

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 3454594  
CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd FLOOR

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: T30071907 thru T30071918

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

North Carolina COA: C-0844



March 17, 2023

O'Regan, Philip

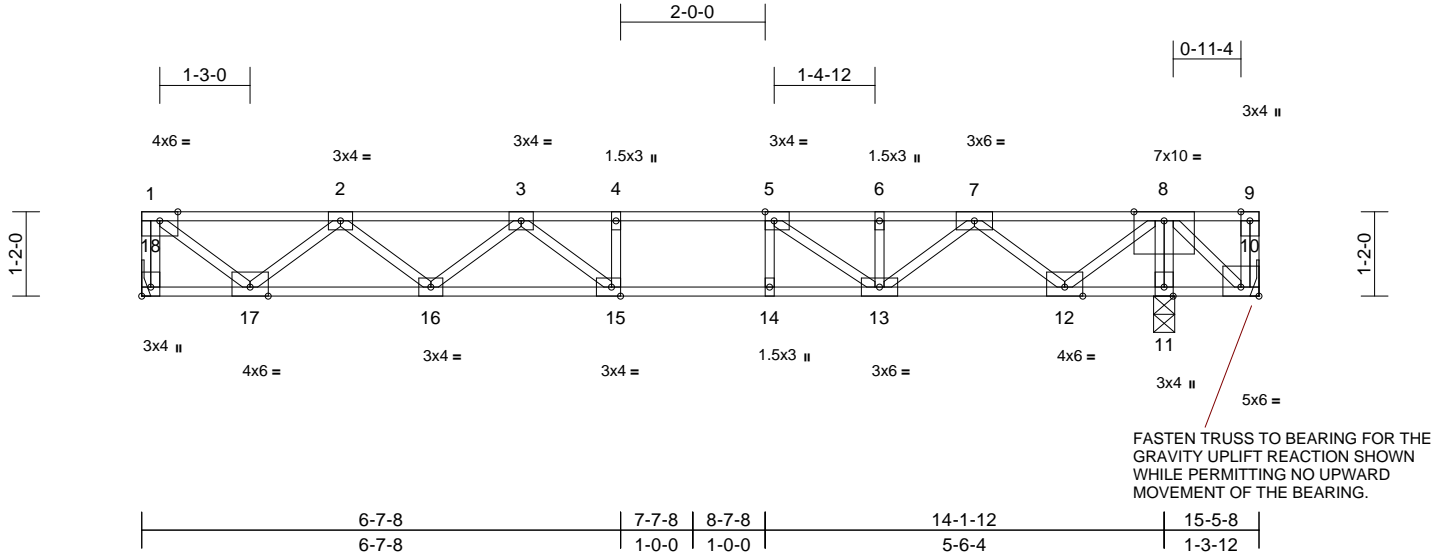
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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

Job 3454594	Truss F1	Truss Type Floor	Qty 2	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071907 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 16 09:54:59  
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Page: 1



Scale = 1:31.9

Plate Offsets (X, Y): [5:0-1-8,Edge], [10:Edge,0-1-8], [15:0-1-8,Edge], [18:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.72	Vert(LL)	-0.16	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.22	15-16	>748	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.02	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 81 lb	FT = 20%F, 11%E

**LUMBER**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)

**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, Except:  
6-0-0 oc bracing: 11-12,10-11.

**REACTIONS** (size) 10= Mechanical, 11=0-3-8, 18= Mechanical  
Max Uplift 10=-977 (LC 3)  
Max Grav 10=-202 (LC 4), 11=1915 (LC 1), 18=687 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-18=-677/0, 9-10=-46/31, 1-2=-754/0, 2-3=-1755/0, 3-4=-1943/0, 4-5=-1943/0, 5-6=-1252/0, 6-7=-1252/0, 7-8=-86/298, 8-9=0/0  
BOT CHORD 17-18=0/0, 16-17=0/1430, 15-16=0/2000, 14-15=0/1943, 13-14=0/1943, 12-13=0/692, 11-12=-1062/0, 10-11=-1076/0  
WEBS 4-15=-113/8, 5-14=0/177, 8-11=-1879/0, 8-10=0/1427, 1-17=0/945, 2-17=-881/0, 2-16=0/423, 3-16=-319/0, 3-15=-179/202, 8-12=0/1166, 7-12=-1075/0, 7-13=0/716, 6-13=-81/103, 5-13=-864/0

**NOTES**  
1) Unbalanced floor live loads have been considered for this design.  
2) Refer to girder(s) for truss to truss connections.  
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 977 lb uplift at joint 10.

- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



March 17, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



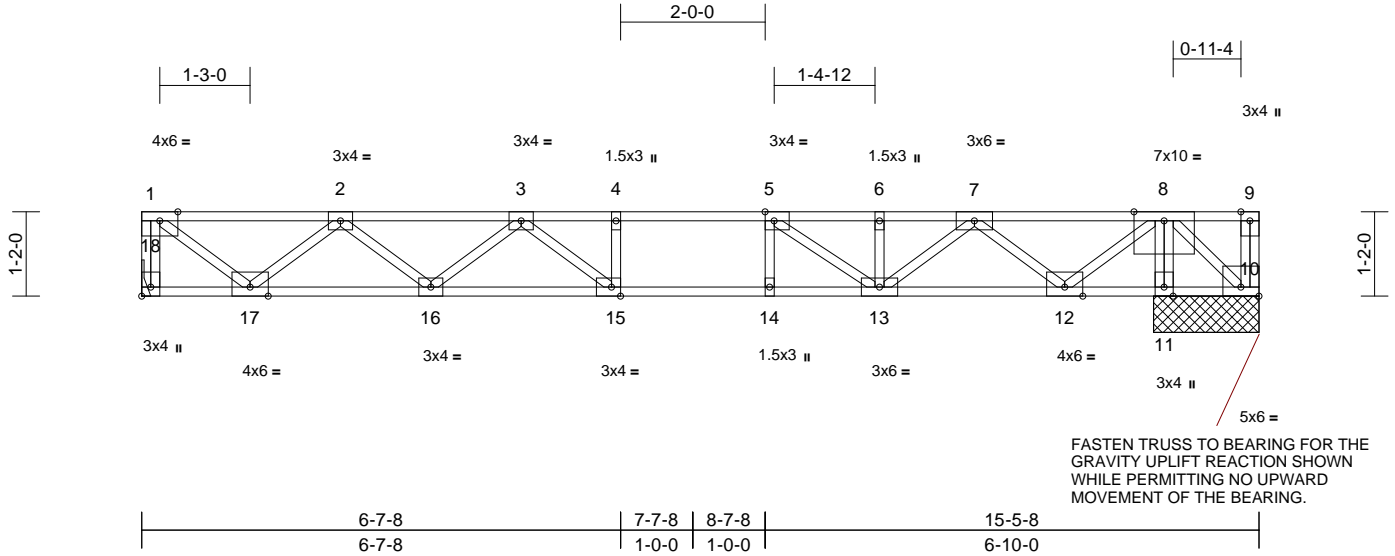
818 Soundside Road  
Edenton, NC 27932

Job 3454594	Truss F2	Truss Type Floor	Qty 1	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071908 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 16 09:55:01  
ID:klQhqMEyDPYIVb8PNLf25gzaP8t-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:31.9

