

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 20-045195T

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: T20252353 thru T20252385

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

North Carolina COA: C-0844



May 19, 2020

Albani, Thomas

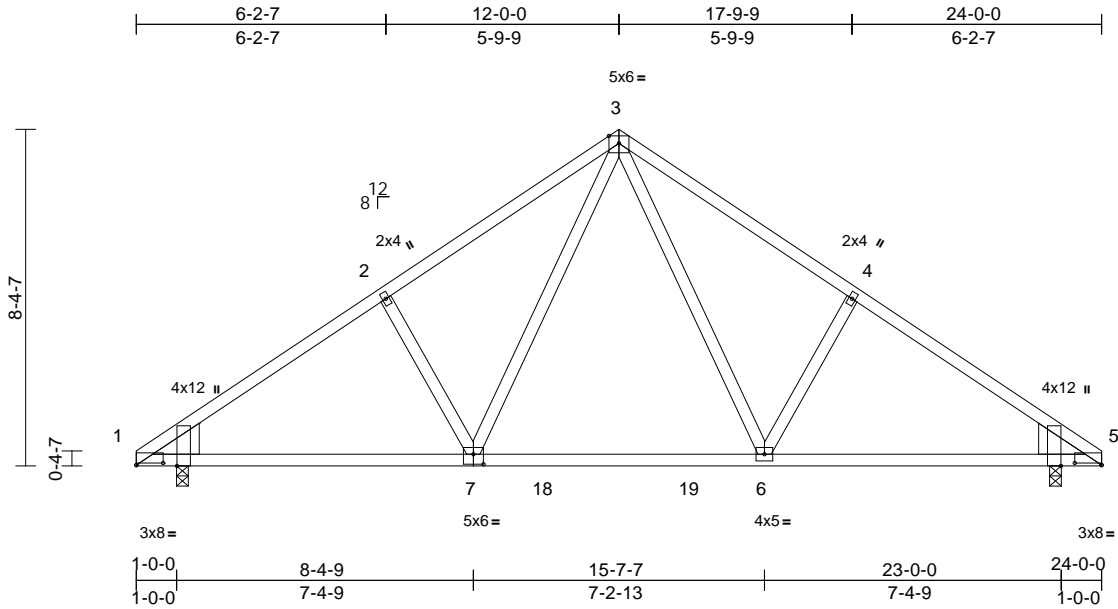
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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 20-045195T	Truss A	Truss Type Common	Qty 4	Ply 1	Job Reference (optional)	T20252353
-------------------	------------	----------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:39  
ID:W9AnQZGtFcED9wo4Og9LgJzF\_mW-pGKu3TbJvKQ9r\_xlQ4e5RhWBmB4JQ7ZrE?SA0jzEz4K

Page: 1



Scale = 1:57.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	-0.19	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.30	6-7	>955	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 127 lb	FT = 20%

**LUMBER**

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- WEBS 2x4 SP No.2 \*Except\* 6-4,7-2:2x4 SP No.3
- WEDGE Left: 2x10 SP 2250F 1.9E or DSS or SS  
Right: 2x10 SP 2250F 1.9E or DSS or SS

**BRACING**

- TOP CHORD Structural wood sheathing directly applied or 4-8-4 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=155 (LC 7)
- Max Uplift 1=-20 (LC 10), 5=-20 (LC 11)
- Max Grav 1=960 (LC 1), 5=960 (LC 1)

**FORCES**

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=-1117/113, 2-3=-985/164, 3-4=-985/164, 4-5=-1117/113
- BOT CHORD 1-7=-108/931, 7-18=0/643, 18-19=0/643, 6-19=0/643, 5-6=-12/848
- WEBS 3-6=-63/428, 4-6=-248/161, 3-7=-63/428, 2-7=-248/161

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 20 lb uplift at joint 1 and 20 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.

**LOAD CASE(S)** Standard



May 19,2020

**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.



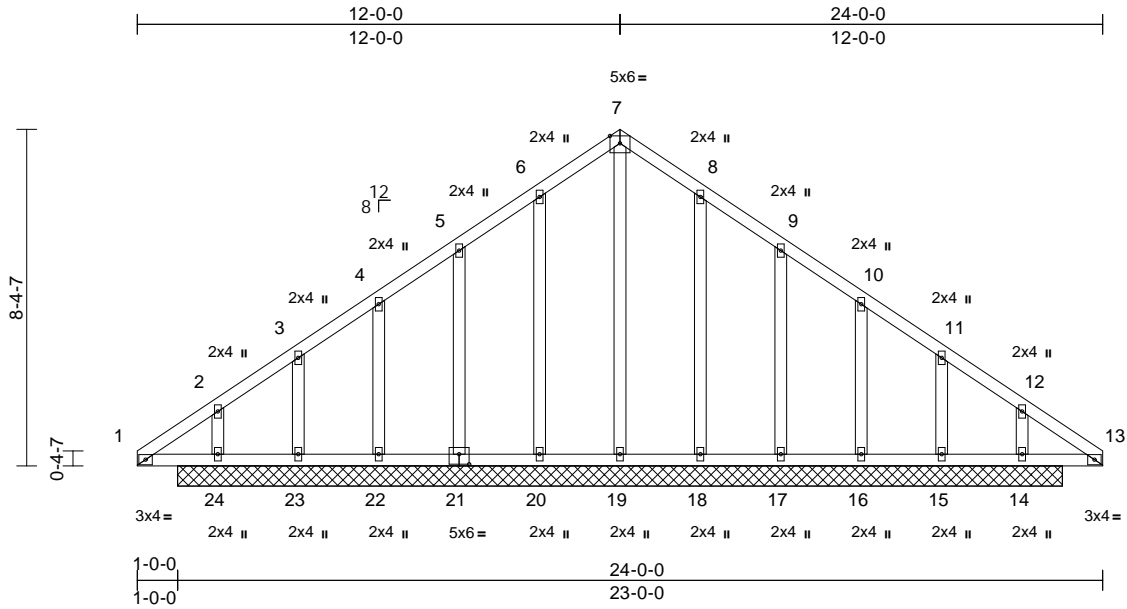
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss AG	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional)	T20252354
-------------------	-------------	--------------------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:42  
ID:luDBJeNX7NMykL\_oP3pSXCzF\_mN-AD8n6BfSjs2SyipiDdEG8ID9mCws5L8aOHaxiwzEz4F

Page: 1



Scale = 1:57.3

Plate Offsets (X, Y): [21:0-3-0,0-3-0]

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	0.12	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	0.28	Horiz(TL)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 148 lb	FT = 20%

LUMBER	WEBS
TOP CHORD 2x4 SP No.2	7-19=-229/41, 6-20=-134/58, 5-21=-122/68,
BOT CHORD 2x4 SP No.2	4-22=-125/59, 3-23=-142/90, 2-24=-151/74,
OTHERS 2x4 SP No.3	8-18=-135/58, 9-17=-121/68, 10-16=-125/57,
	11-15=-135/88, 12-14=-151/43

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

REACTIONS (size)	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, 21=22-0-0, 22=22-0-0, 23=22-0-0, 24=22-0-0
Max Horiz	24=155 (LC 7)
Max Uplift	14=-44 (LC 10), 15=-94 (LC 11), 16=-25 (LC 11), 17=-46 (LC 11), 18=-33 (LC 11), 20=-33 (LC 10), 21=-46 (LC 10), 22=-24 (LC 10), 23=-99 (LC 10), 24=-62 (LC 6)
Max Grav	14=241 (LC 22), 15=187 (LC 18), 16=172 (LC 22), 17=162 (LC 18), 18=174 (LC 18), 19=269 (LC 20), 20=174 (LC 17), 21=163 (LC 17), 22=172 (LC 21), 23=204 (LC 17), 24=241 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-65/156, 2-3=-69/161, 3-4=-23/152, 4-5=-49/162, 5-6=-88/175, 6-7=-125/196, 7-8=-125/196, 8-9=-88/171, 9-10=-49/158, 10-11=-24/148, 11-12=-70/158, 12-13=-65/164
BOT CHORD	1-24=-120/78, 23-24=-120/74, 22-23=-120/74, 21-22=-120/74, 20-21=-120/74, 19-20=-120/74, 18-19=-120/74, 17-18=-120/74, 16-17=-120/74, 15-16=-120/74, 14-15=-120/74, 13-14=-120/74

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 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 33 lb uplift at joint 20, 46 lb uplift at joint 21, 24 lb uplift at joint 22, 99 lb uplift at joint 23, 62 lb uplift at joint 24, 33 lb uplift at joint 18, 46 lb uplift at joint 17, 25 lb uplift at joint 16, 94 lb uplift at joint 15 and 44 lb uplift at joint 14.
  - Non Standard bearing condition. Review required.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 19, 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

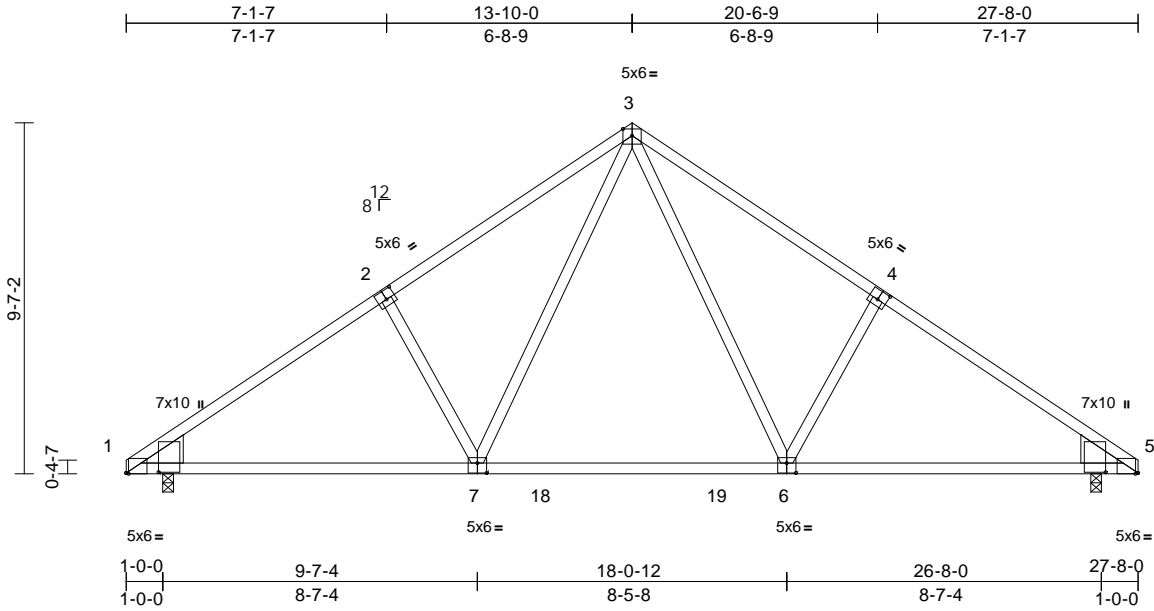
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss B	Truss Type Common	Qty 10	Ply 1	Job Reference (optional)	T20252355
-------------------	------------	----------------------	-----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:42  
ID:6r14MLRfyv\_Eq4smCcPdEGzF\_ml-AD8n6BfSjs2SylpiDdEG8ID?vCk55NpaOHAXiwzEz4F

Page: 1



Scale = 1:63

Plate Offsets (X, Y): [1:0-0-13,Edge], [1:0-0-4,0-10-10], [2:0-3-0,0-3-0], [4:0-3-0,0-3-0], [5:0-0-13,Edge], [5:0-0-4,0-10-10], [6:0-3-0,0-3-4], [7:0-3-0,0-3-4]

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	0.75	Vert(LL)	-0.34	6-7	>986	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.51	6-7	>651	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 145 lb	FT = 20%

**LUMBER**

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- WEBS 2x4 SP No.2 \*Except\* 6-4,7-2:2x4 SP No.3
- WEDGE Left: 2x10 SP 2250F 1.9E or DSS or SS  
Right: 2x10 SP 2250F 1.9E or DSS or SS

**BRACING**

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

**REACTIONS**

- (size) 1=0-3-8, 5=0-3-8
- Max Horiz 1=178 (LC 7)
- Max Uplift 1=-23 (LC 10), 5=-23 (LC 11)
- Max Grav 1=1107 (LC 1), 5=1107 (LC 1)

**FORCES**

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=-1336/132, 2-3=-1192/192, 3-4=-1192/192, 4-5=-1336/132
- BOT CHORD 1-7=-131/1127, 7-18=0/769, 18-19=0/769, 6-19=0/769, 5-6=-17/1020
- WEBS 3-6=-74/532, 4-6=-304/187, 3-7=-74/532, 2-7=-304/187

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 23 lb uplift at joint 1 and 23 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.

**LOAD CASE(S)** Standard



May 19, 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.



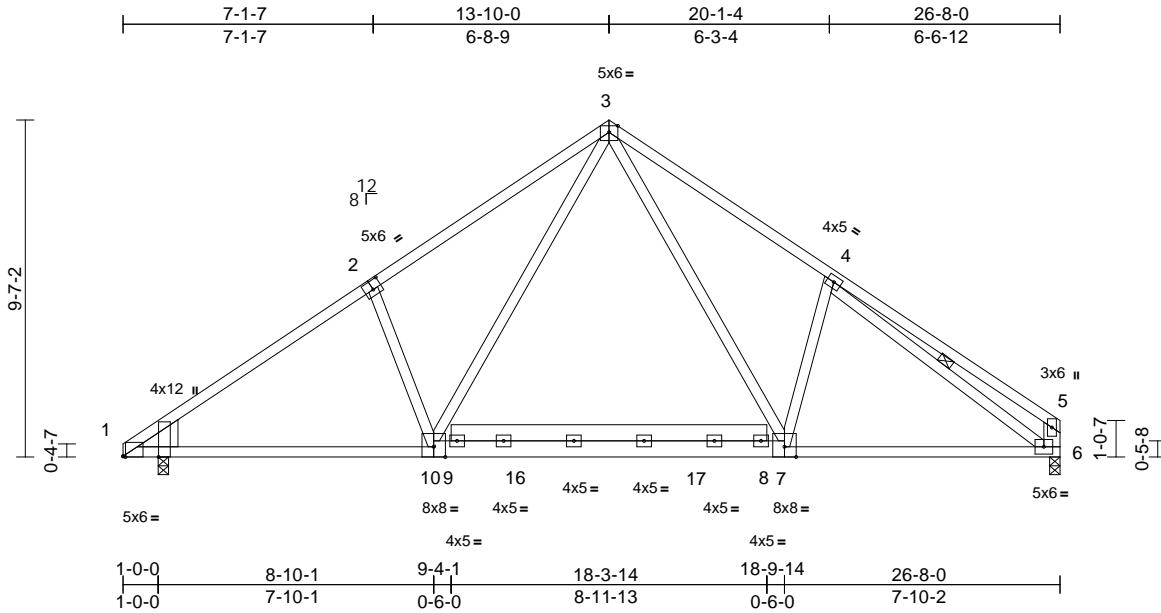
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss B1	Truss Type Common	Qty 8	Ply 1	Job Reference (optional)	T20252356
-------------------	-------------	----------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:43  
ID:La3UFQYJqg7yQT2VE?3k59zF\_m9-eQi9KXg4UAAJZvOvnLIVgymANc5?qm8kcxvUENzEz4E

