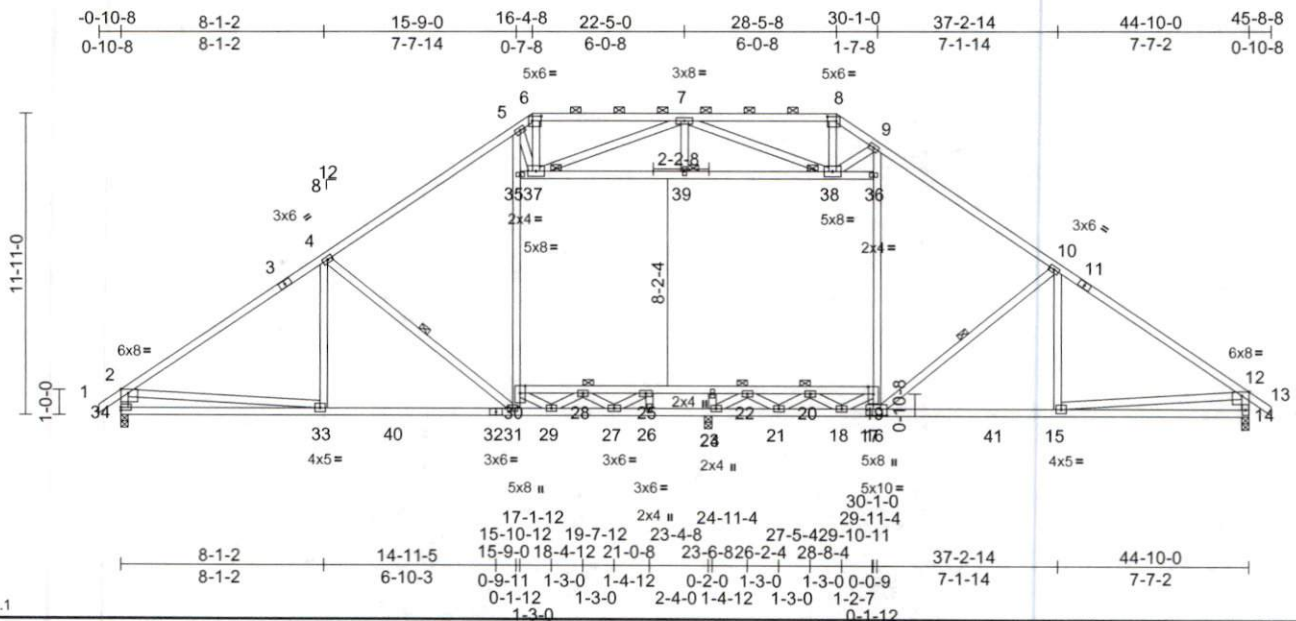


Job 20010097-A	Truss A1	Truss Type Attic	Qty 10	Ply 1	5 PBC-Roof Job Reference (optional)	E14157638
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8:33 S Feb 13 2020 Print: 8:33 S Feb 13 2020 MITek Industries, Inc. Mon Mar 09 09:31:21  
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Page: 1



Scale = 1:88.1  
Plate Offsets (X, Y): [2:0-3-8,Edge], [6:0-4-4,0-2-4], [8:0-4-4,0-2-4], [12:0-3-8,Edge], [16:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.78	-0.48	31-33	>589	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.90	-0.64	31-33	>442	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.06	14	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.41	19-30	>421	360	
BCDL	10.0										

Weight: 340 lb FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* 30-19:2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.2 \*Except\* 18-19,29-30,18-20,29-28,21-20,27-28,21-22, 27-25,23-22,26-25,23-24:2x4 SP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-7-7 max.): 6-8.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 4-5-11 oc bracing: 26-27 4-2-13 oc bracing: 23-26 4-7-5 oc bracing: 21-23.  
 WEBS 1 Row at midpt 4-31, 10-16  
 JOINTS 1 Brace at Jt(s): 20, 28, 22, 37, 38, 39

**REACTIONS** (size) 14=0-3-8, 23=0-3-8, 34=0-3-8  
 Max Horiz 34=250 (LC 12)  
 Max Grav 14=1652 (LC 3), 23=1539 (LC 27), 34=1760 (LC 26)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/43, 2-3=-2392/198, 3-4=-2193/225, 4-5=-1938/264, 5-6=-1682/365, 6-7=-1384/210, 7-8=-1029/236, 8-9=-1276/291, 9-10=-1899/256, 10-11=-2071/224, 11-12=-2257/198, 12-13=0/43, 2-34=-1693/238, 12-14=-1584/232