Plate Offsets (X, Y): [5:0-1-8,Edge], [10:Edge,0-1-8], [15:0-1-8,Edge], [18:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.72	Vert(LL)	-0.16	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.22	15-16	>748	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.02	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 81 lb	FT = 20%F, 11%E

**LUMBER**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)

**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, Except: 6-0-0 oc bracing: 11-12,10-11.

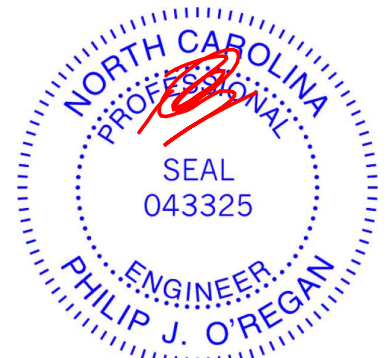
**REACTIONS** (size) 10=1-5-8, 11=1-5-8, 18= Mechanical  
Max Uplift 10=-934 (LC 4)  
Max Grav 10=-368 (LC 3), 11=1915 (LC 1), 18=687 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-18=-677/0, 9-10=-45/0, 1-2=-754/0, 2-3=-1755/0, 3-4=-1943/0, 4-5=-1943/0, 5-6=-1252/0, 6-7=-1252/0, 7-8=-86/298, 8-9=0/0  
BOT CHORD 17-18=0/0, 16-17=0/1430, 15-16=0/2000, 14-15=0/1943, 13-14=0/1943, 12-13=0/691, 11-12=-1062/0, 10-11=-1076/0  
WEBS 4-15=-113/8, 5-14=0/177, 8-11=-1879/0, 8-10=0/1427, 1-17=0/945, 2-17=-881/0, 2-16=0/423, 3-16=-319/0, 3-15=-179/202, 8-12=0/1161, 7-12=-1071/0, 7-13=0/716, 6-13=-81/103, 5-13=-864/0

**NOTES**  
1) Unbalanced floor live loads have been considered for this design.  
2) Refer to girder(s) for truss to truss connections.  
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 934 lb uplift at joint 10.

- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



March 17, 2023

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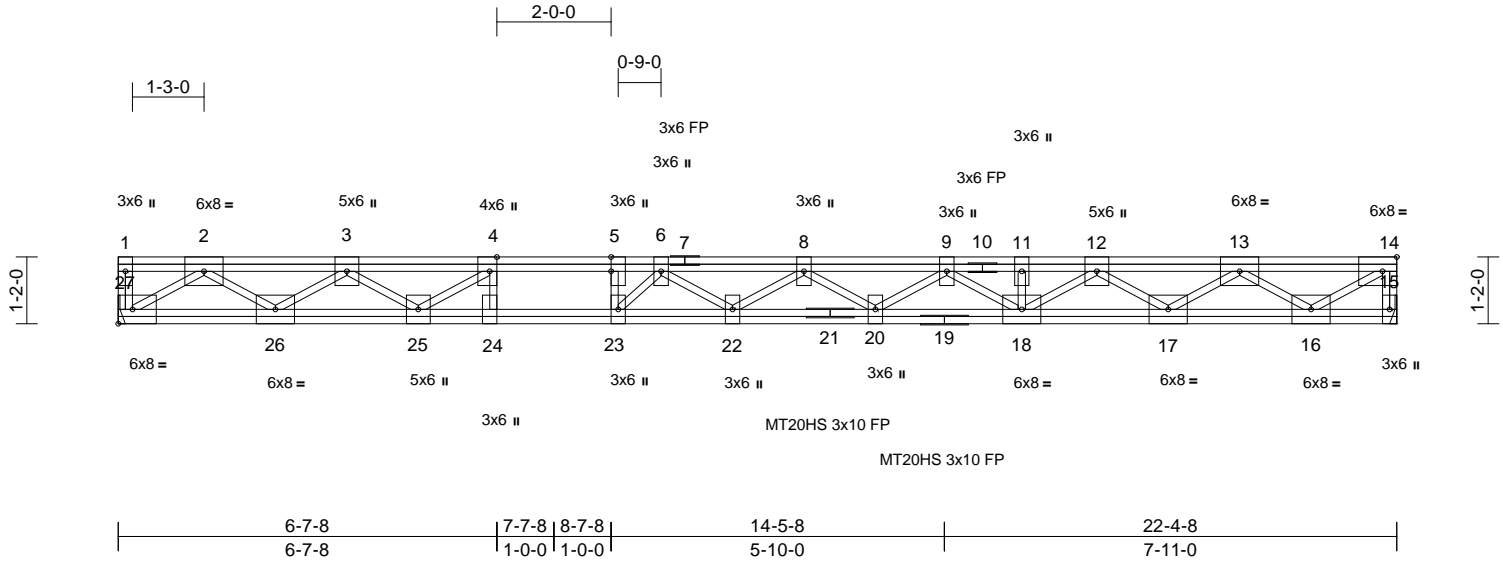
818 Soundside Road  
Edenton, NC 27932

Job 3454594	Truss F4	Truss Type Floor	Qty 3	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071909 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 16 09:55:01  
ID:hli?fwUBjMf?\_a5OTBWRlbaP7F-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:40.3

Plate Offsets (X, Y): [4:0-3-0,Edge], [5:0-3-0,Edge], [14:0-3-0,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL	40.0	Plate Grip DOL	1.00	TC	0.30	Vert(LL)	-0.35	22-23	>762	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.52	Vert(CT)	-0.48	22-23	>554	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.05	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S								Weight: 173 lb FT = 20%F, 11%E

**LUMBER**

TOP CHORD 2x4 SP SS(flat)  
 BOT CHORD 2x4 SP SS(flat)  
 WEBS 2x4 SP No.3(flat)

5) Required 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**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.