Page: 1



Scale = 1:65.6

Plate Offsets (X, Y): [1:0-0-13,Edge], [1:0-0-4,Edge], [2:0-3-0,0-3-0]

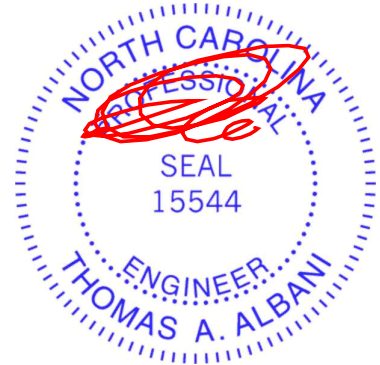
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.77	Vert(LL)	-0.10	7-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.17	7-10	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 179 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 10-7,9-8:2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 10-3,7-3:2x4 SP No.2, 6-5:2x6 SP No.2  
WEDGE Left: 2x10 SP 2250F 1.9E or DSS or SS  
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 4-6  
**REACTIONS** (size) 1=0-3-8, 6=0-3-8  
Max Horiz 1=188 (LC 9)  
Max Uplift 1=-23 (LC 10), 6=-16 (LC 11)  
Max Grav 1=1099 (LC 1), 6=1016 (LC 1)  
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-1314/127, 2-3=-1210/210, 3-4=-1245/216, 4-5=-342/117, 5-6=-308/96  
BOT CHORD 1-10=-130/1112, 9-10=0/701, 9-16=0/736, 16-17=0/736, 8-17=0/736, 7-8=0/695, 6-7=-7/1000  
WEBS 2-10=-316/193, 3-10=-94/559, 3-7=-96/619, 4-7=-291/205, 4-6=-1051/3

- \* 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 6 and 23 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



May 19, 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

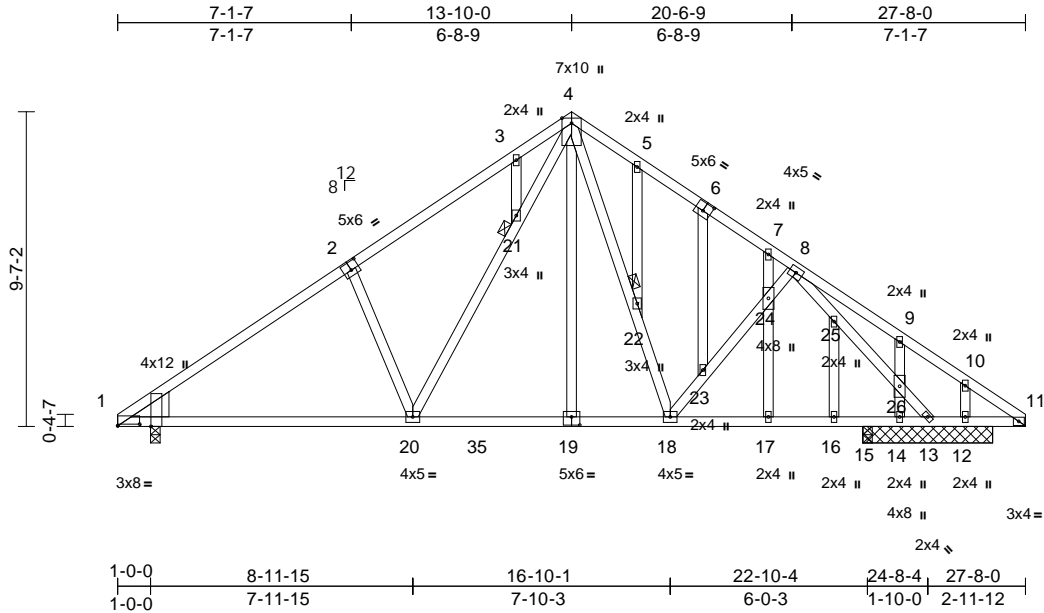


Job 20-045195T	Truss BG	Truss Type Common Structural Gable	Qty 1	Ply 1	Job Reference (optional)	T20252357
-------------------	-------------	---------------------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Tue May 19 10:27:43  
ID:TdPFTV6om62Yh8XUNPIV4zF\_IQ-eQi9KXg4UAAJZvOvnLIVgymDQC7NqfMkcxvUENzEz4E

Page: 1



Scale = 1:70.2

Plate Offsets (X, Y): [1:0-8-0,0-0-10], [1:0-0-4,Edge], [2:0-3-0,0-3-0], [6:0-3-0,0-3-0], [19:0-3-0,0-3-0]

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	0.57	Vert(LL)	-0.06	19-20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.11	20-34	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.03	13	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 197 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 20-4,18-4:2x4 SP No.2  
OTHERS 2x4 SP No.3 \*Except\* 19-4:2x4 SP No.2  
WEDGE Left: 2x10 SP 2250F 1.9E or DSS or SS

**WEBS**  
2-20=-282/172, 20-21=-101/436,  
4-21=-146/549, 4-22=-114/187,  
18-22=-95/149, 18-23=-46/137,  
23-24=-2/165, 8-24=-12/157, 8-25=-1027/31,  
25-26=-961/28, 13-26=-938/28,  
3-21=-126/50, 4-19=0/179, 5-22=-40/19,  
6-23=-139/75, 7-24=0/72, 17-24=0/83,  
16-25=-87/5, 9-26=-183/84, 14-26=-213/82,  
10-12=-98/53

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-8-9 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 12-13,11-12.  
JOINTS 1 Brace at Jt(s): 21, 22

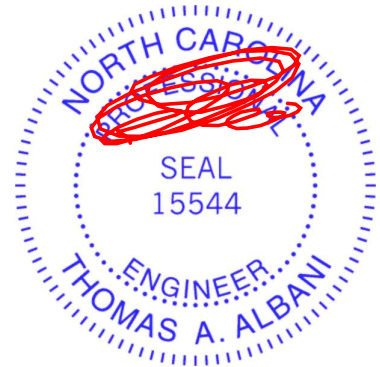
**REACTIONS** (size)  
1=0-3-8, 12=3-11-8, 13=3-11-8,  
14=3-11-8, 15=0-3-8, 32=0-3-8  
Max Horiz 1=176 (LC 7), 32=176 (LC 7)  
Max Uplift 1=-26 (LC 10), 12=-29 (LC 11),  
14=-73 (LC 11), 32=-26 (LC 10)  
Max Grav 1=999 (LC 1), 12=155 (LC 22),  
13=746 (LC 1), 14=43 (LC 22),  
15=329 (LC 1), 32=999 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-1154/117, 2-3=-1024/178,  
3-4=-926/214, 4-5=-713/186, 5-6=-762/165,  
6-7=-761/120, 7-8=-822/102, 8-9=-18/179,  
9-10=-10/160, 10-11=-48/141  
BOT CHORD 1-20=-132/950, 20-35=0/629, 19-35=0/629,  
18-19=0/633, 17-18=0/551, 16-17=0/551,  
15-16=0/551, 14-15=0/551, 13-14=0/551,  
12-13=-93/55, 11-12=-93/55

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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 73 lb uplift at joint 14, 29 lb uplift at joint 12, 26 lb uplift at joint 1 and 26 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



May 19, 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.



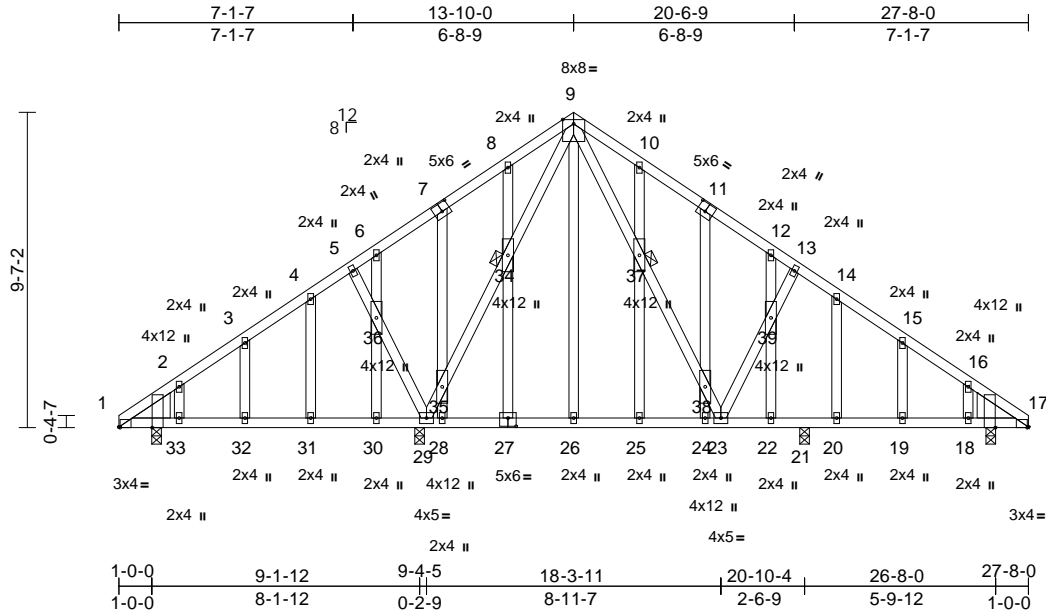
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss BG1	Truss Type Common Structural Gable	Qty 1	Ply 1	Job Reference (optional) T20252358
-------------------	--------------	---------------------------------------	----------	----------	---------------------------------------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Tue May 19 10:27:44  
ID: bCos7B5bh?Fom8r5ktMIH9zF\_k9-eQi9KXg4UAAJZvOvnLIVgymHvCAtplKcxvUENzE4E

Page: 1



Scale = 1:70.1

Plate Offsets (X, Y): [1:0-0-7,Edge], [1:0-0-4,Edge], [7:0-3-0,0-3-0], [11:0-3-0,0-3-0], [17:0-0-7,Edge], [17:0-0-4,Edge], [27:0-3-0,0-3-0]

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	0.31	Vert(LL)	0.04	32	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.06	31-32	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	17	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								Weight: 235 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 29-5,23-13:2x4 SP No.3  
OTHERS 2x4 SP No.3 \*Except\* 26-9:2x4 SP No.2  
WEDGE Left: 2x10 SP 2250F 1.9E or DSS or SS  
Right: 2x10 SP 2250F 1.9E or DSS or SS

**WEBS**  
29-35=-297/7, 34-35=-268/6, 9-34=-279/15,  
5-36=-329/104, 29-36=-319/99,  
9-37=-141/222, 37-38=-145/218,  
23-38=-152/232, 23-39=-21/135,  
13-39=-43/113, 9-26=-4/173, 8-34=-47/52,  
27-34=-43/37, 7-35=-158/64, 28-35=-140/75,  
6-36=-1/104, 30-36=0/100, 4-31=0/87,  
3-32=-75/54, 2-33=-32/33, 10-37=-52/38,  
25-37=-45/42, 11-38=-112/64,  
24-38=-127/72, 12-39=-197/12,  
22-39=-249/17, 14-20=-181/23,  
15-19=-30/56, 16-18=-55/30

**LOAD CASE(S)** Standard

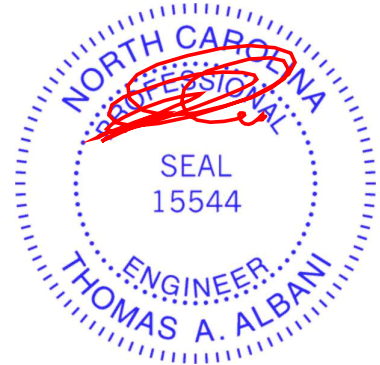
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
JOINTS 1 Brace at Jt(s): 34, 37

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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 59 lb uplift at joint 1 and 53 lb uplift at joint 17.
- 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.

**REACTIONS** (size) 1=0-3-8, 17=0-3-8, 21=0-3-8, 29=0-3-8  
Max Horiz 1=177 (LC 7)  
Max Uplift 1=-59 (LC 10), 17=-53 (LC 11)  
Max Grav 1=540 (LC 1), 17=533 (LC 1), 21=452 (LC 1), 29=688 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-417/65, 2-3=-424/93, 3-4=-394/134, 4-5=-345/153, 5-6=-374/169, 6-7=-320/186, 7-8=-373/230, 8-9=-370/270, 9-10=-491/243, 10-11=-498/212, 11-12=-468/168, 12-13=-404/148, 13-14=-411/131, 14-15=-370/109, 15-16=-431/69, 16-17=-410/41  
BOT CHORD 1-33=-142/388, 32-33=-106/388, 31-32=-106/388, 30-31=-106/388, 29-30=-106/388, 28-29=-3/297, 27-28=-3/297, 26-27=-3/297, 25-26=-2/300, 24-25=-2/300, 23-24=-2/300, 22-23=0/308, 21-22=0/308, 20-21=0/308, 19-20=0/308, 18-19=0/308, 17-18=0/308



May 19, 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.



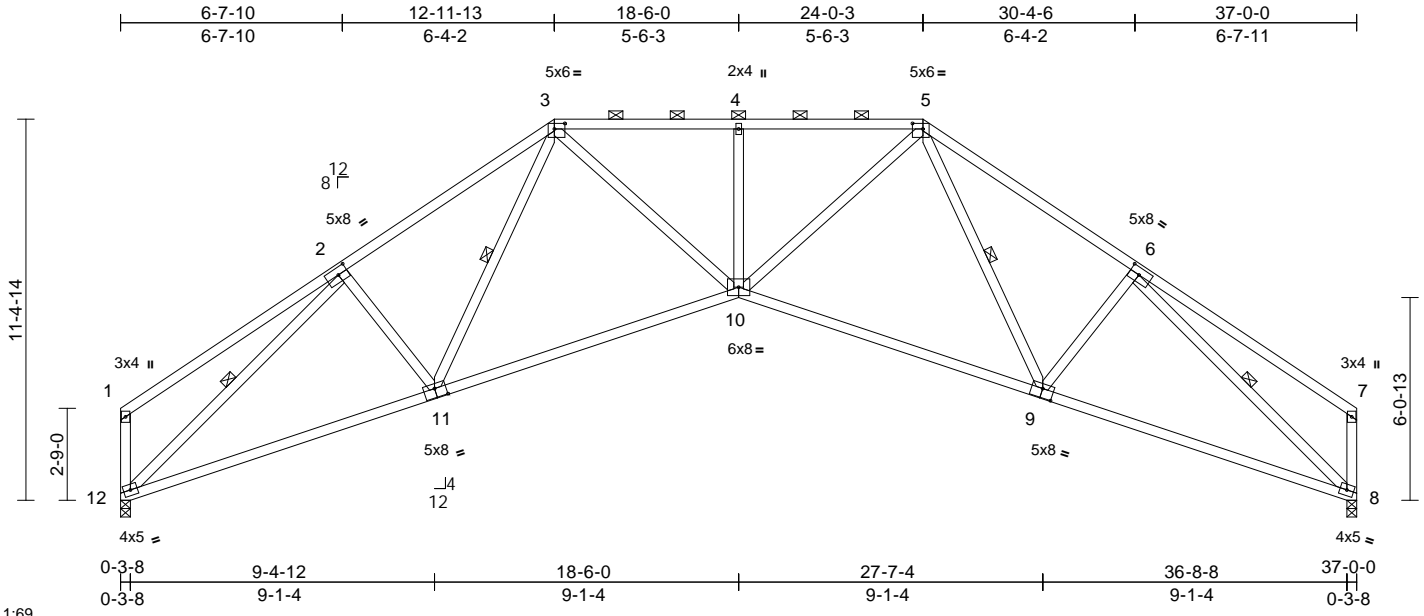
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss C	Truss Type Roof Special	Qty 11	Ply 1	Job Reference (optional) T20252359
-------------------	------------	----------------------------	-----------	----------	---------------------------------------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:44  
ID: gjN5gCW\_7x\_CJ6Ha5yyBXqzF\_ik-6cGXtgiFUIAB3z5K2GkDAJLk0eZ4Btrbf1mpzEz4D

