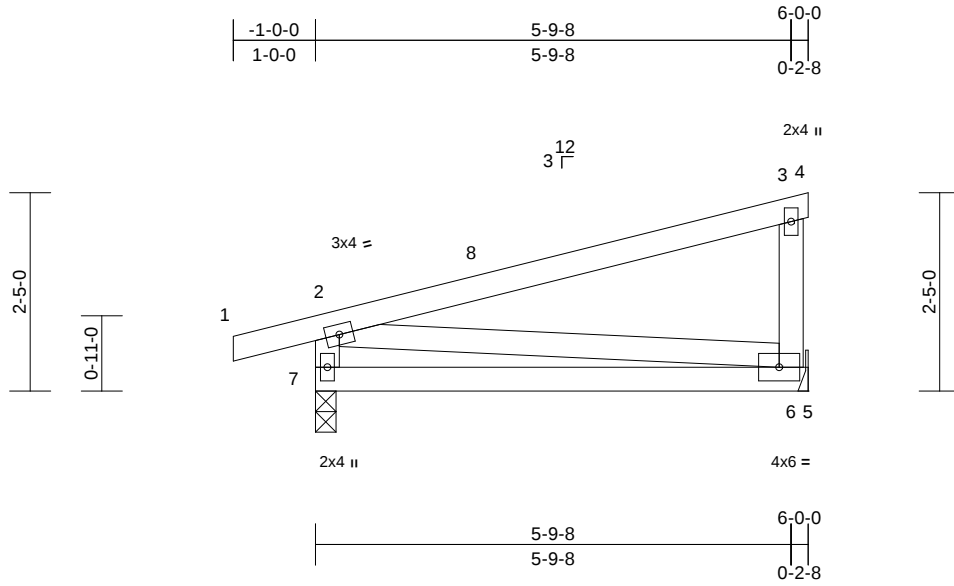
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374529
3908438	C4	Jack-Open	3	1	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. Wed Mar 27 11:29:38
ID:6tzYnoivaiFJVqUIPAZV7UzfGq1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:28.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.06	6-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.12	6-7	>558	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 31 lb	FT = 20%

LUMBER

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

7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

BRACING

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

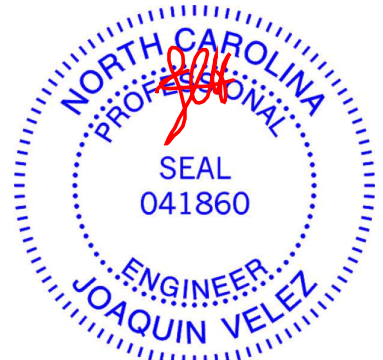
REACTIONS (size) 6= Mechanical, 7=0-3-0
Max Horiz 7=48 (LC 8)
Max Uplift 6=-29 (LC 12), 7=-44 (LC 8)
Max Grav 6=227 (LC 1), 7=301 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-53/31, 3-4=-1/0, 2-7=-245/174
BOT CHORD 6-7=-105/45, 5-6=0/0
WEBS 2-6=-45/105, 3-6=-167/153

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 6-0-0 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=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearings are assumed to be: Joint 7 SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 7 and 29 lb uplift at joint 6.



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

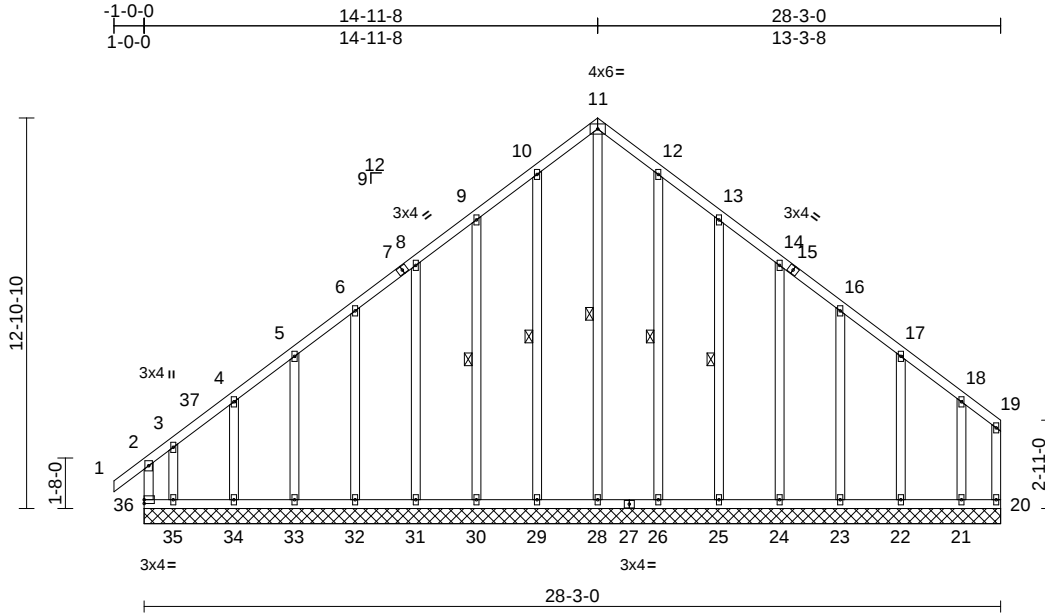
Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374530
3908438	CG1	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:38

Page: 1

ID:Rx2ZrSEfKjZu5Po7Guc8llzfGXG-RfC?PsB70Hq3NSgPqnL8w3ulTXhGKwRcDoi7J4zJC?f



Scale = 1:76

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.00	20	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 250 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 *Except* 28-11:2x4 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 6-0-0 oc bracing.
WEBS	1 Row at midpt 11-28, 10-29, 9-30, 12-26, 13-25

REACTIONS

(size)	20=28-3-0, 21=28-3-0, 22=28-3-0, 23=28-3-0, 24=28-3-0, 25=28-3-0, 26=28-3-0, 28=28-3-0, 29=28-3-0, 30=28-3-0, 31=28-3-0, 32=28-3-0, 33=28-3-0, 34=28-3-0, 35=28-3-0, 36=28-3-0
Max Horiz	36=285 (LC 9)
Max Uplift	20=-105 (LC 9), 21=-123 (LC 8), 22=-43 (LC 13), 23=-50 (LC 13), 24=-46 (LC 13), 25=-57 (LC 13), 26=-30 (LC 13), 28=-58 (LC 11), 29=-35 (LC 12), 30=-55 (LC 12), 31=-47 (LC 12), 32=-47 (LC 12), 33=-52 (LC 12), 34=-31 (LC 12), 35=-461 (LC 9), 36=-494 (LC 8)
Max Grav	20=130 (LC 10), 21=233 (LC 20), 22=165 (LC 26), 23=167 (LC 20), 24=165 (LC 20), 25=168 (LC 20), 26=167 (LC 26), 28=350 (LC 13), 29=177 (LC 19), 30=164 (LC 19), 31=167 (LC 19), 32=165 (LC 19), 33=169 (LC 19), 34=168 (LC 1), 35=495 (LC 10), 36=579 (LC 11)

FORCES

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

TOP CHORD

2-36=-362/308, 1-2=0/41, 2-3=-370/339, 3-4=-236/226, 4-5=-226/226, 5-6=-208/221, 6-8=-193/227, 8-9=-176/261, 9-10=-199/320, 10-11=-224/362, 11-12=-224/362, 12-13=-199/320, 13-14=-164/261, 14-16=-134/207, 16-17=-102/153, 17-18=-70/98, 18-19=-71/68, 19-20=-67/55, 35-36=-68/60, 34-35=-68/60, 33-34=-68/60, 32-33=-68/60, 31-32=-68/60, 30-31=-68/60, 29-30=-68/60, 28-29=-68/60, 26-28=-68/60, 25-26=-68/60, 24-25=-68/60, 23-24=-68/60, 22-23=-68/60, 21-22=-68/60, 20-21=-68/60, 11-28=-374/173, 10-29=-137/59, 9-30=-124/79, 8-31=-126/71, 6-32=-126/72, 5-33=-126/73, 4-34=-126/70, 3-35=-242/241, 12-26=-127/54, 13-25=-128/81, 14-24=-126/71, 16-23=-126/73, 17-22=-127/72, 18-21=-144/96
--

BOT CHORD

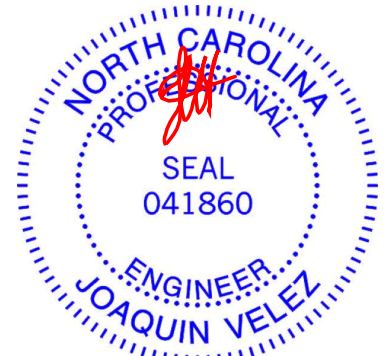
WEBS

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 14-11-8, Corner(3R) 14-11-8 to 17-11-8, Exterior(2N) 17-11-8 to 28-1-4 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 494 lb uplift at joint 36, 105 lb uplift at joint 20, 58 lb uplift at joint 28, 35 lb uplift at joint 29, 55 lb uplift at joint 30, 47 lb uplift at joint 31, 47 lb uplift at joint 32, 52 lb uplift at joint 33, 31 lb uplift at joint 34, 461 lb uplift at joint 35, 30 lb uplift at joint 26, 57 lb uplift at joint 25, 46 lb uplift at joint 24, 50 lb uplift at joint 23, 43 lb uplift at joint 22 and 123 lb uplift at joint 21.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

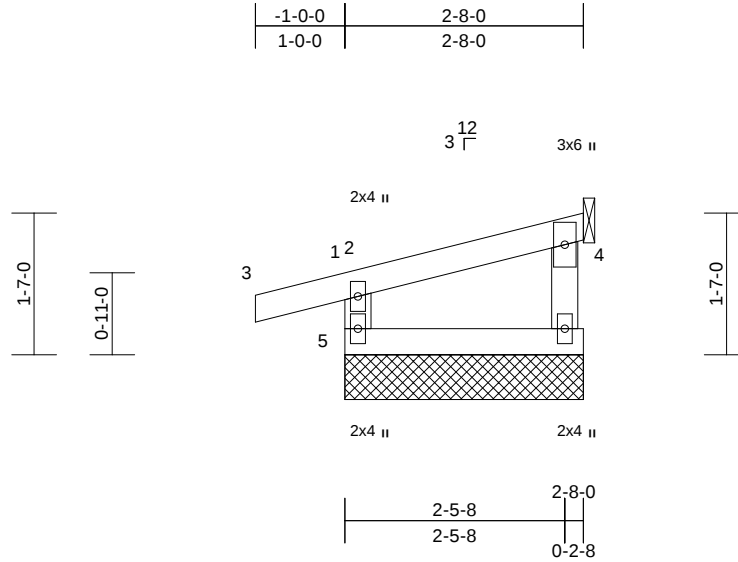
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	CG2	Jack-Open Supported Gable	1	1	T33374531
					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. Wed Mar 27 11:29:38
ID:bHtdCBa0uxlh5RwmX2XoazfGvM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



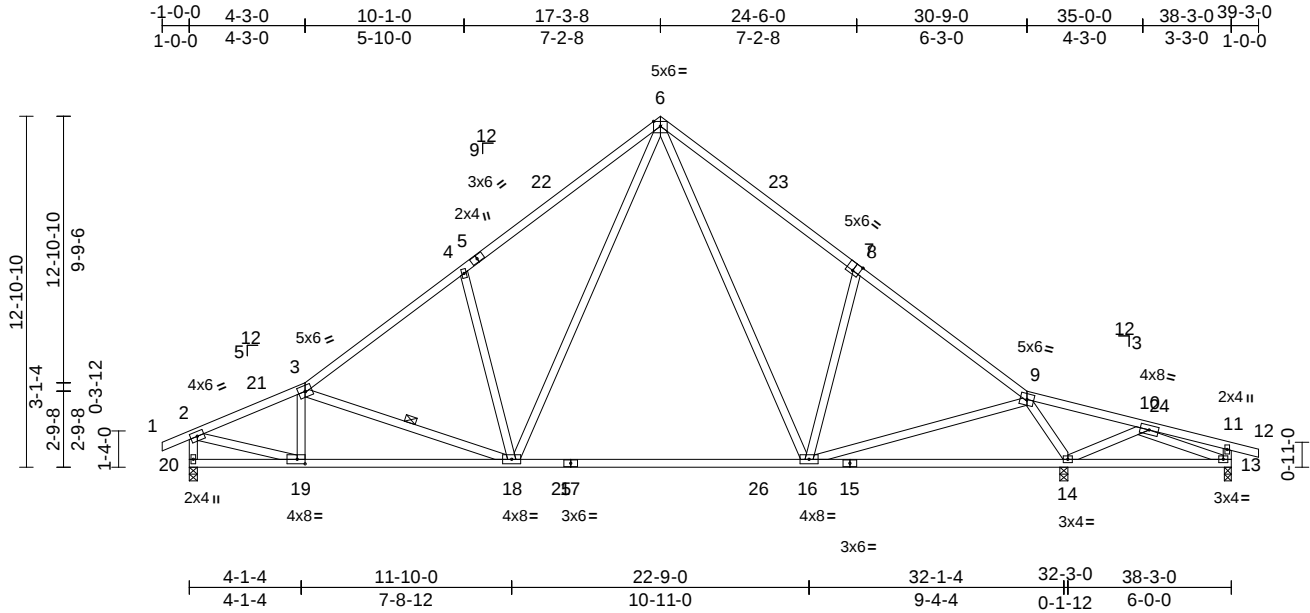
Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	D1	Roof Special	2	1	T33374532
Job Reference (optional)					

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:39

Page: 1

ID:9sm5OrECsv5CwRopYwqCtzFqA-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?i



Scale = 1:84.6

Plate Offsets (X, Y): [7:0-3-0,Edge], [19:0-3-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.53	16-18	>733	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.78	16-18	>492	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.04	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.05	18-19	>999	240	Weight: 238 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 18-6,6-16:2x4 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 2-2-0 oc bracing.