**LOAD CASE(S)** Standard

**REACTIONS**

(size) 15= Mechanical, 27= Mechanical  
 Max Grav 15=973 (LC 1), 27=973 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-27=-39/0, 14-15=-958/0, 1-2=0/0,  
 2-3=-2384/0, 3-4=-4122/0, 4-5=-5140/0,  
 5-6=-5140/0, 6-8=-5789/0, 8-9=-5546/0,  
 9-11=-4775/0, 11-12=-4775/0,  
 12-13=-3321/0, 13-14=-1300/0  
 BOT CHORD 26-27=0/1385, 25-26=0/3338, 24-25=0/5140,  
 23-24=0/5140, 22-23=0/5610, 20-22=0/5804,  
 18-20=0/5289, 17-18=0/4142, 16-17=0/2470,  
 15-16=0/0  
 WEBS 4-24=0/367, 5-23=-41/386, 2-27=-1664/0,  
 2-26=0/1239, 3-26=-1184/0, 3-25=0/971,  
 4-25=-1304/0, 14-16=0/1563, 13-16=-1451/0,  
 13-17=0/1054, 12-17=-1019/0, 12-18=0/772,  
 11-18=-61/0, 9-18=-627/0, 9-20=0/318,  
 8-20=-320/0, 8-22=-109/177, 6-22=-124/353,  
 6-23=-881/39

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) Refer to girder(s) for truss to truss connections.
- 4) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 17, 2023

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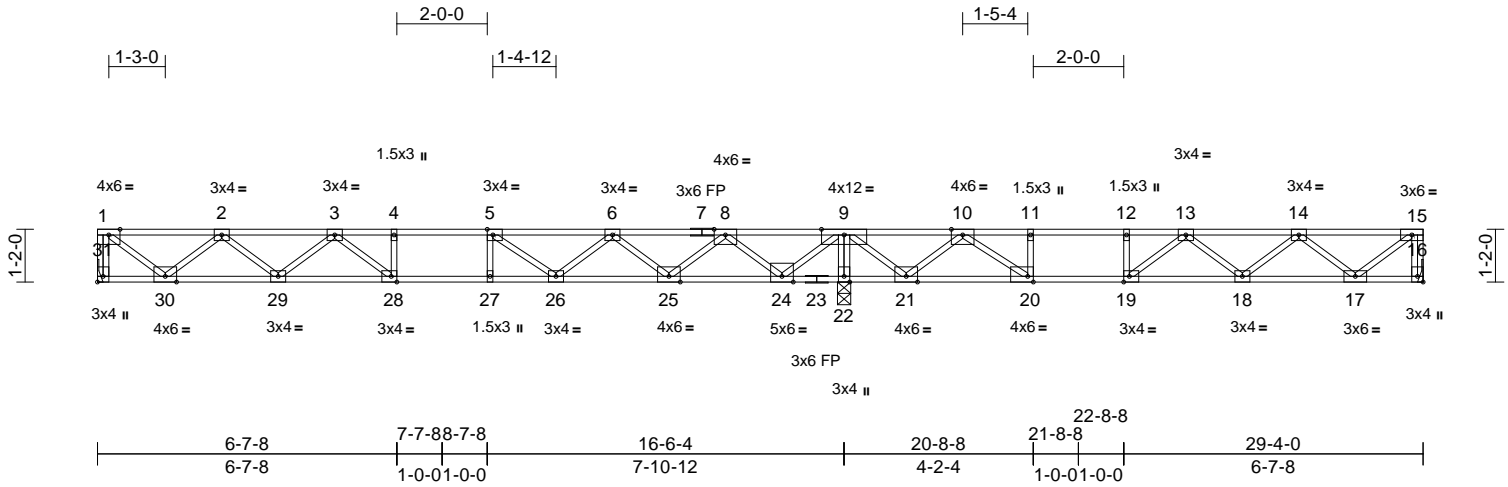
818 Soundside Road  
 Edenton, NC 27932

Job 3454594	Truss F5	Truss Type Floor	Qty 4	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071910 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

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ID:mh2EG7tmcH2DiZuhqNT09kzaP?0-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:51

Plate Offsets (X, Y): [5:0-1-8,Edge], [16:Edge,0-1-8], [19:0-1-8,Edge], [20:0-1-8,Edge], [28:0-1-8,Edge], [31:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.68	Vert(LL)	-0.18	18-19	>844	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.25	18-19	>621	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.04	16	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 145 lb	FT = 20%F, 11%E

**LUMBER**  
TOP CHORD 2x4 SP No.2(flat) \*Except\* 7-15:2x4 SP SS (flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)

**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) 16= Mechanical, 22=0-3-8, 31= Mechanical  
Max Grav 16=636 (LC 4), 22=1881 (LC 1), 31=795 (LC 10)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-31=-787/0, 15-16=-625/0, 1-2=-901/0, 2-3=-2136/0, 3-4=-2718/0, 4-5=-2718/0, 5-6=-2302/0, 6-8=-1254/0, 8-9=0/784, 9-10=-81/1315, 10-11=-1571/453, 11-12=-1571/453, 12-13=-1571/453, 13-14=-1574/2, 14-15=-685/0  
BOT CHORD 30-31=0/0, 29-30=0/1698, 28-29=0/2536, 27-28=0/2718, 26-27=0/2718, 25-26=0/1932, 24-25=-111/539, 22-24=-1922/0, 21-22=-1922/0, 20-21=-974/833, 19-20=-453/1571, 18-19=-131/1754, 17-18=0/1303, 16-17=0/0  
WEBS 4-28=-187/0, 5-27=-65/162, 9-22=-1796/0, 11-20=-496/0, 12-19=0/211, 1-30=0/1130, 2-30=-1038/0, 2-29=0/569, 3-29=-521/0, 3-28=-85/437, 9-24=0/1428, 8-24=-1349/0, 8-25=0/966, 6-25=-916/0, 6-26=0/523, 5-26=-680/0, 9-21=0/1058, 10-21=-1130/0, 10-20=0/1243, 15-17=0/859, 14-17=-804/0, 14-18=-55/354, 13-18=-234/168, 13-19=-609/0

- Unbalanced floor live loads have been considered for this design.
  - Refer to girder(s) for truss to truss connections.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard



