

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 20-022568T

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: T19584290 thru T19584316

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844



March 4, 2020

O'Regan, Philip

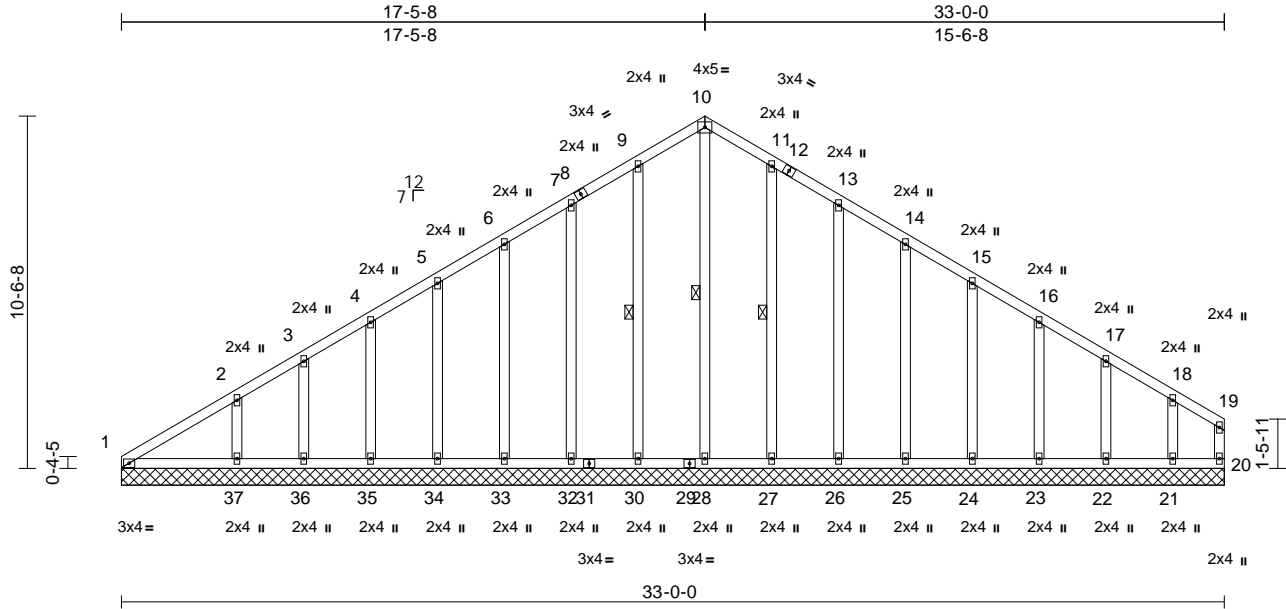
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 20-022568T	Truss A01	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional) T19584290
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MITek Industries, Inc. Tue Mar 03 15:36:40
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Page: 1



Scale = 1:68.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	20	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 234 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* 28-10,30-9,27-11:2x4 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 10-0-0 oc bracing.	
WEBS	1 Row at midpt	10-28, 9-30, 11-27

REACTIONS (size)		
Max Horiz	1=229 (LC 9), 38=229 (LC 9)	
Max Uplift	1=-61 (LC 6), 20=-6 (LC 7), 21=-96 (LC 11), 22=-31 (LC 11), 23=-42 (LC 11), 24=-40 (LC 11), 25=-39 (LC 11), 26=-45 (LC 11), 27=-31 (LC 11), 28=-25 (LC 9), 30=-35 (LC 10), 32=-43 (LC 10), 33=-40 (LC 10), 34=-40 (LC 10), 35=-43 (LC 10), 36=-27 (LC 10), 37=-75 (LC 10), 38=-61 (LC 6)	
Max Grav	1=174 (LC 18), 20=82 (LC 20), 21=172 (LC 18), 22=164 (LC 1), 23=164 (LC 18), 24=164 (LC 18), 25=164 (LC 18), 26=164 (LC 18), 27=168 (LC 22), 28=246 (LC 11), 30=174 (LC 17), 32=161 (LC 17), 33=165 (LC 17), 34=161 (LC 17), 35=176 (LC 17), 36=114 (LC 17), 37=292 (LC 17), 38=174 (LC 18)	

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	
1-2=-222/217, 2-3=-204/187, 3-4=-188/188, 4-5=-177/184, 5-6=-164/197, 6-7=-175/222, 7-8=-212/239, 8-9=-201/249, 9-10=-243/278, 10-11=-243/278, 11-12=-197/240, 12-13=-212/237, 13-14=-175/197, 14-15=-140/155, 15-16=-106/113, 16-17=-71/71, 17-18=-44/31, 18-19=-67/27, 19-20=-55/3	
BOT CHORD	
1-37=-44/68, 36-37=-44/56, 35-36=-44/56, 34-35=-44/56, 33-34=-44/56, 32-33=-44/56, 31-32=-44/56, 30-31=-44/56, 29-30=-44/56, 28-29=-44/56, 27-28=-44/56, 26-27=-44/56, 25-26=-44/56, 24-25=-44/56, 23-24=-44/56, 22-23=-44/56, 21-22=-44/56, 20-21=-44/56	
WEBS	
10-28=-225/139, 9-30=-134/59, 7-32=-121/67, 6-33=-125/64, 5-34=-122/64, 4-35=-130/67, 3-36=-97/54, 2-37=-196/93, 11-27=-128/55, 13-26=-124/69, 14-25=-124/63, 15-24=-124/64, 16-23=-124/65, 17-22=-125/61, 18-21=-123/87	

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Gable requires continuous bottom chord bearing.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 1, 6 lb uplift at joint 20, 25 lb uplift at joint 28, 35 lb uplift at joint 30, 43 lb uplift at joint 32, 40 lb uplift at joint 33, 40 lb uplift at joint 34, 43 lb uplift at joint 35, 27 lb uplift at joint 36, 75 lb uplift at joint 37, 31 lb uplift at joint 27, 45 lb uplift at joint 26, 39 lb uplift at joint 25, 40 lb uplift at joint 24, 42 lb uplift at joint 23, 31 lb uplift at joint 22, 96 lb uplift at joint 21 and 61 lb uplift at joint 1.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



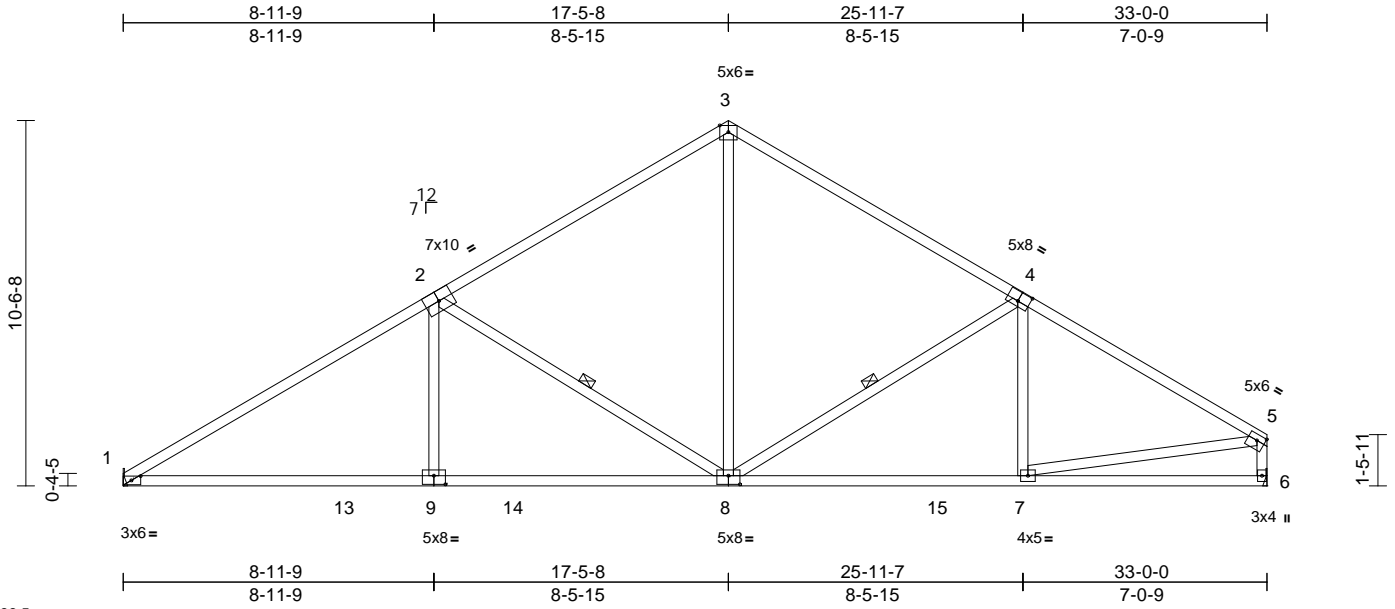
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss A02	Truss Type Common	Qty 4	Ply 1	Job Reference (optional)	T19584291
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Tue Mar 03 15:36:45
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Page: 1



Scale = 1:66.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.82	Vert(LL)	0.17	9-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.40	9-12	>993	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.07	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 176 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS *Except* 4-5:2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 8-3,8-4,8-2:2x4 SP No.2

BRACING
 TOP CHORD Structural wood sheathing directly applied or 2-1-15 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 2-2-0 oc bracing: 1-9.
 WEBS 1 Row at midpt 4-8, 2-8

REACTIONS (size) 1= Mechanical, 6= Mechanical
 Max Horiz 1=229 (LC 9)
 Max Uplift 1=-73 (LC 10), 6=-59 (LC 11)
 Max Grav 1=1338 (LC 17), 6=1314 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-2159/226, 2-3=-1394/238, 3-4=-1388/236, 4-5=-1758/197, 5-6=-1253/150
 BOT CHORD 1-13=-152/1927, 9-13=-152/1927, 9-14=-153/1923, 8-14=-153/1923, 8-15=-66/1446, 7-15=-66/1446, 6-7=-28/118
 WEBS 3-8=-72/852, 4-8=-526/186, 4-7=-79/148, 2-8=-939/216, 2-9=0/377, 5-7=-61/1348

- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 1 and 59 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

NOTES
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33



March 4, 2020

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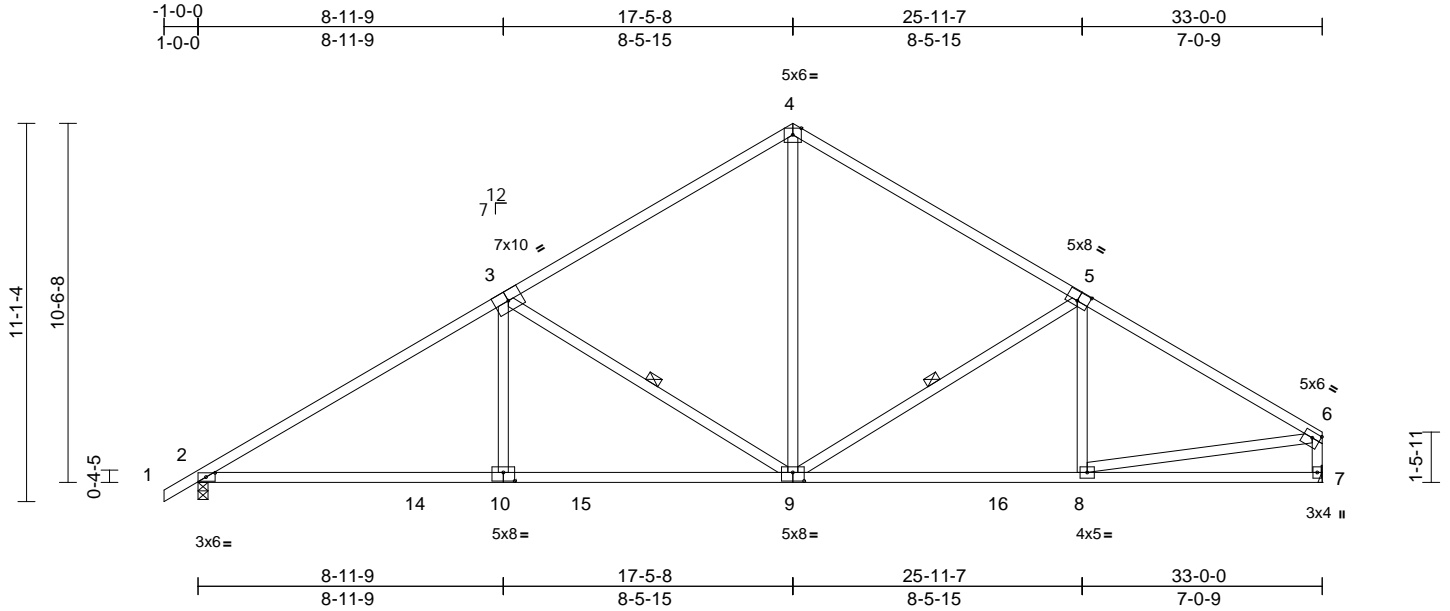
818 Soundside Road
 Edenton, NC 27932