WEBS 1 Row at midpt 3-18

REACTIONS (size) 13=0-3-0, 14=0-3-8, 20=0-3-8
Max Horiz 20=-217 (LC 10)
Max Uplift 13=-101 (LC 9), 14=-59 (LC 13), 20=-47 (LC 12)
Max Grav 13=97 (LC 26), 14=2009 (LC 2), 20=1420 (LC 2)

FORCES

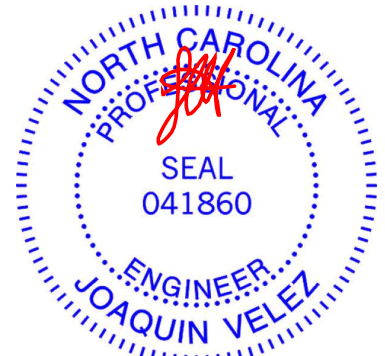
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-1926/156, 3-4=-1712/194, 4-6=-1693/328, 6-8=-1460/302, 8-9=-1497/166, 9-10=-116/780, 10-11=-29/45, 11-12=0/17, 2-20=-1350/181, 11-13=-136/86
BOT CHORD 19-20=-179/238, 18-19=-137/1912, 16-18=0/939, 14-16=0/215, 13-14=-414/55
WEBS 8-16=-426/244, 9-16=-28/1003, 10-14=-451/121, 9-14=-1800/234, 3-18=-471/86, 4-18=-418/238, 6-18=-153/1078, 6-16=-134/611, 3-19=-309/93, 2-19=-80/1721, 10-13=-32/464

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-9-14, Interior (1) 2-9-14 to 17-3-8, Exterior(2R) 17-3-8 to 21-1-6, Interior (1) 21-1-6 to 39-3-0 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=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 47 lb uplift at joint 20, 59 lb uplift at joint 14 and 101 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

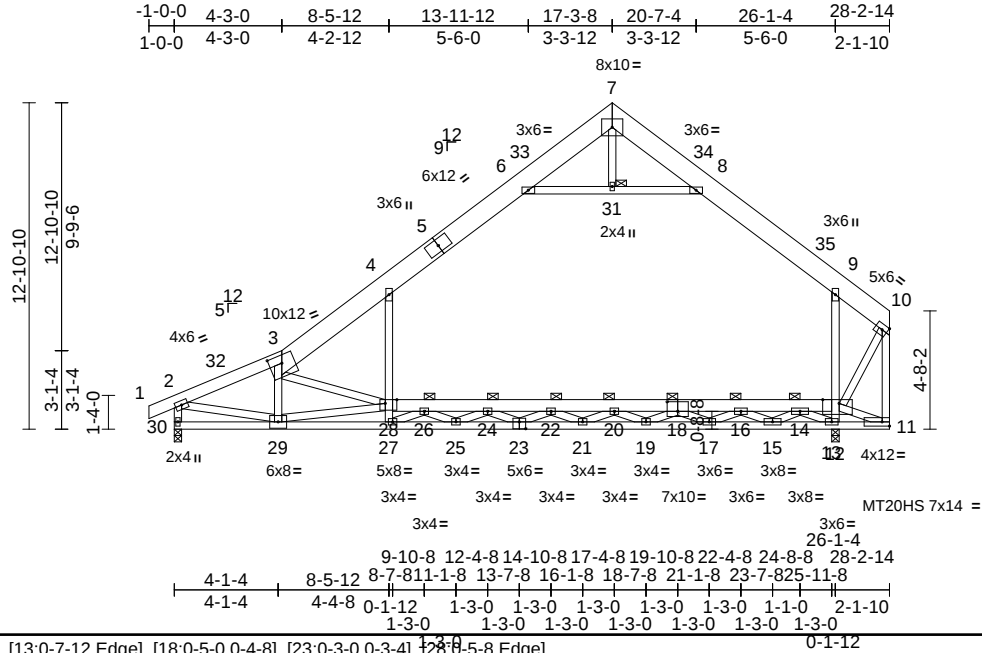
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374533
3908438	D2	Attic	3	1	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. Wed Mar 27 11:29:39
ID: vWL2DvSSaW_bVzN6vCHEQDzfFnD-RFC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?

Page: 1



Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.27	22-24	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.53	24	>588	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.05	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.11	25-27	>999	240	Weight: 311 lb	FT = 20%

LUMBER		
TOP CHORD	2x10 SP 2400F 2.0E or 2x10 SP DSS	
	Except 1-3:2x6 SP No.2	
BOT CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS *Except* 18-13,18-28:2x6 SP 2400F 2.0E or 2x6 SP DSS	
WEBS	2x4 SP No.3 *Except* 4-27,29-28,6-8:2x4 SP No.2, 9-12,11-10,10-13,11-13:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 5-3-14 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:	
	6-0-0 oc bracing: 15-17	
	3-6-9 oc bracing: 12-15	
	2-7-13 oc bracing: 11-12.	
JOINTS	1 Brace at Jt(s): 18, 31, 14, 16, 20, 22, 24, 26	
REACTIONS	(size) 12=0-3-8, 30=0-3-8	
	Max Horiz 30=237 (LC 11)	
	Max Grav 12=1837 (LC 20), 30=1299 (LC 2)	
FORCES	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/21, 2-3=-1903/0, 3-4=-1475/0, 4-6=-914/30, 6-7=-82/251, 7-8=-216/113, 8-9=-1067/12, 9-10=-1077/0, 2-30=-1263/0, 10-11=-2042/0	
BOT CHORD	29-30=-201/203, 27-29=-82/2705, 25-27=0/3050, 21-25=0/3693, 19-21=0/3144, 17-19=0/1840, 15-17=-939/197, 12-15=-3266/0, 11-12=-5188/0, 26-28=-1845/219, 24-26=-2425/0, 22-24=-2847/0, 20-22=-2668/0, 16-20=-1734/967, 14-16=0/3139, 13-14=0/6245	

WEBS	3-29=-245/5, 3-28=-986/5, 27-28=-76/425, 4-28=0/948, 12-13=-543/109, 9-13=-498/335, 7-31=0/133, 2-29=0/1690, 28-29=-906/201, 6-31=-1060/0, 8-31=-1060/0, 12-14=-2406/0, 14-15=0/1416, 15-16=-1686/0, 16-17=0/1283, 17-18=-1162/0, 18-19=0/868, 19-20=-814/0, 20-21=0/501, 21-22=-426/24, 22-23=-81/245, 23-24=-188/141, 24-25=-567/67, 25-26=0/639, 26-27=-748/191, 10-13=0/1733, 11-13=0/5534
-------------	--

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 17-3-8, Exterior(2R) 17-3-8 to 20-3-8, Interior (1) 20-3-8 to 28-1-2 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=1.60
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 3-4, 4-6, 8-9, 6-31, 8-31; Wall dead load (5.0psf) on member(s).4-28, 9-13
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 26-28, 24-26, 22-24, 20-22, 18-20, 16-18, 14-16, 13-14
- All bearings are assumed to be SP DSS or SS or 2400F 2.0E crushing capacity of 565 psi.

- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

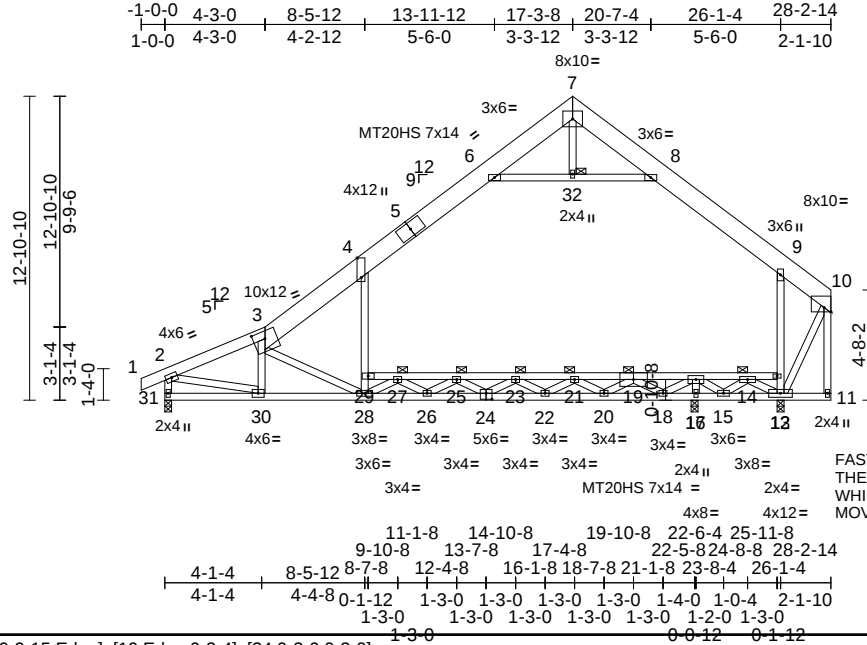
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374534
3908438	D3	Attic Girder	1	3	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. Wed Mar 27 11:29:39
ID:vWL2DvS5aW_bVzN6vCHEQDzfFnD-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



FASTEN TRUSS TO BEARING FOR THE UPLIFT REACTION SHOWN WHILE PERMITTING NO UPWARD MOVEMENT OF THE BEARING.

Scale = 1:97.7

Plate Offsets (X, Y): [3:0-6:0,0-3:12], [4:0-9:15,Edge], [10:Edge,0-2:4], [24:0-3:0,0-3:0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.35	28-30	>759	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.78	28-30	>343	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	NO	WB	0.82	Horz(CT)	-0.01	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.09	28	>999	240	Weight: 870 lb	FT = 20%

LUMBER
TOP CHORD 2x10 SP 2400F 2.0E or 2x10 SP DSS
Except 1-3:2x6 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS
WEBS 2x4 SP No.3 *Except* 4-28:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS, 9-12:2x4 SP No.1, 6-8:2x4 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 6-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 19, 32, 14, 21, 23, 25, 27

REACTIONS (size) 12=0-3-8, 17=0-3-8, 31=0-3-8
Max Horiz 31=296 (LC 5)
Max Uplift 12=-1236 (LC 24)
Max Grav 12=-259 (LC 5), 17=4892 (LC 16), 31=2746 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-4281/0, 3-4=-3333/0, 4-6=-940/31, 6-7=0/846, 7-8=-422/87, 8-9=-1965/0, 9-10=0/412, 2-31=-2768/0, 10-11=-433/0
BOT CHORD 30-31=-243/259, 28-30=0/4034, 26-28=0/3632, 22-26=-898/2638, 20-22=-3539/0, 18-20=-6860/0, 17-18=-11242/0, 15-17=-11242/0, 12-15=-4429/0, 11-12=-48/29, 27-29=-2038/0, 25-27=-2242/0, 23-25=-940/1046, 21-23=0/3487, 16-21=0/10532, 14-16=0/9618, 13-14=0/910

WEBS 3-30=-510/0, 3-28=-2809/0, 28-29=0/3414, 4-29=0/3549, 12-13=-3835/0, 9-13=-3892/0, 10-12=0/3054, 6-32=-1786/0, 8-32=-1786/0, 7-32=0/208, 2-30=0/3891, 12-14=0/5811, 14-15=-4986/0, 15-16=0/3784, 16-18=0/2495, 18-19=-2768/0, 19-20=0/2471, 20-21=-2335/0, 21-22=0/1933, 22-23=-1796/0, 23-24=0/1426, 24-25=-1650/0, 25-26=0/1503, 26-27=-259/324, 27-28=-688/306, 16-17=-3988/0

NOTES
1) N/A
2) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 2 rows staggered at 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
3) 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.
4) Unbalanced roof live loads have been considered for this design.
5) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=32ft; 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=1.60
6) All plates are MT20 plates unless otherwise indicated.
7) All plates are 3x4 MT20 unless otherwise indicated.
8) 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.
- Ceiling dead load (5.0 psf) on member(s). 3-4, 4-6, 8-9, 6-32, 8-32; Wall dead load (5.0psf) on member(s).4-29, 9-13
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 27-29, 25-27, 23-25, 21-23, 19-21, 16-19, 14-16, 13-14
- All bearings are assumed to be SP DSS or SS or 2400F 2.0E crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1236 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.



March 28, 2024

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/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.sbcacompnents.com)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	D3	Attic Girder	1	3	T33374534
Job Reference (optional)					

- 16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2762 lb down at 8-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 17) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-3=-60, 3-6=-70, 6-7=-60, 7-8=-60,
8-9=-70, 9-10=-60, 11-31=-20, 13-29=-30, 6-32=-10,
8-32=-10
Drag: 4-29=-10, 9-13=-10
Concentrated Loads (lb)
Vert: 28=-2762 (B)

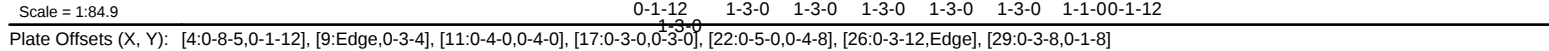
 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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)

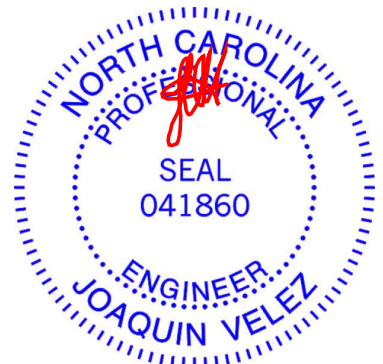


818 Soundside Road
Edenton, NC 27932

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:39 Page: 1
ID:Y1QVGOSI?ZL8XmDcEUgXHZZfEUa-RfC?PsB70Hq3NSgPqnL8w3uITxbGKwRCDol7J4zJC?f