March 17, 2023

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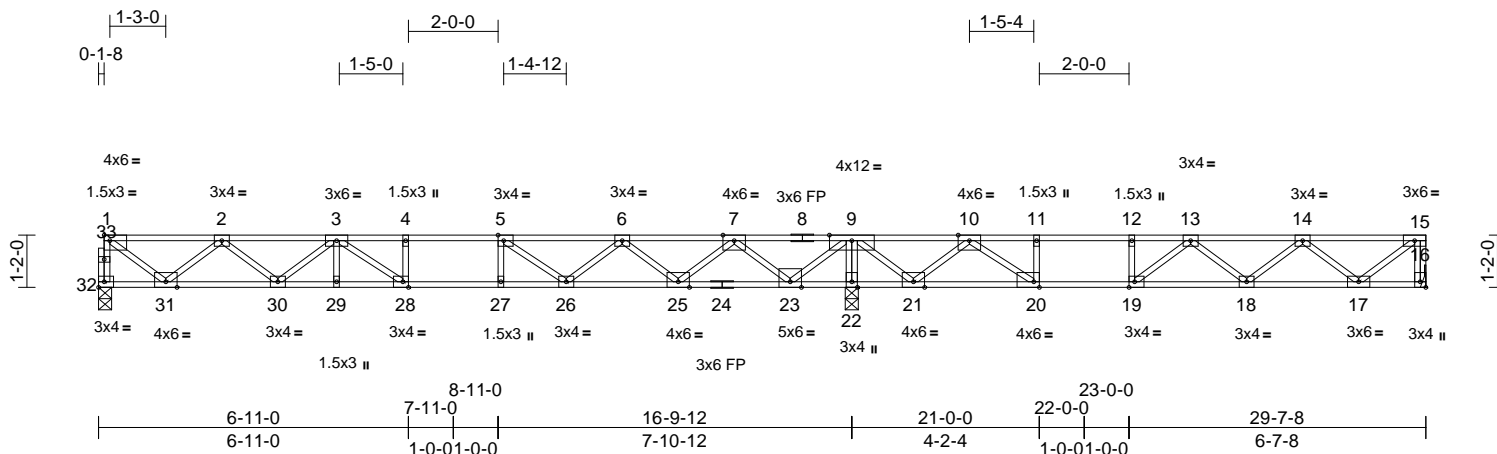
818 Soundside Road  
Edenton, NC 27932

Job 3454594	Truss F6	Truss Type Floor	Qty 3	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071911 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



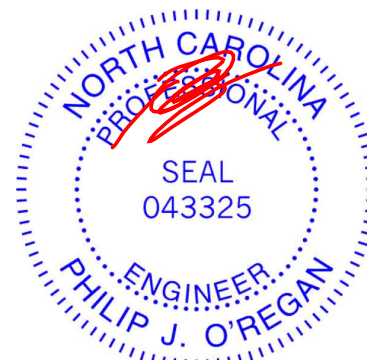
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Plate Offsets (X, Y): [1:Edge,0-1-8], [5:0-1-8,Edge], [16:Edge,0-1-8], [19:0-1-8,Edge], [20:0-1-8,Edge], [28:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.68	Vert(LL)	-0.19	27-28	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(CT)	-0.26	27-28	>775	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.04	16	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S								
											Weight: 147 lb	FT = 20%F, 11%E

LUMBER	
TOP CHORD	2x4 SP SS(flat) *Except* 8-1:2x4 SP No.2 (flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)
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)	
16=	Mechanical, 22=0-3-8, 32=0-3-8
Max Grav	16=635 (LC 4), 22=1900 (LC 1), 32=804 (LC 10)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-32=-799/0, 15-16=-624/0, 1-2=-925/0, 2-3=-2187/0, 3-4=-2817/0, 4-5=-2817/0, 5-6=-2362/0, 6-7=-1273/0, 7-9=0/801, 9-10=-72/1352, 10-11=-1565/477, 11-12=-1565/477, 12-13=-1565/477, 13-14=-1571/14, 14-15=-684/0
BOT CHORD	31-32=0/48, 30-31=0/1733, 29-30=0/2643, 28-29=0/2643, 27-28=0/2817, 26-27=0/2817, 25-26=0/1971, 23-25=-110/537, 22-23=-1959/0, 21-22=-1959/0, 20-21=-1008/825, 19-20=-477/1565, 18-19=-148/1750, 17-18=0/1301, 16-17=0/0
WEBS	4-28=-169/0, 5-27=-61/186, 9-22=-1815/0, 11-20=-501/0, 12-19=0/215, 1-31=0/1119, 2-31=-1053/0, 2-30=0/590, 3-30=-582/0, 3-29=-35/112, 3-28=-166/474, 9-23=0/1453, 7-23=-1372/0, 7-25=0/992, 6-25=-941/0, 6-26=0/545, 5-26=-721/0, 9-21=0/1061, 10-21=-1135/0, 10-20=0/1254, 15-17=0/858, 14-17=-803/0, 14-18=-60/352, 13-18=-233/174, 13-19=-618/0

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Refer to girder(s) for truss to truss connections.
  - 3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard



March 17, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



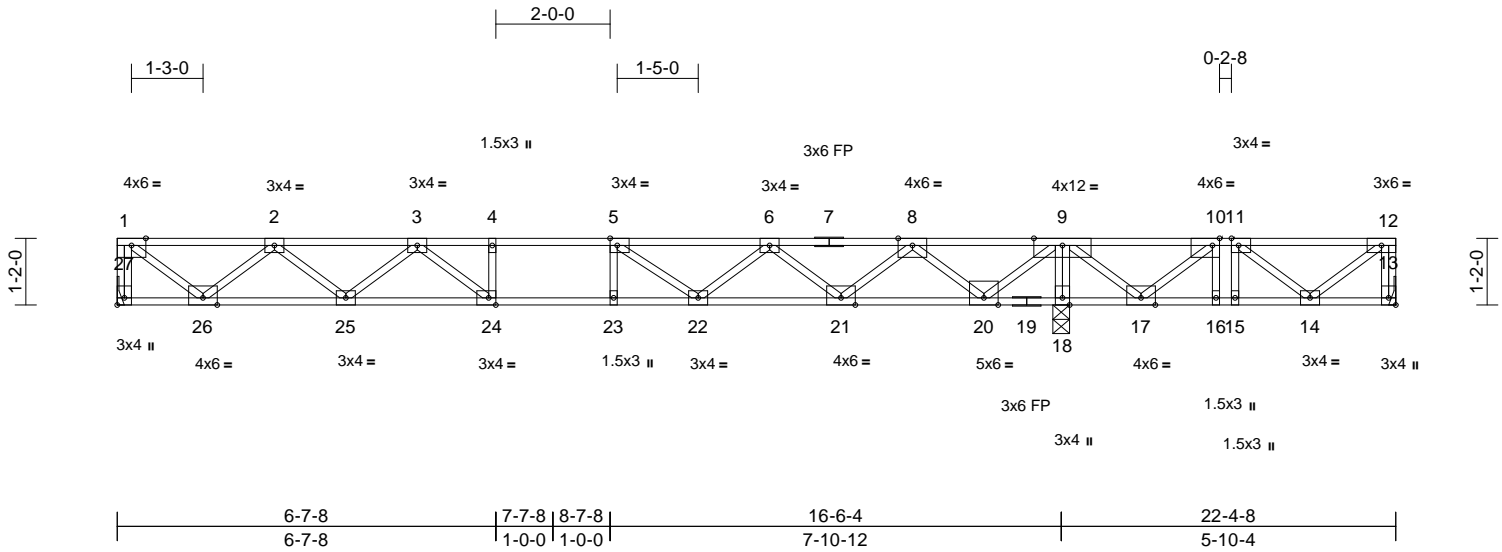
818 Soundside Road  
Edenton, NC 27932

Job 3454594	Truss F7	Truss Type Floor	Qty 3	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071912 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 16 09:55:03  
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Page: 1