**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0  
 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.  
 5) Provide adequate drainage to prevent water ponding.  
 6) All plates are 3x5 MT20 unless otherwise indicated.  
 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.  
 8) Ceiling dead load (5.0 psf) on member(s): 35-37, 37-39, 38-39, 36-38; Wall dead load (5.0psf) on member (s):30-35, 19-36  
 9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room: 28-30, 25-28, 24-25, 22-24, 20-22, 19-20



Job 20010097-A	Truss A1	Truss Type Attic	Qty 10	Ply 1	5 PBC-Roof Job Reference (optional)	E14157638
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:21  
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Page: 2

- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

**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

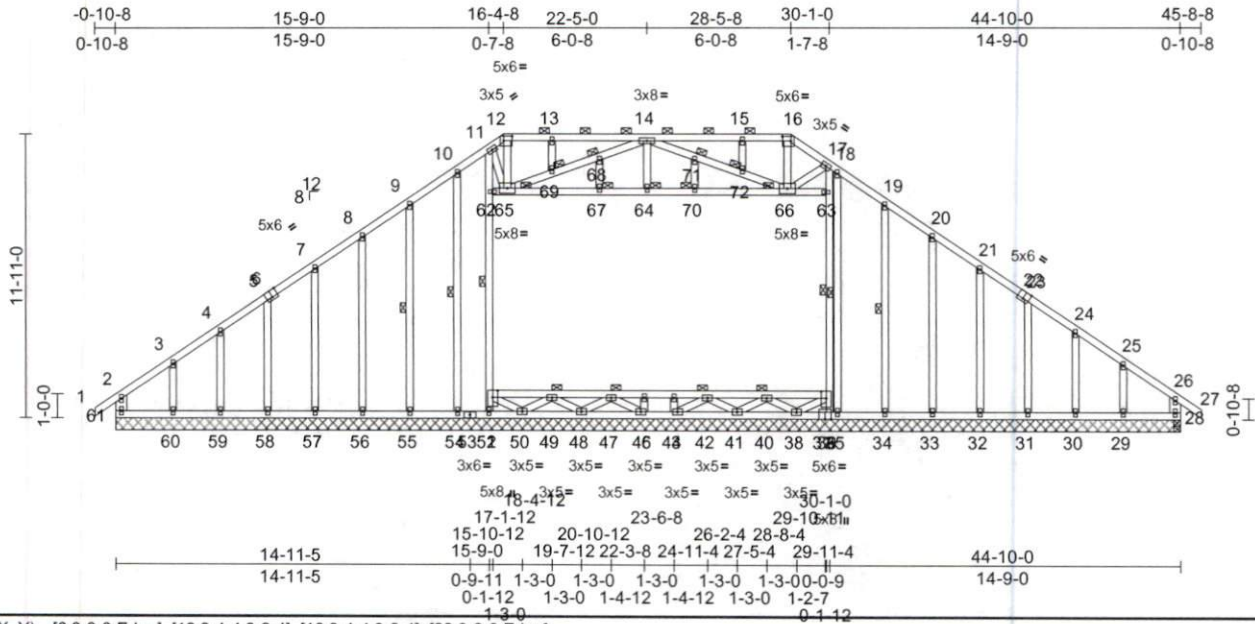
818 Soundside Road  
Edenton, NC 27932

Job 20010097-A	Truss A1GE	Truss Type Attic	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157639
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:30  
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Page: 1



Scale = 1:93.3

Plate Offsets (X, Y): [6:0-3:0,Edge], [12:0-4:4,0-2-4], [16:0-4:4,0-2-4], [22:0-3:0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.01	49-51	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.01	49-51	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	28	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
Weight: 411 lb FT = 20%												