LUMBER		WEBS	2-29=-2956/0, 3-28=0/3070, 9-11=0/3286, 26-27=0/2269, 4-27=0/6410, 11-12=-1906/0, 8-12=-1943/0, 5-31=-1989/0, 7-31=-1989/0, 6-31=0/227, 1-29=0/4050, 2-28=0/2877, 3-27=-9219/0, 11-13=0/1192, 13-14=-1233/0, 14-15=-3478/0, 15-16=0/3045, 16-17=-2050/0, 17-18=0/1680, 18-19=-1808/0, 19-20=0/1446, 20-21=-1308/0, 21-22=0/1172, 22-23=-1264/0, 23-24=-314/1118, 24-25=-324/664, 25-26=-963/544, 27-28=-10163/0
TOP CHORD	2x10 SP 2400F 2.0E or 2x10 SP DSS *Except* 1-3:2x8 SP 2400F 2.0E or 2x8 SP DSS		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.
BOT CHORD	2x6 SP 2400F 2.0E or 2x6 SP DSS *Except* 17-12,17-27:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS		9) Ceiling dead load (5.0 psf) on member(s): 3-4, 4-5, 7-8, 5-31, 7-31; Wall dead load (5.0psf) on member(s):4-27, 8-12
WEBS	2x4 SP No.3 *Except* 4-26,28-27:2x4 SP No.1, 8-11,5-7,27-3:2x4 SP No.2		10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 25-27, 23-25, 21-23, 19-21, 17-19, 15-17, 13-15, 12-13
BRACING			11) Bearings are assumed to be: , Joint 11 SP 2400F 2.0E or DSS crushing capacity of 660 psi.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3.		12) Refer to girder(s) for truss to truss connections.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-14,10-11.		13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
JOINTS	1 Brace at Jt(s): 1, 17, 31, 13, 15, 19, 21, 23, 25		14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
REACTIONS	(size) 11=0-3-8, 30= Mechanical Max Horiz 30=-286 (LC 4) Max Grav 11=3165 (LC 16), 30=3372 (LC 17)		
FORCES	(lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-30=-3360/0, 1-2=-2370/0, 2-3=-4052/0, 3-4=-4371/0, 4-5=-1250/0, 5-6=0/679, 6-7=-297/144, 7-8=-1903/0, 8-9=-833/0, 9-10=-2422/0		
BOT CHORD	29-30=-249/261, 28-29=0/2498, 26-28=0/12752, 24-26=0/12915, 20-24=0/12642, 18-20=0/8897, 16-18=0/5950, 14-16=0/2140, 11-14=-706/78, 10-11=-52/28, 25-27=-11307/0, 23-25=-11481/0, 21-23=-10255/0, 19-21=-8472/0, 15-19=-5780/0, 13-15=0/3095, 12-13=0/1246		
		NOTES	
		1) 3-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, 2x8 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc. Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-4-0 oc, 2x4 - 2 rows staggered at 0-4-0 oc. Web connected as follows: 2x4 - 1 row at 0-9-0 oc.	
		2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.	
		3) Unbalanced roof live loads have been considered for this design.	
		4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDD=6.0psf; h=32ft; 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=1.60	
		5) Provide adequate drainage to prevent water ponding.	
		6) All plates are 3x4 MT20 unless otherwise indicated.	
		7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	



Continued on page 2

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

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



ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	D4	Roof Special Girder	1	3	T33374535
Job Reference (optional)					

- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2952 lb down at 8-7-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-5=-70, 5-6=-60, 6-7=-60, 7-8=-70,
8-9=-60, 10-30=-20, 12-27=-30, 5-31=-10, 7-31=-10
Drag: 4-27=-10, 8-12=-10
Concentrated Loads (lb)
Vert: 26=-2952 (F)

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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

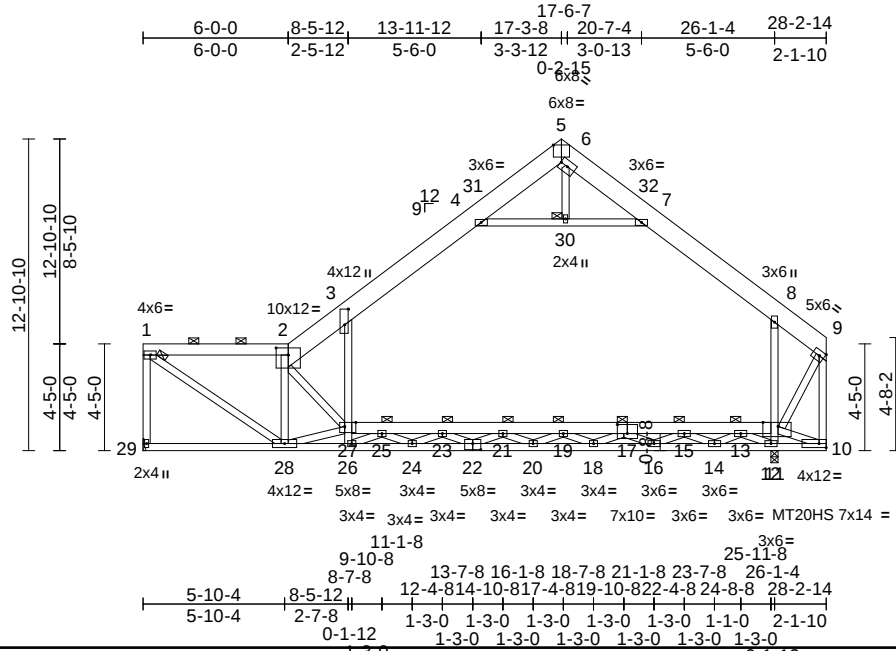
Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374536
3908438	D5	Attic	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:40

Page: 1

ID:AnBCjNiRfCEzI6HJVU_chHzfEQN-RfC?PsB70Hq3NSgPqnL8w3uLTxbGKWrCDoi7J4zJC?f



Scale = 1:95.3

Plate Offsets (X, Y): [2:0-6-0,0-3-8], [3:0-7-13,0-1-12], [5:0-4-0,Edge], [12:0-7-8,Edge], [13:0-5-0,0-4-8], [22:0-4-0,0-3-0], [27:0-5-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.27	21-23	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.52	21-23	>598	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.04	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.09	24-26	>999	240	Weight: 309 lb	FT = 20%

LUMBER
TOP CHORD 2x10 SP 2400F 2.0E or 2x10 SP DSS
Except 1-2:2x6 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4
SP SS *Except* 17-12,17-27:2x6 SP 2400F
2.0E or 2x6 SP DSS
WEBS 2x4 SP No.3 *Except* 10-9,8-11:2x4 SP
No.1, 12-9,3-26,4-7:2x4 SP No.2, 12-10:2x4
SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS

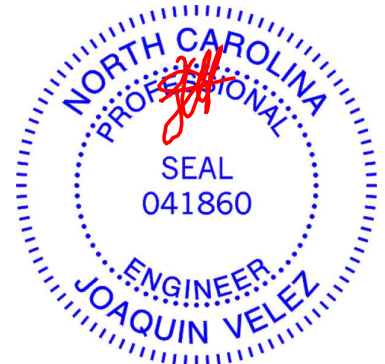
BRACING
TOP CHORD Structural wood sheathing directly applied or
6-0-0 oc purlins, except end verticals, and
2-0-0 oc purlins (5-8-10 max.): 1-2.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing, Except:
6-0-0 oc bracing: 14-16
3-7-9 oc bracing: 11-14
2-8-7 oc bracing: 10-11.
JOINTS 1 Brace at Jt(s): 1,
30, 25, 23, 21, 19,
17, 15, 13

REACTIONS (size) 11=0-3-8, 29= Mechanical
Max Horiz 29=224 (LC 9)
Max Grav 11=1831 (LC 20), 29=1241 (LC 2)
FORCES (lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-29=-1196/0, 1-2=-1542/0, 2-3=-1597/0,
3-4=-900/9, 4-5=-89/241, 5-6=-84/172,
6-7=-231/98, 7-8=-1047/2, 8-9=-1041/0,
9-10=-1982/0
BOT CHORD 28-29=-203/204, 26-28=-48/2726,
24-26=0/3057, 20-24=0/3715, 18-20=0/3188,
16-18=0/1820, 14-16=-855/172,
11-14=-3118/0, 10-11=-5042/0,
25-27=-1864/191, 23-25=-2478/0,
21-23=-2871/0, 19-21=-2715/0,
15-19=-1802/859, 13-15=0/2978,
12-13=0/6052

WEBS
1-28=0/1870, 2-28=-786/0, 2-27=-1225/0,
9-12=0/1690, 6-30=0/132, 26-27=-122/403,
3-27=0/1339, 11-12=-553/77, 8-12=-508/307,
27-28=-1185/222, 4-30=-1026/0,
7-30=-1038/0, 25-26=-774/195, 24-25=0/663,
23-24=-575/70, 22-23=-189/151,
21-22=-91/240, 20-21=-413/17, 19-20=0/487,
18-19=-800/0, 17-18=0/930, 16-17=-1081/0,
15-16=0/1291, 14-15=-1661/0,
13-14=0/1400, 11-13=-2388/0, 10-12=0/5381

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 17-3-8, Exterior(2R) 17-3-8 to 20-3-8, Interior (1) 20-3-8 to 28-1-2 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=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 3x4 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Ceiling dead load (5.0 psf) on member(s). 2-3, 3-4, 7-8, 4-30, 7-30; Wall dead load (5.0psf) on member(s).3-27, 8-12
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 25-27, 23-25, 21-23, 19-21, 17-19, 15-17, 13-15, 12-13
10) Bearings are assumed to be ; Joint 11 SP DSS or SS or 2400F 2.0E crushing capacity of 565 psi.

11) Refer to girder(s) for truss to truss connections.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) Attic room checked for L/360 deflection.
LOAD CASE(S) Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

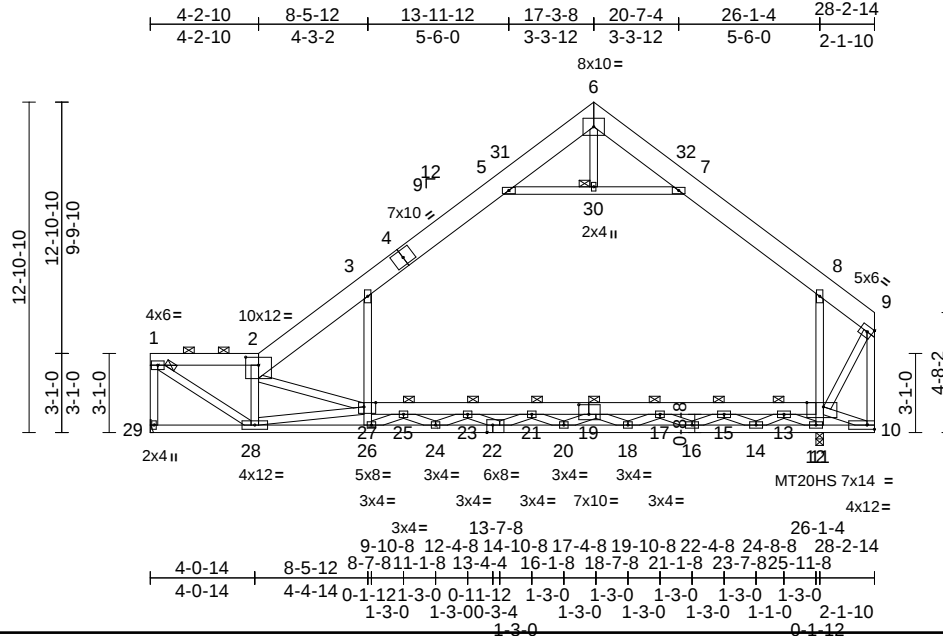
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374537
3908438	D6	Attic	1	1	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. Wed Mar 27 11:29:40
ID:QgR0ByTOWmVPCOsBVR5c3szfEO6-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcD0i7J4zJC?f

Page: 1



Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.28	21-23	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.54	23	>577	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.05	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.11	24-26	>999	240	Weight: 310 lb	FT = 20%

LUMBER	
TOP CHORD	2x10 SP 2400F 2.0E or 2x10 SP DSS *Except* 1-2:2x6 SP No.2
BOT CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS *Except* 27-19,19-12:2x6 SP 2400F 2.0E or 2x6 SP DSS
WEBS	2x4 SP No.3 *Except* 10-9,8-11,12-10:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS, 3-26:2x4 SP No.1, 9-12,5-7:2x4 SP No.2

WEBS	1-28=0/1982, 2-28=986/0, 2-27=974/0, 11-12=544/80, 8-12=499/335, 26-27=98/411, 3-27=0/947, 27-28=896/188, 10-12=0/5554, 9-12=0/1738, 5-30=1062/0, 7-30=1062/0, 6-30=0/133, 25-26=718/233, 24-25=0/650, 23-24=582/62, 22-23=166/105, 21-22=84/289, 20-21=403/26, 19-20=0/400, 18-19=894/0, 17-18=0/837, 16-17=1182/0, 15-16=0/1296, 14-15=1680/0, 13-14=0/1414, 11-13=2407/0
------	---

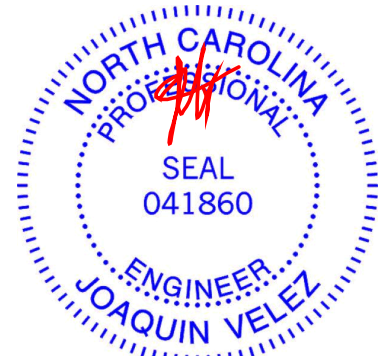
- 10) Bearings are assumed to be: , Joint 11 SP DSS or SS or 2400F 2.0E crushing capacity of 565 psi.
- 11) Refer to girder(s) for truss to truss connections.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-9-6 max.): 1-2.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 14-16 3-6-7 oc bracing: 11-14 2-7-13 oc bracing: 10-11.
JOINTS	1 Brace at Jt(s): 1, 30, 25, 23, 21, 19, 17, 15, 13

REACTIONS	(size) 11=0-3-8, 29= Mechanical Max Horiz 29=225 (LC 9) Max Grav 11=1839 (LC 20), 29=1253 (LC 2)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-29=-1223/0, 1-2=-1630/0, 2-3=-1481/0, 3-5=-916/10, 5-6=-80/251, 6-7=-217/112, 7-8=-1072/8, 8-9=-1081/0, 9-10=-2048/0
BOT CHORD	28-29=-208/199, 26-28=-37/2701, 24-26=0/3027, 20-24=0/3653, 18-20=0/3222, 16-18=0/1858, 14-16=-960/187, 11-14=-3284/0, 10-11=-5205/0, 25-27=-1863/179, 23-25=-2407/0, 21-23=-2816/0, 17-21=-2651/0, 15-17=-255/987, 13-15=0/3164, 12-13=0/6271

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 17-3-8, Exterior(2R) 17-3-8 to 20-3-8, Interior (1) 20-3-8 to 28-1-2 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=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 2-3, 3-5, 7-8, 5-30, 7-30; Wall dead load (5.0psf) on member(s).8-12, 3-27
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 25-27, 23-25, 21-23, 19-21, 17-19, 15-17, 13-15, 12-13