Job 20-022568T	Truss A02A	Truss Type Common	Qty 2	Ply 1	Job Reference (optional) T19584292
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:67.6

Plate Offsets (X, Y): [2:0-3-3,0-1-8], [5:0-4-0,0-3-4], [6:0-2-12,0-2-0], [9:0-4-0,0-3-0], [10:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.82	Vert(LL)	0.17	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.38	10-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 178 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS *Except* 5-6:2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 9-4,9-5,9-3:2x4 SP No.2

BRACING
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 2-2-0 oc bracing: 2-10.
 WEBS 1 Row at midpt 5-9, 3-9

REACTIONS (size) 2=0-3-8, 7= Mechanical
 Max Horiz 2=237 (LC 9)
 Max Uplift 2=-89 (LC 10), 7=-59 (LC 11)
 Max Grav 2=1394 (LC 17), 7=1313 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/30, 2-3=-2154/221, 3-4=-1392/236, 4-5=-1387/235, 5-6=-1757/196, 6-7=-1252/150
 BOT CHORD 2-14=-150/1922, 10-14=-150/1922, 10-15=-151/1917, 9-15=-151/1917, 9-16=-65/1445, 8-16=-65/1445, 7-8=-28/118
 WEBS 4-9=-70/850, 5-9=-526/186, 5-8=-79/148, 3-9=-934/214, 3-10=0/376, 6-8=-60/1347

- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 2 and 59 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33



March 4, 2020

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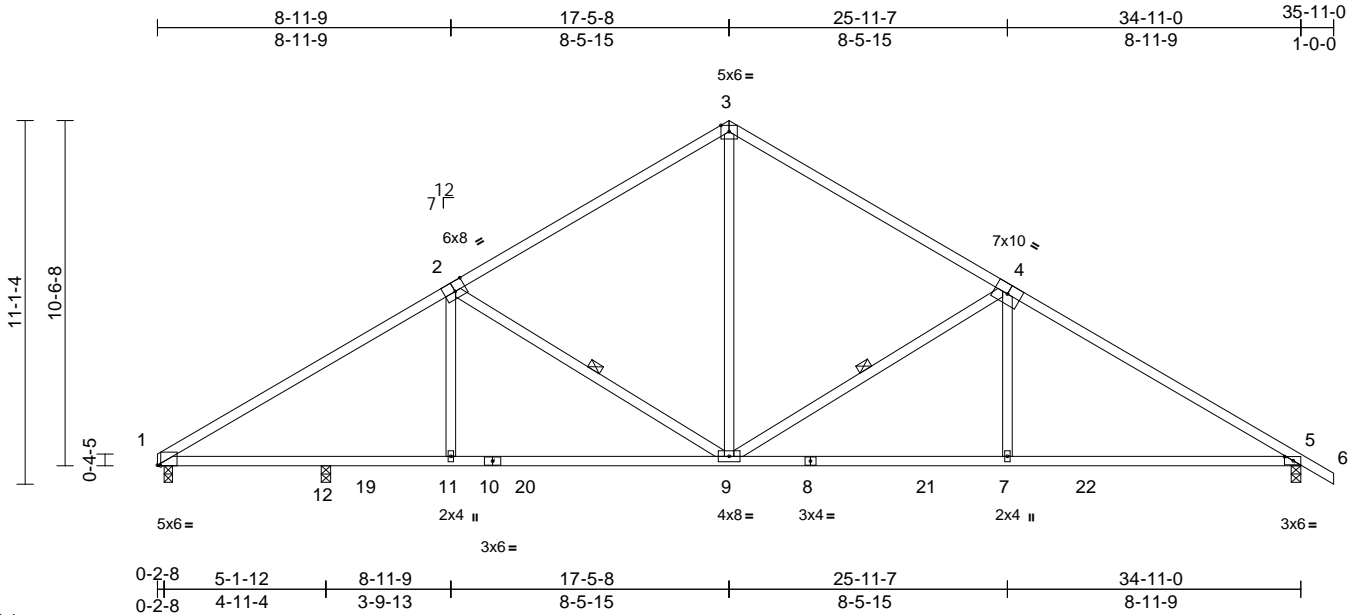
Job 20-022568T	Truss A03	Truss Type Common	Qty 2	Ply 1	Job Reference (optional) T19584293
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Scale = 1:70.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.99	Vert(LL)	0.16	7-18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.39	7-18	>922	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.09	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 173 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 3-4,4-6:2x4 SP 1650F
1.5E or 2x4 SP No.1 or 2x4 SP SS
BOT CHORD 2x4 SP No.2 *Except* 1-10:2x4 SP 1650F
1.5E or 2x4 SP No.1 or 2x4 SP SS
WEBS 2x4 SP No.2 *Except* 11-2,7-4:2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied.
Rigid ceiling directly applied or 10-0-0 oc
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing, Except:
2-2-0 oc bracing: 5-7.

WEBS 1 Row at midpt 2-9, 4-9

REACTIONS

(size) 1=0-3-0, 5=0-3-8, 12=0-3-8
Max Horiz 1=-223 (LC 6)
Max Uplift 1=-57 (LC 10), 5=-92 (LC 11),
12=-18 (LC 10)
Max Grav 1=1208 (LC 17), 5=1455 (LC 18),
12=261 (LC 17)

FORCES

(lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=-2085/225, 2-3=-1486/247,
3-4=-1490/246, 4-5=-2278/234, 5-6=0/30
BOT CHORD 1-12=-125/1859, 12-19=-125/1859,
11-19=-125/1859, 10-11=-126/1857,
10-20=-126/1857, 9-20=-126/1857,
8-9=-71/1874, 8-21=-71/1874,
7-21=-71/1874, 7-22=-72/1869,
5-22=-72/1869
WEBS 2-11=0/263, 2-9=-740/202, 3-9=-81/972,
4-9=-942/215, 4-7=0/370

NOTES

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

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust)
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat.
II; Exp B; Enclosed; MWFRS (envelope) exterior zone
and C-C Exterior (2) zone; cantilever left and right
exposed; end vertical left and right exposed; C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.33
- 3) 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, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 57 lb uplift at joint
1, 92 lb uplift at joint 5 and 18 lb uplift at joint 12.
- 6) This truss is designed in accordance with the 2015
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

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818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss A04	Truss Type Common	Qty 3	Ply 1	Job Reference (optional) T19584294
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Tue Mar 03 15:36:47

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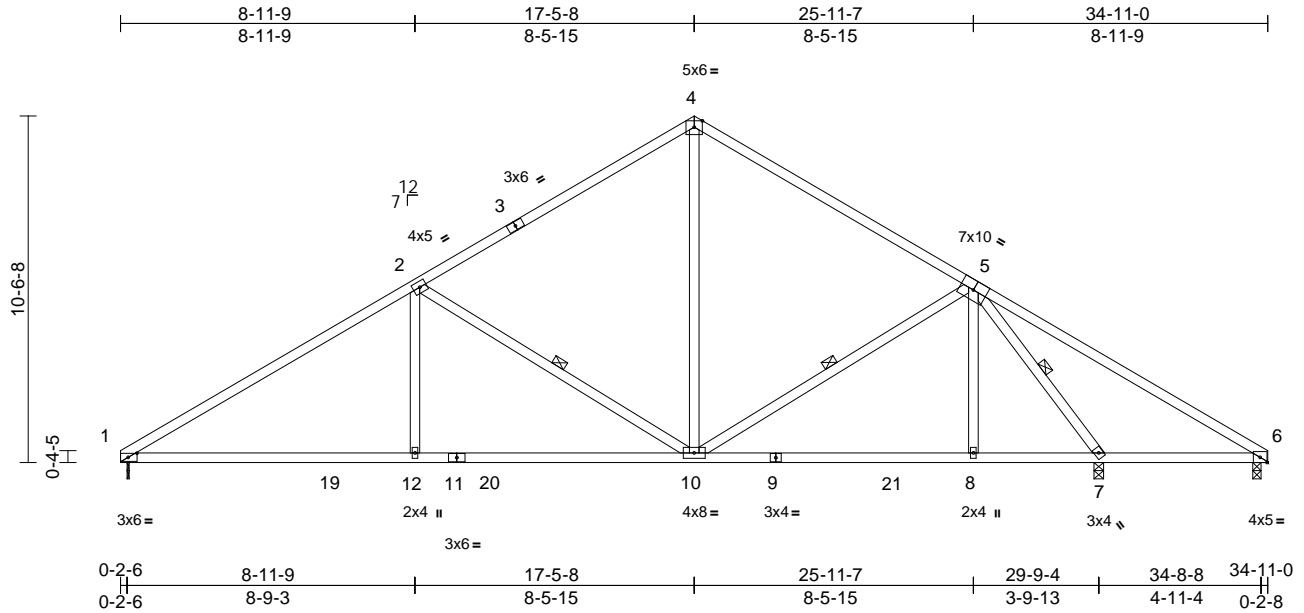


Plate Offsets (X, Y): [1:0-3-3,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.80	Vert(LL)	0.16	12-18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.38	12-18	>951	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 180 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS *Except* 3-4:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 10-2,10-4,10-5:2x4 SP No.2

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

REACTIONS (size) 1=0-0-12, (req. 0-1-8), 6=0-3-0, 7=0-3-8
Max Horiz 1=215 (LC 9)
Max Uplift 1=-71 (LC 10), 6=-45 (LC 11), 7=-33 (LC 11)
Max Grav 1=1200 (LC 17), 6=145 (LC 22), 7=1536 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1871/207, 2-3=-1122/171, 3-4=-976/217, 4-5=-1122/216, 5-6=-26/426
BOT CHORD 1-19=-149/1700, 12-19=-149/1700, 11-12=-149/1700, 11-20=-149/1700, 10-20=-149/1700, 9-10=-19/767, 9-21=-19/767, 8-21=-19/767, 7-8=-20/766, 6-7=-248/65
WEBS 2-12=0/374, 2-10=-948/217, 4-10=-52/593, 5-10=-79/225, 5-8=0/253, 5-7=-1662/143

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

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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.
- WARNING: Required bearing size at joint(s) 1 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 6, 33 lb uplift at joint 7 and 71 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road
Edenton, NC 27932

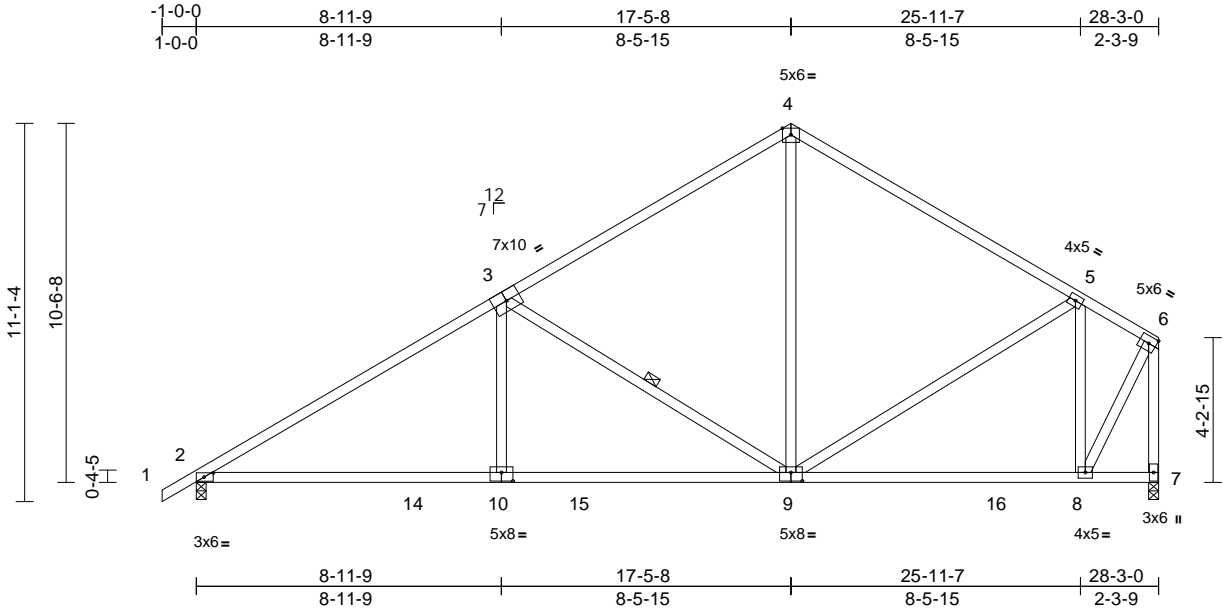
Job 20-022568T	Truss A05	Truss Type Roof Special	Qty 3	Ply 1	Job Reference (optional)	T19584295
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Tue Mar 03 15:36:48