LUMBER		Max Uplift	28--59 (LC 10), 29--87 (LC 14), 30--14 (LC 14), 31--33 (LC 14), 32--29 (LC 14), 33--30 (LC 14), 34--34 (LC 14), 54--5 (LC 13), 55--37 (LC 13), 56--29 (LC 13), 57--29 (LC 13), 58--34 (LC 13), 59--11 (LC 13), 60--103 (LC 10), 61--110 (LC 9)	BOT CHORD	60-61--98/122, 59-60--98/122, 58-59--98/122, 57-58--98/122, 56-57--98/122, 55-56--98/122, 54-55--98/122, 53-54--98/122, 52-53--98/122, 50-52--103/127, 48-50--42/164, 46-48--35/109, 43-46--67/57, 41-43--35/110, 38-41--40/167, 37-38--93/117, 36-37--93/117, 35-36--96/121, 34-35--96/121, 33-34--96/121, 32-33--96/121, 31-32--96/121, 30-31--96/121, 29-30--96/121, 28-29--96/121, 49-51--4/99, 47-49--28/120, 45-47--37/85, 44-45--37/85, 42-44--37/85, 40-42--28/120, 39-40--5/90
TOP CHORD	2x4 SP No.2				
BOT CHORD	2x4 SP No.2				
WEBS	2x4 SP No.3 *Except* 11-52,17-36,62-63,66-14,14-65:2x4 SP No.2, 61-2,28-26:2x6 SP No.2				
OTHERS	2x4 SP No.3 *Except* 54-10,55-9,56-8,57-7,35-18,34-19,33-20,32-2 1:2x4 SP No.2				
BRACING		Max Grav	28=214 (LC 26), 29=204 (LC 27), 30=166 (LC 31), 31=168 (LC 27), 32=166 (LC 27), 33=167 (LC 27), 34=157 (LC 27), 35=282 (LC 31), 36=402 (LC 2), 38=228 (LC 20), 41=329 (LC 20), 43=233 (LC 20), 46=233 (LC 20), 48=327 (LC 20), 50=233 (LC 20), 52=575 (LC 2), 54=174 (LC 30), 55=160 (LC 26), 56=167 (LC 26), 57=165 (LC 26), 58=170 (LC 26), 59=166 (LC 30), 60=225 (LC 26), 61=255 (LC 27)		
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 12-16.				
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 48-50,46-48,41-43,38-41.				
WEBS	1 Row at midpt 51-62, 39-63, 10-54, 9-55, 18-35, 19-34				
JOINTS	1 Brace at Jt(s): 40, 49, 42, 47, 64, 65, 66, 67, 68, 69, 70, 71, 72				
REACTIONS (size)	28=44-10-0, 29=44-10-0, 30=44-10-0, 31=44-10-0, 32=44-10-0, 33=44-10-0, 34=44-10-0, 35=44-10-0, 36=44-10-0, 38=44-10-0, 41=44-10-0, 43=44-10-0, 46=44-10-0, 48=44-10-0, 50=44-10-0, 52=44-10-0, 54=44-10-0, 55=44-10-0, 56=44-10-0, 57=44-10-0, 58=44-10-0, 59=44-10-0, 60=44-10-0, 61=44-10-0	FORCES (lb) - Maximum Compression/Maximum Tension	TOP CHORD	1-2=0/46, 2-3=-195/166, 3-4=-153/137, 4-5=-151/143, 5-6=-162/143, 6-7=-160/157, 7-8=-210/215, 8-9=-259/273, 9-10=-308/334, 10-11=-347/371, 11-12=-406/367, 12-13=-361/319, 13-14=-361/319, 14-15=-404/295, 15-16=-404/295, 16-17=-478/330, 17-18=-352/336, 18-19=-305/334, 19-20=-259/274, 20-21=-210/215, 21-22=-161/157, 22-23=-162/144, 23-24=-113/98, 24-25=-107/86, 25-26=-144/104, 26-27=0/46, 2-61=-209/97, 26-28=-175/55	
	Max Horiz 61--252 (LC 11)				



Job 20010097-A	Truss A1GE	Truss Type Attic	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157639
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Carter Components (Sanford), Sanford, NC - 27332.