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

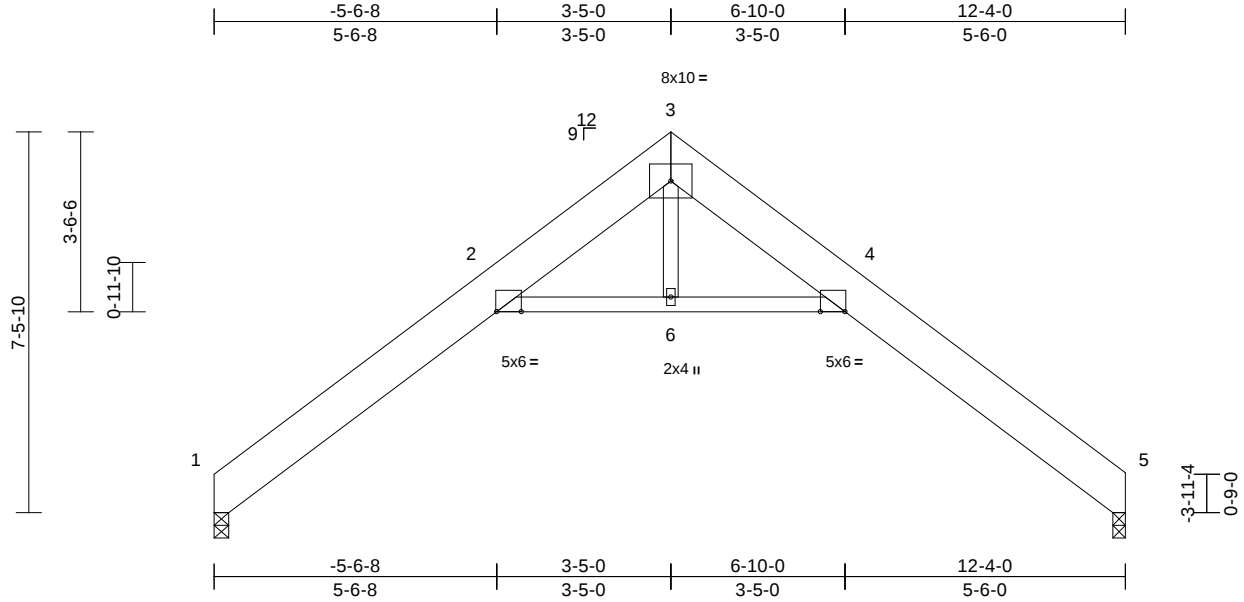
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	D7	Common	5	1	T33374538
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. Wed Mar 27 11:29:40
ID:NJHeawYIVC4sldFXR0VlIPzd4j-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:45.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.25	6-9	>850	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.52	6-9	>408	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.74	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.16	6-9	>999	240	Weight: 105 lb	FT = 20%

LUMBER

TOP CHORD 2x10 SP 2400F 2.0E or 2x10 SP DSS
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) 1=0-3-7, 5=0-2-15
Max Horiz 1=130 (LC 9)
Max Grav 1=738 (LC 1), 5=734 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-440/174, 2-3=-1135/197,
3-4=-1128/198, 4-5=-413/174

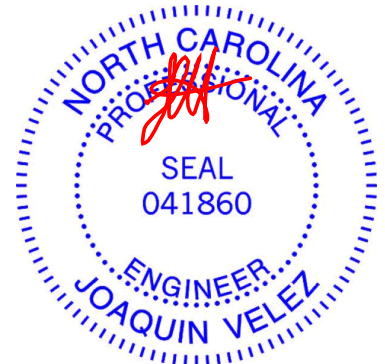
BOT CHORD 2-6=-21/1136, 4-6=-22/1136
WEBS 3-6=0/220

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -5-4-13 to -2-4-13, Interior (1) -2-4-13 to 3-5-0, Exterior(2R) 3-5-0 to 6-5-7, Interior (1) 6-5-7 to 12-2-9 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=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP DSS or 2400F 2.0E crushing capacity of 660 psi.

- Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

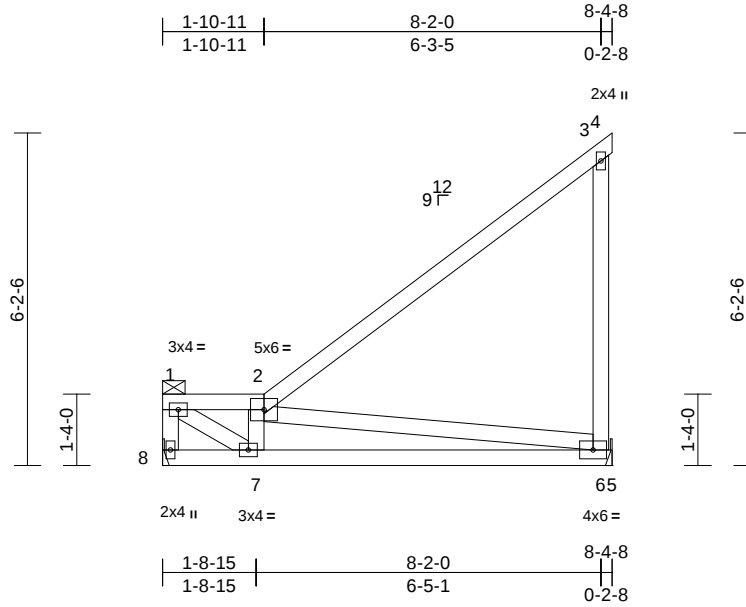
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	D8	Roof Special	5	1	T33374539
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. Wed Mar 27 11:29:41
ID:5qM6uW0OjdSv8OgwkdKbXozdvmU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:42.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.06	6-7	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.13	6-7	>765	240	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.01	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.01	6-7	>999	240	Weight: 49 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, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 6= Mechanical, 8= Mechanical
Max Horiz 8=137 (LC 12)
Max Uplift 6=-91 (LC 12)
Max Grav 6=337 (LC 19), 8=321 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-8=-340/0, 1-2=-554/4, 2-3=-150/89, 3-4=-3/0

BOT CHORD 7-8=-195/109, 6-7=-208/588, 5-6=0/0

WEBS 1-7=-13/670, 2-7=-244/104, 3-6=-182/147, 2-6=-596/211

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 1-10-11, Interior (1) 1-10-11 to 8-4-8 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=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



March 28, 2024

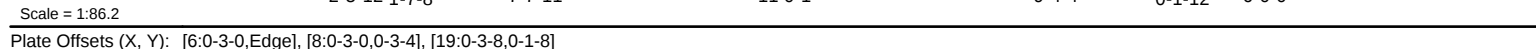
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:41 Page: 1
ID:hBsO PSJlfdMKMFFtP1XavzfEKF-RfC?PsB70Ha3NSqPqnL8w3uITxbGKWrCdoi7J4zJC?f

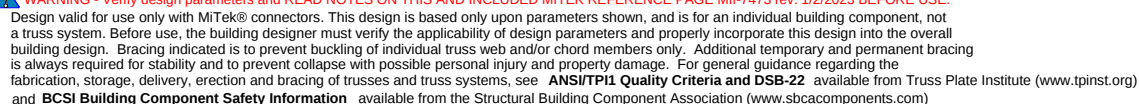


LUMBER		Wind: ASCE 7-16; Vult=15mph (3-second gust)
TOP CHORD	2x4 SP No.2	Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat.
BOT CHORD	2x4 SP No.1	II; Exp B; Enclosed; MWFRS (envelope) exterior zone
WEBS	2x4 SP No.3 *Except* 13-11:2x6 SP No.2, 18-7,16-7:2x4 SP No.2	and C-C Exterior(2E) -1-0-0 to 2-9-14, Interior (1) 2-9-14 to 17-3-8, Exterior(2R) 17-3-8 to 21-1-6, Interior (1) 21-1-6 to 39-3-0 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=1.60
OTHERS	2x4 SP No.3	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 3-7-0 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.	
WEBS	1 Row at midpt	4-18
REACTIONS	(size)	13=0-3-0, 14=0-3-8, 20=0-3-8, 21=2-7-8
	Max Horiz	21=-217 (LC 10)
	Max Uplift	13=-103 (LC 9), 14=-59 (LC 13), 20=-22 (LC 12), 21=-27 (LC 12)
	Max Grav	13=109 (LC 26), 14=1958 (LC 2), 20=397 (LC 19), 21=1069 (LC 2)
FORCES		(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/26, 2-3=-1591/122, 3-4=-1548/136, 4-5=-1644/187, 5-7=-1632/331, 7-9=-1467/304, 9-10=-101/716, 10-11=-55/30, 11-12=0/18, 2-21=-1158/168, 11-13=-184/104	
BOT CHORD	20-21=-189/188, 19-20=-189/188, 18-19=-124/1604, 16-18=0/909, 14-16=0/239, 13-14=-453/74	
WEBS	2-22=-77/1496, 19-22=-74/1501, 4-19=-497/102, 9-14=-1728/222, 10-14=-360/96, 10-13=-66/512, 4-18=-258/77, 5-18=-423/242, 7-18=-160/1017, 7-16=-138/636, 8-16=-429/246, 9-16=-19/951, 3-22=-8/19	
		2) Wind: ASCE 7-16; Vult=15mph (3-second gust) 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1. 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web). 5) Gable studs spaced at 2-0-0 oc. 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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) All bearings are assumed to be SP No.1 crushing capacity of 565 psi. 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 21, 59 lb uplift at joint 14, 103 lb uplift at joint 13 and 22 lb uplift at joint 20. 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
LOAD CASE(S)		Standard

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

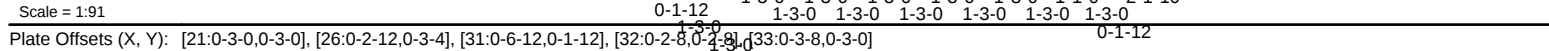


March 28.2024

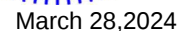


818 Soundside Road
Edenton, NC 27932

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:41 Page: 1
ID:RSv?ArtCwI9L9hos_14g?QzfEFr-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCdOI7J4zJC?f

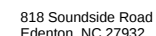


LUMBER		BOT CHORD	33-34=281/230, 32-33=929/0, 30-32=2668/0, 28-30=365/82, 24-28=0/3990, 22-24=0/4704, 20-22=0/4460, 18-20=0/3223, 15-18=0/1493, 14-15=40/37, 13-14=40/37, 29-31=0/3155, 27-29=637/0, 25-27=2866/0, 23-25=4055/0, 19-23=4280/0, 17-19=1708/0, 16-17=0/315		9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
TOP CHORD	2x10 SP 2400F 2.0E or 2x10 SP DSS *Except* 1-2:2x8 SP 2400F 2.0E or 2x8 SP DSS		5-31=79/411, 15-16=430/154, 10-16=406/210, 7-35=399/127, 9-35=399/127, 15-39=7/1294, 12-39=6/1416, 8-35=0/82, 3-32=4076/0, 2-32=1261/0, 32-37=0/855, 31-37=0/686, 3-38=0/3120, 36-38=0/2953, 31-36=0/2798, 29-30=2845/0, 28-29=0/1641, 27-28=1613/0, 26-27=0/1108, 25-26=955/0, 24-25=0/519, 23-24=374/0, 22-23=100/31, 21-22=0/220, 20-21=659/0, 19-20=0/904, 18-19=1380/0, 17-18=0/937, 15-17=1518/0, 4-36=327/7, 37-38=0/440, 11-39=527/7, 14-39=401/8		10) * 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.
BOT CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS				11) Ceiling dead load (5.0 psf) on member(s). 5-7, 9-10, 7-35, 9-35; Wall dead load (5.0psf) on member(s).5-31, 10-16
WEBS	2x4 SP No.3 *Except* 33-2,5-30,10-15,7-9,31-32:2x4 SP No.2, 13-12:2x4 SP No.1, 3-31:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS	WEBS			12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 29-31, 27-29, 25-27, 23-25, 21-23, 19-21, 17-19, 16-17
OTHERS	2x4 SP No.3				13) All bearings are assumed to be SP DSS or SS or 2400F 2.0E crushing capacity of 565 psi.
BRACING					14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 510 lb uplift at joint 33, 1386 lb uplift at joint 33, 31 lb uplift at joint 13, 269 lb uplift at joint 15 and 438 lb uplift at joint 14.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 1-2.				15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
BOT CHORD	Rigid ceiling directly applied or 3-11-3 oc bracing.				
JOINTS	1 Brace at Jt(s): 1, 21, 35, 29, 27, 25, 23, 19, 17, 36				
REACTIONS	(size) 13=2-3-6, 14=2-3-6, 15=2-3-6, 32=4-11-8, 33=4-11-8, 34=4-11-8 Max Horiz 34=283 (LC 27) Max Uplift 13=31 (LC 8), 14=438 (LC 14), 15=269 (LC 4), 33=1386 (LC 14), 34=510 (LC 16) Max Grav 13=1557 (LC 16), 14=4 (LC 21), 15=1155 (LC 14), 32=4419 (LC 16), 33=22 (LC 5), 34=32 (LC 5)	NOTES			
FORCES	(lb) - Maximum Compression/Maximum Tension	1) Unbalanced roof live loads have been considered for this design.			
TOP CHORD	1-34=-20/530, 1-2=-48/750, 2-3=-7/2555, 3-4=-908/22, 4-5=-996/14, 5-7=-803/113, 7-8=-304/70, 8-9=-356/57, 9-10=-863/120, 10-11=-783/87, 11-12=-501/74, 12-13=-1338/74	2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCdL=6.0psf; h=32ft; 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=1.60			
		3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.			
		4) Provide adequate drainage to prevent water ponding.			
		5) All plates are MT20 plates unless otherwise indicated.			
		6) All plates are 3x4 MT20 unless otherwise indicated.			
		7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).			
		8) Gable studs spaced at 2-0-0 oc.			



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).



Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	DG2	Attic Girder	1	1	T33374541
Job Reference (optional)					

- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 18) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 61 lb down and 23 lb up at 6-5-8, 61 lb down and 23 lb up at 8-5-12, 61 lb down and 23 lb up at 10-5-8, 61 lb down and 23 lb up at 12-5-8, 61 lb down and 23 lb up at 14-5-8, 61 lb down and 23 lb up at 16-5-8, 61 lb down and 23 lb up at 18-5-8, 61 lb down and 23 lb up at 20-5-8, and 61 lb down and 23 lb up at 22-5-8, and 61 lb down and 23 lb up at 24-5-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 19) Attic room checked for L/360 deflection.
- 20) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (lb/ft)
 - Vert: 1-2=-60, 2-5=-60, 5-7=-70, 7-8=-60, 8-9=-60, 9-10=-70, 10-12=-60, 13-34=-20, 29-31=-30, 16-29=-30, 7-35=-10, 9-35=-10
 - Drag: 5-31=-10, 10-16=-10
 - Concentrated Loads (lb)
 - Vert: 30=-61 (B), 15=-61 (B), 32=-61 (B), 22=-61 (B), 40=-61 (B), 41=-61 (B), 42=-61 (B), 43=-61 (B), 44=-61 (B), 45=-61 (B), 46=-61 (B), 47=-61 (B)

 **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

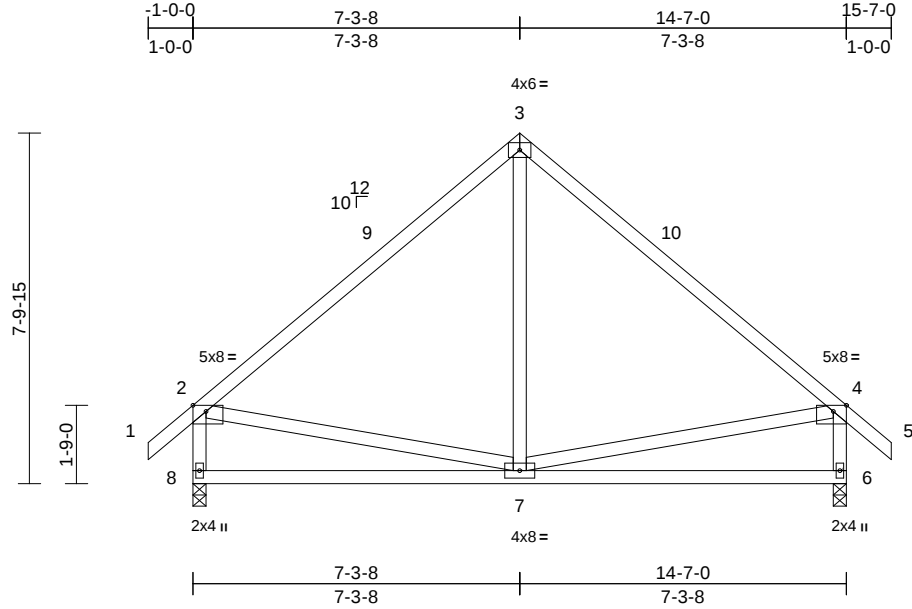
Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374542
3908438	E1	Common	4	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:41

Page: 1

ID:QHhadLDvyV0eroPjOTenUkzfEHZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:51.4

Plate Offsets (X, Y): [2'-0\"/>

Loading	(psf)	Spacing	2'-0\"/>
---------	-------	---------	----------

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\"/>

REACTIONS

(size) 6=0'-3-8, 8=0'-3-8
Max Horiz 8=-181 (LC 10)
Max Uplift 6=-18 (LC 13), 8=-18 (LC 12)
Max Grav 6=640 (LC 1), 8=640 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-537/94, 3-4=-537/94, 4-5=0/44, 2-8=-577/113, 4-6=-577/113
BOT CHORD 7-8=-191/306, 6-7=-95/178
WEBS 3-7=0/265, 2-7=-50/216, 4-7=-52/217

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1'-0\"/>

- 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 18 lb uplift at joint 8 and 18 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

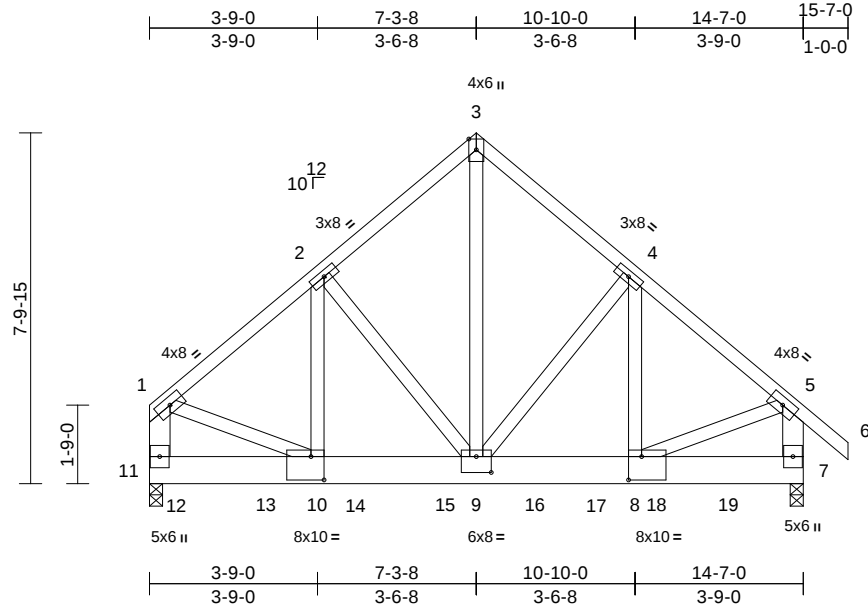
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374543
3908438	E2	Common Girder	1	2	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. Wed Mar 27 11:29:41
ID:yAEvhF1wA5S7O41bR2LUiszfEGw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:51.4

Plate Offsets (X, Y): [8:0-3-8,0-6-4], [9:0-4-0,0-4-4], [10:0-3-8,0-6-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.03	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.07	8-9	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.00	8-9	>999	240	Weight: 257 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x8 SP 2400F 2.0E or 2x8 SP DSS
WEBS 2x4 SP No.2 *Except* 11-1,7-5:2x6 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) 7=0-3-8, 11=0-3-8
Max Horiz 11=-171 (LC 4)
Max Grav 7=5382 (LC 16), 11=2956 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2606/0, 2-3=-2750/0, 3-4=-2736/0, 4-5=-4744/0, 5-6=0/47, 1-11=-2463/0, 5-7=-4505/0

BOT CHORD 10-11=-94/285, 9-10=0/1988, 8-9=0/3611, 7-8=0/345

WEBS 1-10=0/1914, 5-8=0/3532, 2-10=-518/0, 2-9=0/344, 3-9=0/3236, 4-9=-2458/0, 4-8=0/3028

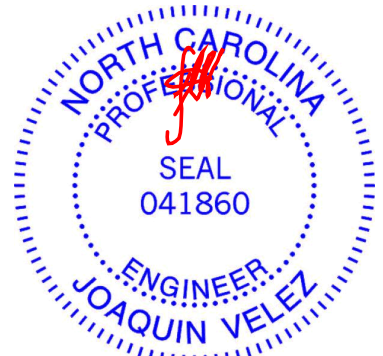
NOTES

- 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, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-3-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; 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=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 2400F 2.0E or DSS crushing capacity of 660 psi.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 307 lb down at 0-7-4, 301 lb down at 2-7-4, 301 lb down at 4-7-4, 301 lb down at 6-7-4, 301 lb down at 8-7-4, 3431 lb down at 9-11-12, and 1225 lb down at 11-3-14, and 1237 lb down at 12-11-1 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-5=-60, 5-6=-60, 7-11=-20
Concentrated Loads (lb)
Vert: 12=-307 (F), 13=-301 (F), 14=-301 (F), 15=-301 (F), 16=-301 (F), 17=-3293 (F), 18=-1041 (F), 19=-1053 (F)



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

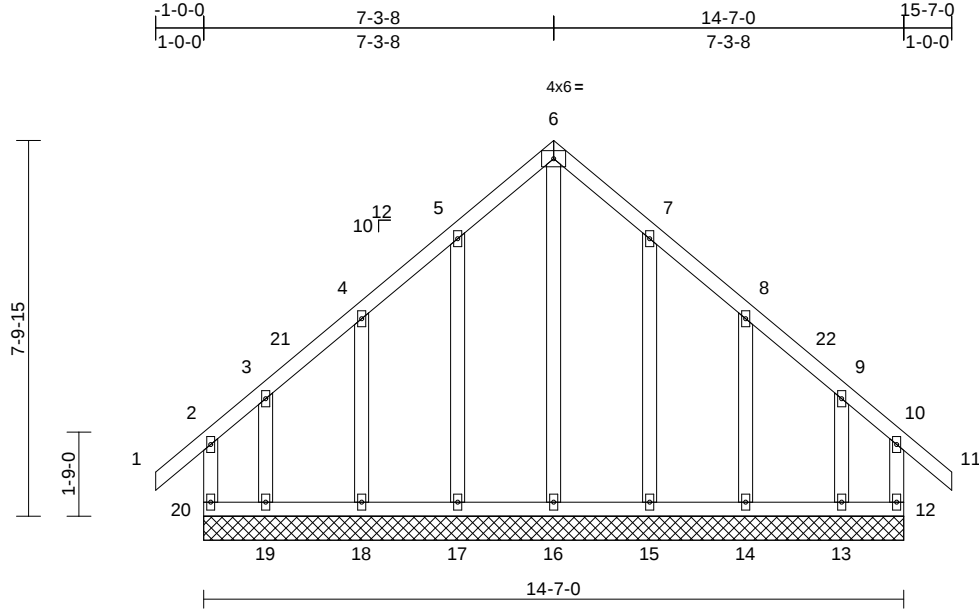
Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374544
3908438	EG1	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:42

Page: 1

ID:j_FMxoKclncauwROPoILD8zfEGX-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?



Scale = 1:48

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.00	12	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							
										Weight: 104 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS	(size)	12=14-7-0, 13=14-7-0, 14=14-7-0, 15=14-7-0, 16=14-7-0, 17=14-7-0, 18=14-7-0, 19=14-7-0, 20=14-7-0
	Max Horiz	20=181 (LC 10)
	Max Uplift	12=140 (LC 9), 13=134 (LC 8), 14=53 (LC 13), 15=54 (LC 13), 17=54 (LC 12), 18=53 (LC 12), 19=142 (LC 9), 20=152 (LC 8)
	Max Grav	12=205 (LC 19), 13=217 (LC 11), 14=166 (LC 26), 15=177 (LC 20), 16=214 (LC 22), 17=178 (LC 19), 18=166 (LC 25), 19=226 (LC 10), 20=214 (LC 20)

FORCES

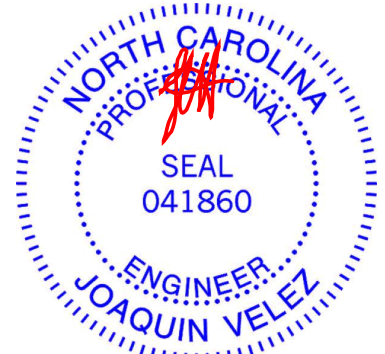
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	2-20=-160/118, 1-2=0/44, 2-3=-122/128, 3-4=-70/125, 4-5=-89/214, 5-6=-127/289, 6-7=-128/289, 7-8=-89/214, 8-9=-63/127, 9-10=-112/119, 10-11=0/44, 10-12=-153/116
BOT CHORD	19-20=-94/88, 18-19=-94/88, 17-18=-94/88, 16-17=-94/88, 15-16=-94/88, 14-15=-94/88, 13-14=-94/88, 12-13=-94/88
WEBS	6-16=-302/74, 5-17=-136/93, 4-18=-128/116, 3-19=-132/95, 7-15=-136/93, 8-14=-128/116, 9-13=-129/93

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 7-3-8, Corner(3R) 7-3-8 to 10-3-8, Exterior(2N) 10-3-8 to 15-7-0 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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 152 lb uplift at joint 20, 140 lb uplift at joint 12, 54 lb uplift at joint 17, 53 lb uplift at joint 18, 142 lb uplift at joint 19, 54 lb uplift at joint 15, 53 lb uplift at joint 14 and 134 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

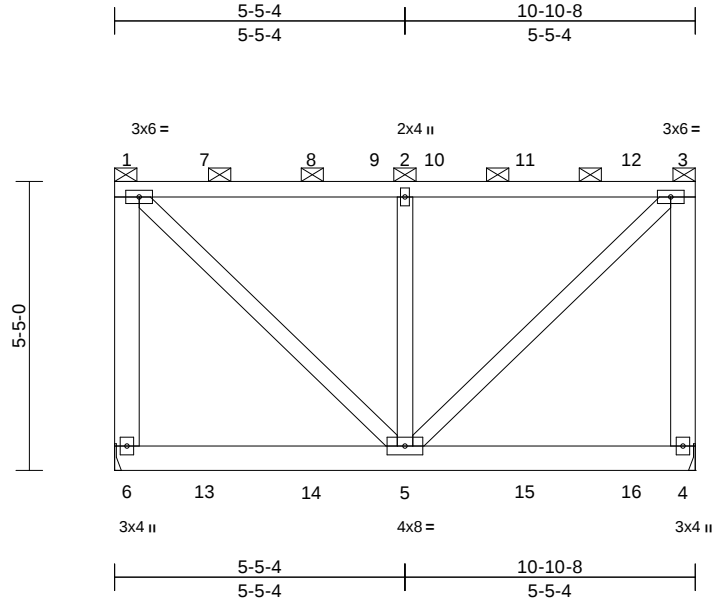
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374545
3908438	FL1	Flat Girder	1	2	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. Wed Mar 27 11:29:42
ID:jmXXe3f8ObwzluKqWPEjMmzdvj4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:43.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.02	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.05	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS		Wind(LL)	0.02	5-6	>999	240	Weight: 181 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.2 *Except* 6-1,3-4:2x6 SP No.2

BRACING

TOP CHORD	2-0-0 oc purlins (6-0-0 max.): 1-3.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size) 4= Mechanical, 6= Mechanical
	Max Grav 4=2972 (LC 1), 6=2782 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-1906/0, 2-3=-1906/0
BOT CHORD	5-6=0/0, 4-5=0/0
WEBS	1-6=-2483/0, 3-4=-2613/0, 2-5=-2592/0, 1-5=0/2652, 3-5=0/2652

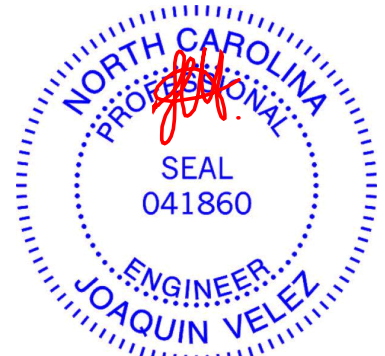
NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; 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=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 317 lb down and 103 lb up at 1-8-4, 317 lb down and 103 lb up at 3-8-4, 317 lb down and 103 lb up at 5-8-4, and 317 lb down and 103 lb up at 7-8-4, and 317 lb down and 102 lb up at 9-8-4 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-6=-20
Concentrated Loads (lb)
Vert: 2=-674, 5=-309 (B), 7=-674, 8=-674, 11=-674, 12=-676, 13=-309 (B), 14=-309 (B), 15=-309 (B), 16=-310 (B)