Page: 1

ID:bnMpoexB07rMs8tBRxLcFzesL8-ALYfKMoHOo19GXof1HqDnrABYwr_?1z?BDfdeZzeb_D



Scale = 1:67.6

Plate Offsets (X, Y): [2:0-3-3,0-1-8], [9:0-4-0,0-3-0], [10:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.91	Vert(LL)	0.16	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.37	10-13	>923	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 163 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS *Except* 4-6:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 9-4,9-5,9-3:2x4 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: 7-8.
WEBS 1 Row at midpt 3-9

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=268 (LC 9)
Max Uplift 2=-86 (LC 10), 7=-34 (LC 11)
Max Grav 2=1212 (LC 17), 7=1123 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-1797/187, 3-4=-1018/201, 4-5=-1012/198, 5-6=-563/101, 6-7=-1153/94
BOT CHORD 2-14=-152/1612, 10-14=-152/1612, 10-15=-153/1607, 9-15=-153/1607, 9-16=-61/510, 8-16=-61/510, 7-8=-55/57
WEBS 4-9=-31/521, 5-9=-42/358, 5-8=-812/172, 3-9=-937/214, 3-10=0/376, 6-8=-98/1091

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 2 and 34 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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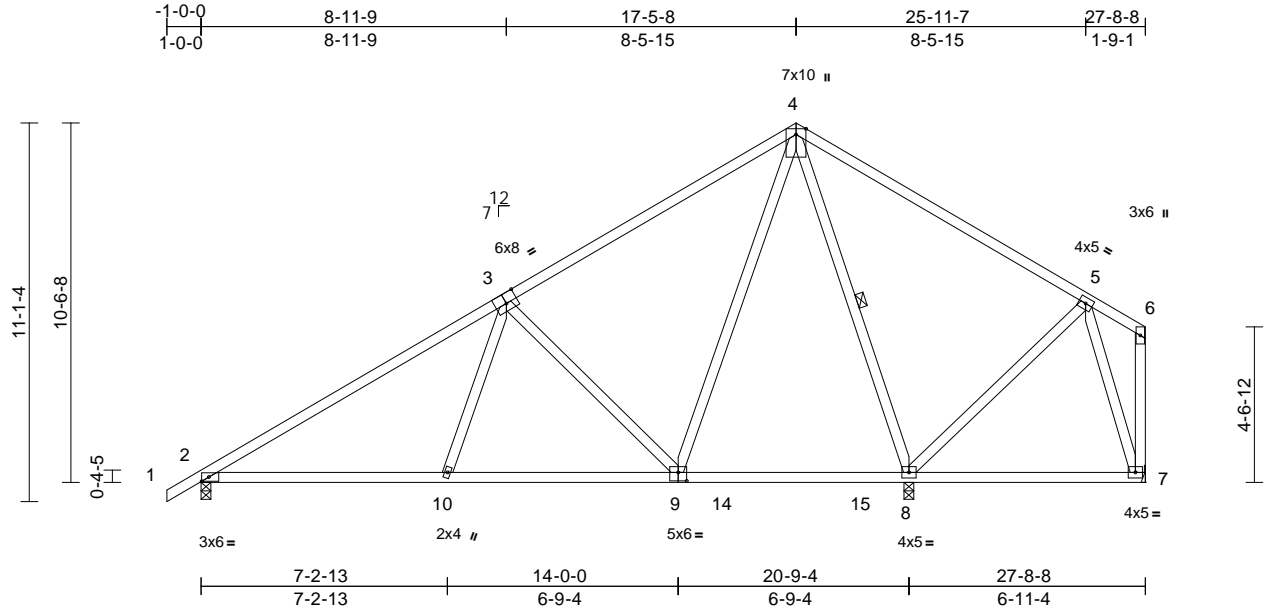
Job 20-022568T	Truss A06	Truss Type Roof Special	Qty 5	Ply 1	Job Reference (optional) T19584296
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1

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Scale = 1:67.6

Plate Offsets (X, Y): [2:0-2-9,Edge], [3:0-4-0,Edge], [9:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.92	Vert(LL)	-0.11	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.21	10-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 165 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS *Except* 4-6:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 9-4,8-4:2x4 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: 7-8.
WEBS 1 Row at midpt 4-8

REACTIONS (size) 2=0-3-8, 7= Mechanical, 8=0-3-8
Max Horiz 2=271 (LC 9)
Max Uplift 2=-65 (LC 10), 7=-104 (LC 21), 8=-84 (LC 10)
Max Grav 2=814 (LC 1), 7=142 (LC 22), 8=1439 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-1070/113, 3-4=-498/166, 4-5=-19/365, 5-6=-100/157, 6-7=-142/215
BOT CHORD 2-10=-115/917, 9-10=-135/856, 9-14=-83/159, 14-15=-83/159, 8-15=-83/159, 7-8=-80/91
WEBS 3-10=0/332, 3-9=-675/232, 4-9=-84/703, 4-8=-1060/117, 5-8=-392/173, 5-7=-314/186

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 2, 84 lb uplift at joint 8 and 104 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



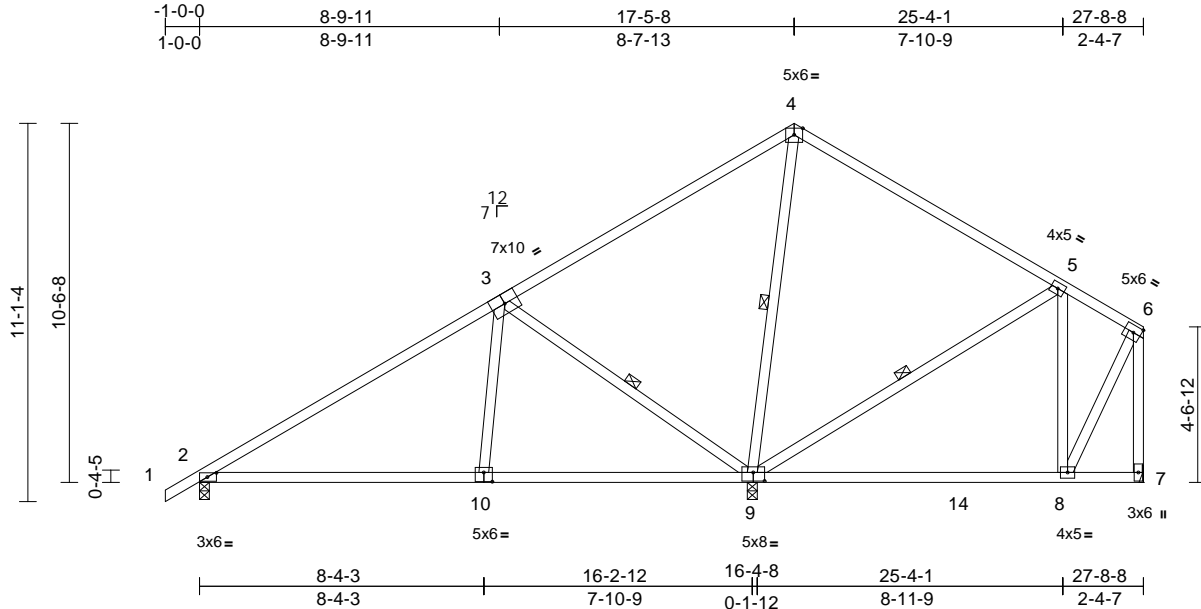
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss A07	Truss Type Roof Special	Qty 5	Ply 1	Job Reference (optional)	T19584297
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:67.6

Plate Offsets (X, Y): [2:0-3-3,0-1-8], [9:0-4-0,0-3-0], [10:0-3-0,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.79	Vert(LL)	-0.12	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.28	10-13	>698	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 163 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS *Except* 4-6:2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 9-3,9-4,5-9:2x4 SP No.2

BRACING
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 7-8.
 WEBS 1 Row at midpt 3-9, 4-9, 5-9

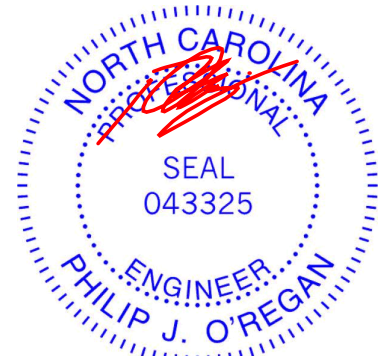
REACTIONS (size) 2=0-3-8, 7= Mechanical, 9=0-3-8
 Max Horiz 2=271 (LC 9)
 Max Uplift 2=-43 (LC 10), 7=-25 (LC 11), 9=-103 (LC 10)
 Max Grav 2=609 (LC 21), 7=352 (LC 24), 9=1374 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/30, 2-3=-637/79, 3-4=-61/344, 4-5=-66/241, 5-6=-215/69, 6-7=-425/14
 BOT CHORD 2-10=-107/513, 9-10=-116/492, 9-14=-49/189, 8-14=-49/189, 7-8=-61/61
 WEBS 3-10=0/349, 3-9=-767/224, 4-9=-620/65, 5-9=-388/120, 5-8=-200/157, 6-8=-59/432

- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 2, 103 lb uplift at joint 9 and 25 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33



March 4, 2020

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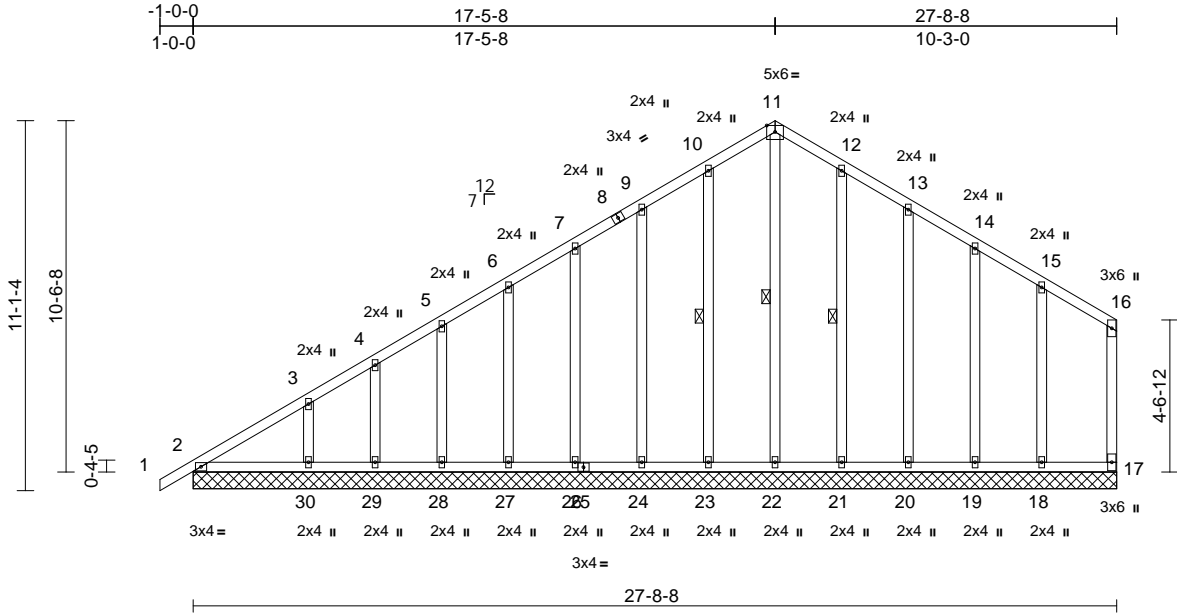
Job 20-022568T	Truss A08	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional) T19584298
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MITek Industries, Inc. Tue Mar 03 15:36:50

Page: 1

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Scale = 1:69.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	17	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 210 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* 22-11,23-10,21-12:2x4 SP No.2	

BRACING		
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
WEBS	1 Row at midpt 11-22, 10-23, 12-21	

REACTIONS	(size)	
Max Horiz	2=271 (LC 9), 31=271 (LC 9)	
Max Uplift	2=-60 (LC 6), 17=-20 (LC 10), 18=-48 (LC 11), 19=-39 (LC 11), 20=-44 (LC 11), 21=-35 (LC 11), 22=-50 (LC 9), 23=-36 (LC 10), 24=-43 (LC 10), 26=-40 (LC 10), 27=-40 (LC 10), 28=-43 (LC 10), 29=-30 (LC 10), 30=-68 (LC 10), 31=-60 (LC 6)	
Max Grav	2=229 (LC 18), 17=93 (LC 18), 18=189 (LC 18), 19=157 (LC 18), 20=166 (LC 18), 21=168 (LC 22), 22=189 (LC 17), 23=175 (LC 17), 24=161 (LC 17), 26=165 (LC 17), 27=161 (LC 17), 28=174 (LC 17), 29=121 (LC 17), 30=275 (LC 17), 31=229 (LC 18)	