Page: 1



Scale = 1:69

Plate Offsets (X, Y): [2:0-3-8,0-2-8], [3:0-3-12,0-2-0], [5:0-3-12,0-2-0], [6:0-3-8,0-2-8], [9:0-4-0,0-3-4], [11:0-4-0,0-3-4]

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	0.73	Vert(LL)	-0.21	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.50	9-10	>889	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.35	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 222 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 12-11,9-8:2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS  
WEBS 2x4 SP No.3 \*Except\* 11-3,9-5,12-2,8-6:2x4 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-13 max.): 3-5.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-11, 5-9, 2-12, 6-8

**REACTIONS** (size) 8=0-3-8, 12=0-3-8  
Max Horiz 12=-239 (LC 8)  
Max Grav 8=1468 (LC 1), 12=1468 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-198/123, 2-3=-2288/222, 3-4=-2718/173, 4-5=-2718/173, 5-6=-2288/222, 6-7=-197/123, 1-12=-228/99, 7-8=-227/99  
BOT CHORD 11-12=-159/1811, 10-11=-108/1909, 9-10=0/1909, 8-9=-35/1811  
WEBS 2-11=-8/290, 3-11=-104/236, 3-10=0/1261, 4-10=-363/123, 5-10=-116/1261, 5-9=-107/282, 6-9=-44/290, 2-12=-2374/71, 6-8=-2374/71

- 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.
- Bearing at joint(s) 12, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

**NOTES**

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



May 19, 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

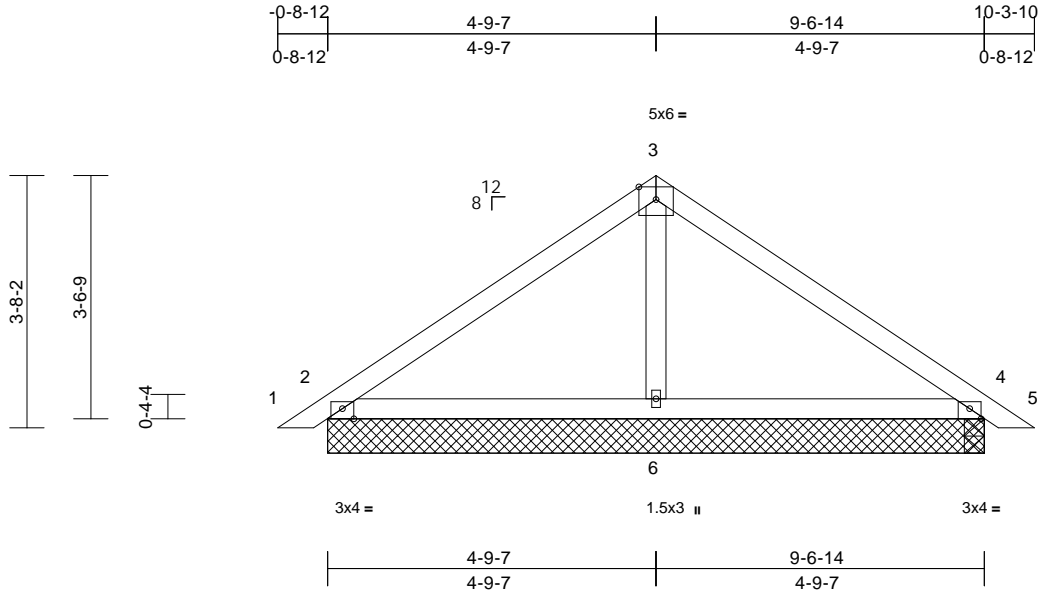


Job 20-045195T	Truss CAP	Truss Type Roof Special	Qty 10	Ply 1	Job Reference (optional)	T20252360
-------------------	--------------	----------------------------	-----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:45  
ID:EOIPhUCJfQwP\_5CSVxjO8zF\_dZ-aopvkDhK0nQ1pDYHumznmNrdkQwUllb04FOblFzEz4C

Page: 1



Scale = 1:33.6

Plate Offsets (X, Y): [2:0-2-0,Edge], [4:0-2-0,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	0.26	Vert(LL)	-0.02	6-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.03	6-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 38 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=9-6-14, 4=0-3-8, 6=9-6-14, 7=9-6-14  
Max Horiz 2=68 (LC 9), 7=68 (LC 9)  
Max Uplift 2=-23 (LC 10), 4=-32 (LC 11), 7=-23 (LC 10)  
Max Grav 2=238 (LC 1), 4=238 (LC 1), 6=347 (LC 1), 7=238 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

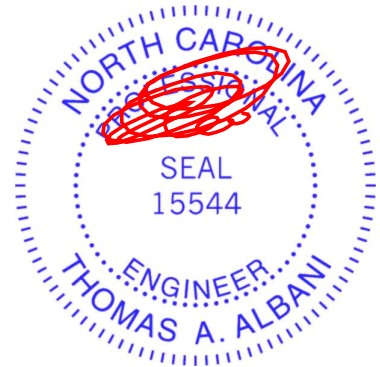
TOP CHORD 1-2=0/16, 2-3=-161/67, 3-4=-161/67, 4-5=0/16  
BOT CHORD 2-6=-20/86, 4-6=-2/86  
WEBS 3-6=-177/24

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 2, 32 lb uplift at joint 4 and 23 lb uplift at joint 2.
- 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.
- 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



May 19, 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.



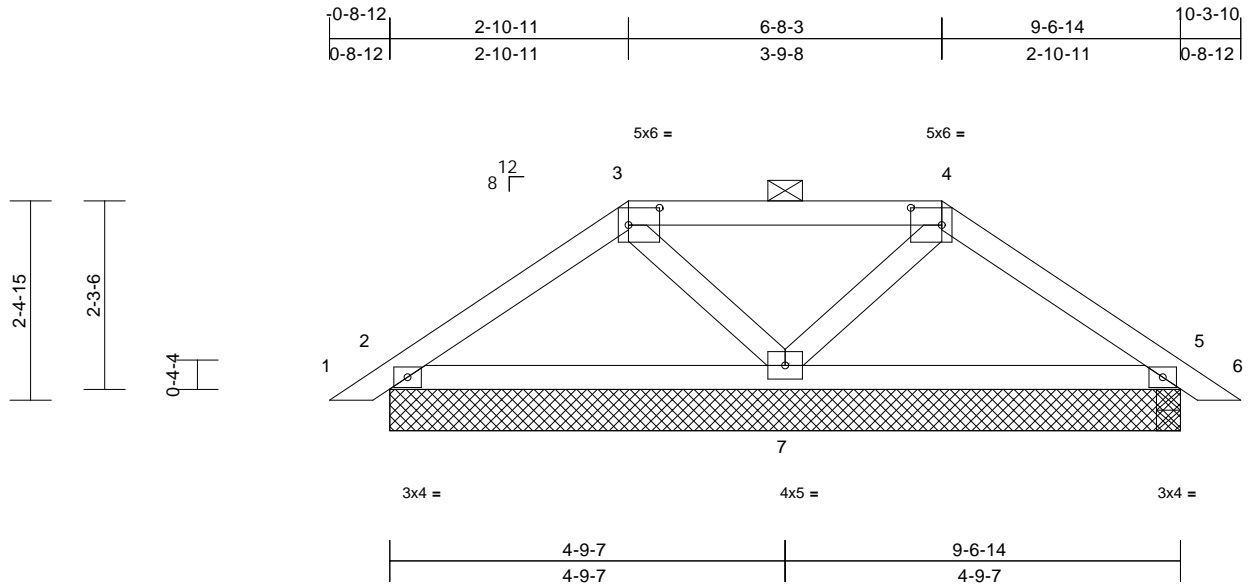
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss CAP1	Truss Type Hip	Qty 1	Ply 1	Job Reference (optional) T20252361
-------------------	---------------	-------------------	----------	----------	---------------------------------------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:45  
ID:7ibmfUf8MKCYq?VgUcdx9zF\_cz-aopvkDhK0nQ1pDYHumnmzNrfwQxMIlY04FoblFzEz4C

Page: 1



Scale = 1:27.9

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.19	Vert(LL)	-0.01	7-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.02	7-14	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 40 lb	FT = 20%

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins: 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

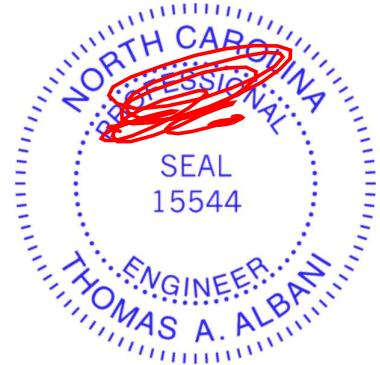
**REACTIONS** (size) 2=9-6-14, 5=0-3-8, 7=9-6-14, 8=9-6-14  
Max Horiz 2=-44 (LC 8), 8=-44 (LC 8)  
Max Uplift 2=-16 (LC 10), 5=-21 (LC 11), 8=-16 (LC 10)  
Max Grav 2=209 (LC 21), 5=209 (LC 22), 7=412 (LC 1), 8=209 (LC 21)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/16, 2-3=-141/56, 3-4=-13/48, 4-5=-141/56, 5-6=0/16  
BOT CHORD 2-7=-24/102, 5-7=0/102  
WEBS 3-7=-204/68, 4-7=-204/68

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) \* 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 2, 21 lb uplift at joint 5 and 16 lb uplift at joint 2.
- 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.
- 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 19, 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.



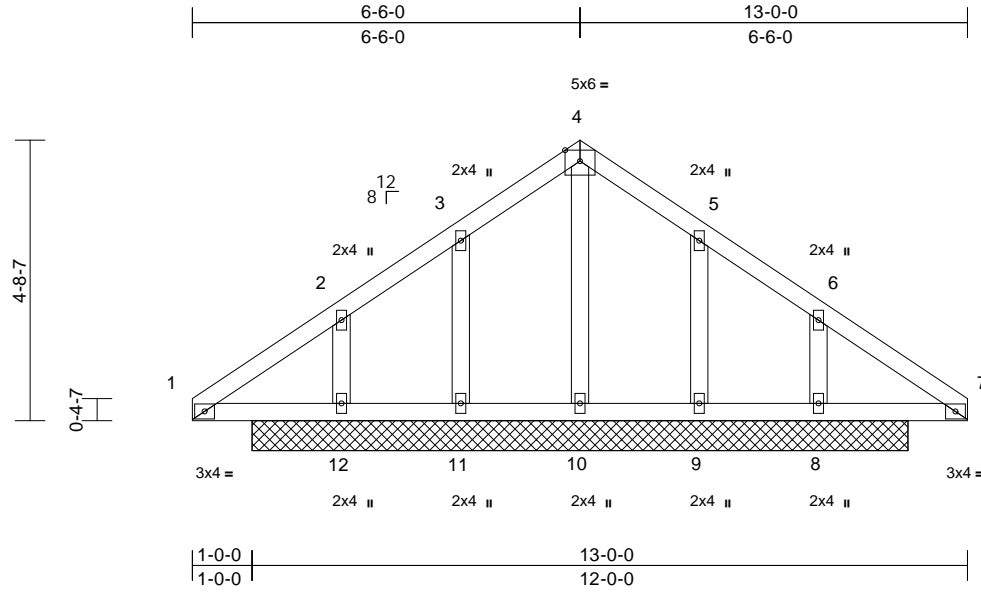
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss DG	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional) T20252362
-------------------	-------------	--------------------------------------	----------	----------	---------------------------------------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:46  
ID:hIQMPWxOY93vuFd23mMC18zF\_ZG-2?NlyYiyn5ZuQN7USTIClBqDple1B?Alv88rhzEz4B

Page: 1



Scale = 1:38.6

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	0.15	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	0.10	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 62 lb	FT = 20%

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

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

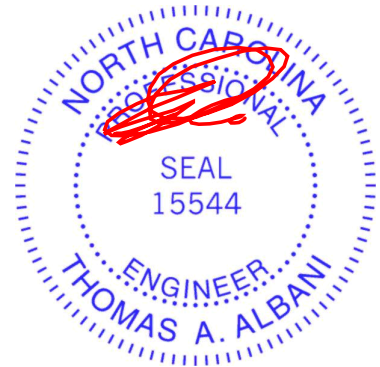
**REACTIONS** (size) 8=11-0-0, 9=11-0-0, 10=11-0-0, 11=11-0-0, 12=11-0-0  
Max Horiz 12=84 (LC 7)  
Max Uplift 8=26 (LC 11), 9=57 (LC 11), 11=58 (LC 10), 12=26 (LC 11)  
Max Grav 8=275 (LC 22), 9=167 (LC 18), 10=303 (LC 1), 11=168 (LC 17), 12=275 (LC 21)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-24/183, 2-3=0/161, 3-4=0/165, 4-5=0/164, 5-6=0/160, 6-7=-24/182  
BOT CHORD 1-12=-129/45, 11-12=-129/44, 10-11=-129/44, 9-10=-129/44, 8-9=-129/44, 7-8=-129/44  
WEBS 4-10=-254/0, 3-11=-133/72, 2-12=-170/69, 5-9=-132/72, 6-8=-170/69

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

- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 11, 26 lb uplift at joint 12, 57 lb uplift at joint 9 and 26 lb uplift at joint 8.
- Non Standard bearing condition. Review required.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 19, 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.