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

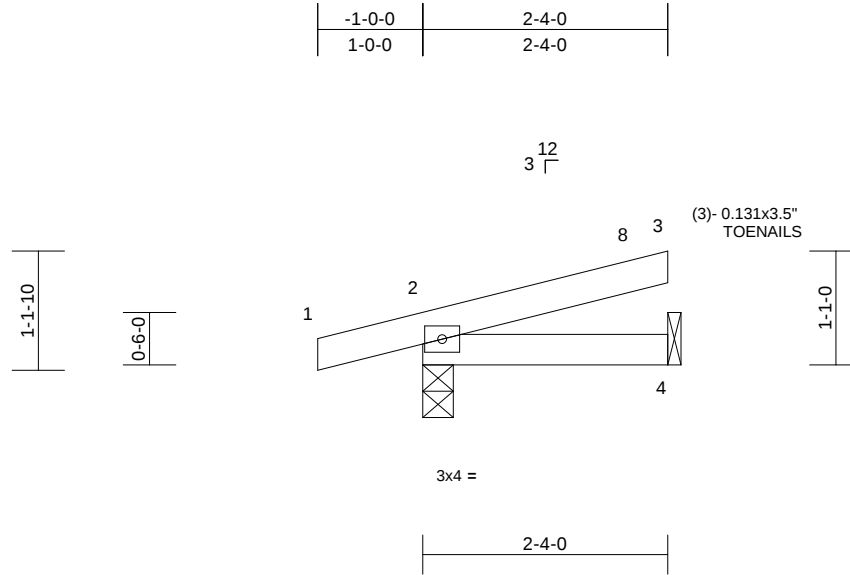
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	M1	Jack-Open	12	1	T33374546
					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. Wed Mar 27 11:29:42
ID:zjlmqtrFAYIJTJd7RByS41zfEGO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:21.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.01	4-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.01	4-7	>999	240	Weight: 9 lb	FT = 20%

LUMBER

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

7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

BRACING

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

LOAD CASE(S) Standard

REACTIONS (size) 2=0-3-8, 4= Mechanical
Max Horiz 2=26 (LC 8)
Max Uplift 2=-36 (LC 8), 4=-11 (LC 9)
Max Grav 2=164 (LC 1), 4=81 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-3=-129/124
BOT CHORD 2-4=-45/33

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 2-4-0 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=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Bearings are assumed to be: Joint 2 User Defined crushing capacity of 565 psiJoint 2 SP No.2 crushing capacity of 565 psi, Joint 4 User Defined crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 2 and 11 lb uplift at joint 4.



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

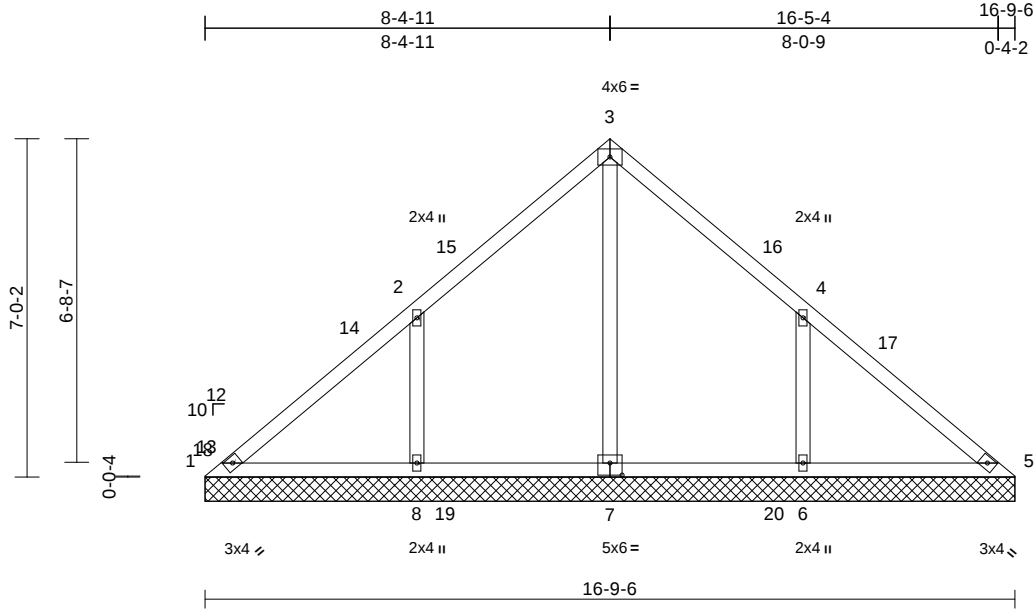
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	V1	Valley	1	1	T33374547
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. Wed Mar 27 11:29:42
ID:h2x41gBTcgEyZV6b6c2H?vzfIF3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:47.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 75 lb FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size)	1=16-9-6, 5=16-9-6, 6=16-9-6, 7=16-9-6, 8=16-9-6
Max Horiz	1=-134 (LC 8)
Max Uplift	1=-20 (LC 8), 6=-134 (LC 13), 8=-135 (LC 12)
Max Grav	1=101 (LC 20), 5=101 (LC 26), 6=502 (LC 20), 7=491 (LC 19), 8=503 (LC 19)

FORCES

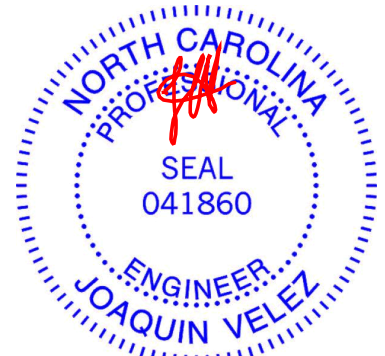
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-123/234, 2-3=-28/181, 3-4=-27/164, 4-5=-113/199
BOT CHORD	1-8=-108/114, 6-8=-108/109, 5-6=-108/109
WEBS	3-7=-308/0, 2-8=-301/174, 4-6=-301/173

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior (1) 3-4-13 to 8-5-0, Exterior(2R) 8-5-0 to 11-5-0, Interior (1) 11-5-0 to 16-9-10 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=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.3 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1, 135 lb uplift at joint 8 and 134 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

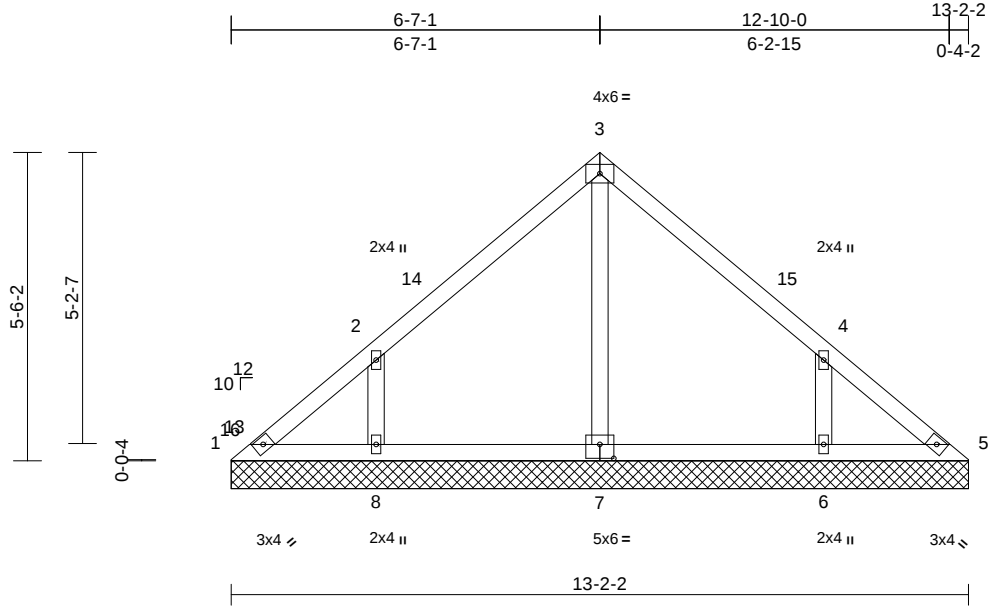
Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	V2	Valley	1	1	T33374548
Job Reference (optional)					

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:42

Page: 1

ID:LvjTgPIJno1Q4adQpGs3sczfIEL-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:41.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							
Weight: 56 lb FT = 20%											

LUMBER

TOP CHORD	2x4 SP No.3
BOT CHORD	2x4 SP No.3
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=13-2-2, 5=13-2-2, 6=13-2-2, 7=13-2-2, 8=13-2-2
Max Horiz	1=-104 (LC 8)
Max Uplift	1=-25 (LC 8), 6=-106 (LC 13), 8=-107 (LC 12)
Max Grav	1=87 (LC 20), 5=83 (LC 19), 6=327 (LC 20), 7=265 (LC 1), 8=328 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

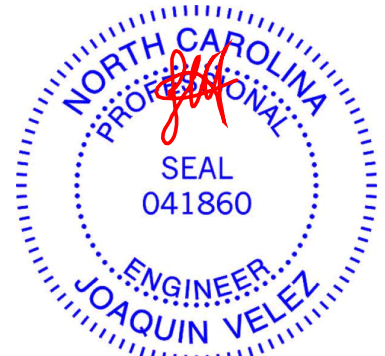
TOP CHORD	1-2=-115/96, 2-3=-123/101, 3-4=-115/97, 4-5=-103/65
BOT CHORD	1-8=-35/89, 6-8=-35/71, 5-6=-35/78
WEBS	3-7=-182/0, 2-8=-254/158, 4-6=-254/159

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior (1) 3-4-13 to 6-7-6, Exterior(2R) 6-7-6 to 9-7-6, Interior (1) 9-7-6 to 13-2-7 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=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.3 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1, 107 lb uplift at joint 8 and 106 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

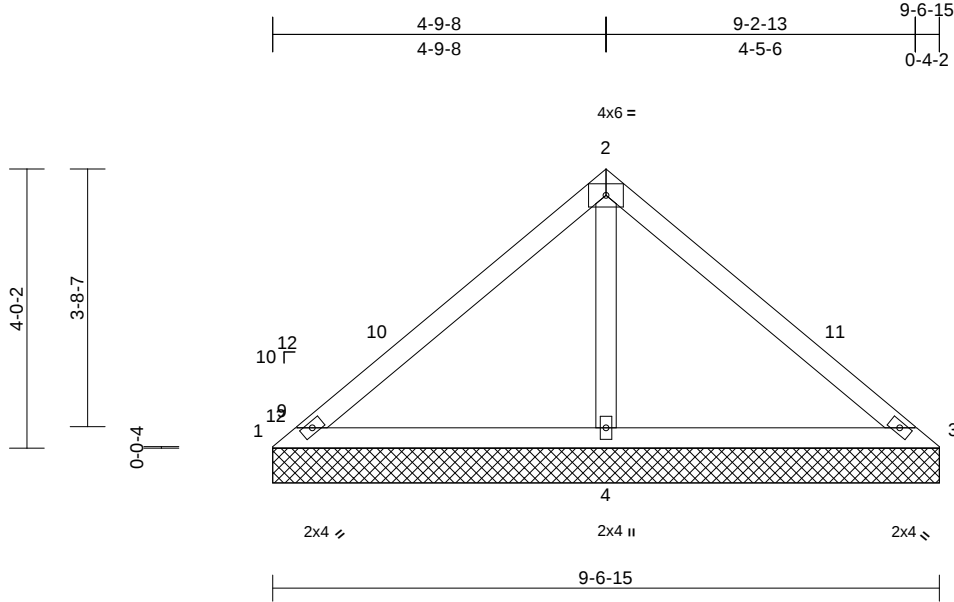
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374549
3908438	V3	Valley	1	1	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. Wed Mar 27 11:29:42
ID:ml_t0tPB3OrYtIpzcqk2_zflDfV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:33.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 36 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 9-6-15 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size)	1=9-6-15, 3=9-6-15, 4=9-6-15
Max Horiz	1=-75 (LC 8)
Max Uplift	1=-34 (LC 26), 3=-26 (LC 25), 4=-55 (LC 12)
Max Grav	1=48 (LC 25), 3=69 (LC 26), 4=706 (LC 1)

FORCES

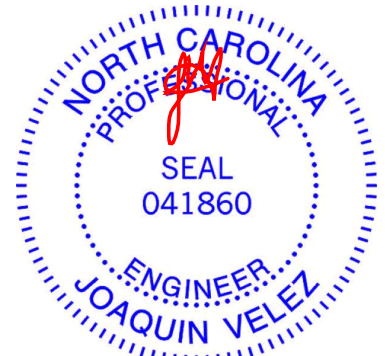
(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-97/301, 2-3=-92/302
BOT CHORD	1-4=-194/143, 3-4=-194/143
WEBS	2-4=-539/206

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior (1) 3-4-13 to 4-9-12, Exterior(2R) 4-9-12 to 7-9-12, Interior (1) 7-9-12 to 9-7-4 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.3 crushing capacity of 565 psi.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1, 26 lb uplift at joint 3 and 55 lb uplift at joint 4.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

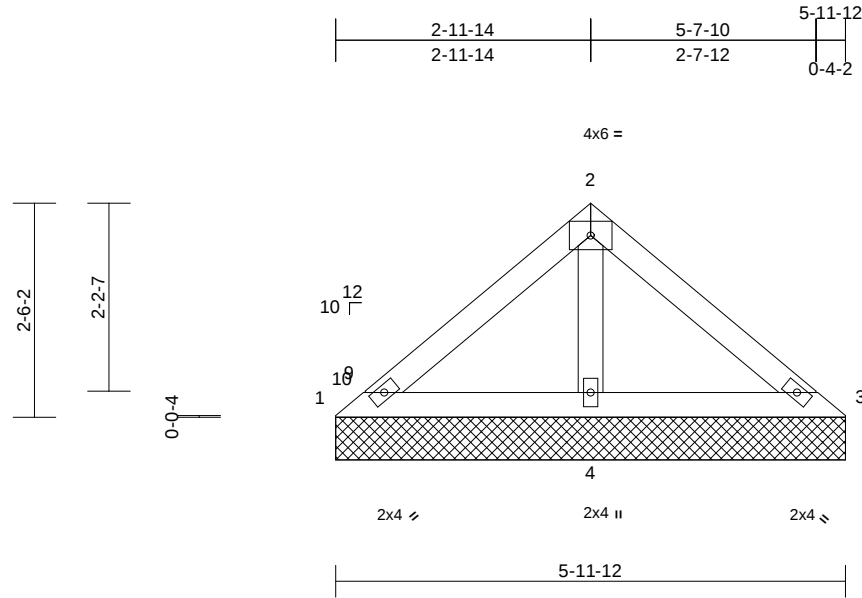
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374550
3908438	V4	Valley	1	1	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. Wed Mar 27 11:29:42
ID:INywnLbDIJsUTKztvz7UiMzfiDF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?fi