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	
1-2=0/30, 2-3=-254/226, 3-4=-231/193, 4-5=-216/194, 5-6=-204/189, 6-7=-191/187, 7-8=-179/177, 8-9=-161/183, 9-10=-197/224, 10-11=-229/261, 11-12=-229/261, 12-13=-197/224, 13-14=-161/180, 14-15=-126/138, 15-16=-91/98, 16-17=-89/70	
BOT CHORD	
2-30=-53/60, 29-30=-53/60, 28-29=-53/60, 27-28=-53/60, 26-27=-53/60, 25-26=-53/60, 24-25=-53/60, 23-24=-53/60, 22-23=-53/60, 21-22=-53/60, 20-21=-53/60, 19-20=-53/60, 18-19=-53/60, 17-18=-53/60	
WEBS	
11-22=-209/125, 10-23=-135/60, 9-24=-121/67, 7-26=-125/64, 6-27=-123/64, 5-28=-129/66, 4-29=-100/55, 3-30=-188/90, 12-21=-128/59, 13-20=-125/68, 14-19=-122/60, 15-18=-135/81	

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 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.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 2, 20 lb uplift at joint 17, 50 lb uplift at joint 22, 36 lb uplift at joint 23, 43 lb uplift at joint 24, 40 lb uplift at joint 26, 40 lb uplift at joint 27, 43 lb uplift at joint 28, 30 lb uplift at joint 29, 68 lb uplift at joint 30, 35 lb uplift at joint 21, 44 lb uplift at joint 20, 39 lb uplift at joint 19, 48 lb uplift at joint 18 and 60 lb uplift at joint 2.
 - 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 31.
 - 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



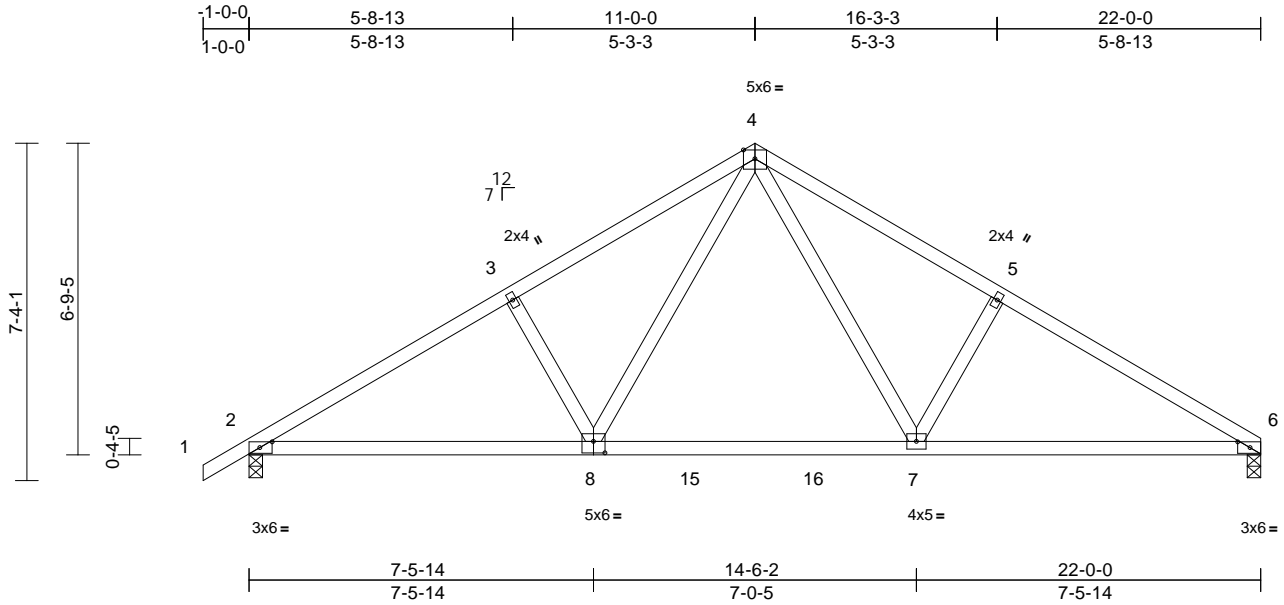
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss B01	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional) T19584299
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:50.1

Plate Offsets (X, Y): [2:0-3-3,0-1-8], [6:0-3-3,0-1-8], [8:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.41	Vert(LL)	-0.10	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.17	7-11	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 104 lb	FT = 20%

LUMBER

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

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 6 and 62 lb uplift at joint 2.
- 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.

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

LOAD CASE(S) Standard

REACTIONS

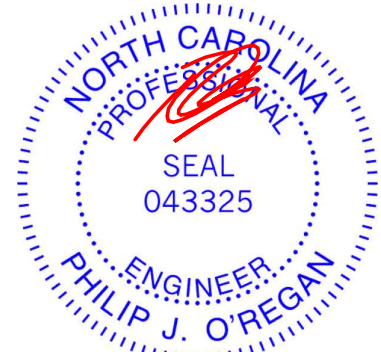
(size) 2=0-3-8, 6=0-3-8
Max Horiz 2=143 (LC 9)
Max Uplift 2=-62 (LC 10), 6=-45 (LC 11)
Max Grav 2=941 (LC 1), 6=879 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-1371/156, 3-4=-1238/192, 4-5=-1243/196, 5-6=-1375/159
BOT CHORD 2-8=98/1196, 8-15=0/769, 15-16=0/769, 7-16=0/769, 6-7=-71/1150
WEBS 4-7=-72/571, 5-7=-333/164, 4-8=-69/563, 3-8=-330/162

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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.



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



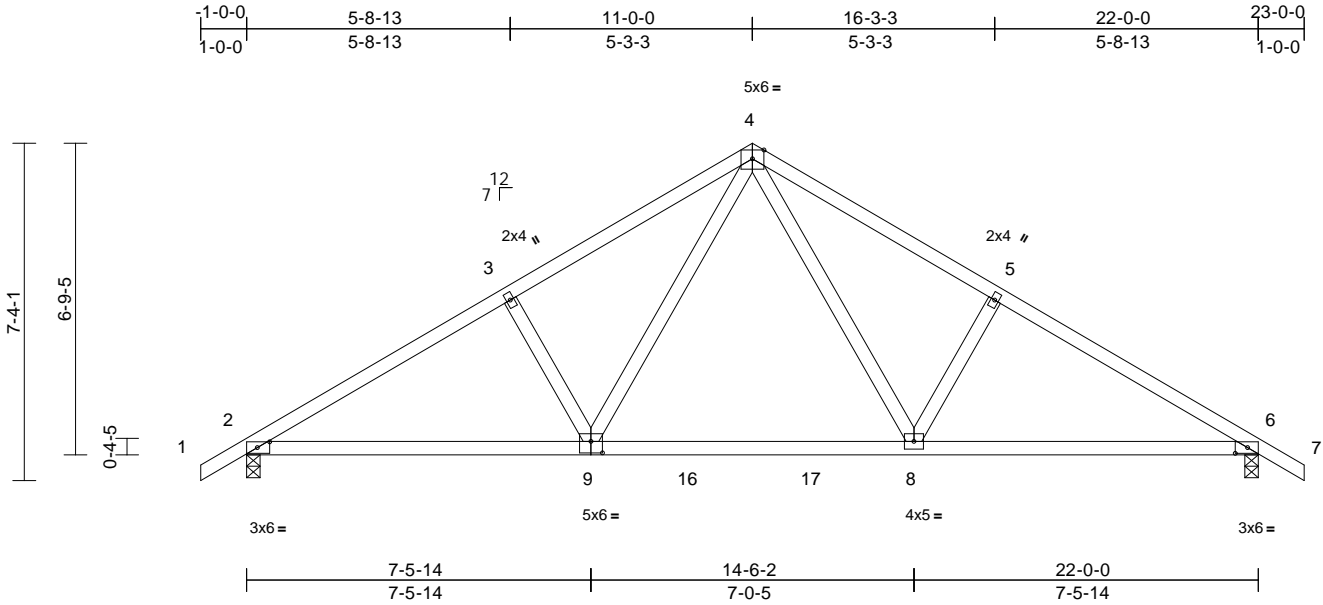
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss B02	Truss Type Common	Qty 6	Ply 1	Job Reference (optional) T19584300
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Tue Mar 03 15:36:52
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Page: 1



Scale = 1:50.1

Plate Offsets (X, Y): [2:0-3-3,0-1-8], [6:0-3-3,0-1-8], [9:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.10	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.17	8-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 106 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 4-7-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 6=0-3-8
Max Horiz 2=-148 (LC 8)
Max Uplift 2=-62 (LC 10), 6=-62 (LC 11)
Max Grav 2=940 (LC 1), 6=940 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-1368/154, 3-4=-1236/190,
4-5=-1236/190, 5-6=-1368/154, 6-7=0/30
BOT CHORD 2-9=90/1201, 9-16=0/773, 16-17=0/773,
8-17=0/773, 6-8=-37/1142
WEBS 4-8=-69/564, 5-8=-330/162, 4-9=-69/564,
3-9=-329/162

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) 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, with BCDL = 10.0psf.

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 2 and 62 lb uplift at joint 6.
- 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



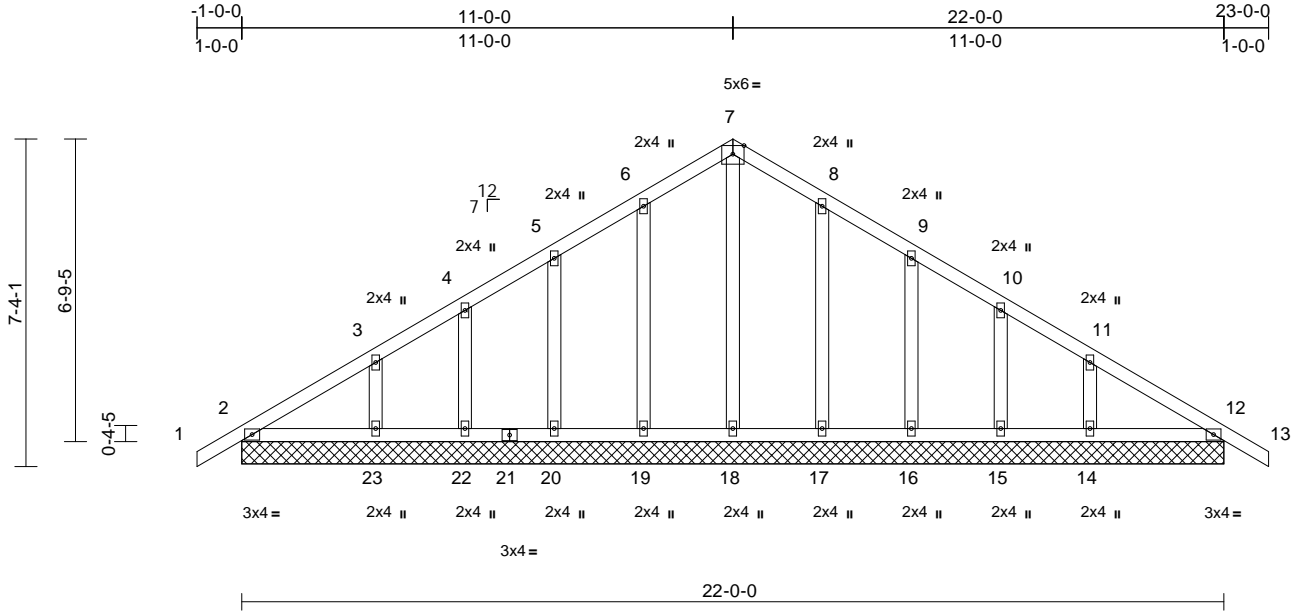
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss B03	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional) T19584301
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Tue Mar 03 15:36:54
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 123 lb	FT = 20%

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

WEBS
 7-18=-118/24, 6-19=-131/65, 5-20=-125/66,
 4-22=-111/59, 3-23=-164/79, 8-17=-130/63,
 9-16=-126/67, 10-15=-111/59, 11-14=-163/78

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.