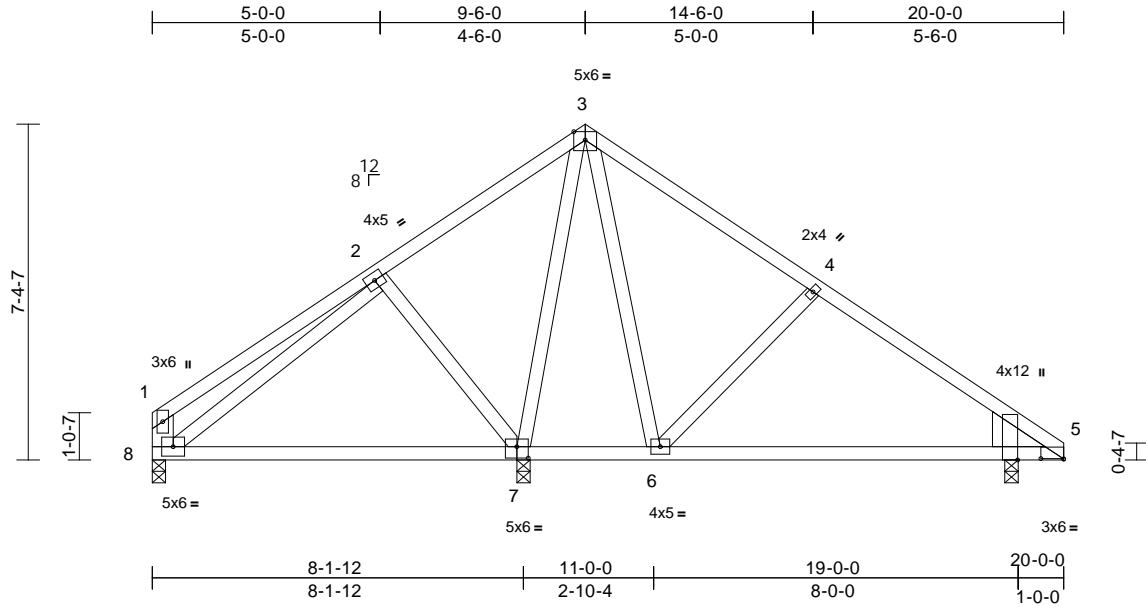
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss E	Truss Type Roof Special	Qty 5	Ply 1	Job Reference (optional)	T20252363
-------------------	------------	----------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Tue May 19 10:27:46  
ID:mQ99NPBAzRfQgvs8OFoZPjzF\_Vr-2?NlyYiyn5ZuQN7USTICibOovpCT15XAlv88rhzEz4B

Page: 1



Scale = 1:50.6

Plate Offsets (X, Y): [5:0-6-0,0-0-2], [5:0-0-4,Edge], [7:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.30	Vert(LL)	-0.09	7-8	>998	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.19	7-8	>503	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 116 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 8-1:2x6 SP No.2  
WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS

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

**REACTIONS** (size) 5=0-3-8, 7=0-3-8, 8=0-3-8  
Max Horiz 8=-145 (LC 8)  
Max Uplift 5=-12 (LC 11), 7=-72 (LC 10)  
Max Grav 5=506 (LC 1), 7=789 (LC 1), 8=330 (LC 21)

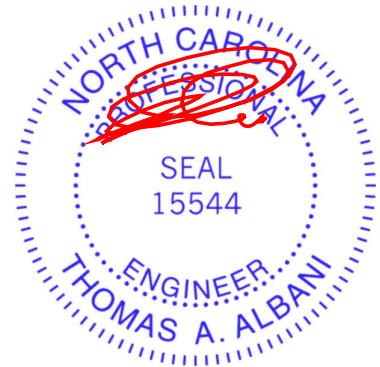
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-222/58, 2-3=-170/112, 3-4=-276/63, 4-5=-423/51, 1-8=-209/56  
BOT CHORD 7-8=-35/194, 6-7=0/145, 5-6=0/309  
WEBS 3-7=-470/61, 2-7=-276/147, 3-6=-41/282, 4-6=-269/134, 2-8=-81/58

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 7 and 12 lb uplift at joint 5.
- 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



May 19, 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.



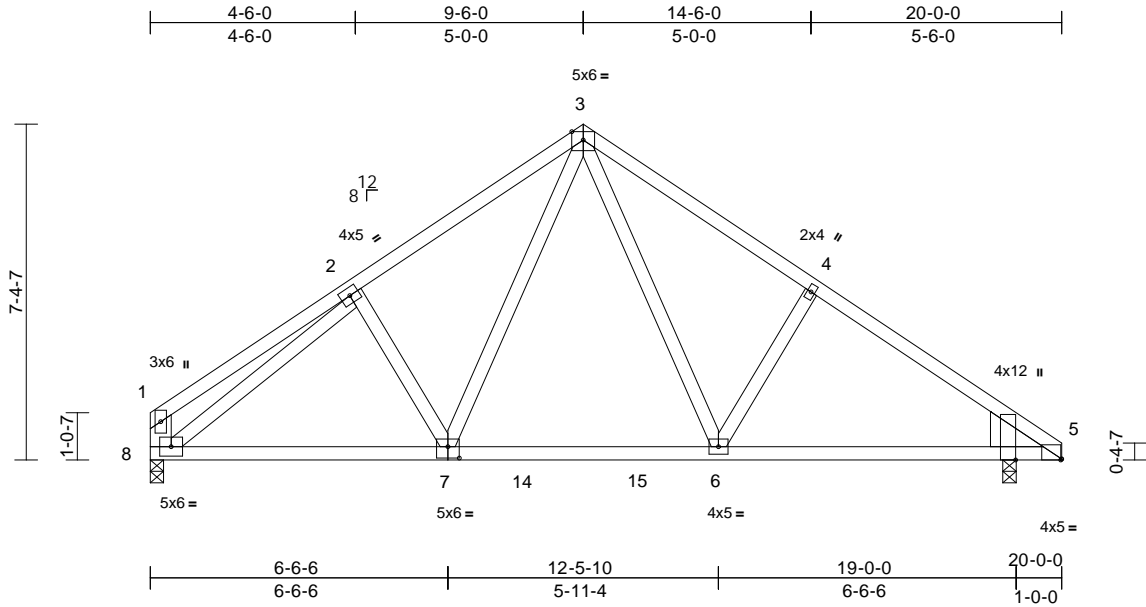
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss E1	Truss Type Roof Special	Qty 3	Ply 1	Job Reference (optional)	T20252364
-------------------	-------------	----------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:46  
ID:4gmpUICi9XynGVmJ26WuzF\_Tt-2?NlyYiyn5ZuQN7USTICibOlVpBB15YAlv88rhzEz4B

Page: 1



Scale = 1:50.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.08	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.12	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.02	5	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
- WEBS 2x4 SP No.3 \*Except\* 8-1:2x6 SP No.2
- WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS

**BRACING**

- TOP CHORD Structural wood sheathing directly applied or 5-5-5 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

- (size) 5=0-3-8, 8=0-3-8
- Max Horiz 8=-145 (LC 8)
- Max Uplift 5=-18 (LC 11), 8=-11 (LC 10)
- Max Grav 5=833 (LC 1), 8=749 (LC 1)

**FORCES**

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=-191/60, 2-3=-828/139, 3-4=-808/140, 4-5=-924/98, 1-8=-180/51
- BOT CHORD 7-8=-58/754, 7-14=0/532, 14-15=0/532, 6-15=0/532, 5-6=-8/697
- WEBS 3-7=-47/353, 2-7=-177/142, 3-6=-55/326, 4-6=-207/137, 2-8=-775/39

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 11 lb uplift at joint 8 and 18 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.

**LOAD CASE(S)** Standard



May 19, 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

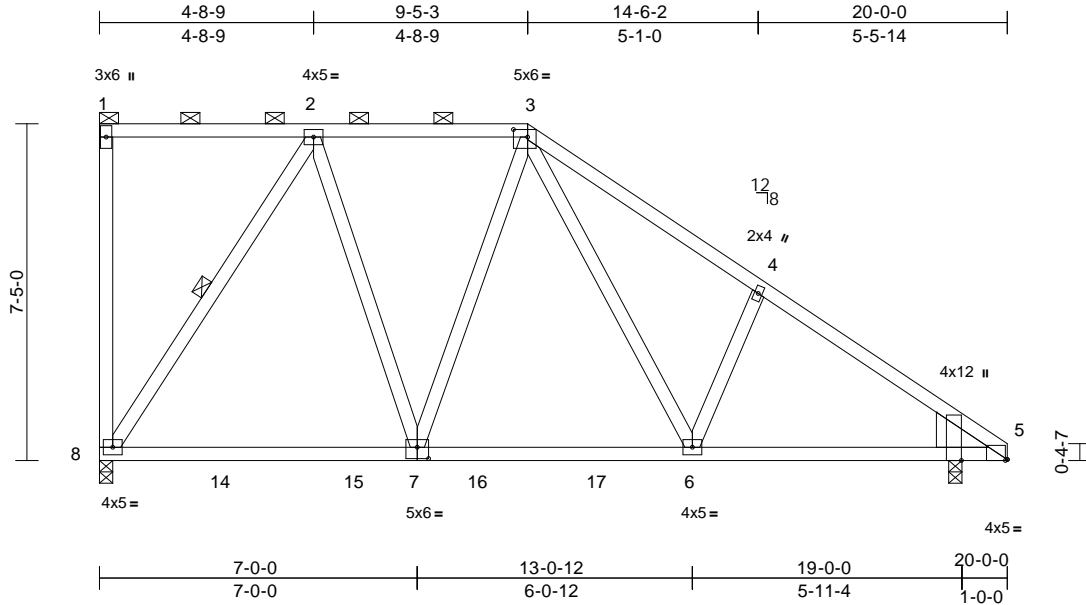


Job 20-045195T	Truss E2	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)	T20252365
-------------------	-------------	----------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:46  
ID:RO\_ntj40rFU6bQLjYkiypzF\_1\_-2?NlyYiyn5ZuQN7USTICl6OIWpBz19sAlv88rhzEz4B

Page: 1



Scale = 1:50.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.07	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.14	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 128 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 2-8:2x4 SP No.2  
WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-5-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 2-8

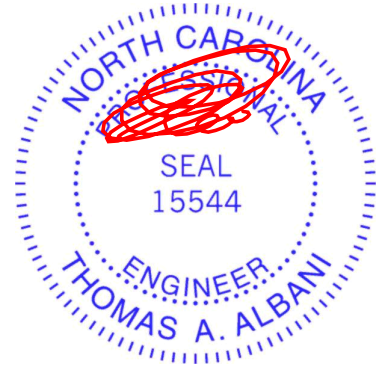
**REACTIONS** (size) 5=0-3-8, 8=0-3-8  
Max Horiz 8=-210 (LC 8)  
Max Uplift 5=-15 (LC 11), 8=-67 (LC 6)  
Max Grav 5=836 (LC 1), 8=766 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-8=-113/49, 1-2=-91/93, 2-3=-491/122, 3-4=-841/158, 4-5=-930/98  
BOT CHORD 8-14=-44/431, 14-15=-44/431, 7-15=-44/431, 7-16=0/528, 16-17=0/528, 6-17=0/528, 5-6=-9/703  
WEBS 3-7=-116/83, 3-6=-78/327, 4-6=-212/145, 2-7=0/390, 2-8=-698/86

- NOTES**
- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - 2) Provide adequate drainage to prevent water ponding.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 8 and 15 lb uplift at joint 5.
- 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.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 19, 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.



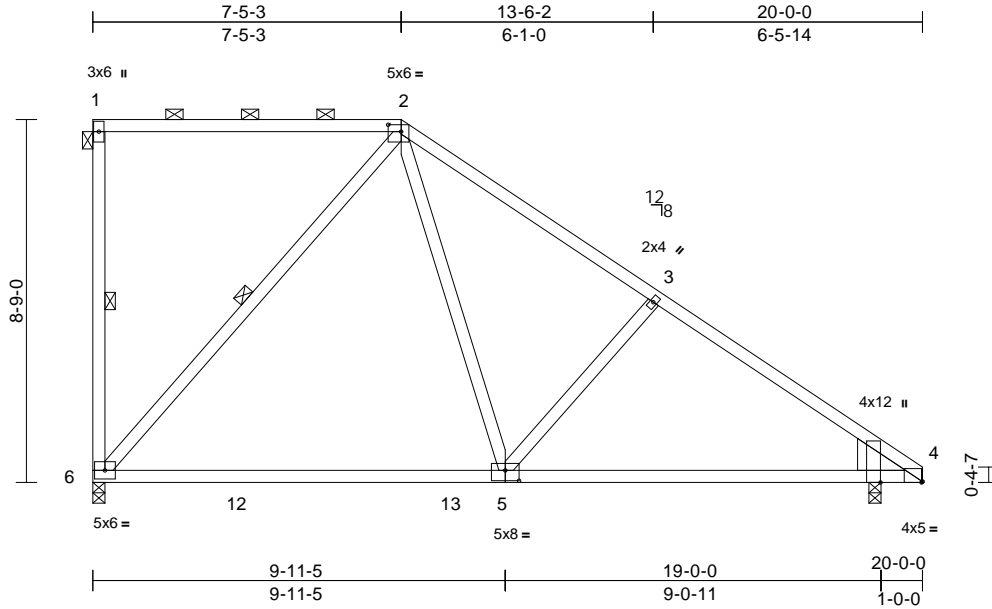
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss E3	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)	T20252366
-------------------	-------------	----------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:47  
ID:2duxy8f7Y?Xnso0xPdbvwwZ\_F0E-WBxg9ujbYPhl2Whg0BpRrorx?DTWmaMJXYthN8zEz4A

Page: 1



Scale = 1:55.5

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

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	0.79	Vert(LL)	-0.43	5-6	>552	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.68	5-6	>352	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 117 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS \*Except\* 5-4:2x4 SP No.2
- WEBS 2x4 SP No.2 \*Except\* 5-3:2x4 SP No.3
- WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 5-4-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- WEBS 1 Row at midpt 1-6, 2-6
- REACTIONS** (size) 4=0-3-8, 6=0-3-8
- Max Horiz 6=-249 (LC 8)
- Max Uplift 4=-17 (LC 11), 6=-69 (LC 6)
- Max Grav 4=836 (LC 1), 6=764 (LC 2)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-6=-209/74, 1-2=-113/111, 2-3=-737/132, 3-4=-921/107
- BOT CHORD 6-12=0/454, 12-13=0/454, 5-13=0/454, 4-5=-4/691
- WEBS 2-6=617/75, 2-5=-13/538, 3-5=-270/171

- 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 69 lb uplift at joint 6 and 17 lb uplift at joint 4.
- 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.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



May 19,2020

**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

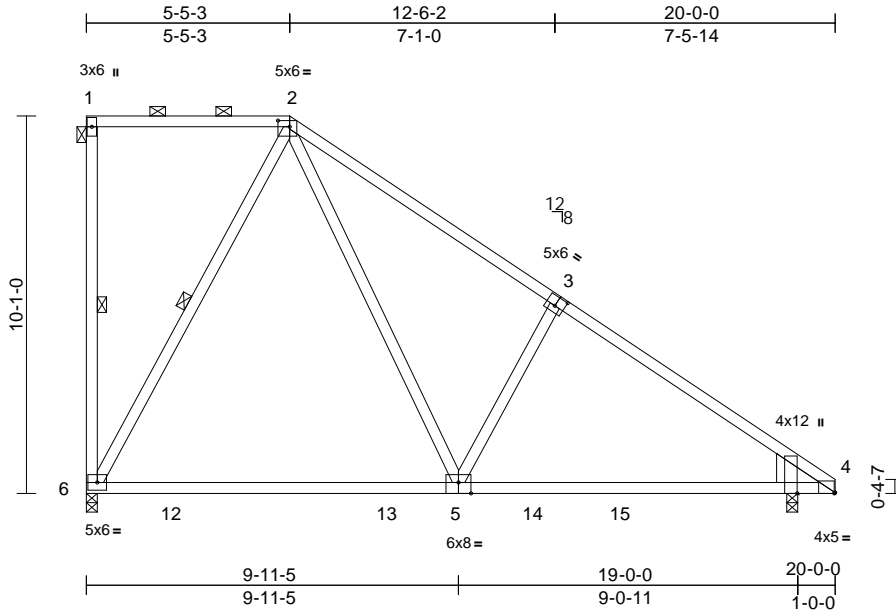
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss E4	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional) T20252367
-------------------	-------------	----------------------------	----------	----------	---------------------------------------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:47  
ID:smFCCBku8rIrajT5IuiM8BzF\_08-WBxg9ujbYPhI2Whg0BpRroxuhDRema2JXYthN8zEz4A

Page: 1



Scale = 1:61.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.62	Vert(LL)	-0.44	5-6	>537	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.70	5-6	>342	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 122 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS \*Except\* 5-4:2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 5-3:2x4 SP No.3  
WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-8-7 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 1-6, 2-6

**REACTIONS** (size) 4=0-3-8, 6=0-3-8  
Max Horiz 6=-289 (LC 8)  
Max Uplift 4=-16 (LC 11), 6=-70 (LC 6)  
Max Grav 4=859 (LC 18), 6=807 (LC 18)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-6=-140/64, 1-2=-125/128, 2-3=-818/169, 3-4=-946/103  
BOT CHORD 6-12=-17/377, 12-13=-17/377, 5-13=-17/377, 5-14=0/731, 14-15=0/731, 4-15=0/731  
WEBS 2-6=-658/95, 2-5=-74/739, 3-5=-356/203

- \* 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 70 lb uplift at joint 6 and 16 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- NOTES**
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



May 19, 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.