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Page: 2

WEBS  
 51-52=-554/0, 51-62=-570/30,  
 11-62=-548/26, 36-39=-405/0,  
 39-63=-412/21, 17-63=-344/24, 62-65=-6/4,  
 65-67=-156/864, 64-67=-156/864,  
 64-70=-156/864, 66-70=-156/864,  
 63-66=-12/6, 38-39=-94/0, 50-51=-112/8,  
 38-40=-249/0, 49-50=-252/0, 40-41=-278/0,  
 48-49=-275/0, 41-42=-199/0, 47-48=-199/0,  
 42-43=-143/0, 46-47=-143/0, 45-46=-120/0,  
 43-44=-120/0, 14-64=-22/145,  
 11-65=-11/518, 12-65=-156/137,  
 16-66=-126/153, 17-66=-3/437,  
 14-71=-552/222, 71-72=-532/209,  
 66-72=-568/228, 65-69=-738/202,  
 68-69=-702/183, 14-68=-723/197,  
 10-54=-138/49, 9-55=-128/89, 8-56=-128/80,  
 7-57=-127/81, 5-58=-129/83, 4-59=-124/76,  
 3-60=-159/114, 18-35=-244/1,  
 19-34=-122/84, 20-33=-129/82,  
 21-32=-127/81, 23-31=-129/83,  
 24-30=-124/76, 25-29=-155/113,  
 67-68=-60/39, 13-69=-101/52, 70-71=-59/40,  
 15-72=-103/55

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 9) Gable studs spaced at 2-0-0 oc.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) Ceiling dead load (5.0 psf) on member(s). 62-65, 65-67, 64-67, 64-70, 66-70, 63-66; Wall dead load (5.0psf) on member(s).51-62, 39-63
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 49-51, 47-49, 45-47, 44-45, 42-44, 40-42, 39-40
- 13) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 61, 28, 54, 55, 56, 57, 58, 59, 60, 34, 33, 32, 31, 30, and 29. This connection is for uplift only and does not consider lateral forces.
- 14) 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.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

**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.



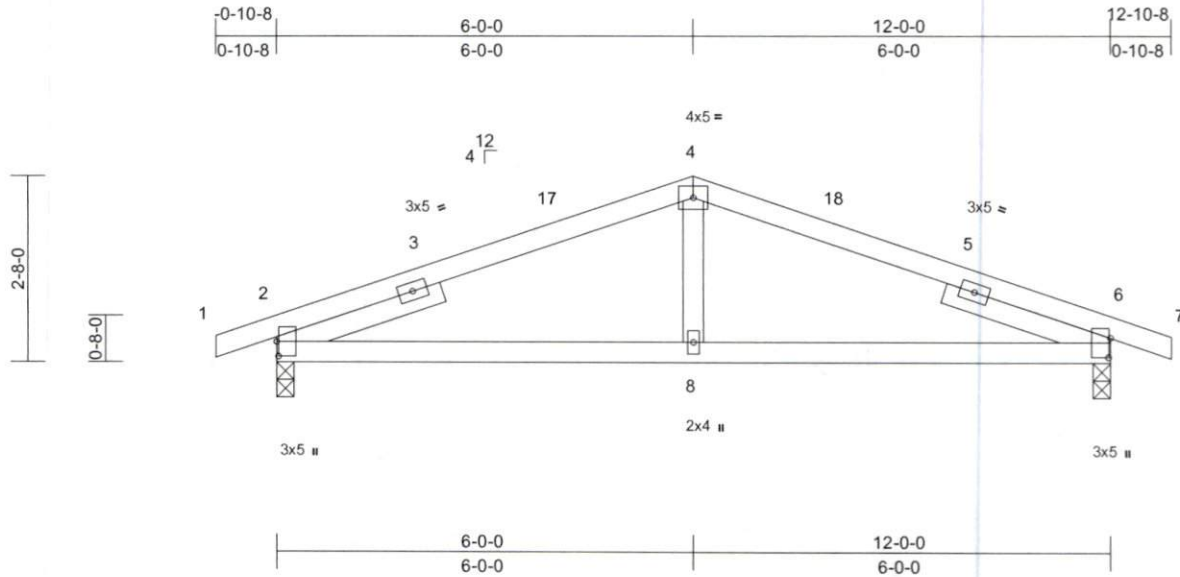
818 Soundside Road  
Edenton, NC 27932

Job 20010097-A	Truss CP1	Truss Type Common	Qty 5	Ply 1	5 PBC-Roof Job Reference (optional)	E14157640
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MITek Industries, Inc. Mon Mar 09 09:31:31  
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Page: 1