Scale = 1:40.3

Plate Offsets (X, Y): [5:0-1-8,Edge], [10:0-1-8,Edge], [11:0-1-8,Edge], [13:Edge,0-1-8], [24:0-1-8,Edge], [27:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL	40.0	Plate Grip DOL	1.00	TC	0.76	Vert(LL)	-0.18	24-25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.24	24-25	>827	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.03	18	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 115 lb	FT = 20%F, 11%E

**LUMBER**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat) \*Except\* 19-27:2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)  
**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) 13= Mechanical, 18=0-3-8, 27= Mechanical  
Max Uplift 13=315 (LC 3)  
Max Grav 13=192 (LC 4), 18=1771 (LC 1), 27=764 (LC 10)  
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-27=-756/0, 12-13=-190/312, 1-2=-859/0, 2-3=-2026/0, 3-4=-2496/0, 4-5=-2496/0, 5-6=-1998/0, 6-8=-872/0, 8-9=0/1006, 9-10=0/1576, 10-11=-158/968, 11-12=-105/450  
BOT CHORD 26-27=0/0, 25-26=0/1621, 24-25=0/2383, 23-24=0/2496, 22-23=0/2496, 21-22=0/1584, 20-21=-79/123, 18-20=-2178/0, 17-18=-2178/0, 16-17=-968/158, 15-16=-968/158, 14-15=-968/158, 13-14=0/0  
WEBS 9-18=-1716/0, 4-24=-170/0, 5-23=-48/161, 1-26=0/1077, 2-26=-993/0, 2-25=0/527, 3-25=-464/0, 3-24=-88/390, 9-20=0/1486, 8-20=-1399/0, 8-21=0/989, 6-21=-939/0, 6-22=0/546, 5-22=-687/0, 9-17=0/933, 12-14=-565/132, 10-17=-1010/0, 11-14=-67/660, 10-16=0/537, 11-15=-519/0

- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 315 lb uplift at joint 13.
  - 4) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Refer to girder(s) for truss to truss connections.



March 17, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



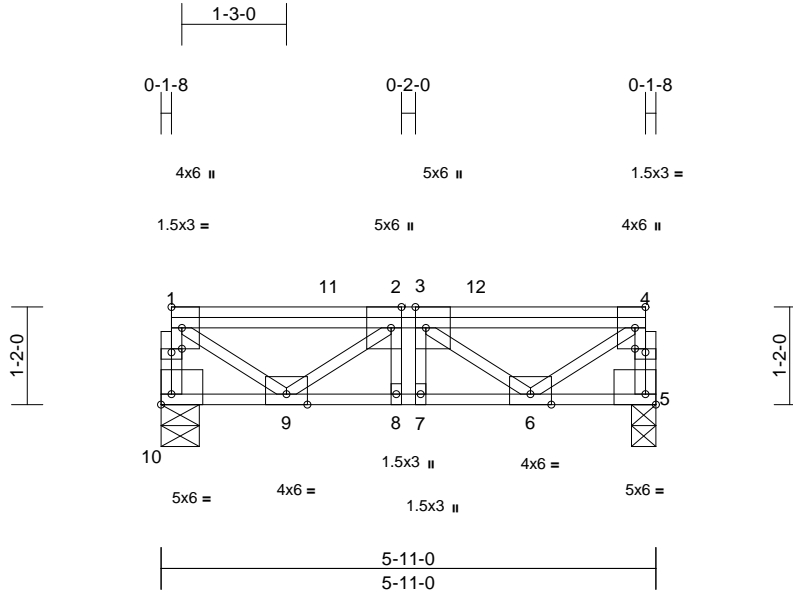
818 Soundside Road  
Edenton, NC 27932

Job 3454594	Truss F8	Truss Type Floor Girder	Qty 1	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071913 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 16 09:55:03  
ID:Sbk0R2WZjzWJqOXz5NbsCzaOwJ-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwCdoi7J4zJC?f

Page: 1



Scale = 1:27.5

Plate Offsets (X, Y): [1:0-1-8,0-0-8], [2:0-3-0,Edge], [3:0-3-0,Edge], [4:0-3-0,Edge], [4:0-1-8,0-0-8], [5:Edge,0-1-8], [10:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.82	Vert(LL)	0.02	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.26	Vert(CT)	0.03	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.55	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 41 lb	FT = 20%F, 11%E

**LUMBER**

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**BRACING**

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

**REACTIONS**

(size) 5=0-3-8, 10=0-5-8  
Max Uplift 5=-768 (LC 9), 10=-840 (LC 10)  
Max Grav 5=218 (LC 4), 10=132 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-10=-123/850, 4-5=-218/774, 1-2=-103/983,  
2-3=-204/1874, 3-4=-132/967  
BOT CHORD 9-10=0/0, 8-9=-1874/204, 7-8=-1874/204,  
6-7=-1874/204, 5-6=0/0  
WEBS 1-9=-1196/125, 4-6=-1178/160,  
2-9=-126/1136, 3-6=-90/1154, 2-8=0/288,  
3-7=-275/30

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 840 lb uplift at joint 10 and 768 lb uplift at joint 5.
- 3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

- 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1040 lb up at 2-0-0, and 331 lb down at 3-9-4, and 1040 lb up at 4-0-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 6) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 5-10=-10, 1-4=-100  
Concentrated Loads (lb)  
Vert: 11=262 (B), 12=12 (F=-251, B=262)



March 17, 2023

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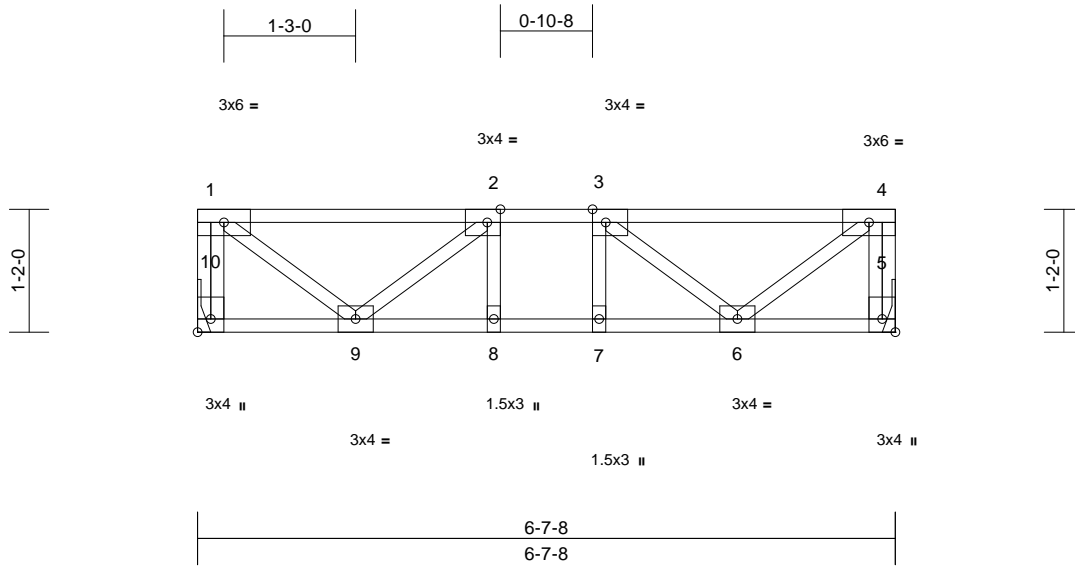