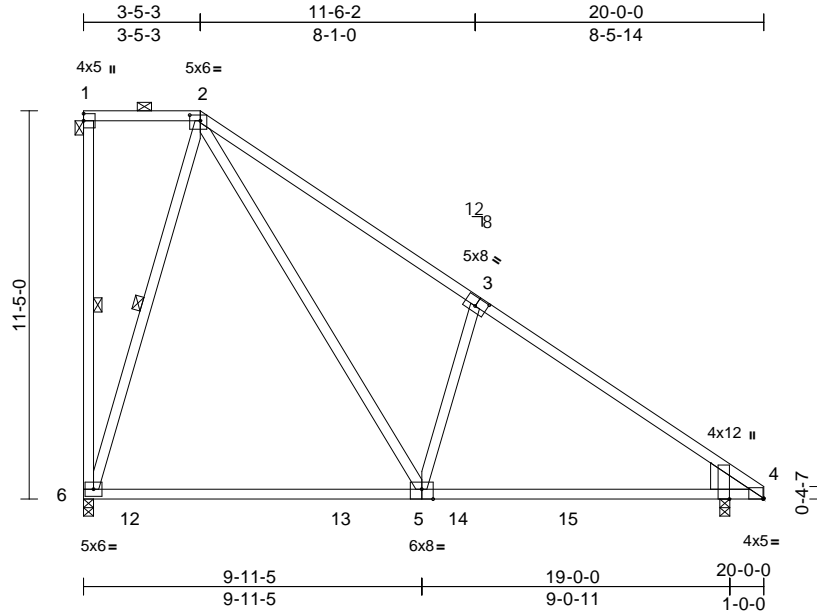
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss E5	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)	T20252368
-------------------	-------------	----------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:47  
ID:e7JVbMSvEzjZ9nURinFC1ezF\_?D-WBxg9ujbYPhl2Whg0BpRroxrDR0mZsJXYthN8zEz4A

Page: 1



Scale = 1:67.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.80	Vert(LL)	-0.46	5-6	>522	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.71	5-6	>335	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 129 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS \*Except\* 5-4:2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 5-3:2x4 SP No.3  
 WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 1-6, 2-6

**REACTIONS**

(size) 4=0-3-8, 6=0-3-8  
 Max Horiz 6=-328 (LC 8)  
 Max Uplift 4=-11 (LC 11), 6=-72 (LC 6)  
 Max Grav 4=874 (LC 18), 6=881 (LC 18)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-6=-73/70, 1-2=-140/147, 2-3=-890/219, 3-4=-984/98  
 BOT CHORD 6-12=-49/303, 12-13=-49/303, 5-13=-49/303, 5-14=0/759, 14-15=0/759, 4-15=0/759  
 WEBS 2-6=-729/127, 3-5=-443/244, 2-5=-149/932

**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 6 and 11 lb uplift at joint 4.
- 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.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 19, 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.



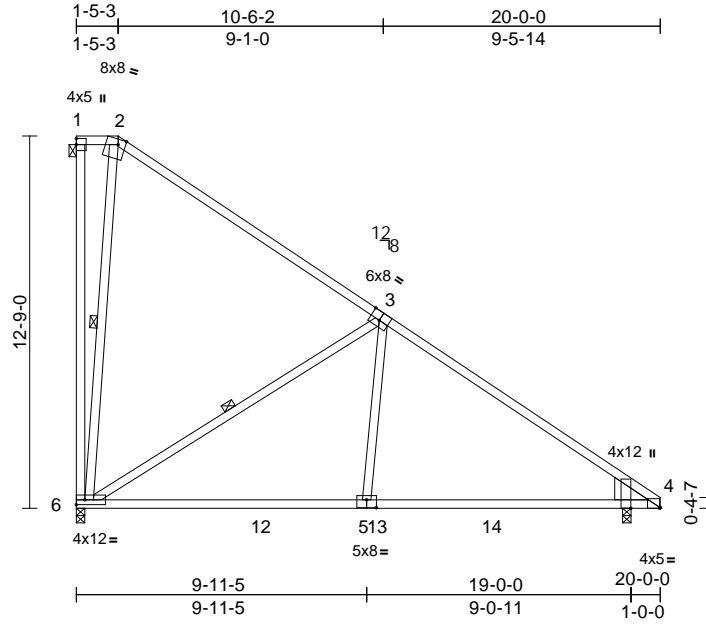
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss E6	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional) T20252369
-------------------	-------------	----------------------------	----------	----------	---------------------------------------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:48  
ID:mii7b3Qj9sw4NEA?yHCBqjzEzzy\_NV2NEjDjpcggGsZuKgNOT\_kdmvUztTmCdFvazEz49

Page: 1



Scale = 1:78.9

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

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	0.92	Vert(LL)	-0.25	5-6	>958	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.50	5-6	>475	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 132 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2 \*Except\* 2-3:2x4 SP 1650F  
1.5E or 2x4 SP No.1 or 2x4 SP SS
- BOT CHORD 2x4 SP No.2
- WEBS 2x4 SP No.2 \*Except\* 6-1:2x4 SP 2400F  
2.0E or 2x4 SP DSS or 2x4 SP M 31, 5-3:2x4 SP No.3
- WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- WEBS 1 Row at midpt 2-6, 3-6
- REACTIONS** (size) 4=0-3-8, 6=0-3-8  
Max Horiz 6=-367 (LC 8)  
Max Uplift 4=-1 (LC 11), 6=-106 (LC 11)  
Max Grav 4=881 (LC 18), 6=862 (LC 18)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-6=-124/160, 1-2=-160/168, 2-3=-301/128, 3-4=-1012/92
- BOT CHORD 6-12=0/808, 5-12=0/808, 5-13=0/776, 13-14=0/776, 4-14=0/776
- WEBS 2-6=-446/218, 3-6=-918/193, 3-5=0/459

- 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 106 lb uplift at joint 6 and 1 lb uplift at joint 4.
- 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.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



May 19, 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

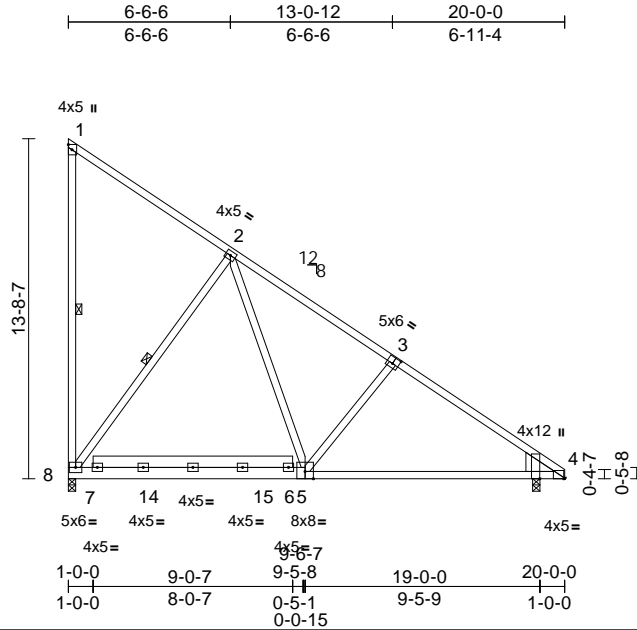


Job 20-045195T	Truss E7	Truss Type Roof Special	Qty 2	Ply 1	Job Reference (optional) T20252370
-------------------	-------------	----------------------------	----------	----------	---------------------------------------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:48  
ID:EisnVr3KwrUhdD9??C8OwhzEzz8-\_NV2NEJDIjpcggGsZuKgN0T4GdqfU18TmCdFvazEz49

Page: 1



Scale = 1:92.8

Plate Offsets (X, Y): [3:0-3-0,0-3-0], [4:0-0-8,Edge], [4:0-0-4,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	0.56	Vert(LL)	-0.10	5-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.19	5-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 154 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x6 SP No.2 \*Except\* 5-4:2x4 SP No.2
- WEBS 2x4 SP No.2 \*Except\* 8-1:2x4 SP 2400F
- 2.0E or 2x4 SP DSS or 2x4 SP M 31, 3-5:2x4 SP No.3
- WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 5-8-13 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- WEBS 1 Row at midpt 1-8, 2-8
- REACTIONS** (size) 4=0-3-8, 8=0-3-8
- Max Horiz 8=-390 (LC 6)
- Max Uplift 8=-130 (LC 11)
- Max Grav 4=836 (LC 1), 8=896 (LC 18)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-8=-175/72, 1-2=-233/142, 2-3=-772/128, 3-4=-932/95
- BOT CHORD 7-8=-1/479, 7-14=-1/479, 14-15=-1/479, 6-15=-1/479, 5-6=-10/441, 4-5=0/722
- WEBS 2-8=-703/195, 2-5=-36/519, 3-5=-290/168

- 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, with BCDL = 10.0psf.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 8.
- 5) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



May 19,2020

**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.



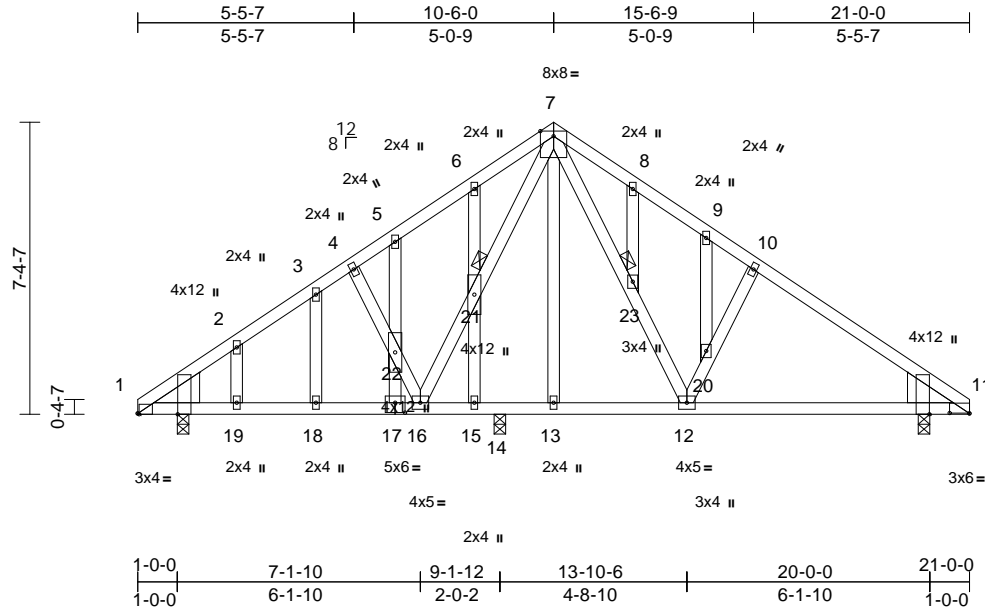
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss EG	Truss Type Common Structural Gable	Qty 1	Ply 1	Job Reference (optional)	T20252371
-------------------	-------------	---------------------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Tue May 19 10:27:48  
ID:vjrai4GU3mPtSB3\_fQP3JzEzwl-\_NV2NEjDjpcggGsZuKgn0T8qdtZU1GTmCdFvazEz49

Page: 1



Scale = 1:58.2

Plate Offsets (X, Y): [1:0-0-7,Edge], [1:0-0-4,Edge], [11:0-6-0,0-0-2], [11:0-0-4,Edge], [17:0-3-0,0-3-0]

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	0.27	Vert(LL)	-0.02	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.04	12-33	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 151 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3  
WEDGE Left: 2x10 SP 2250F 1.9E or DSS or SS  
Right: 2x10 SP 2250F 1.9E or DSS or SS

**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.  
JOINTS 1 Brace at Jt(s): 21, 23

**REACTIONS** (size) 1=0-3-8, 11=0-3-8, 14=0-3-8  
Max Horiz 1=134 (LC 7)  
Max Uplift 1=-19 (LC 10), 11=-36 (LC 11)  
Max Grav 1=547 (LC 1), 11=620 (LC 1), 14=512 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-465/40, 2-3=-467/76, 3-4=-386/93, 4-5=-374/106, 5-6=-329/136, 6-7=-402/175, 7-8=-464/160, 8-9=-500/139, 9-10=-466/103, 10-11=-596/89  
BOT CHORD 1-19=-93/387, 18-19=-47/387, 17-18=-47/387, 16-17=-47/387, 15-16=0/220, 14-15=0/220, 13-14=0/220, 12-13=0/217, 11-12=0/431  
WEBS 4-22=-216/81, 16-22=-269/90, 16-21=-102/191, 7-21=-110/174, 7-23=-89/394, 12-23=-76/379, 12-20=-239/131, 10-20=-118/87, 9-20=-137/49, 7-13=-161/20, 6-21=-210/55, 15-21=-245/45, 5-22=0/85, 17-22=0/128, 3-18=0/68, 2-19=-64/48, 8-23=-18/14

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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 19 lb uplift at joint 1 and 36 lb uplift at joint 11.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 19, 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.