Page: 1



Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 22 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=5-11-12, 3=5-11-12, 4=5-11-12
Max Horiz 1=-45 (LC 8)
Max Uplift 1=-1 (LC 26), 3=-1 (LC 13), 4=-22 (LC 12)
Max Grav 1=45 (LC 25), 3=65 (LC 26), 4=380 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

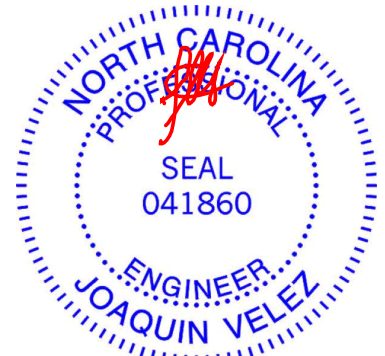
TOP CHORD 1-2=-51/132, 2-3=-57/132
BOT CHORD 1-4=-104/99, 3-4=-104/99
WEBS 2-4=-254/122

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.3 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 1, 1 lb uplift at joint 3 and 22 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

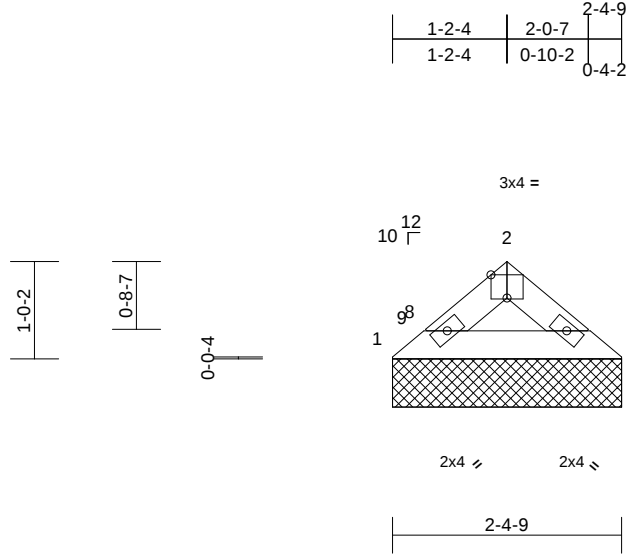
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	V5	Valley	1	1	T33374551
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. Wed Mar 27 11:29:43
ID:leUMx9ouHX?40xm9P1wTuyzfID_-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:23.9

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	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 7 lb FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-4-9, 3=2-4-9

Max Horiz 1=-16 (LC 8)
Max Uplift 3=-2 (LC 13)
Max Grav 1=74 (LC 1), 3=93 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-103/41, 2-3=-115/44
BOT CHORD 1-3=-22/84

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.3 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

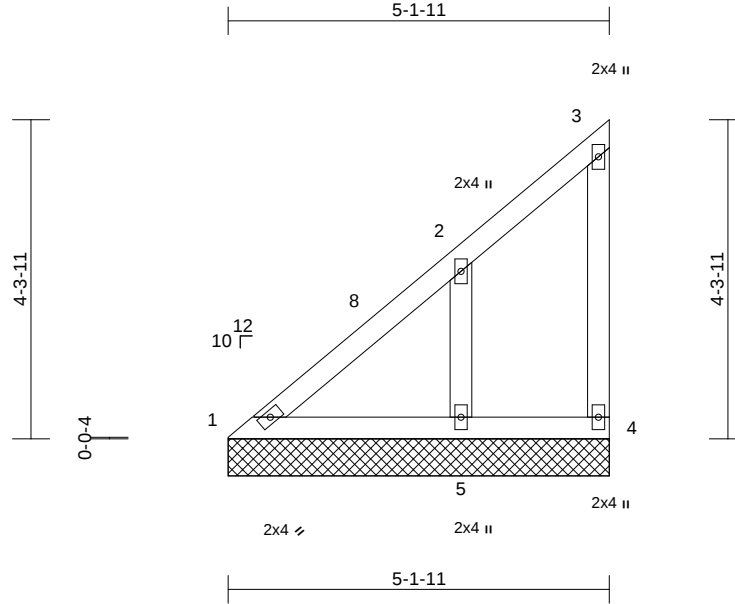
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	V6	Valley	1	1	T33374552
					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. Wed Mar 27 11:29:43
ID:utNV0Z0?_H2GmJRND6nkq4zfICE-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcD0i7J4zJC?f

Page: 1



Scale = 1:31.1											
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 25 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 5-1-11 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	1=5-1-11, 4=5-1-11, 5=5-1-11
	Max Horiz	1=118 (LC 9)
	Max Uplift	4=-25 (LC 9), 5=-80 (LC 12)
	Max Grav	1=122 (LC 20), 4=47 (LC 19), 5=272 (LC 19)

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

TOP CHORD	1-2=-280/191, 2-3=-106/96, 3-4=-85/97
BOT CHORD	1-5=-133/159, 4-5=-56/75
WEBS	2-5=-182/244

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-5 to 3-2-0, Exterior(2N) 3-2-0 to 5-0-4 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=1.60
- 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 4 and 80 lb uplift at joint 5.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

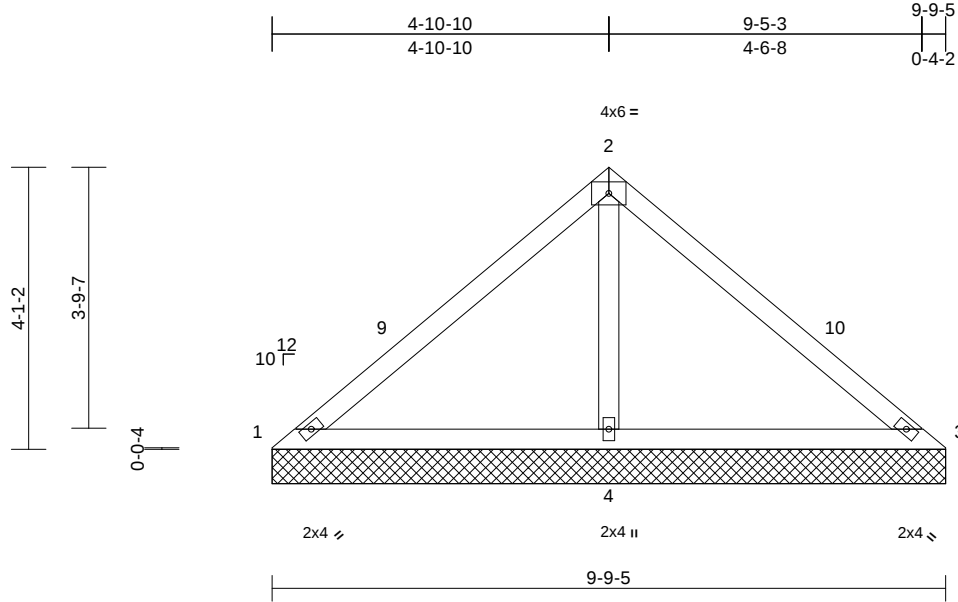
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374553
3908438	V7	Valley	1	1	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. Wed Mar 27 11:29:43
ID:bJwvCt9QM_u_6IN4PfYAcg0zYcmX-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:33.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 37 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 9-9-5 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size)	1=9-9-5, 3=9-9-5, 4=9-9-5
Max Horiz	1=77 (LC 9)
Max Uplift	1=-31 (LC 26), 3=-31 (LC 25), 4=-60 (LC 12)
Max Grav	1=67 (LC 25), 3=67 (LC 26), 4=731 (LC 1)

FORCES

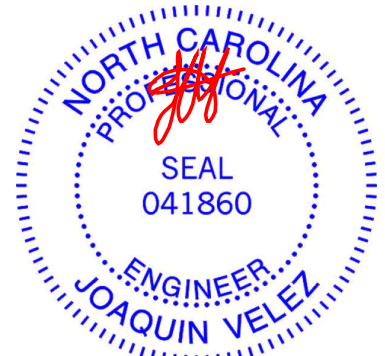
(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-101/316, 2-3=-97/316
BOT CHORD	1-4=-202/147, 3-4=-202/147
WEBS	2-4=-561/212

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 4-10-15, Exterior(2R) 4-10-15 to 7-10-15, Interior (1) 7-10-15 to 9-9-10 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.3 crushing capacity of 565 psi.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1, 31 lb uplift at joint 3 and 60 lb uplift at joint 4.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

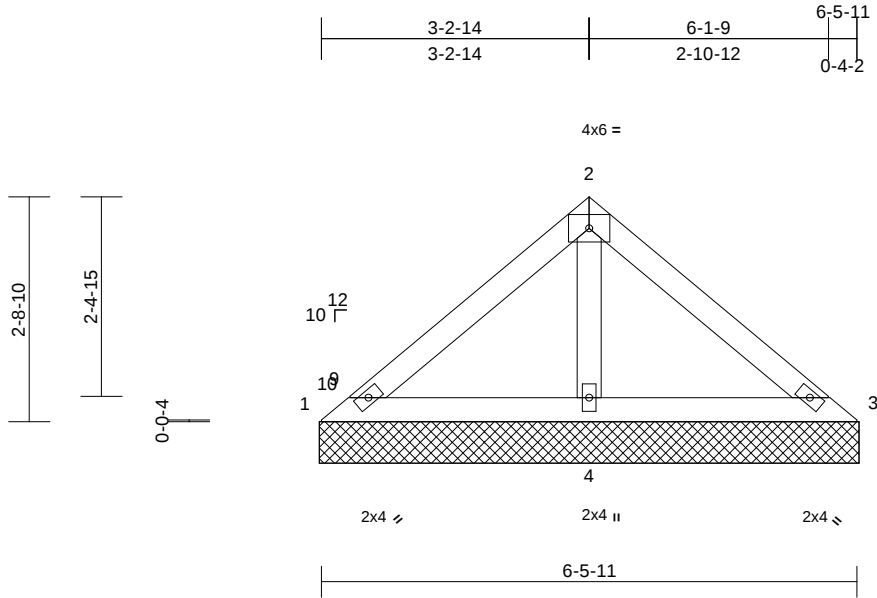
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374554
3908438	V8	Valley	1	1	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. Wed Mar 27 11:29:43
ID:lv?nVz0YHm8fYZaQv6kS4XzflCj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:27.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.22	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP						Weight: 24 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-5-11 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size)	1=6-6-5, 3=6-6-5, 4=6-6-5
Max Horiz	1=-49 (LC 8)
Max Uplift	1=-8 (LC 26), 3=-1 (LC 8), 4=-28 (LC 12)
Max Grav	1=43 (LC 25), 3=65 (LC 26), 4=432 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-65/160, 2-3=-60/161
BOT CHORD	1-4=-124/112, 3-4=-124/112
WEBS	2-4=-299/142

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.3 crushing capacity of 565 psi.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1, 1 lb uplift at joint 3 and 28 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 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

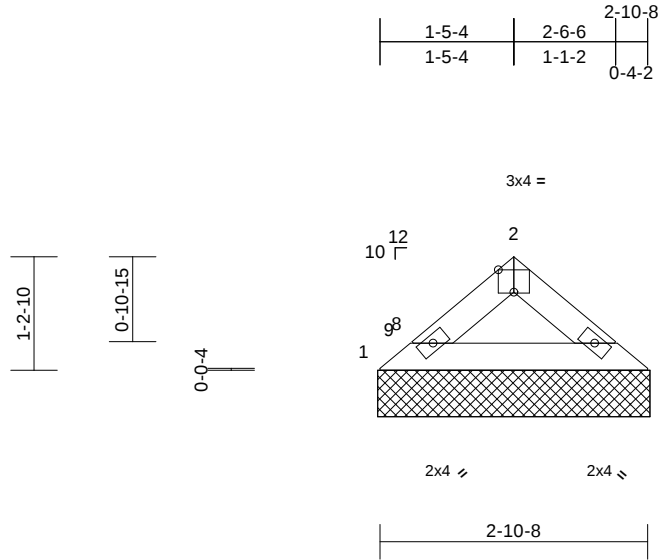
Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	V9	Valley	1	1	T33374555
Job Reference (optional)					

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:43

Page: 1

ID:q_zqsRCbWg9OT0oUrT0CjvzfICT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:24.8

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	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 9 lb
											FT = 20%

LUMBER

TOP CHORD 2x4 SP No.3

BOT CHORD 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-10-8 oc purlins.