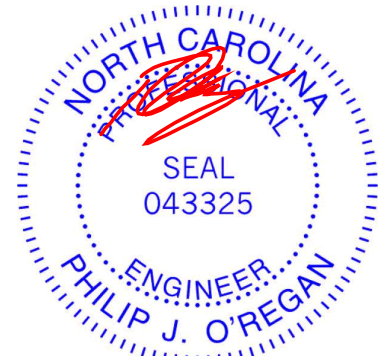
REACTIONS (size)
 2=22-0-0, 12=22-0-0, 14=22-0-0,
 15=22-0-0, 16=22-0-0, 17=22-0-0,
 18=22-0-0, 19=22-0-0, 20=22-0-0,
 22=22-0-0, 23=22-0-0, 24=22-0-0,
 27=22-0-0
 Max Horiz 2=-148 (LC 8), 24=-148 (LC 8)
 Max Uplift 2=-7 (LC 11), 14=-57 (LC 11),
 15=-34 (LC 11), 16=-43 (LC 11),
 17=-39 (LC 11), 19=-41 (LC 10),
 20=-43 (LC 10), 22=-34 (LC 10),
 23=-58 (LC 10), 24=-7 (LC 11)
 Max Grav 2=182 (LC 1), 12=182 (LC 1),
 14=235 (LC 18), 15=139 (LC 18),
 16=169 (LC 18), 17=169 (LC 18),
 18=159 (LC 20), 19=170 (LC 17),
 20=169 (LC 17), 22=139 (LC 17),
 23=236 (LC 17), 24=182 (LC 1),
 27=182 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/30, 2-3=-114/107, 3-4=-104/79,
 4-5=-91/86, 5-6=-87/113, 6-7=-122/140,
 7-8=-122/140, 8-9=-87/99, 9-10=-50/56,
 10-11=-62/26, 11-12=-72/55, 12-13=0/30
 BOT CHORD 2-23=-44/103, 22-23=-44/103,
 21-22=-44/103, 20-21=-44/103,
 19-20=-44/103, 18-19=-44/103,
 17-18=-44/103, 16-17=-44/103,
 15-16=-44/103, 14-15=-44/103,
 12-14=-44/103

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 2, 41 lb uplift at joint 19, 43 lb uplift at joint 20, 34 lb uplift at joint 22, 58 lb uplift at joint 23, 39 lb uplift at joint 17, 43 lb uplift at joint 16, 34 lb uplift at joint 15, 57 lb uplift at joint 14 and 7 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



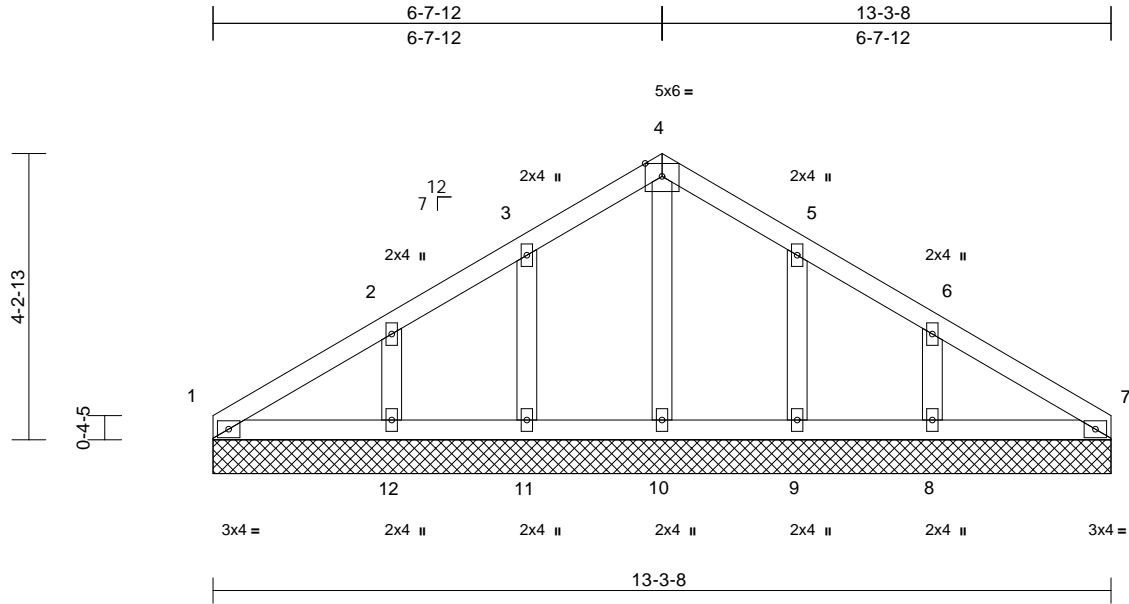
818 Soundside Road
 Edenton, NC 27932

Job 20-022568T	Truss C01	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional) T19584302
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	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	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 60 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=13-3-8, 7=13-3-8, 8=13-3-8, 9=13-3-8, 10=13-3-8, 11=13-3-8, 12=13-3-8, 13=13-3-8, 17=13-3-8
Max Horiz 1=82 (LC 6), 13=82 (LC 6)
Max Uplift 1=2 (LC 11), 8=57 (LC 11), 9=38 (LC 11), 11=38 (LC 10), 12=57 (LC 10), 13=2 (LC 11)
Max Grav 1=99 (LC 18), 7=98 (LC 1), 8=226 (LC 18), 9=151 (LC 18), 10=135 (LC 1), 11=151 (LC 17), 12=226 (LC 17), 13=99 (LC 18), 17=98 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

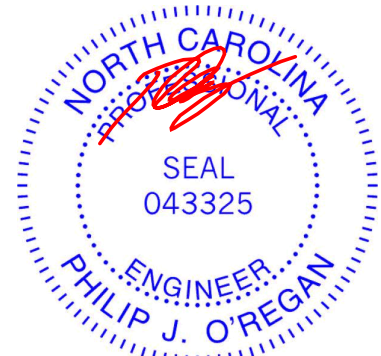
TOP CHORD 1-2=-74/61, 2-3=-76/54, 3-4=-84/79, 4-5=-84/79, 5-6=-56/36, 6-7=-51/33
BOT CHORD 1-12=-24/54, 11-12=-24/54, 10-11=-24/54, 9-10=-24/54, 8-9=-24/54, 7-8=-24/54
WEBS 4-10=-90/0, 3-11=-123/65, 2-12=-153/74, 5-9=-122/64, 6-8=-153/74

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 1, 38 lb uplift at joint 11, 57 lb uplift at joint 12, 38 lb uplift at joint 9, 57 lb uplift at joint 8 and 2 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY
TRENCO
A MiTek Affiliate

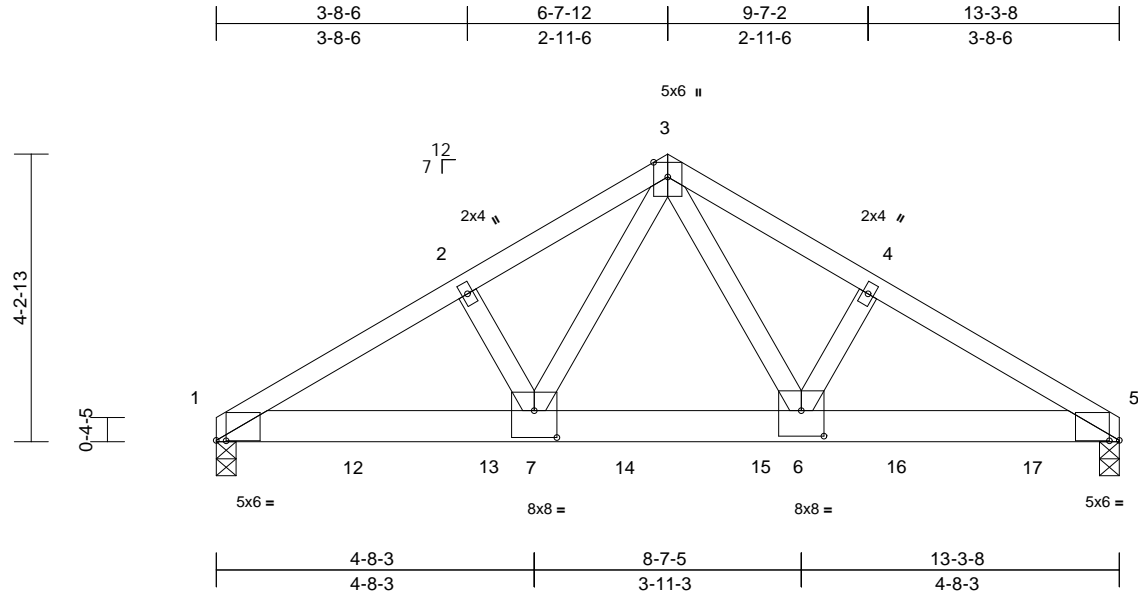
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss C02	Truss Type Common Girder	Qty 1	Ply 2	Job Reference (optional)	T19584303
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Tue Mar 03 15:36:56
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Page: 1



Scale = 1:33.9

Plate Offsets (X, Y): [1:0-1-12,0-0-1], [5:0-1-12,0-0-1], [6:0-4-0,0-4-8], [7:0-4-0,0-4-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.57	Vert(LL)	-0.07	6-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.14	6-11	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 144 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 5=0-3-8

Max Horiz 1=-82 (LC 23)
Max Uplift 1=-228 (LC 8), 5=-254 (LC 9)
Max Grav 1=4170 (LC 1), 5=4656 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-6854/378, 2-3=-6651/401, 3-4=-6737/405, 4-5=-6810/382
BOT CHORD 1-12=-336/5808, 12-13=-336/5808, 7-13=-336/5808, 7-14=-191/4078, 14-15=-191/4078, 6-15=-191/4078, 6-16=-285/5892, 16-17=-285/5892, 5-17=-285/5892
WEBS 3-7=-225/3584, 3-6=-233/3742, 4-6=-251/96, 2-7=-223/95

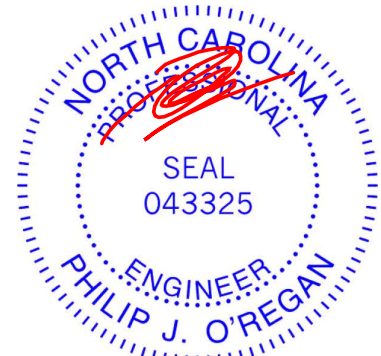
NOTES

- 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 - 3 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 228 lb uplift at joint 1 and 254 lb uplift at joint 5.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1294 lb down and 79 lb up at 2-0-12, 1294 lb down and 79 lb up at 4-0-12, 1294 lb down and 79 lb up at 6-0-12, 1294 lb down and 79 lb up at 8-0-12, and 1293 lb down and 79 lb up at 10-0-12, and 1293 lb down and 79 lb up at 12-0-12 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=1.00
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-5=-60, 1-5=-20
Concentrated Loads (lb)
Vert: 12=-1294 (B), 13=-1294 (B), 14=-1294 (B), 15=-1294 (B), 16=-1293 (B), 17=-1293 (B)



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



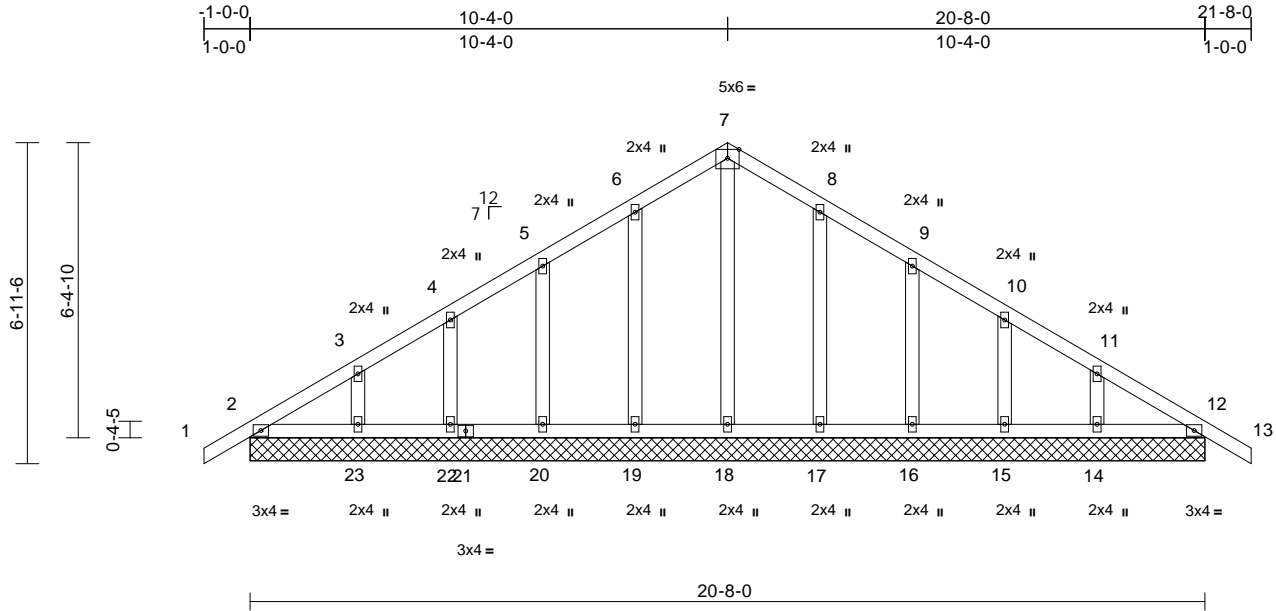
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss C03	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional) T19584304
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Tue Mar 03 15:36:58
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Page: 1



Scale = 1:49.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 114 lb	FT = 20%

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

WEBS
7-18=-116/15, 6-19=-132/65, 5-20=-123/65,
4-22=-121/64, 3-23=-133/65, 8-17=-131/64,
9-16=-123/66, 10-15=-121/64, 11-14=-133/65

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.