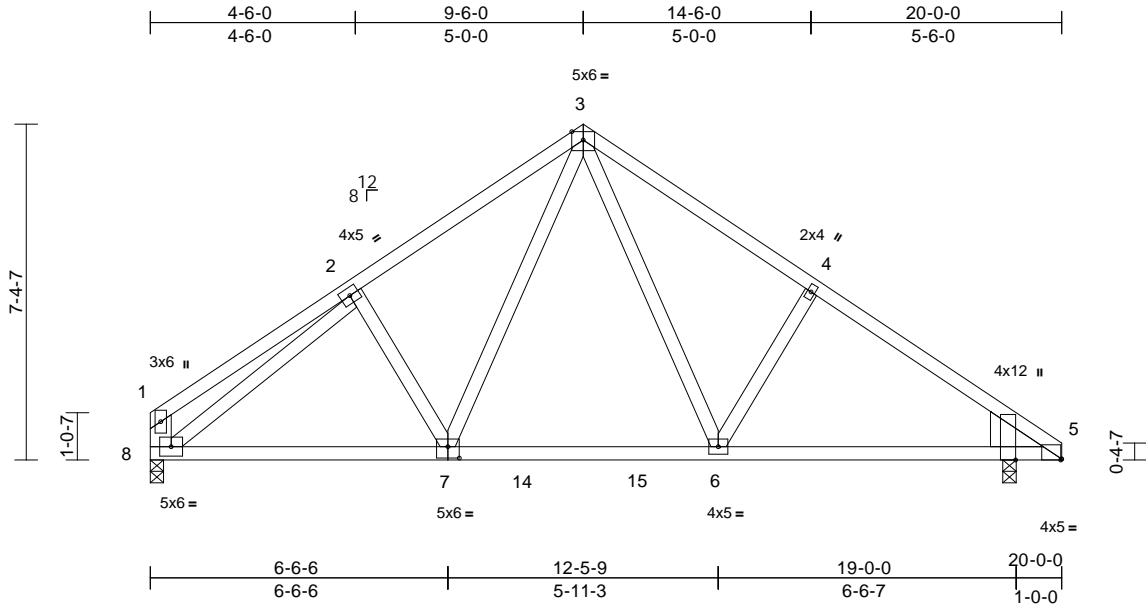
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss F	Truss Type Common	Qty 3	Ply 1	Job Reference (optional)	T20252372
-------------------	------------	----------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:49  
ID:a6hqVQEgDLUW2UBMLErQYxzEzv2-Ta3Qaakr40xSlqr27bsvwD0G11CuDSHc?sMoR0zEz48

Page: 1



Scale = 1:50.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.08	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.12	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.02	5	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
- WEBS 2x4 SP No.3 \*Except\* 8-1:2x6 SP No.2
- WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS

**BRACING**

- TOP CHORD Structural wood sheathing directly applied or 5-5-5 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

- (size) 5=0-3-8, 8=0-3-8
- Max Horiz 8=-145 (LC 8)
- Max Uplift 5=-18 (LC 11), 8=-11 (LC 10)
- Max Grav 5=833 (LC 1), 8=749 (LC 1)

**FORCES**

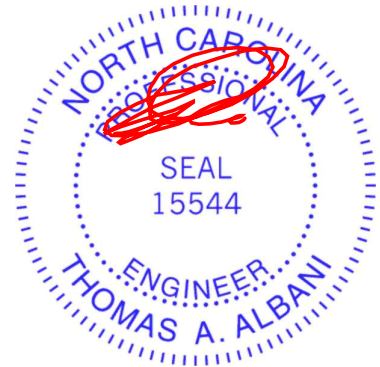
- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=-191/60, 2-3=-828/139, 3-4=-808/140, 4-5=-924/98, 1-8=-180/51
- BOT CHORD 7-8=-58/754, 7-14=0/532, 14-15=0/532, 6-15=0/532, 5-6=-8/697
- WEBS 3-7=-47/353, 2-7=-177/142, 3-6=-55/326, 4-6=-207/137, 2-8=-774/39

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 11 lb uplift at joint 8 and 18 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.

**LOAD CASE(S)** Standard



May 19, 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.



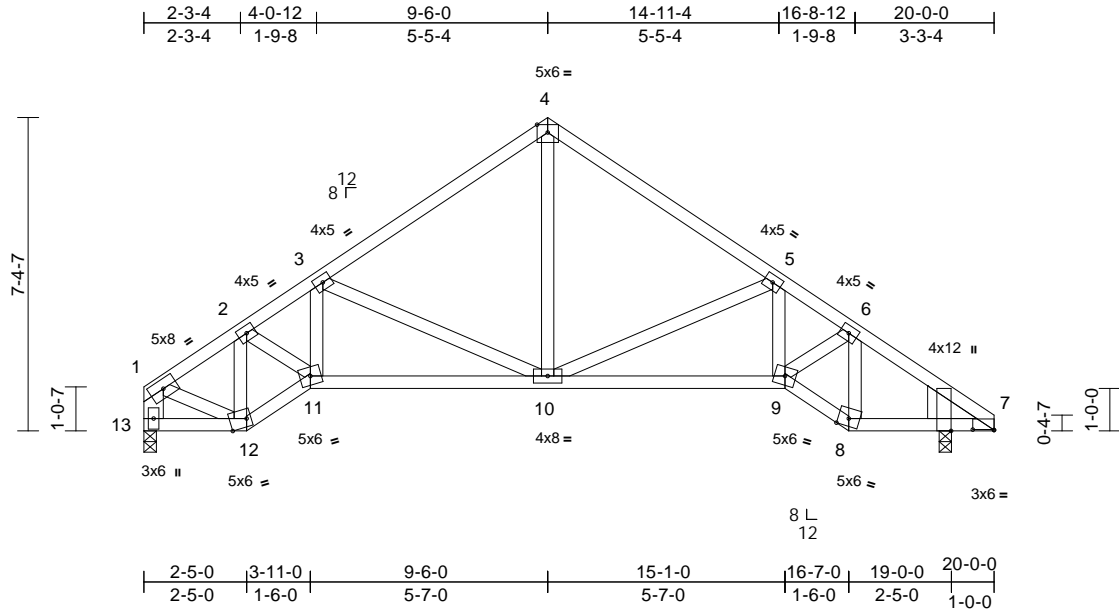
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss F1	Truss Type Roof Special	Qty 5	Ply 1	Job Reference (optional)	T20252373
-------------------	-------------	----------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:49  
ID:LBDiJok0KFnZ5xOQp2bgFozEzuO-Ta3Qaakr40xSlqr27bsvwD0l31EaDVKc?sMoR0zEz48

Page: 1



Scale = 1:54.2

Plate Offsets (X, Y): [7:0-6-0,0-0-2], [7:0-0-4,Edge], [12:0-4-12,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	0.37	Vert(LL)	-0.04	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.09	9-10	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 119 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 13-1:2x6 SP No.2  
WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-11-14 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

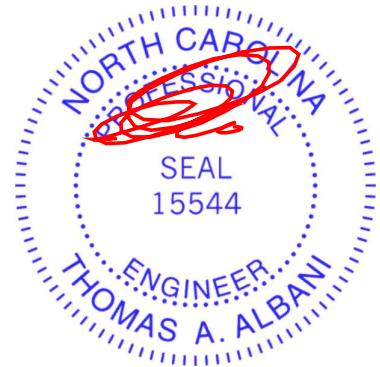
**REACTIONS** (size) 7=0-3-8, 13=0-3-8  
Max Horiz 13=-145 (LC 8)  
Max Uplift 7=-18 (LC 11), 13=-11 (LC 10)  
Max Grav 7=833 (LC 1), 13=749 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-786/63, 2-3=-1187/88, 3-4=-822/100,  
4-5=-823/100, 5-6=-1206/90, 6-7=-837/70,  
1-13=-719/57  
BOT CHORD 12-13=-120/167, 11-12=-61/738,  
10-11=-79/1018, 9-10=-13/1030, 8-9=-5/714,  
7-8=-4/605  
WEBS 2-12=-582/41, 2-11=-32/534, 3-11=0/202,  
3-10=-465/138, 4-10=-7/511, 5-10=-472/118,  
5-9=0/201, 6-9=-7/579, 6-8=-466/8,  
1-12=-7/599

- \* 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 13 and 18 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=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



May 19, 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.



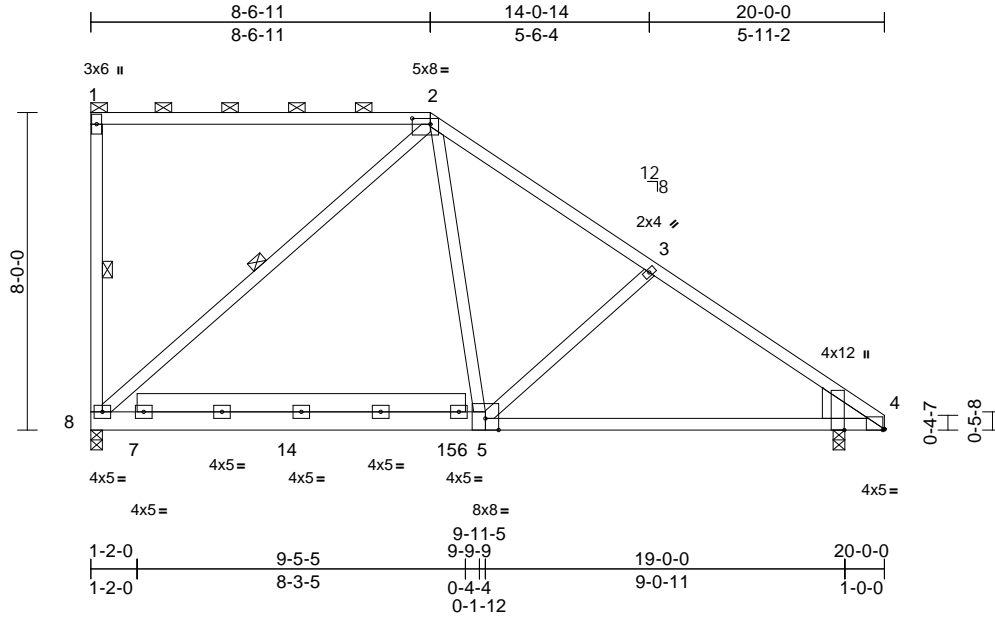
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss F2	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)	T20252374
-------------------	-------------	----------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:50  
 ID:98FGLnyJNAdBrQ?JC8rHMAzEzoy-xmdooITrK3Jv\_QFhJN8TRZMsRX8yxiDW6M\_TzEz47

Page: 1



Scale = 1:58.1

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

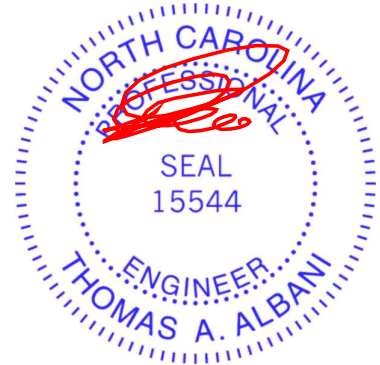
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.81	Vert(LL)	-0.08	5-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.15	5-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 142 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\* 5-4:2x4 SP No.2
- WEBS 2x4 SP No.3 \*Except\* 8-2:2x4 SP No.2
- WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 5-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- WEBS 1 Row at midpt 1-8, 2-8
- REACTIONS** (size) 4=0-3-8, 8=0-3-8
- Max Horiz 8=-226 (LC 6)
- Max Uplift 4=-17 (LC 11), 8=-67 (LC 6)
- Max Grav 4=836 (LC 1), 8=752 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-8=-244/82, 1-2=-97/101, 2-3=-722/120, 3-4=-913/111
- BOT CHORD 7-8=0/486, 7-14=0/486, 14-15=0/486, 6-15=0/486, 5-6=0/451, 4-5=-11/689
- WEBS 2-8=-610/63, 2-5=0/452, 3-5=-246/151

- 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 67 lb uplift at joint 8 and 17 lb uplift at joint 4.
- 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.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



May 19,2020

**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

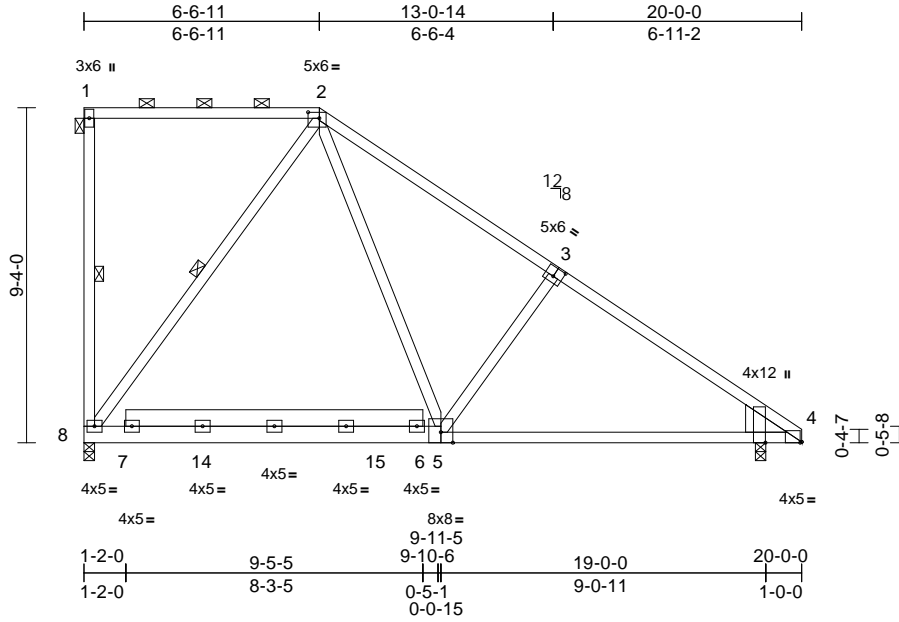


Job 20-045195T	Truss F3	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional) T20252375
-------------------	-------------	----------------------------	----------	----------	---------------------------------------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Tue May 19 10:27:50  
ID:LLW7wovsmRazpZXUKElp3qzEznj-xmdoowITrK3Jv\_QFhJN8TRZPNRX3yxTIDW6M\_TzEz47

Page: 1



Scale = 1:64.2

Plate Offsets (X, Y): [2:0-3-12,0-2-0], [3:0-3-0,0-3-0], [4:0-0-8,Edge], [4:0-0-4,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	0.59	Vert(LL)	-0.08	5-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.15	5-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 146 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\* 5-4:2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 5-3:2x4 SP No.3  
WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**WEBS** 1 Row at midpt 1-8, 2-8

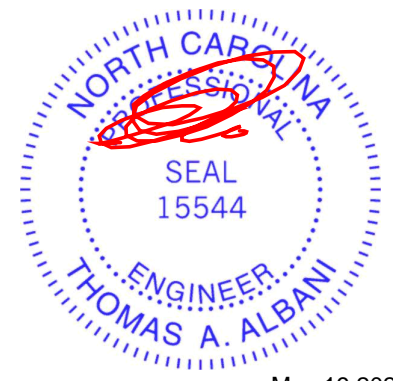
**REACTIONS** (size) 4=0-3-8, 8=0-3-8  
Max Horiz 8=-265 (LC 6)  
Max Uplift 4=-18 (LC 11), 8=-68 (LC 6)  
Max Grav 4=836 (LC 1), 8=760 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-8=-179/68, 1-2=-107/115, 2-3=-726/149, 3-4=-907/107  
BOT CHORD 7-8=-3/391, 7-14=-3/391, 14-15=-3/391, 6-15=-3/391, 5-6=-13/354, 4-5=0/681  
WEBS 2-8=-599/81, 2-5=-43/561, 3-5=-321/182

- \* 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 68 lb uplift at joint 8 and 18 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- NOTES**
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