Scale = 1:31.9

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

Loading	(psf)	Spacing		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.35	Vert(LL)	-0.04	8-15	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.06	8-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 50 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

**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=0-3-0, 6=0-3-0  
 Max Horiz 2=23 (LC 15)  
 Max Uplift 2=-30 (LC 11), 6=-30 (LC 12)  
 Max Grav 2=533 (LC 2), 6=533 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/21, 2-3=-327/11, 3-17=-709/228, 4-17=-699/238, 4-18=-699/238, 5-18=-709/228, 5-6=-327/12, 6-7=0/21  
 BOT CHORD 2-8=-166/673, 6-8=-148/673  
 WEBS 4-8=0/154

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
- 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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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



**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

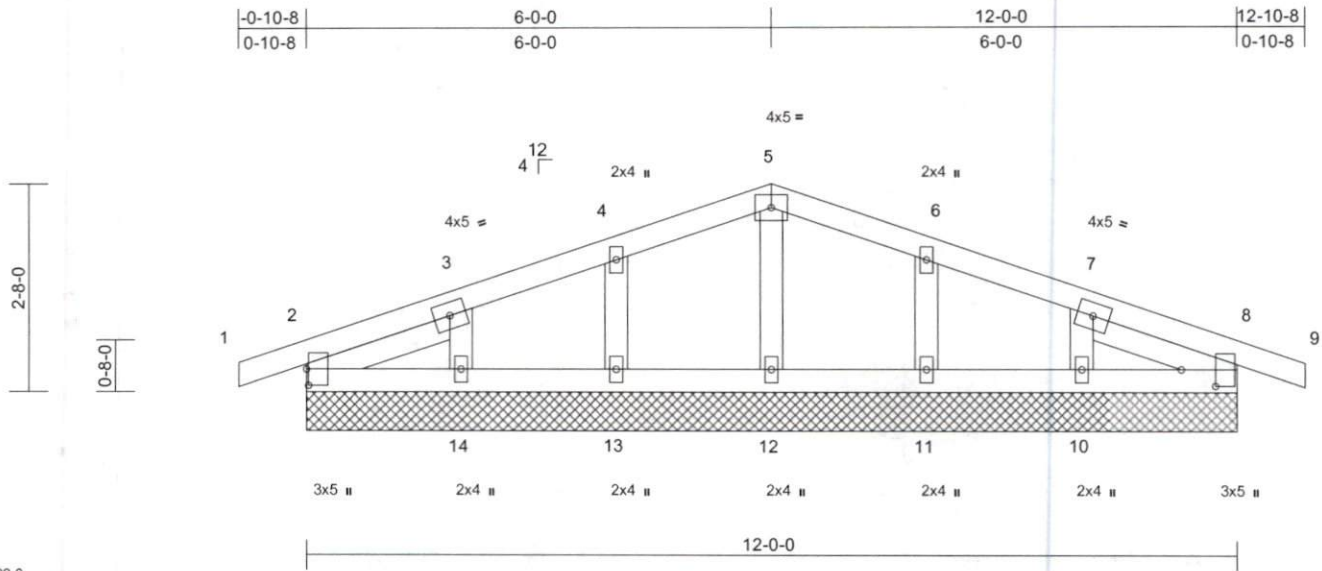
818 Soundside Road  
 Edenton, NC 27932

Job 20010097-A	Truss CP1GE	Truss Type Common Supported Gable	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157641
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:31  
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Page: 1



Scale = 1:28.6

Plate Offsets (X, Y): [2:0-2-8,0-0-5], [8:0-2-8,0-5-5]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 55 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 1-11-11, Right 2x4 SP No.3 -- 1-11-11