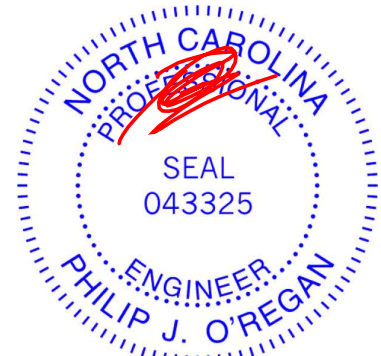
REACTIONS (size)
2=20-8-0, 12=20-8-0, 14=20-8-0,
15=20-8-0, 16=20-8-0, 17=20-8-0,
18=20-8-0, 19=20-8-0, 20=20-8-0,
22=20-8-0, 23=20-8-0, 24=20-8-0,
27=20-8-0
Max Horiz 2=-139 (LC 8), 24=-139 (LC 8)
Max Uplift 2=-11 (LC 6), 14=-44 (LC 11),
15=-39 (LC 11), 16=-42 (LC 11),
17=-40 (LC 11), 19=-41 (LC 10),
20=-41 (LC 10), 22=-39 (LC 10),
23=-45 (LC 10), 24=-11 (LC 6)
Max Grav 2=161 (LC 1), 12=161 (LC 1),
14=186 (LC 18), 15=157 (LC 18),
16=164 (LC 18), 17=170 (LC 18),
18=156 (LC 20), 19=172 (LC 17),
20=164 (LC 17), 22=157 (LC 17),
23=187 (LC 17), 24=161 (LC 1),
27=161 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-109/101, 3-4=-98/81,
4-5=-87/78, 5-6=-78/104, 6-7=-112/131,
7-8=-112/131, 8-9=-77/90, 9-10=-48/48,
10-11=-57/27, 11-12=-70/55, 12-13=0/30
BOT CHORD 2-23=-42/98, 22-23=-42/98, 21-22=-42/98,
20-21=-42/98, 19-20=-42/98, 18-19=-42/98,
17-18=-42/98, 16-17=-42/98, 15-16=-42/98,
14-15=-42/98, 12-14=-42/98

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 2, 41 lb uplift at joint 19, 41 lb uplift at joint 20, 39 lb uplift at joint 22, 45 lb uplift at joint 23, 40 lb uplift at joint 17, 42 lb uplift at joint 16, 39 lb uplift at joint 15, 44 lb uplift at joint 14 and 11 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



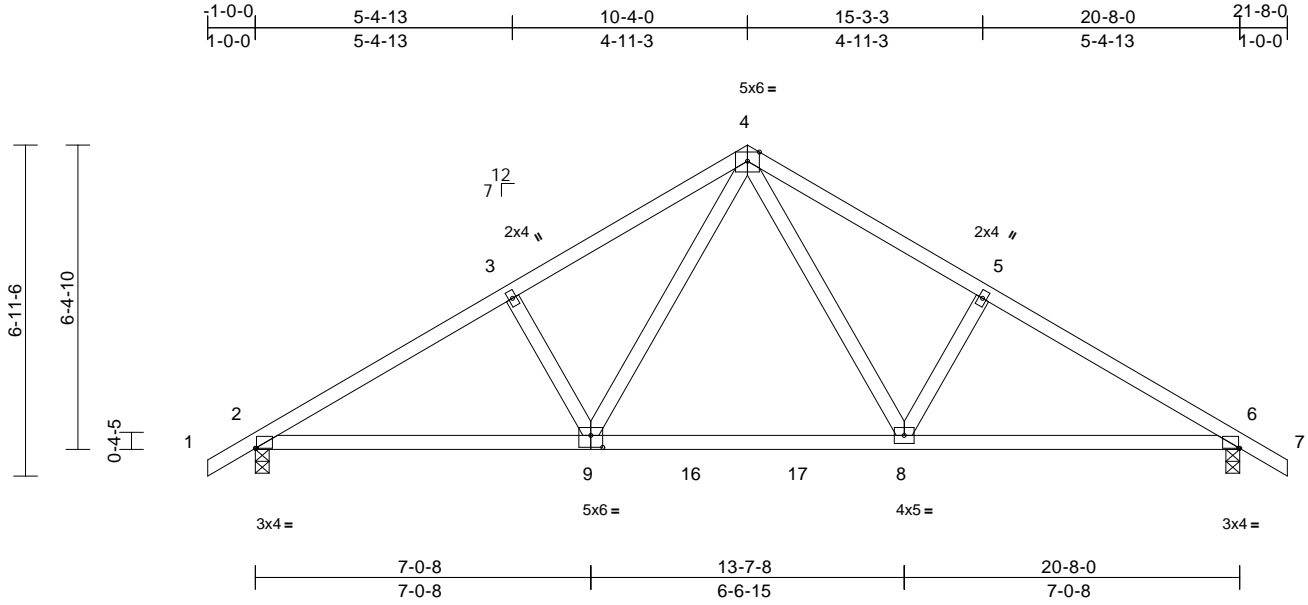
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss C04	Truss Type Common	Qty 4	Ply 1	Job Reference (optional) T19584305
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Tue Mar 03 15:36:58
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Page: 1



Scale = 1:48.4

Plate Offsets (X, Y): [2:0-0-5,Edge], [6:0-0-5,Edge], [9:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.35	Vert(LL)	-0.07	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.13	9-12	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 100 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 4-10-3 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

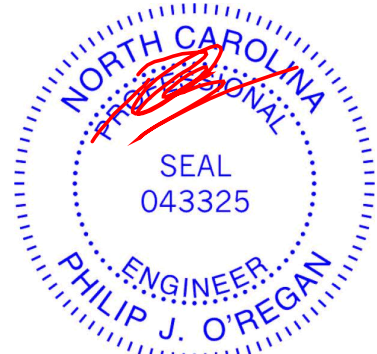
REACTIONS (size) 2=0-3-8, 6=0-3-8
 Max Horiz 2=-139 (LC 8)
 Max Uplift 2=-59 (LC 10), 6=-59 (LC 11)
 Max Grav 2=887 (LC 1), 6=887 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/30, 2-3=-1281/143, 3-4=-1157/177, 4-5=-1157/177, 5-6=-1281/143, 6-7=0/30
 BOT CHORD 2-9=-83/1117, 9-16=0/721, 16-17=0/721, 8-17=0/721, 6-8=-32/1069
 WEBS 4-8=-65/522, 5-8=-308/152, 4-9=-64/522, 3-9=-308/152

NOTES
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 3) 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, with BCDL = 10.0psf.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 2 and 59 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss C05	Truss Type Common	Qty 1	Ply 1	Job Reference (optional)	T19584306
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1

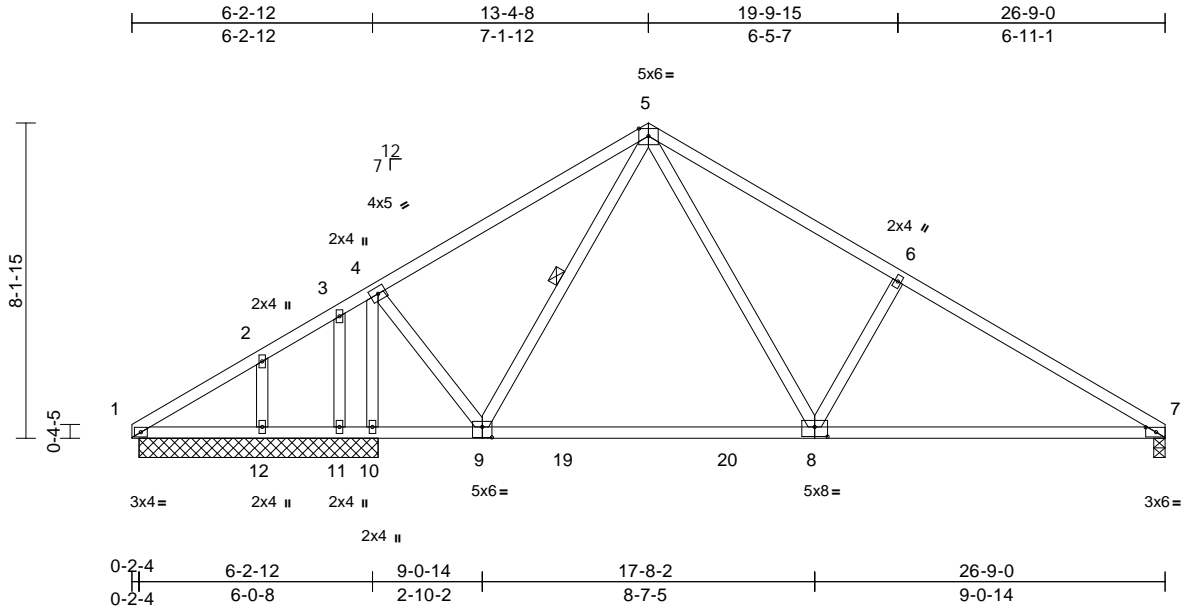


Plate Offsets (X, Y): [7:0-3-3,0-1-8], [8:0-4-0,0-3-0], [9:0-3-0,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.65	Vert(LL)	-0.20	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.30	8-18	>813	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 137 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 8-5,9-5:2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-9

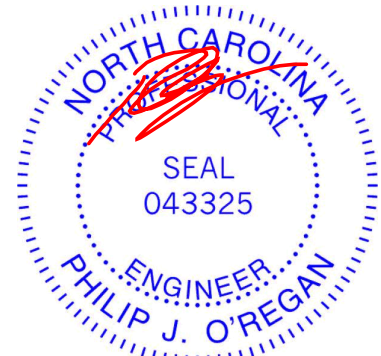
REACTIONS (size)
1=6-2-4, 7=0-3-8, 10=6-2-4,
11=6-2-4, 12=6-2-4, 13=6-2-4
Max Horiz 1=-164 (LC 6), 13=-164 (LC 6)
Max Uplift 1=-29 (LC 24), 7=-56 (LC 11),
10=-222 (LC 10), 11=-275 (LC 21),
12=-81 (LC 10), 13=-29 (LC 24)
Max Grav 1=96 (LC 21), 7=789 (LC 1),
10=1277 (LC 1), 11=206 (LC 10),
12=283 (LC 17), 13=96 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-61/226, 2-3=-13/181, 3-4=-63/333,
4-5=-460/122, 5-6=-1017/183, 6-7=-1152/139
BOT CHORD 1-12=-193/104, 11-12=-193/104,
10-11=-193/104, 9-10=-193/104, 9-19=0/476,
19-20=0/476, 8-20=0/476, 7-8=-41/939
WEBS 5-8=-83/726, 6-8=-408/201, 5-9=-382/47,
4-9=0/693, 4-10=-1325/214, 3-11=-162/274,
2-12=-190/99

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

- Wind: ASCE 7-10; Vult=120mph (3-second gust)
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 1, 56 lb uplift at joint 7, 222 lb uplift at joint 10, 275 lb uplift at joint 11, 81 lb uplift at joint 12 and 29 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY
TRENCO
A MITek Affiliate

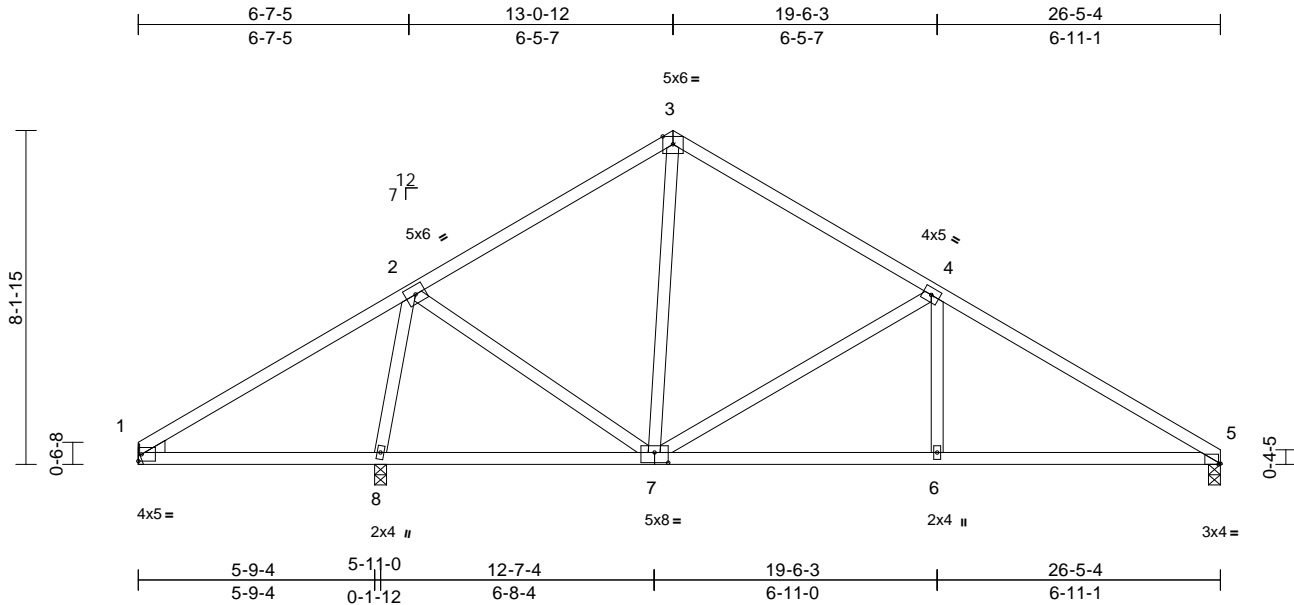
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss C06	Truss Type Roof Special	Qty 3	Ply 1	Job Reference (optional) T19584307
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:56.3

Plate Offsets (X, Y): [5:0-0-9,Edge], [7:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	0.07	6-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.14	6-14	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 131 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-8.