Job 3454594	Truss F9	Truss Type Floor	Qty 1	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071914 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 16 09:55:03  
ID:vFNRbcjYf?oU?O5OYbvkWJzaPAq-RfC?PsB70Hq3NSgPqnL8w3uITXbGkWRcDoi7J4zJC?f

Page: 1



Scale = 1:21.9

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge], [5:Edge,0-1-8], [10:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.46	Vert(LL)	-0.02	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.32	Vert(CT)	-0.02	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 37 lb	FT = 20%F, 11%E

**LUMBER**

TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

**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) 5= Mechanical, 10= Mechanical  
Max Grav 5=351 (LC 1), 10=351 (LC 1)

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

TOP CHORD 1-10=-345/0, 4-5=-345/0, 1-2=-306/0, 2-3=-578/0, 3-4=-306/0  
BOT CHORD 9-10=0/0, 8-9=0/578, 7-8=0/578, 6-7=0/578, 5-6=0/0  
WEBS 4-6=0/384, 1-9=0/384, 3-6=-347/0, 2-9=-347/0, 2-8=-92/111, 3-7=-92/111

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard



March 17, 2023

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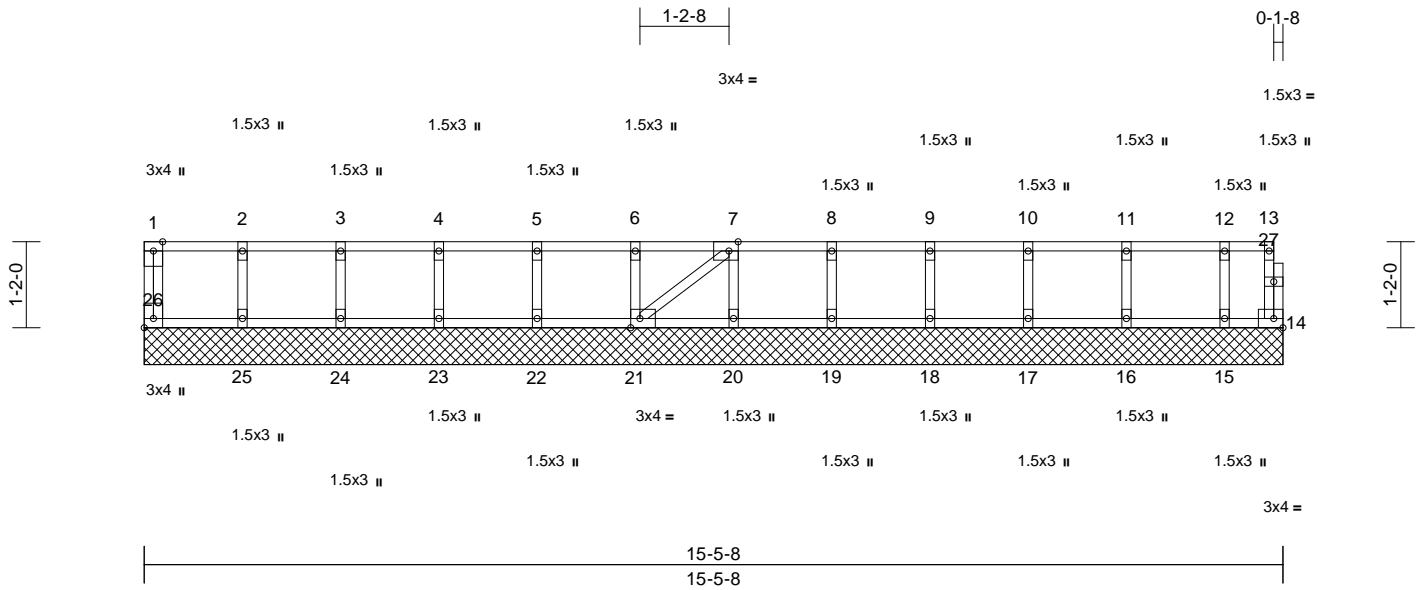
818 Soundside Road  
Edenton, NC 27932

Job 3454594	Truss K1	Truss Type Floor Supported Gable	Qty 1	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071915 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 16 09:55:03  
ID:4RelAdg52GIH\_XdZghqFDzzaP9b-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCdoi7J4zJC7f

Page: 1



Scale = 1:31.3  
Plate Offsets (X, Y): [7:0-1-8,Edge], [21:0-1-8,Edge], [26:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 68 lb	FT = 20%F, 11%E

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

**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) 14=15-5-8, 15=15-5-8, 16=15-5-8, 17=15-5-8, 18=15-5-8, 19=15-5-8, 20=15-5-8, 21=15-5-8, 22=15-5-8, 23=15-5-8, 24=15-5-8, 25=15-5-8, 26=15-5-8  
Max Grav 14=14 (LC 1), 15=123 (LC 1), 16=152 (LC 1), 17=145 (LC 1), 18=147 (LC 1), 19=147 (LC 1), 20=146 (LC 1), 21=147 (LC 1), 22=147 (LC 1), 23=147 (LC 1), 24=145 (LC 1), 25=156 (LC 1), 26=52 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-26=-47/0, 13-14=-12/0, 1-2=0/0, 2-3=0/0, 3-4=0/0, 4-5=0/0, 5-6=0/0, 6-7=0/0, 7-8=-1/0, 8-9=-1/0, 9-10=-1/0, 10-11=-1/0, 11-12=-1/0, 12-13=-1/0  
BOT CHORD 25-26=0/0, 24-25=0/0, 23-24=0/0, 22-23=0/0, 21-22=0/0, 20-21=0/1, 19-20=0/1, 18-19=0/1, 17-18=0/1, 16-17=0/1, 15-16=0/1, 14-15=0/1  
WEBS 2-25=-142/0, 3-24=-131/0, 4-23=-134/0, 5-22=-133/0, 6-21=-133/0, 7-20=-133/0, 8-19=-133/0, 9-18=-134/0, 10-17=-132/0, 11-16=-138/0, 12-15=-111/0, 7-21=-1/0

**NOTES**  
1) Gable requires continuous bottom chord bearing.

- 2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 3) Gable studs spaced at 1-4-0 oc.
- 4) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