May 19, 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

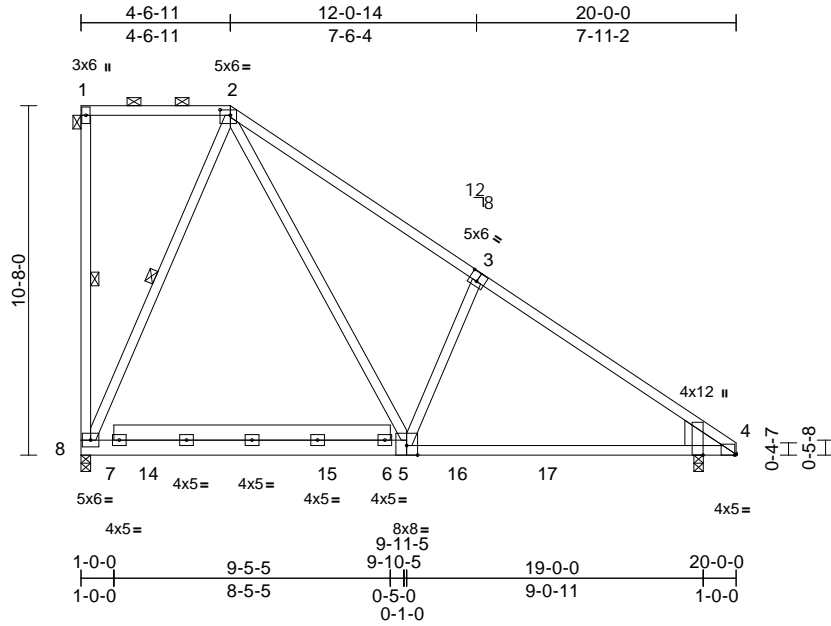
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss F4	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional)	T20252376
-------------------	-------------	----------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:50  
ID:quje\_CyoWsPm8n60MII\_YzzEzmN-xmdoowITrK3Jv\_QFhJN8TRZozRXwyxfIDW6M\_TzEz47

Page: 1



Scale = 1:70.3

Plate Offsets (X, Y): [2:0-3-12,0-2-0], [3:0-3-0,0-3-4], [4:0-0-8,Edge], [4:0-0-4,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	0.68	Vert(LL)	-0.08	5-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.16	5-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 153 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2 \*Except\* 5-4:2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 5-3:2x4 SP No.3  
 WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 1-8, 2-8

**REACTIONS** (size) 4=0-3-8, 8=0-3-8  
 Max Horiz 8=-304 (LC 6)  
 Max Uplift 4=-15 (LC 11), 8=-70 (LC 6)  
 Max Grav 4=864 (LC 18), 8=827 (LC 18)

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

TOP CHORD 1-8=-105/63, 1-2=-121/131, 2-3=-822/191, 3-4=-927/103

BOT CHORD 7-8=-29/328, 7-14=-29/328, 14-15=-29/328, 6-15=-29/328, 5-6=-38/291, 5-16=0/720, 16-17=0/720, 4-17=0/720

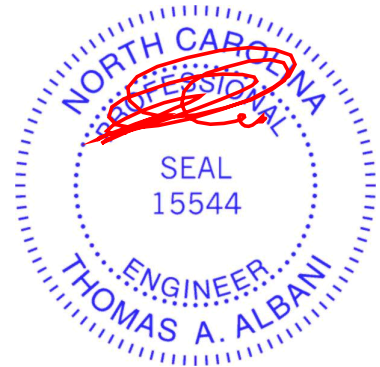
WEBS 2-8=-673/110, 2-5=-112/793, 3-5=-403/218

**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 8 and 15 lb uplift at joint 4.
- 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.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 19,2020

**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

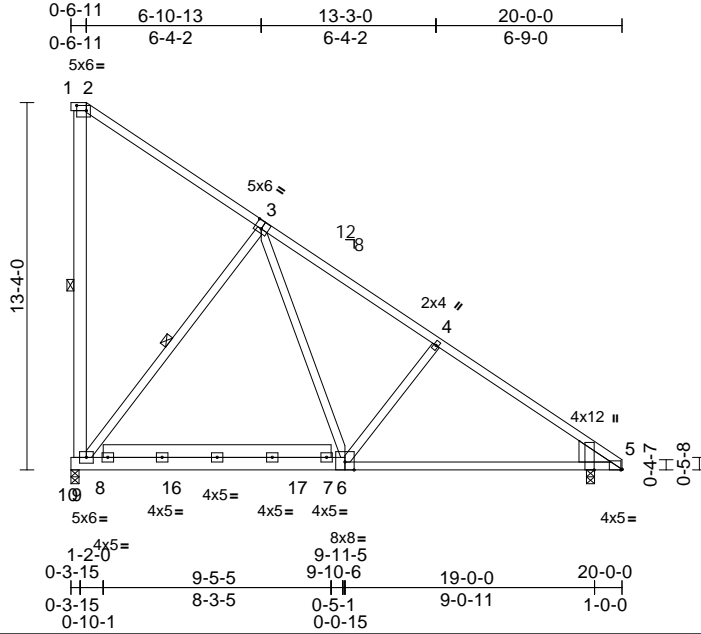


Job 20-045195T	Truss F6	Truss Type Roof Special	Qty 1	Ply 1	Job Reference (optional) T20252378
-------------------	-------------	----------------------------	----------	----------	---------------------------------------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Tue May 19 10:27:51  
ID:1t1NUwbnesGMogVrxRMUJupzEzhQ-PyBA?Gm5cdBAX8?RF0uN?e5a3qtGhO6vSArvWvzEz46

Page: 1



Scale = 1:83.6

Plate Offsets (X, Y): [2:0-4-4,0-2-4], [3:0-3-0,0-3-4], [5:0-0-8,Edge], [5:0-0-4,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	0.59	Vert(LL)	-0.08	6-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.15	6-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 164 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\* 6-5:2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 4-6:2x4 SP No.3, 9-2:2x6 SP No.2  
WEDGE Right: 2x10 SP 2250F 1.9E or DSS or SS

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-9-6 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 1-2.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 3-9, 2-9

**REACTIONS** (size) 5=0-3-8, 9=0-3-8  
Max Horiz 9=-393 (LC 11)  
Max Uplift 9=-186 (LC 11)  
Max Grav 5=829 (LC 1), 9=875 (LC 18)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/0, 2-3=-144/67, 3-4=-718/0, 4-5=-891/0  
BOT CHORD 9-10=0/0, 8-9=0/446, 8-16=0/446, 16-17=0/446, 7-17=0/446, 6-7=0/410, 5-6=0/665  
WEBS 3-9=-693/207, 3-6=-26/504, 4-6=-267/163, 2-9=-183/88

- 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 186 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

**NOTES**

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



May 19, 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.



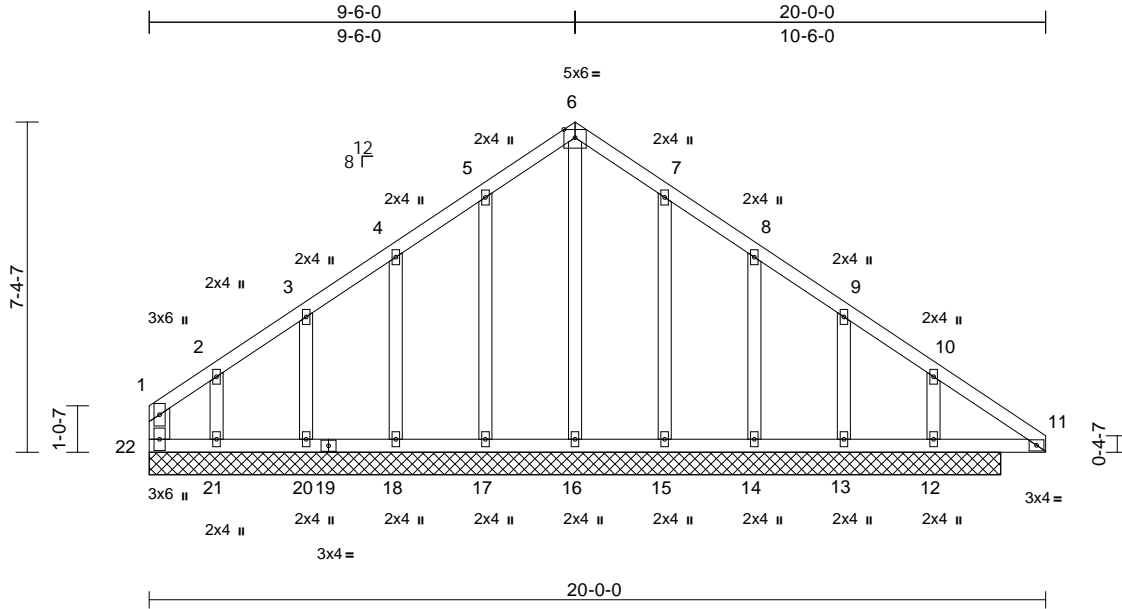
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss FG	Truss Type Common Supported Gable	Qty 1	Ply 1	Job Reference (optional)	T20252379
-------------------	-------------	--------------------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Tue May 19 10:27:52  
 ID:QYSeERvQe1Pz9OjaBd7MUjzEzeh-PyBA?Gm5cdBAX8?RF0uN?e5h\_q?uhQAvSArVwVzEz46

Page: 1



Scale = 1:51.4

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	0.15	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	0.23	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 119 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x6 SP No.2  
 OTHERS 2x4 SP No.3

**WEBS**  
 6-16=-245/0, 5-17=-136/62, 4-18=-121/66,  
 3-20=-121/61, 2-21=-172/82, 7-15=-133/60,  
 8-14=-125/64, 9-13=-106/72, 10-12=-171/59

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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 184 lb uplift at joint 22, 37 lb uplift at joint 17, 43 lb uplift at joint 18, 31 lb uplift at joint 20, 93 lb uplift at joint 21, 37 lb uplift at joint 15, 37 lb uplift at joint 14, 60 lb uplift at joint 13 and 21 lb uplift at joint 12.
- Non Standard bearing condition. Review required.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

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

**REACTIONS** (size)  
 12=19-0-0, 13=19-0-0, 14=19-0-0,  
 15=19-0-0, 16=19-0-0, 17=19-0-0,  
 18=19-0-0, 20=19-0-0, 21=19-0-0,  
 22=19-0-0  
 Max Horiz 22=-145 (LC 8)  
 Max Uplift 12=-21 (LC 11), 13=-60 (LC 11),  
 14=-37 (LC 11), 15=-37 (LC 11),  
 17=-37 (LC 10), 18=-43 (LC 10),  
 20=-31 (LC 10), 21=93 (LC 10),  
 22=-184 (LC 8)  
 Max Grav 12=274 (LC 1), 13=123 (LC 18),  
 14=173 (LC 1), 15=171 (LC 18),  
 16=286 (LC 20), 17=175 (LC 17),  
 18=164 (LC 17), 20=159 (LC 21),  
 21=287 (LC 17), 22=117 (LC 7)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-22=-74/127, 1-2=-103/222, 2-3=-64/182,  
 3-4=-40/177, 4-5=-45/189, 5-6=-84/188,  
 6-7=-84/183, 7-8=-45/165, 8-9=-5/140,  
 9-10=0/123, 10-11=-27/155  
 BOT CHORD 21-22=-103/47, 20-21=-103/47,  
 19-20=-103/47, 18-19=-103/47,  
 17-18=-103/47, 16-17=-103/47,  
 15-16=-103/47, 14-15=-103/47,  
 13-14=-103/47, 12-13=-103/47,  
 11-12=-103/47



May 19, 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

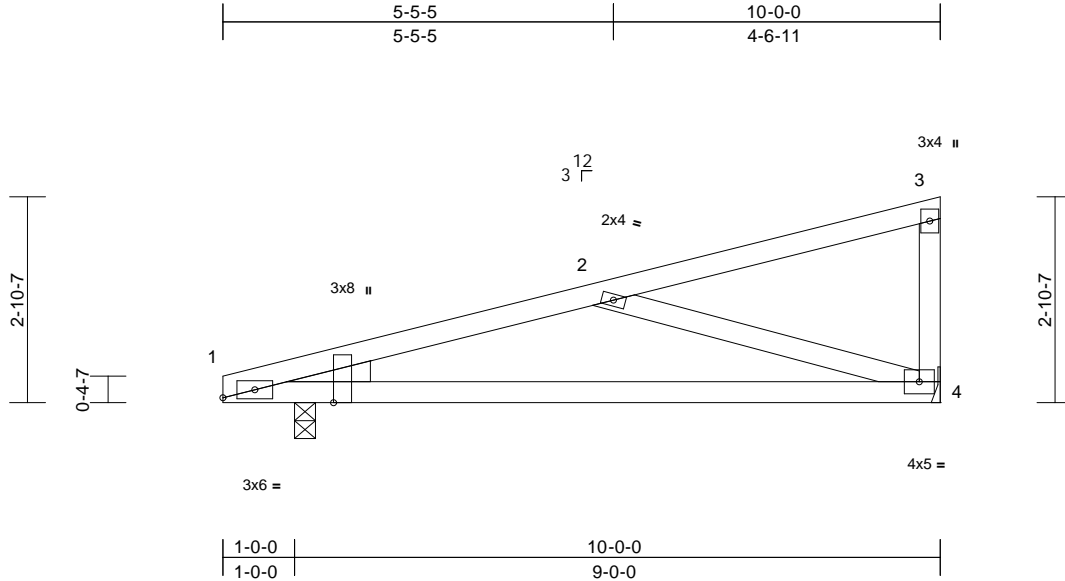


Job 20-045195T	Truss G	Truss Type Jack-Closed	Qty 12	Ply 1	Job Reference (optional)	T20252380
-------------------	------------	---------------------------	-----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:52  
ID:GljJ0h38ADHwzVAkzxJZZmzEzac-t9kZCcnjMxJ19ladokPcYseohEEoQs\_2hqbS2LzEz45

Page: 1



Scale = 1:32.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.41	Vert(LL)	-0.11	4-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.21	4-9	>552	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 42 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.2

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

**BRACING**

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

**REACTIONS** (size) 1=0-3-8, 4= Mechanical  
 Max Horiz 1=80 (LC 9)  
 Max Uplift 1=-29 (LC 6), 4=-33 (LC 10)  
 Max Grav 1=439 (LC 1), 4=350 (LC 1)

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

TOP CHORD 1-2=-614/166, 2-3=-89/20, 3-4=-117/62  
 BOT CHORD 1-4=-141/591  
 WEBS 2-4=-576/185

**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) 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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 4 and 29 lb uplift at joint 1.