REACTIONS

(size) 1= Mechanical, 5=0-3-8, 8=0-3-8
Max Horiz 1=-164 (LC 6)
Max Uplift 1=-43 (LC 10), 5=-62 (LC 11), 8=-13 (LC 10)
Max Grav 1=271 (LC 21), 5=820 (LC 1), 8=1067 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-223/160, 2-3=-687/165, 3-4=-671/163, 4-5=-1255/157
BOT CHORD 1-8=-189/250, 7-8=-108/292, 6-7=-56/1015, 5-6=-56/1015
WEBS 2-8=-911/122, 2-7=0/394, 3-7=-40/317, 4-7=-637/165, 4-6=0/300

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 1, 62 lb uplift at joint 5 and 13 lb uplift at joint 8.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



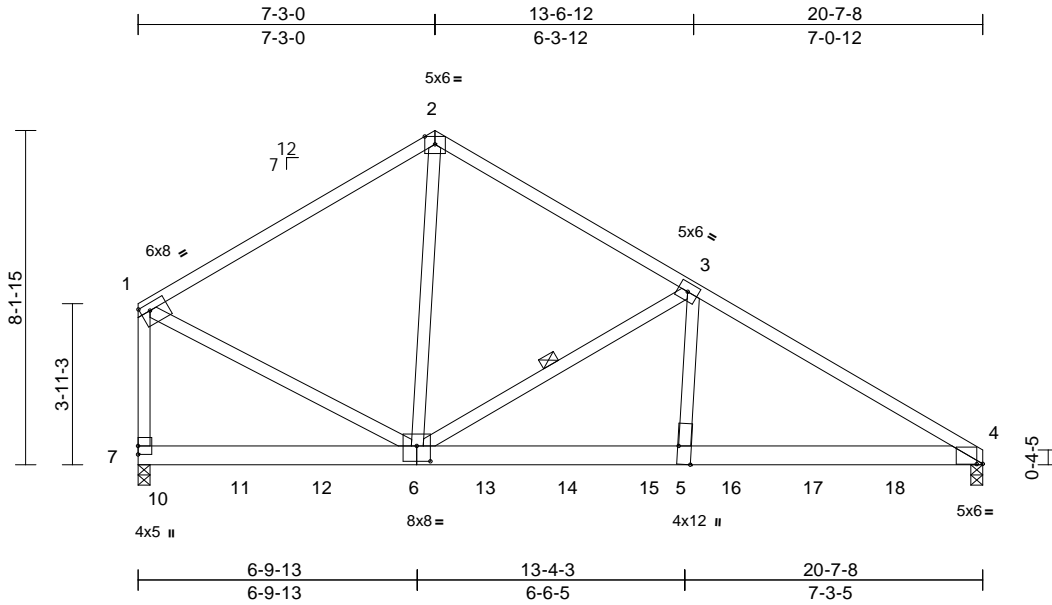
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss C07	Truss Type Roof Special Girder	Qty 1	Ply 1	Job Reference (optional) T19584308
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MITek Industries, Inc. Tue Mar 03 15:37:00
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Page: 1



Scale = 1:56.3

Plate Offsets (X, Y): [1:0-2-12,0-2-0], [4:0-1-12,0-0-1], [6:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.99	Vert(LL)	-0.16	5-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.28	5-9	>894	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.03	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 128 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS *Except* 2-4:2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 6-4:2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31
WEBS 2x4 SP No.3

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

REACTIONS (size) 4=0-3-8, 7=0-3-8
Max Horiz 7=-204 (LC 4)
Max Uplift 4=-233 (LC 9), 7=-262 (LC 9)
Max Grav 4=2127 (LC 1), 7=1838 (LC 1)

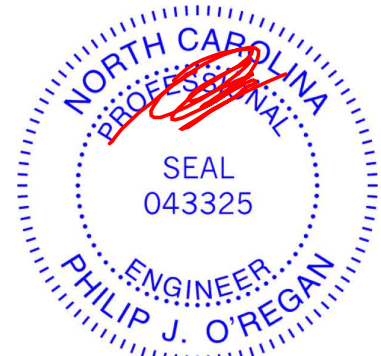
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1516/266, 2-3=-1448/236, 3-4=-3177/380, 1-7=-1551/219
BOT CHORD 7-10=-140/197, 10-11=-140/197, 11-12=-140/197, 6-12=-140/197, 6-13=-246/2781, 13-14=-246/2781, 14-15=-246/2781, 5-15=-246/2781, 5-16=-242/2697, 16-17=-242/2697, 17-18=-242/2697, 4-18=-242/2697
WEBS 2-6=-151/1047, 3-6=-1904/304, 3-5=-79/1436, 1-6=-155/1319

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
 - 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 4 and 262 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 136 lb down and 110 lb up at 0-6-12, 136 lb down and 110 lb up at 2-6-12, 136 lb down and 110 lb up at 4-6-12, 136 lb down and 110 lb up at 6-6-12, 136 lb down and 110 lb up at 8-6-12, 332 lb down and 45 lb up at 10-6-12, 332 lb down and 45 lb up at 12-6-12, 332 lb down and 45 lb up at 14-6-12, and 332 lb down and 45 lb up at 16-6-12, and 332 lb down and 45 lb up at 18-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-4=-60, 4-7=-20
Concentrated Loads (lb)
Vert: 6=-136 (B), 10=-136 (B), 11=-136 (B), 12=-136 (B), 13=-136 (B), 14=-330 (B), 15=-330 (B), 16=-330 (B), 17=-330 (B), 18=-330 (B)



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



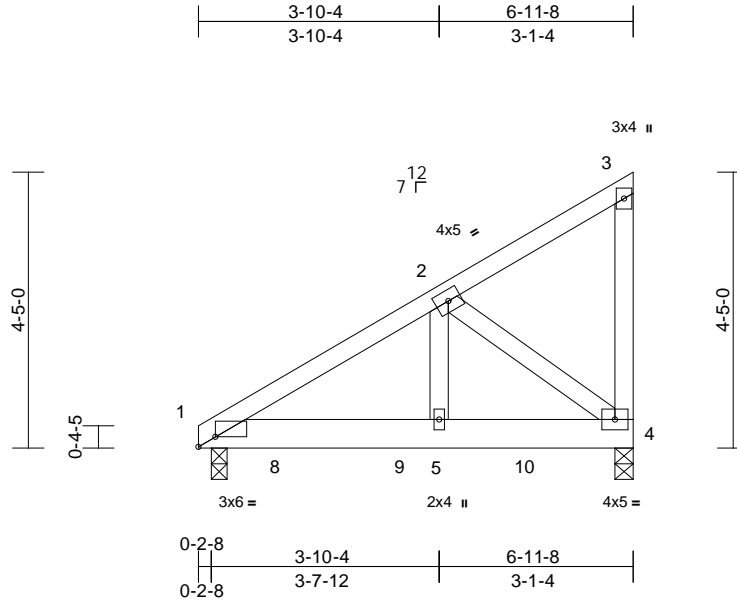
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss M01	Truss Type Roof Special Girder	Qty 1	Ply 1	Job Reference (optional) T19584309
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BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Tue Mar 03 15:37:03
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Page: 1



Scale = 1:36.9

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.18	Vert(LL)	-0.02	5-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.03	5-7	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 42 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)

1=0-3-0, 4=0-3-8
Max Horiz 1=127 (LC 5)
Max Uplift 1=-97 (LC 8), 4=-130 (LC 8)
Max Grav 1=665 (LC 1), 4=635 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-777/116, 2-3=-92/47, 3-4=-76/31
BOT CHORD 1-8=-120/645, 8-9=-120/645, 5-9=-120/645, 5-10=-120/645, 4-10=-120/645
WEBS 2-4=-804/189, 2-5=-82/618

NOTES

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust)
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- 2) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 4 and 97 lb uplift at joint 1.
- 5) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 251 lb down and 63 lb up at 1-3-4, and 251 lb down and 63 lb up at 3-3-4, and 251 lb down and 63 lb up at 5-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-3=-60, 1-4=-20
Concentrated Loads (lb)
Vert: 8=-251 (F), 9=-251 (F), 10=-251 (F)



March 4, 2020

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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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY
TRENCO
A MiTek Affiliate

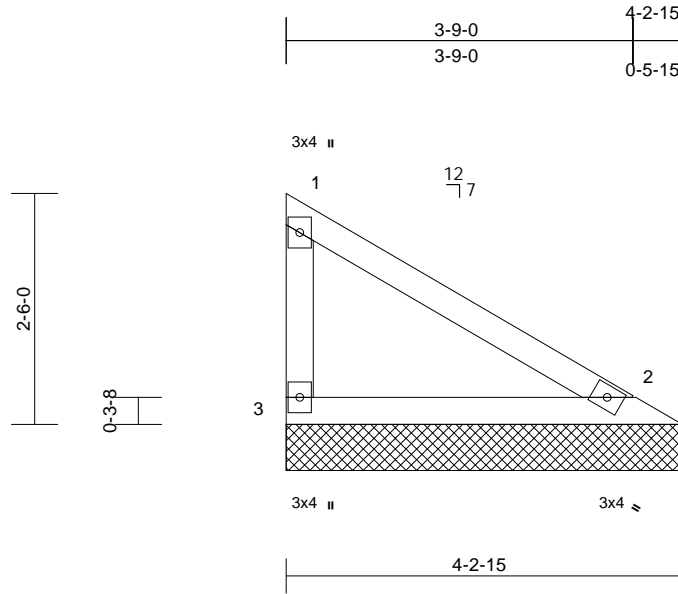
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss V01	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional) T19584310
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:24.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 16 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 4-3-6 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=4-2-15, 3=4-2-15
 Max Horiz 3=-67 (LC 6)
 Max Uplift 2=-6 (LC 11), 3=-26 (LC 11)
 Max Grav 2=144 (LC 1), 3=151 (LC 18)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-3=-115/48, 1-2=-66/54
 BOT CHORD 2-3=-33/53

NOTES

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust)
 Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 3 and 6 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



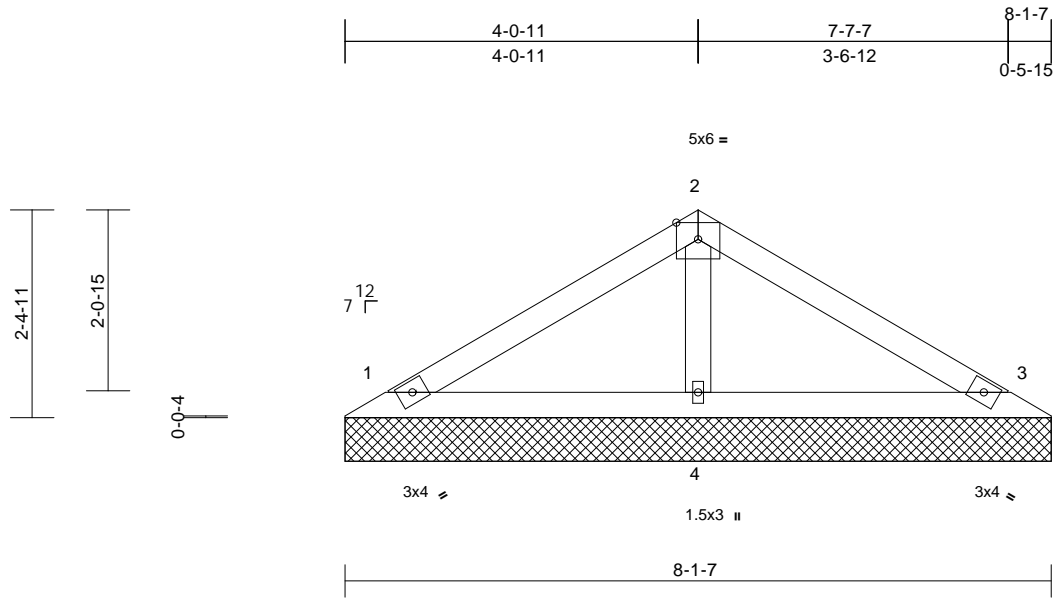
818 Soundside Road
 Edenton, NC 27932

Job 20-022568T	Truss V02	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional)	T19584311
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.24	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P						Weight: 27 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=8-1-7, 3=8-1-7, 4=8-1-7
Max Horiz 1=44 (LC 9)
Max Uplift 1=-23 (LC 10), 3=-29 (LC 11)
Max Grav 1=149 (LC 1), 3=149 (LC 1), 4=271 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