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

**REACTIONS** (size)  
2=12-0-0, 8=12-0-0, 10=12-0-0,  
11=12-0-0, 12=12-0-0, 13=12-0-0,  
14=12-0-0, 15=12-0-0, 19=12-0-0  
Max Horiz 2=23 (LC 15), 15=23 (LC 15)  
Max Uplift 2=-23 (LC 11), 8=-28 (LC 12),  
10=-14 (LC 16), 11=-14 (LC 12),  
13=-14 (LC 11), 14=-16 (LC 15),  
15=-23 (LC 11), 19=-28 (LC 12)  
Max Grav 2=136 (LC 2), 8=136 (LC 2),  
10=158 (LC 2), 11=170 (LC 34),  
12=143 (LC 2), 13=170 (LC 33),  
14=158 (LC 2), 15=136 (LC 2),  
19=136 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/21, 2-3=-36/19, 3-4=-27/39,  
4-5=-36/74, 5-6=-36/74, 6-7=-27/39,  
7-8=-33/18, 8-9=0/21  
BOT CHORD 2-14=-4/33, 13-14=-4/33, 12-13=-4/33,  
11-12=-4/33, 10-11=-4/33, 8-10=-4/33  
WEBS 5-12=-102/22, 4-13=-131/87, 3-14=-114/77,  
6-11=-131/87, 7-10=-114/78

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

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 8, 13, 14, 11, and 10. This connection is for uplift only and does not consider lateral forces.
- 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



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK 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  
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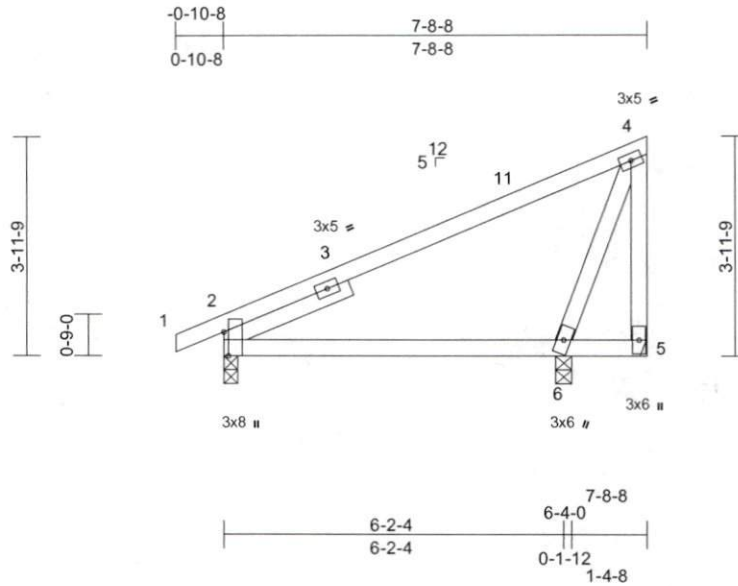
818 Soundside Road  
Edenton, NC 27932

Job 20010097-A	Truss P1	Truss Type Monopitch	Qty 3	Ply 1	5 PBC-Roof Job Reference (optional)	E14157642
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8:33 S Feb 13 2020 Print: 8:330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:32  
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Page: 1



Scale = 1:40.4

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

Loading	(psf)	Spacing		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.76	Vert(LL)	0.07	6-9	>985	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.11	6-9	>647	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.04	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 39 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -- 2-6-0

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 8-5-7 oc bracing.

**REACTIONS**

(size) 2=0-3-0, 5= Mechanical, 6=0-3-8  
 Max Horiz 2=116 (LC 14)  
 Max Uplift 2=-62 (LC 15), 5=-246 (LC 15), 6=-695 (LC 2)  
 Max Grav 2=490 (LC 2), 5=863 (LC 2), 6=277 (LC 15)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/25, 2-3=-474/311, 3-11=-405/314, 4-11=-389/324, 4-5=-959/823  
 BOT CHORD 2-6=-544/414, 5-6=-63/68  
 WEBS 4-6=-847/1011