May 19,2020

**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.



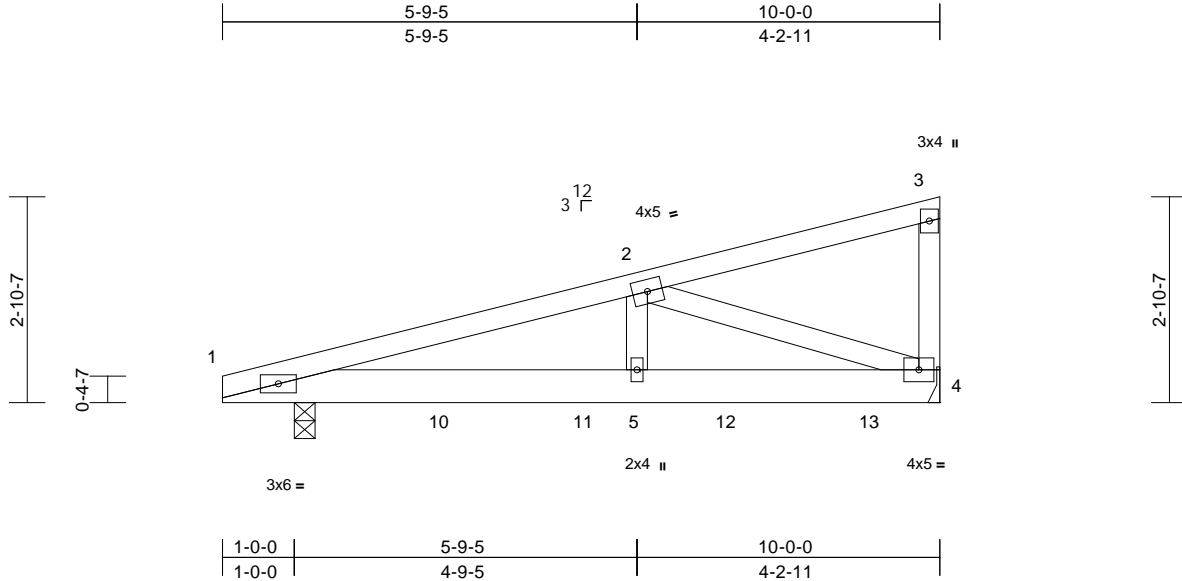
818 Soundside Road  
 Edenton, NC 27932

Job 20-045195T	Truss G1	Truss Type Roof Special Girder	Qty 1	Ply 2	Job Reference (optional)	T20252381
-------------------	-------------	-----------------------------------	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:52  
ID:d\_2deCKx?\_3pctszGZijSPzEzG-t9kZCcnjMxJ19ladokPcYsesSEIJQtr2hqbS2LzEz45

Page: 1



Scale = 1:32.1

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)	-0.02	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.03	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 99 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=0-3-8, 4= Mechanical  
Max Horiz 1=78 (LC 5)  
Max Grav 1=986 (LC 1), 4=1045 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-1741/3, 2-3=-86/6, 3-4=-108/29  
BOT CHORD 1-10=0/1657, 10-11=0/1657, 5-11=0/1657, 5-12=0/1657, 12-13=0/1657, 4-13=0/1657  
WEBS 2-4=-1704/0, 2-5=0/731

**NOTES**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-10; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 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) 310 lb down at 3-0-12, 310 lb down at 5-0-12, and 310 lb down at 7-0-12, and 312 lb down at 9-0-12 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, 1-4=-20  
Concentrated Loads (lb)  
Vert: 10=-310 (F), 11=-310 (F), 12=-310 (F), 13=-312 (F)



May 19, 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.



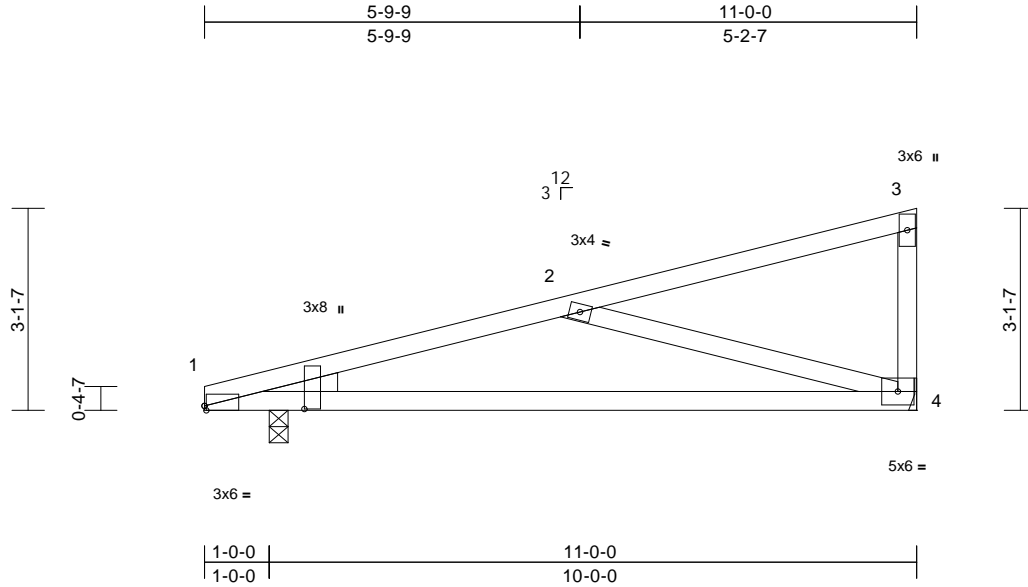
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss H	Truss Type Jack-Closed	Qty 18	Ply 1	Job Reference (optional)	T20252382
-------------------	------------	---------------------------	-----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:52  
ID:OH4ePKLJ?ONKy796mSZu00zEzNK-19kZCcnjMxJ19ladokPcYsemtECWQq22hqbS2LzEz45

Page: 1



Scale = 1:35.6

Plate Offsets (X, Y): [1:0-0-5,Edge], [1:0-0-9,1-6-8]

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	0.52	Vert(LL)	-0.17	4-9	>763	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.34	4-9	>383	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 47 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.2

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

**BRACING**

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

**REACTIONS** (size) 1=0-3-8, 4= Mechanical

Max Horiz 1=88 (LC 9)  
 Max Uplift 1=-32 (LC 6), 4=-37 (LC 10)  
 Max Grav 1=478 (LC 1), 4=390 (LC 1)

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

TOP CHORD 1-2=-721/186, 2-3=-101/21, 3-4=-133/68  
 BOT CHORD 1-4=-159/694  
 WEBS 2-4=-674/207

**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) 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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 4 and 32 lb uplift at joint 1.



May 19, 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.



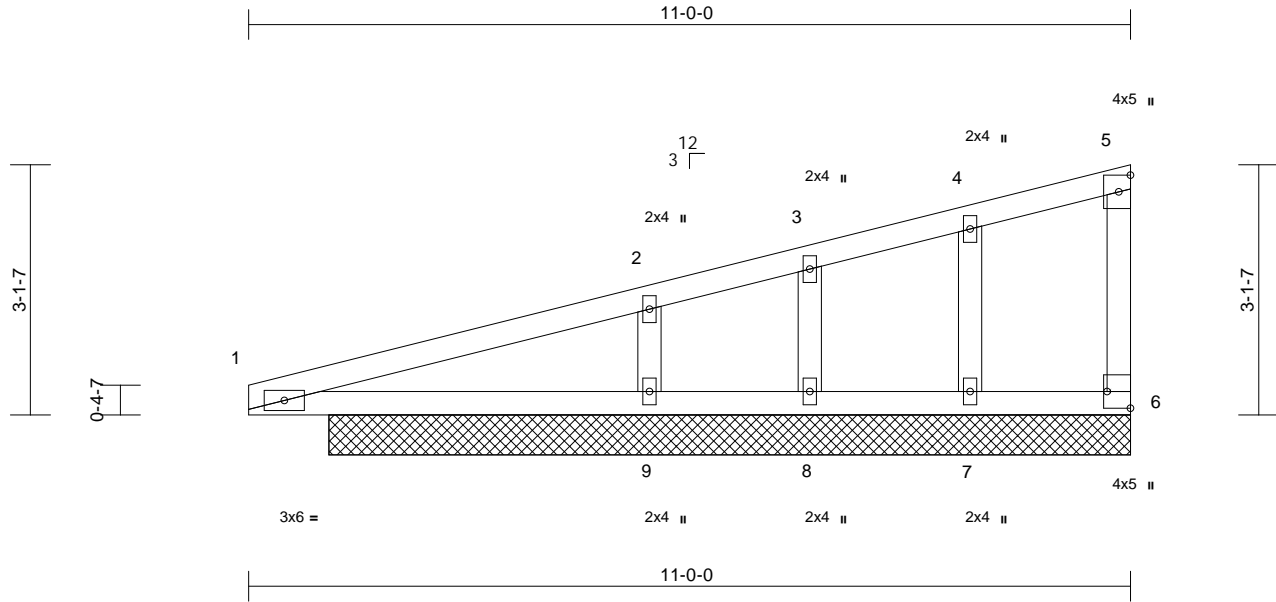
818 Soundside Road  
 Edenton, NC 27932

Job 20-045195T	Truss HG	Truss Type Jack-Closed Supported Gable	Qty 2	Ply 1	Job Reference (optional)	T20252383
-------------------	-------------	---	----------	----------	--------------------------	-----------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:53  
ID:VnMZ8mVTxNOU07fc1hX1zEzN7-LLIxQynL7FRumR9qMRwr43AqoeWM9MdCvUK0bozEz44

Page: 1



Scale = 1:28.7

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

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	0.96	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 44 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 1650F 1.5E or 2x4 SP No.1 or 2x4 SP SS  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(size) 6=10-0-0, 7=10-0-0, 8=10-0-0, 9=10-0-0  
 Max Horiz 9=88 (LC 9)  
 Max Uplift 6=-149 (LC 1), 7=-20 (LC 6), 8=-553 (LC 1), 9=-46 (LC 6)  
 Max Grav 6=0 (LC 6), 7=588 (LC 1), 8=-1 (LC 6), 9=983 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

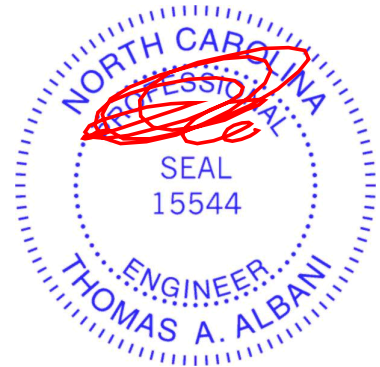
TOP CHORD 1-2=-57/166, 2-3=-33/65, 3-4=-14/149, 4-5=-10/97, 5-6=0/49  
 BOT CHORD 1-9=-110/75, 8-9=-115/50, 7-8=-115/50, 6-7=-115/50  
 WEBS 4-7=-326/77, 3-8=0/224, 2-9=-537/139

**NOTES**

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable studs spaced at 2-0-0 oc.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 149 lb uplift at joint 6, 20 lb uplift at joint 7, 553 lb uplift at joint 8 and 46 lb uplift at joint 9.
- 7) Non Standard bearing condition. Review required.
- 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



May 19, 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.



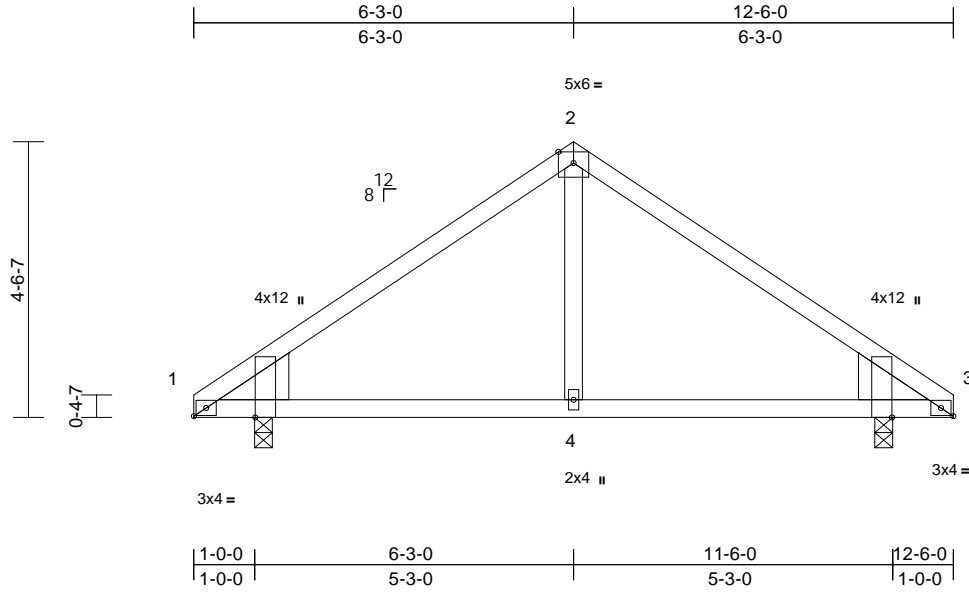
818 Soundside Road  
Edenton, NC 27932

Job 20-045195T	Truss I	Truss Type Common	Qty 10	Ply 1	Job Reference (optional) T20252384
-------------------	------------	----------------------	-----------	----------	---------------------------------------

BMC (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Tue May 19 10:27:53  
ID:PNGq5J\_JFEZrnOBdPSLRgzEzJV-LLlxQynL7FRumR9qMRwr43A?fef49M8CvUK0bozEz44

Page: 1



Scale = 1:37.9

Plate Offsets (X, Y): [1:0-0-7,0-0-2], [1:0-0-4,Edge], [3:0-0-7,0-0-2], [3:0-0-4,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	0.27	Vert(LL)	0.02	4-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	4-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 56 lb	FT = 20%

**LUMBER**

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- WEBS 2x4 SP No.3
- WEDGE Left: 2x10 SP 2250F 1.9E or DSS or SS  
Right: 2x10 SP 2250F 1.9E or DSS or SS

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 11 lb uplift at joint 3.
- 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.

**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.

**LOAD CASE(S)** Standard

**REACTIONS**

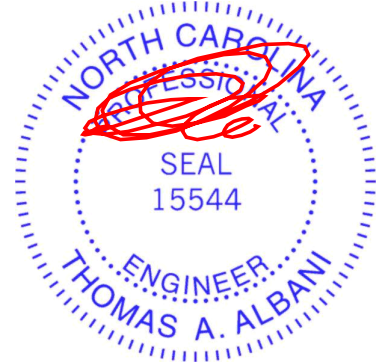
- (size) 1=0-3-8, 3=0-3-8
- Max Horiz 1=-81 (LC 8)
- Max Uplift 1=-11 (LC 10), 3=-11 (LC 11)
- Max Grav 1=500 (LC 1), 3=500 (LC 1)

**FORCES**

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=-419/71, 2-3=-419/71
- BOT CHORD 1-4=-63/279, 3-4=0/279
- WEBS 2-4=0/196

**NOTES**

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



May 19,2020

**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.



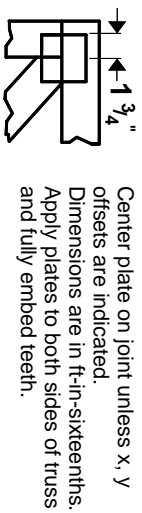
818 Soundside Road  
Edenton, NC 27932



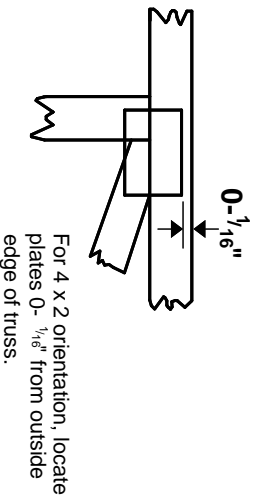


# Symbols

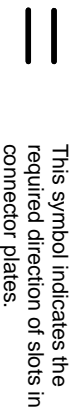
## PLATE LOCATION AND ORIENTATION



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- 1/8" from outside edge of truss.



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

## PLATE SIZE

4 X 4

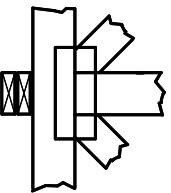
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

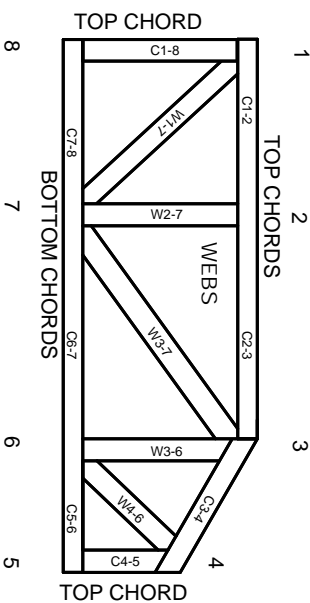


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## 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



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.

© 2012 MITTEK® All Rights Reserved



MITek Engineering Reference Sheet: Mill-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.