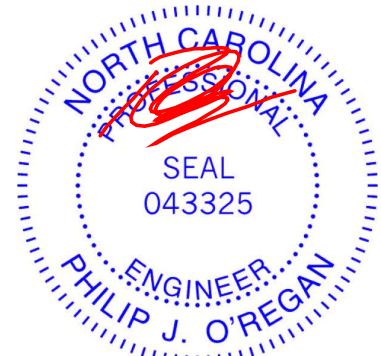
TOP CHORD 1-2=-78/40, 2-3=-73/34
BOT CHORD 1-4=-7/33, 3-4=-7/33
WEBS 2-4=-183/55

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 29 lb uplift at joint 3.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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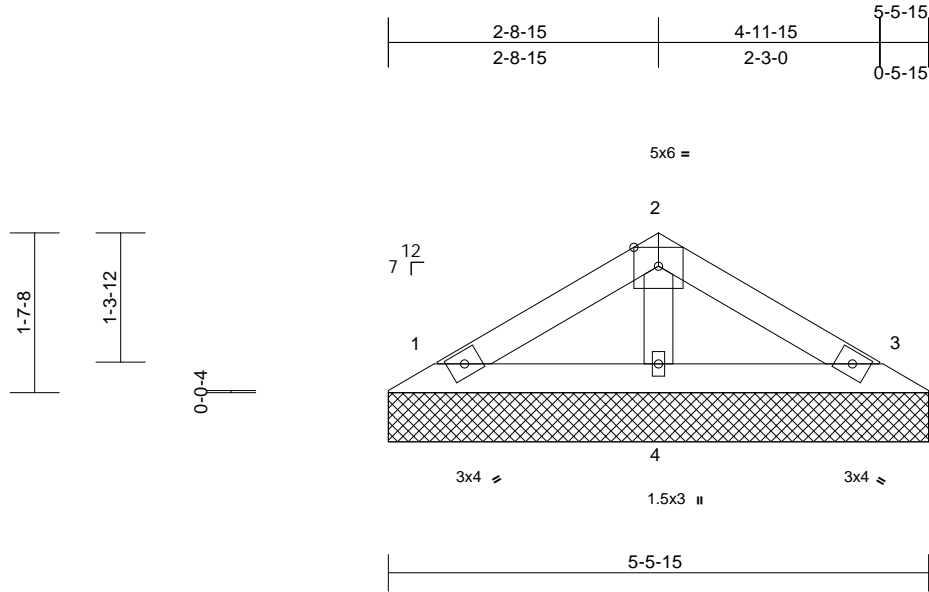
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss V021	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional) T19584312
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:23.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.09	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P						Weight: 17 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=5-5-15, 3=5-5-15, 4=5-5-15
Max Horiz 1=-28 (LC 8)
Max Uplift 1=-14 (LC 10), 3=-18 (LC 11)
Max Grav 1=94 (LC 1), 3=94 (LC 1), 4=171 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-49/25, 2-3=-46/22
BOT CHORD 1-4=-5/21, 3-4=-5/21
WEBS 2-4=-115/37

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1 and 18 lb uplift at joint 3.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



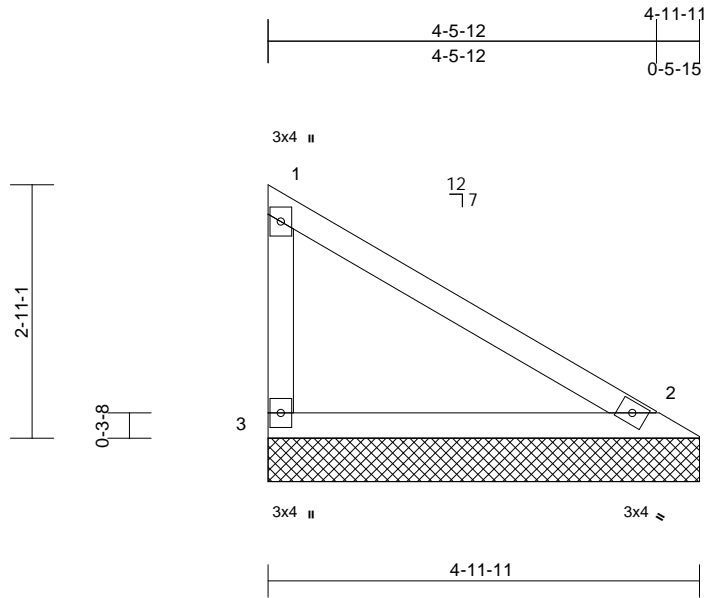
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss V022	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional) T19584313
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:26.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 19 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 5-0-2 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=4-11-11, 3=4-11-11
 Max Horiz 3=-81 (LC 6)
 Max Uplift 2=-7 (LC 11), 3=-32 (LC 11)
 Max Grav 2=173 (LC 1), 3=181 (LC 18)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-3=-138/58, 1-2=-79/65
 BOT CHORD 2-3=-40/64

NOTES

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust)
 Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 3 and 7 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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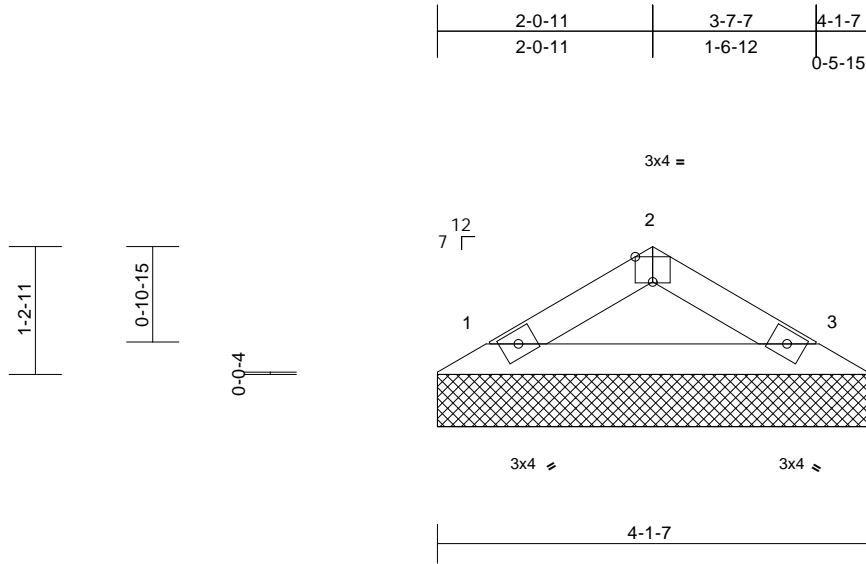
818 Soundside Road
 Edenton, NC 27932

Job 20-022568T	Truss V023	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional) T19584314
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:22

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 12 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=4-1-7, 3=4-1-7
Max Horiz 1=-19 (LC 6)
Max Uplift 1=-6 (LC 10), 3=-6 (LC 11)
Max Grav 1=124 (LC 1), 3=124 (LC 1)

FORCES

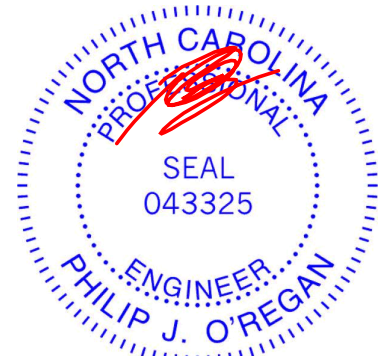
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-111/41, 2-3=-111/41
BOT CHORD 1-3=-16/80

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1 and 6 lb uplift at joint 3.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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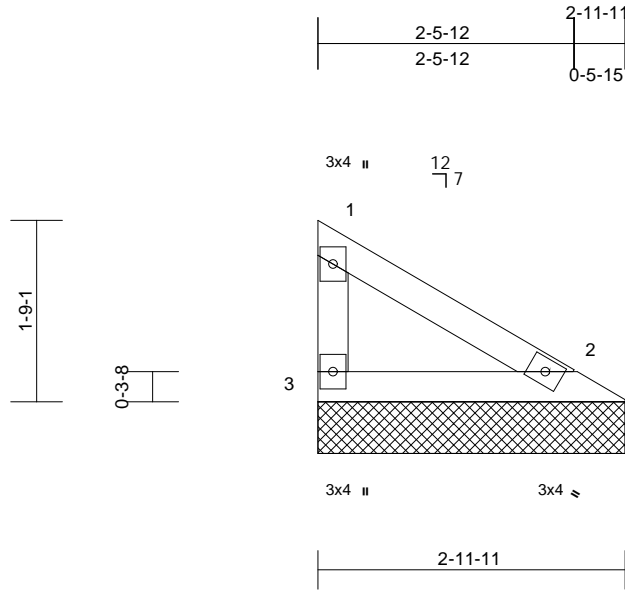
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss V024	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional) T19584315
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:22.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 10 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 2=2-11-11, 3=2-11-11
Max Horiz 3=44 (LC 6)
Max Uplift 2=4 (LC 11), 3=17 (LC 11)
Max Grav 2=93 (LC 1), 3=98 (LC 18)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-3=-74/31, 1-2=-42/35
BOT CHORD 2-3=-21/34

NOTES

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust)
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 3 and 4 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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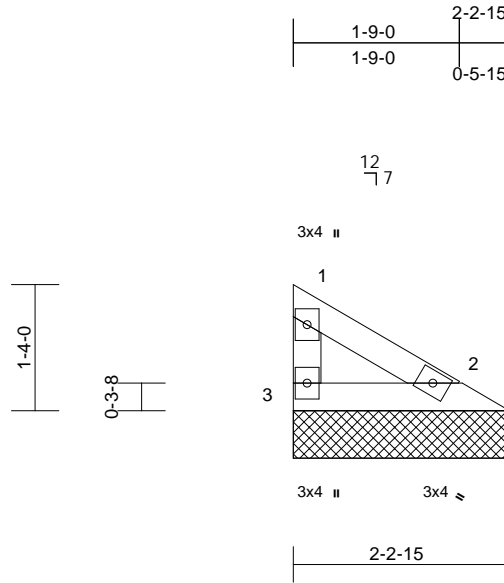
818 Soundside Road
Edenton, NC 27932

Job 20-022568T	Truss V025	Truss Type Valley	Qty 1	Ply 1	Job Reference (optional) T19584316
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BMC (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:24.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 7 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 2-3-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=2-2-15, 3=2-2-15

Max Horiz 3=-30 (LC 6)
Max Uplift 2=-3 (LC 11), 3=-12 (LC 11)
Max Grav 2=64 (LC 1), 3=67 (LC 18)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-3=-51/21, 1-2=-29/24
BOT CHORD 2-3=-15/24

NOTES

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust)
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 3 and 3 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 4, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

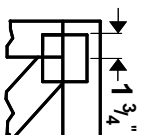
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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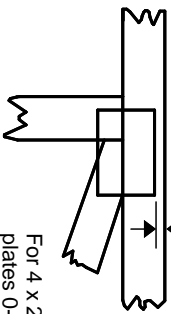
818 Soundside Road
Edenton, NC 27932

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.

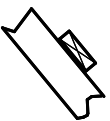
* Plate location details available in **MITrak 20/20 software** or upon request.

PLATE SIZE

4 X 4

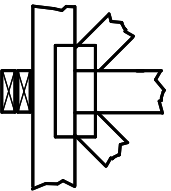
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



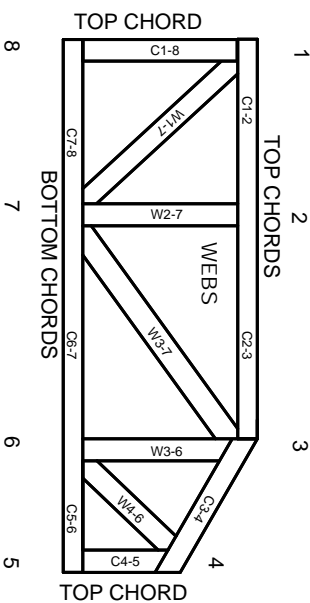
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: 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: MII-7473 rev. 10/03/2015



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. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.