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

REACTIONS (size) 1=2-11-2, 3=2-11-2

Max Horiz 1=-20 (LC 8)

Max Uplift 3=-2 (LC 13)

Max Grav 1=94 (LC 1), 3=115 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-136/51, 2-3=-150/56

BOT CHORD 1-3=-32/112

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.3 crushing capacity of 565 psi.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 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 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

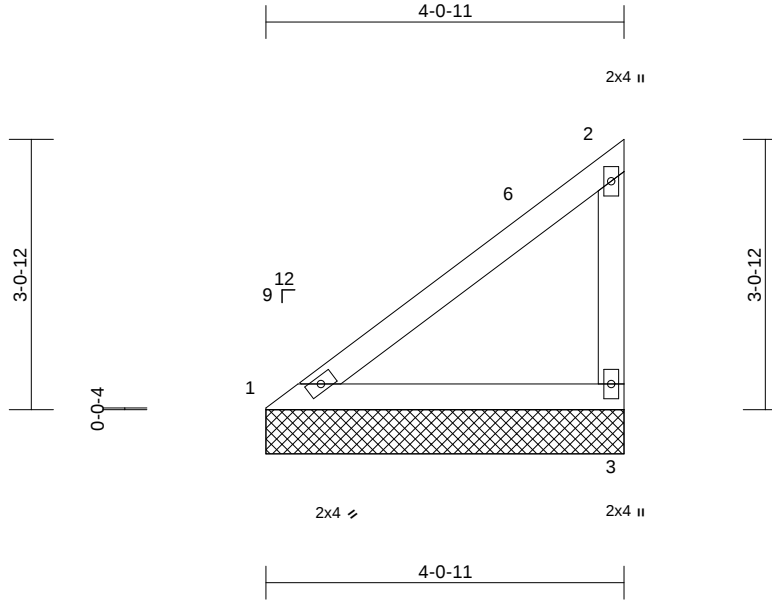
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	V10	Valley	1	1	T33374556
					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. Wed Mar 27 11:29:43
ID:UZDoyMYnhapHSTW32310P1zfIC0-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:26.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 16 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=4-0-11, 3=4-0-11
Max Horiz 1=85 (LC 12)
Max Uplift 3=44 (LC 12)
Max Grav 1=156 (LC 1), 3=161 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-202/52
BOT CHORD 1-3=-112/164
WEBS 2-3=-102/95

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 3-11-4 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=1.60
- 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 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.3 crushing capacity of 565 psi.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 3.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

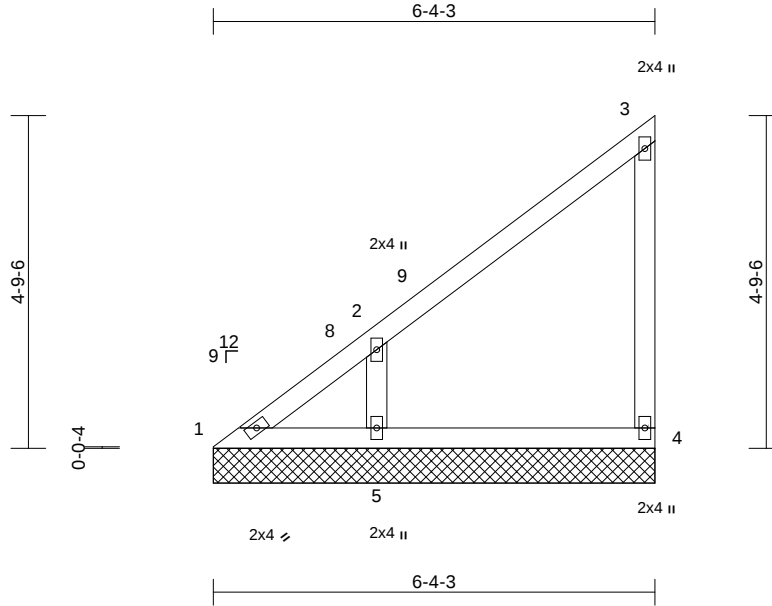
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana
3908438	V11	Valley	1	1	T33374557
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. Wed Mar 27 11:29:43
ID:XWEipW2ENM2_e7Y6KhWVJ9zdwOT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:33.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 28 lb FT = 20%

LUMBER

TOP CHORD	2x4 SP No.3
BOT CHORD	2x4 SP No.3
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=6-4-3, 4=6-4-3, 5=6-4-3
	Max Horiz	1=133 (LC 9)
	Max Uplift	1=-17 (LC 8), 4=-26 (LC 9), 5=-86 (LC 12)
	Max Grav	1=81 (LC 20), 4=139 (LC 19), 5=334 (LC 19)

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

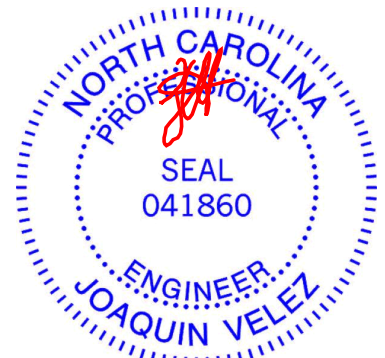
TOP CHORD	1-2=-288/183, 2-3=-138/103, 3-4=-115/126
BOT CHORD	1-5=-68/84, 4-5=-62/67
WEBS	2-5=-258/232

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 6-2-12 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=1.60
- 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 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.3 crushing capacity of 565 psi.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 4, 17 lb uplift at joint 1 and 86 lb uplift at joint 5.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

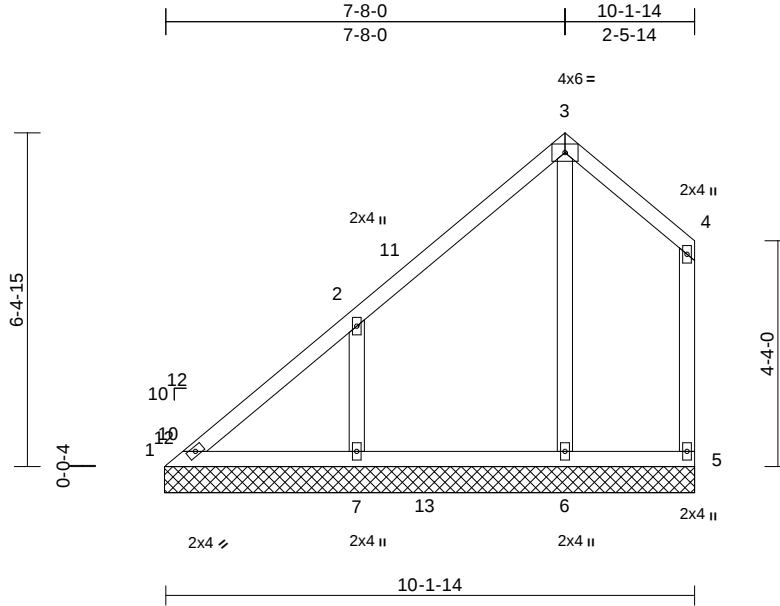
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374558
3908438	V12	Valley	1	1	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. Wed Mar 27 11:29:43
ID:qs9MHv8djWw?_CaSFY85dzwOM-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:44.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.24	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	5	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS						Weight: 53 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.3
BOT CHORD	2x4 SP No.3
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=10-2-3, 5=10-2-3, 6=10-2-3, 7=10-2-3
Max Horiz	1=162 (LC 11)
Max Uplift	1=-32 (LC 8), 5=-40 (LC 8), 6=-22 (LC 9), 7=-119 (LC 12)
Max Grav	1=148 (LC 20), 5=133 (LC 20), 6=377 (LC 19), 7=455 (LC 19)

FORCES

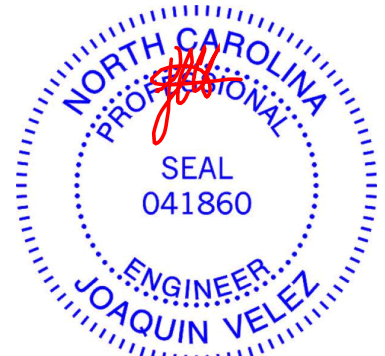
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-205/162, 2-3=-151/113, 3-4=-111/130, 4-5=-107/103
BOT CHORD	1-7=-83/136, 6-7=-55/60, 5-6=-55/60
WEBS	3-6=-208/117, 2-7=-278/206

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-13 to 3-8-5, Interior (1) 3-8-5 to 7-8-5, Exterior(2E) 7-8-5 to 10-0-7 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.3 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 5, 32 lb uplift at joint 1, 22 lb uplift at joint 6 and 119 lb uplift at joint 7.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28,2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

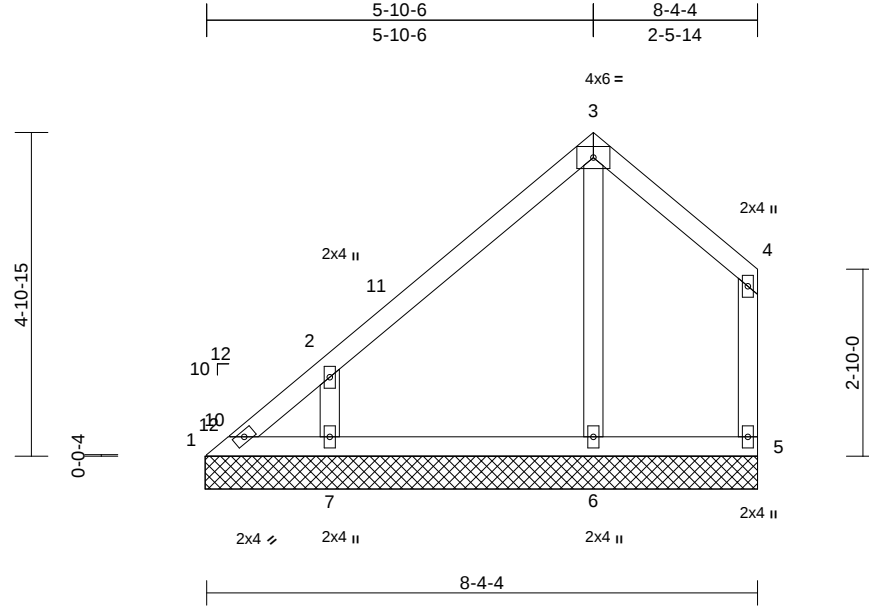
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374559
3908438	V13	Valley	1	1	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. Wed Mar 27 11:29:43
ID:e0XdYyCNJMH8i71cbwfYLuzdwOG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:35

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 40 lb FT = 20%

LUMBER

TOP CHORD	2x4 SP No.3
BOT CHORD	2x4 SP No.3
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=8-4-9, 5=8-4-9, 6=8-4-9, 7=8-4-9
	Max Horiz	1=116 (LC 11)
	Max Uplift	1=-53 (LC 10), 5=-32 (LC 8), 6=-8 (LC 9), 7=-96 (LC 12)
	Max Grav	1=81 (LC 9), 5=103 (LC 20), 6=274 (LC 19), 7=307 (LC 19)

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

TOP CHORD	1-2=-191/138, 2-3=-136/95, 3-4=-88/106, 4-5=-91/89
BOT CHORD	1-7=-37/38, 6-7=-33/38, 5-6=-33/38
WEBS	3-6=-201/98, 2-7=-259/239

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior (1) 3-4-13 to 5-10-11, Exterior(2E) 5-10-11 to 8-2-13 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.

- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.3 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 5, 53 lb uplift at joint 1, 8 lb uplift at joint 6 and 96 lb uplift at joint 7.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

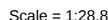
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Mar 27 11:29:43 Page: 1
ID:3bC3ia FGcH3jZamBG2CFzXzdwOD-RfC?PsB70Hg3NSaPqnL8w3uITXBGKWCrDc0i7J4zJC?f



LOAD CASE(S) Standard

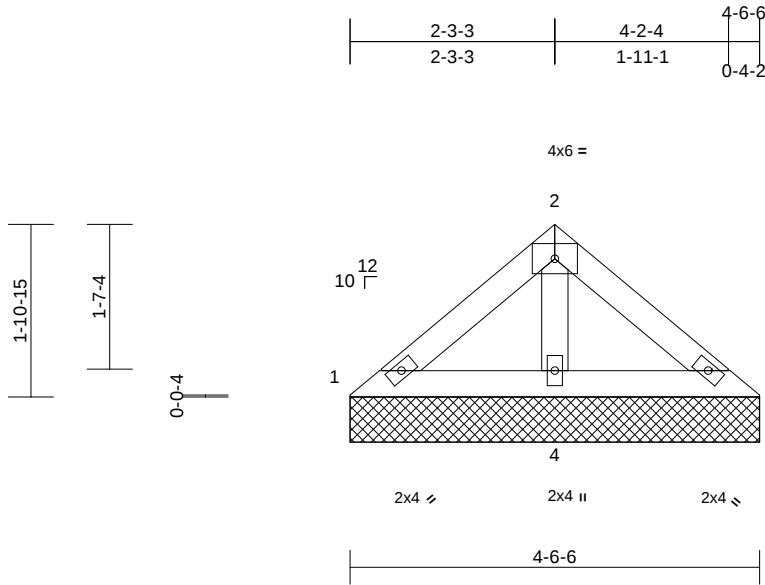
- March 28, 2024

Job	Truss	Truss Type	Qty	Ply	Chamberlain Homes / 146 Montana	T33374561
3908438	V15	Valley	1	1	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. Wed Mar 27 11:29:43
ID:PY0eDhJPQph0fLe83coQgazdw08-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:25.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 16 lb FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-6-6 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size)	1=4-6-6, 3=4-6-6, 4=4-6-6
Max Horiz	1=-34 (LC 8)
Max Uplift	3=-4 (LC 13), 4=-12 (LC 12)
Max Grav	1=59 (LC 25), 3=59 (LC 26), 4=265 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

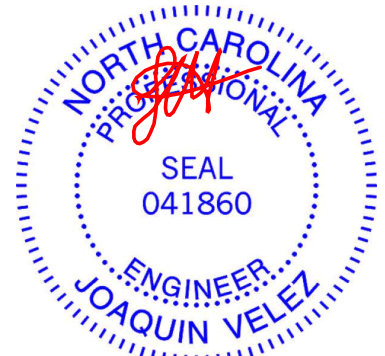
TOP CHORD	1-2=-53/79, 2-3=-53/78
BOT CHORD	1-4=-63/65, 3-4=-63/65
WEBS	2-4=-160/71

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.3 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 3 and 12 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 28, 2024

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

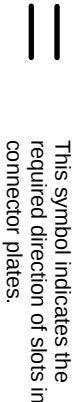
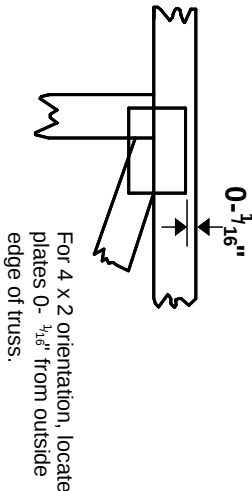
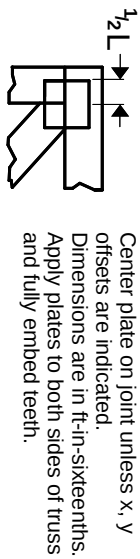
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

4 X 4

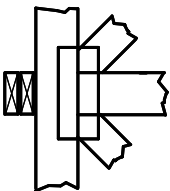
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

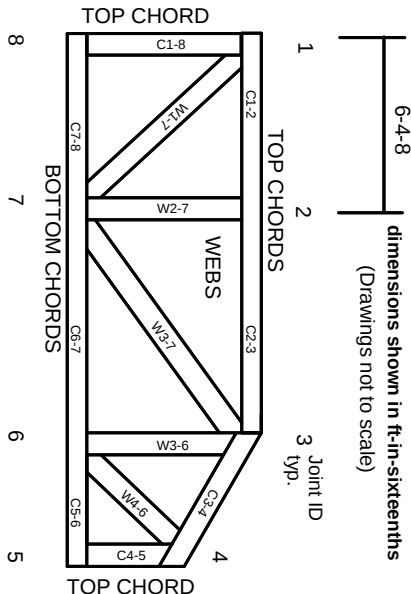


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: 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



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 1 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.