March 17, 2023

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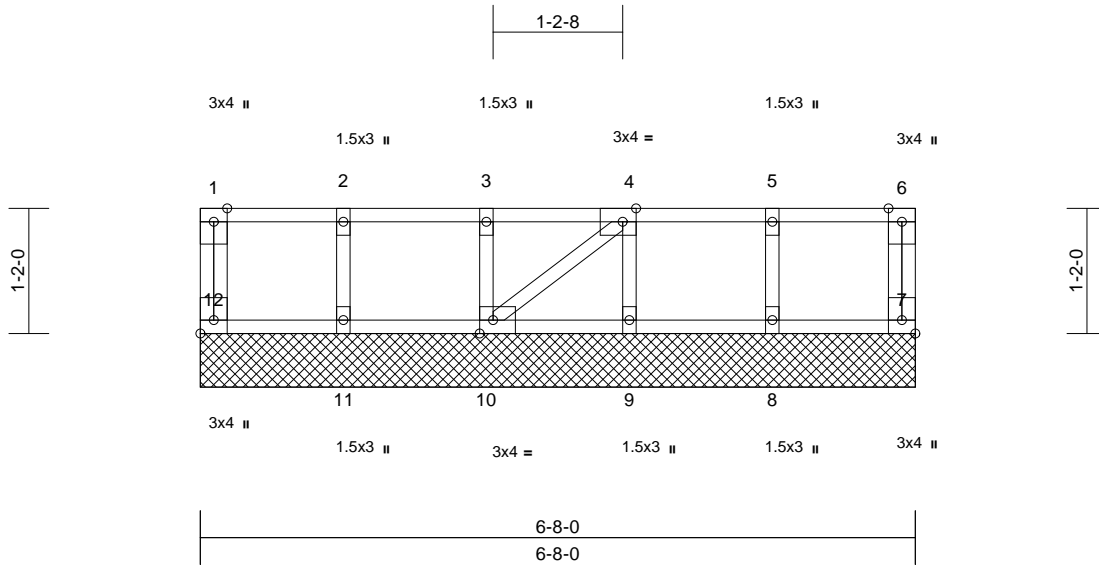
818 Soundside Road  
Edenton, NC 27932

Job 3454594	Truss K5	Truss Type Floor Supported Gable	Qty 1	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071916 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 16 09:55:04  
ID:55uHFI26vn328qv1BOASn\_zaOww-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?#

Page: 1



Scale = 1:21.5

Plate Offsets (X, Y): [4:0-1-8,Edge], [7:Edge,0-1-8], [10:0-1-8,Edge], [12:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 33 lb	FT = 20%F, 11%E

**LUMBER**

TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.2(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

**BRACING**

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

**REACTIONS**

(size) 7=6-8-0, 8=6-8-0, 9=6-8-0,  
 10=6-8-0, 11=6-8-0, 12=6-8-0  
 Max Grav 7=52 (LC 1), 8=156 (LC 1), 9=145 (LC 1), 10=145 (LC 1), 11=156 (LC 1), 12=52 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-12=-47/0, 6-7=-47/0, 1-2=0/0, 2-3=0/0,  
 3-4=0/0, 4-5=0/0, 5-6=0/0  
 BOT CHORD 11-12=0/0, 10-11=0/0, 9-10=0/0, 8-9=0/0,  
 7-8=0/0  
 WEBS 2-11=-142/0, 3-10=-132/0, 4-9=-132/0,  
 5-8=-142/0, 4-10=0/0

**NOTES**

- 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 1-4-0 oc.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard



March 17, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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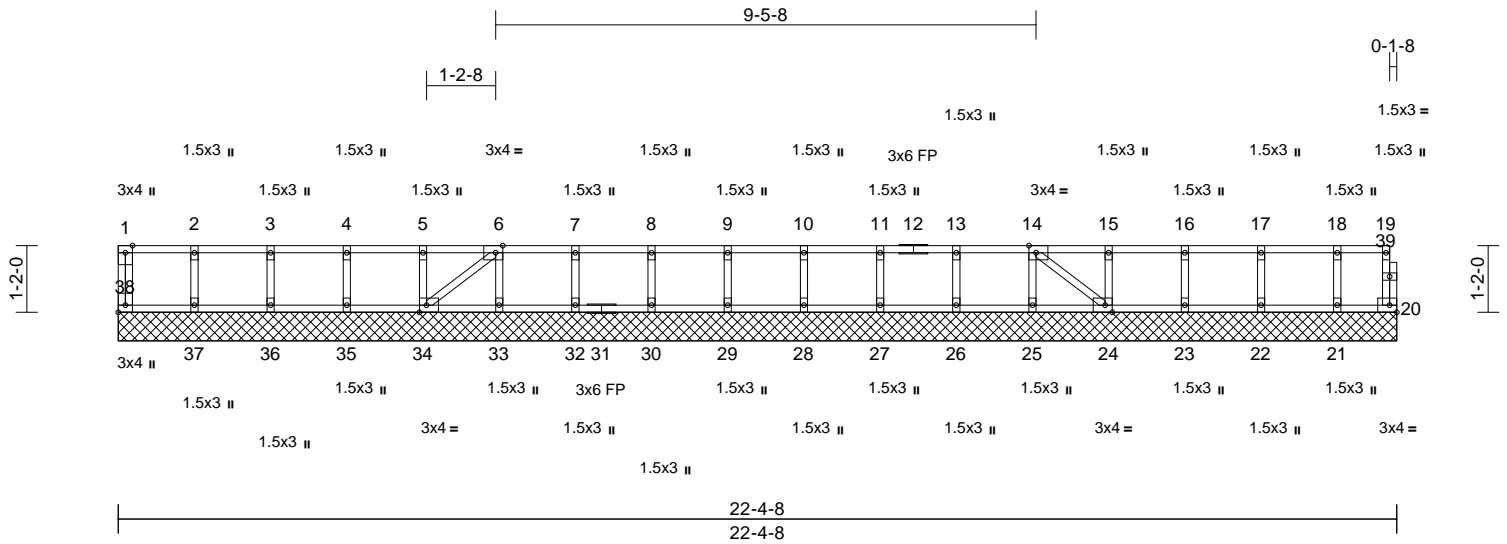
818 Soundside Road  
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Job 3454594	Truss K7	Truss Type Floor Supported Gable	Qty 1	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071917 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 16 09:55:04  
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Page: 1



Scale = 1:40.3

Plate Offsets (X, Y): [6:0-1-8,Edge], [14:0-1-8,Edge], [24:0-1-8,Edge], [34:0-1-8,Edge], [38:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	20	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 98 lb	FT = 20%F, 11%E

LUMBER	WEBS
TOP CHORD 2x4 SP No.2(flat)	2-37=-142/0, 3-36=-131/0, 4-35=-134/0,
BOT CHORD 2x4 SP No.2(flat)	5-34=-133/0, 6-33=-127/0, 7-32=-133/0,
WEBS 2x4 SP No.3(flat)	8-30=-133/0, 9-29=-133/0, 10-28=-133/0,
OTHERS 2x4 SP No.3(flat)	11-27=-133/0, 13-26=-133/0, 14-25=-128/0,
	15-24=-134/0, 16-23=-133/0, 17-22=-136/0,
	18-21=-121/0, 6-34=-11/0, 14-24=-8/0

BRACING	TOP CHORD	BOT CHORD
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)	20=22-4-8, 21=22-4-8, 22=22-4-8, 23=22-4-8, 24=22-4-8, 25=22-4-8, 26=22-4-8, 27=22-4-8, 28=22-4-8, 29=22-4-8, 30=22-4-8, 32=22-4-8, 33=22-4-8, 34=22-4-8, 35=22-4-8, 36=22-4-8, 37=22-4-8, 38=22-4-8	
Max Grav	20=32 (LC 1), 21=134 (LC 1), 22=150 (LC 1), 23=146 (LC 1), 24=152 (LC 1), 25=141 (LC 1), 26=147 (LC 1), 27=147 (LC 1), 28=147 (LC 1), 29=147 (LC 1), 30=147 (LC 1), 32=147 (LC 1), 33=140 (LC 1), 34=153 (LC 1), 35=147 (LC 1), 36=145 (LC 1), 37=156 (LC 1), 38=52 (LC 1)	

- NOTES**
- 1) Gable requires continuous bottom chord bearing.
  - 2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 3) Gable studs spaced at 1-4-0 oc.
  - 4) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-38=-47/0, 19-20=-28/0, 1-2=0/0, 2-3=0/0, 3-4=0/0, 4-5=0/0, 5-6=0/0, 6-7=-8/0, 7-8=-8/0, 8-9=-8/0, 9-10=-8/0, 10-11=-8/0, 11-13=-8/0, 13-14=-8/0, 14-15=-2/0, 15-16=-2/0, 16-17=-2/0, 17-18=-2/0, 18-19=-2/0
BOT CHORD	37-38=0/0, 36-37=0/0, 35-36=0/0, 34-35=0/0, 33-34=0/8, 32-33=0/8, 30-32=0/8, 29-30=0/8, 28-29=0/8, 27-28=0/8, 26-27=0/8, 25-26=0/8, 24-25=0/8, 23-24=0/2, 22-23=0/2, 21-22=0/2, 20-21=0/2



March 17, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

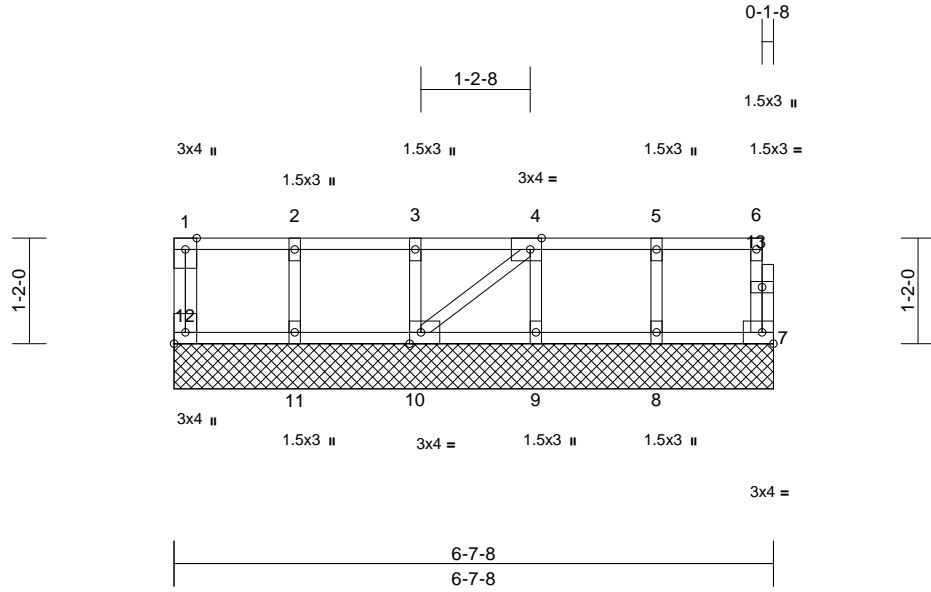


Job 3454594	Truss K9	Truss Type Floor Supported Gable	Qty 1	Ply 1	CHESAPEAKE HOMES-PLAN 1944-A THRU D-2nd T30071918 Job Reference (optional)
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 16 09:55:04  
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Page: 1



Scale = 1:25.5

Plate Offsets (X, Y): [4:0-1-8,Edge], [10:0-1-8,Edge], [12:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 32 lb	FT = 20%F, 11%E

**LUMBER**

TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.2(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

**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=6-7-8, 8=6-7-8, 9=6-7-8,  
 10=6-7-8, 11=6-7-8, 12=6-7-8  
 Max Grav 7=46 (LC 1), 8=149 (LC 1), 9=145 (LC 1), 10=147 (LC 1), 11=156 (LC 1), 12=52 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-12=-47/0, 6-7=-42/0, 1-2=0/0, 2-3=0/0, 3-4=0/0, 4-5=-3/0, 5-6=-3/0  
 BOT CHORD 11-12=0/0, 10-11=0/0, 9-10=0/3, 8-9=0/3, 7-8=0/3  
 WEBS 2-11=-142/0, 3-10=-131/0, 4-9=-132/0, 5-8=-135/0, 4-10=-3/0

**NOTES**

- 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 1-4-0 oc.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



March 17, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

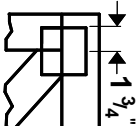
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



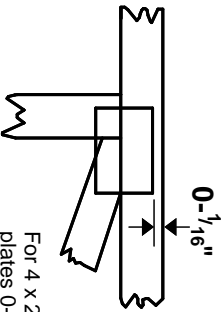
818 Soundside Road  
 Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

\* Plate location details available in **MITek 20/20 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



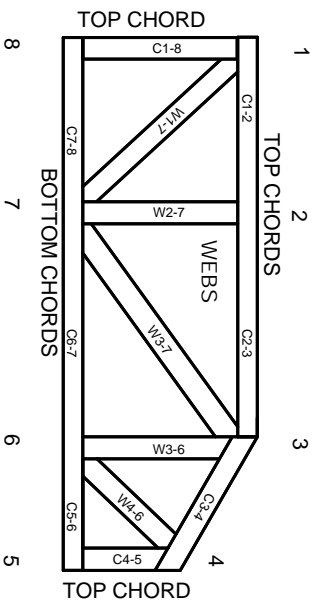
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MI1-7473 rev. 5/19/2020



# 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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.