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10

- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 246 lb uplift at joint 5.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) One RT16A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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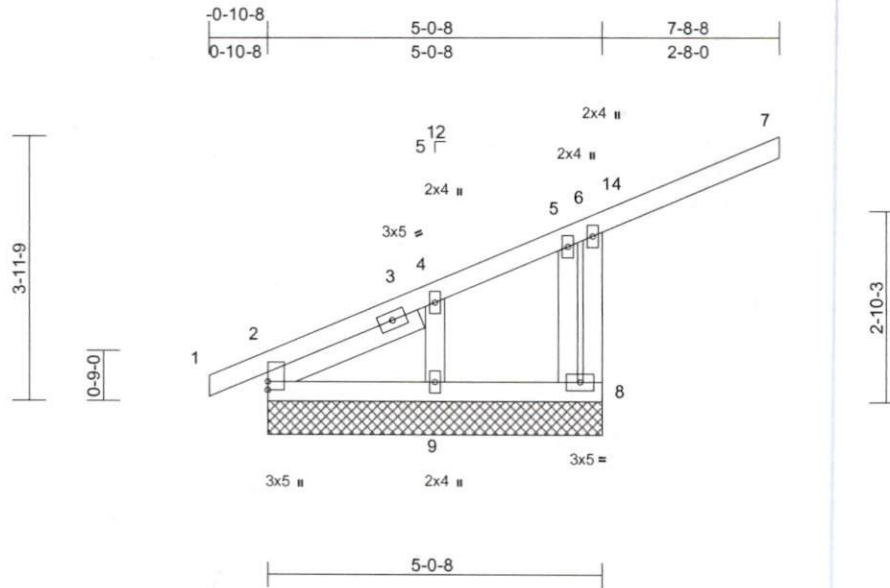
818 Soundside Road  
 Edenton, NC 27932

Job 20010097-A	Truss P1GE	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157643
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:32  
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Page: 1



Scale = 1:33.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	2	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 34 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
SLIDER	Left 2x4 SP No.3 -- 2-6-0

**BRACING**

TOP CHORD	Structural wood sheathing directly applied or 5-0-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS**

(size)	2=5-0-8, 8=5-0-8, 9=5-0-8, 10=5-0-8
Max Horiz	2=114 (LC 12), 10=114 (LC 12)
Max Uplift	8=-108 (LC 12), 9=-23 (LC 15)
Max Grav	2=118 (LC 30), 8=332 (LC 21), 9=180 (LC 2), 10=118 (LC 30)

**FORCES**

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/25, 2-3=-74/17, 3-4=-252/145, 4-5=-195/120, 5-6=-250/232, 6-14=-82/0, 7-14=-67/0, 6-8=-815/702
BOT CHORD	2-9=-80/113, 8-9=-80/113
WEBS	4-9=-112/142, 5-8=-404/507

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 9. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



**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  
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A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

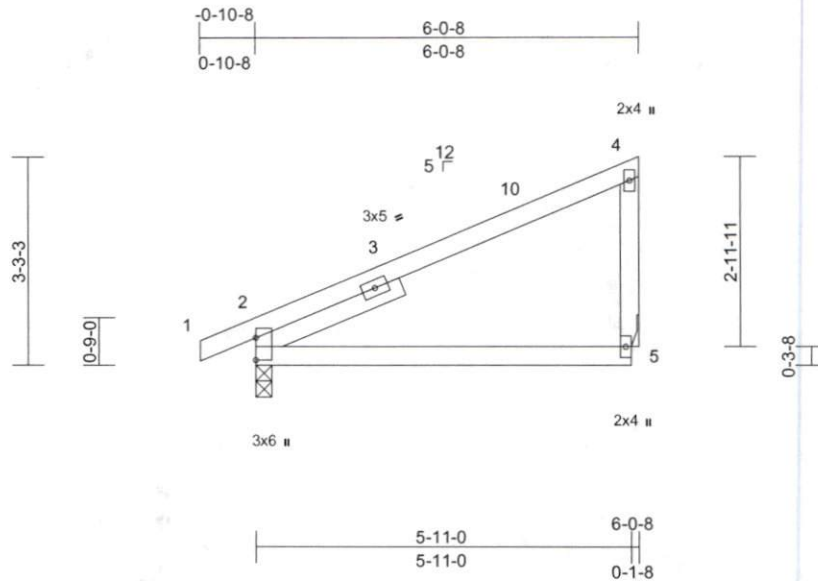


Job 20010097-A	Truss P2	Truss Type Monopitch	Qty 6	Ply 1	5 PBC-Roof Job Reference (optional)	E14157644
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:33  
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	0.07	5-8	>993	240	244/190	
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.12	5-8	>601	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 28 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 2-6-0

**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) 2=0-3-0, 5= Mechanical  
Max Horiz 2=93 (LC 14)  
Max Uplift 2=-9 (LC 15), 5=-17 (LC 15)  
Max Grav 2=292 (LC 2), 5=232 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/25, 2-3=-240/0, 3-10=-104/70,  
4-10=-100/87, 4-5=-158/153  
BOT CHORD 2-5=-306/169

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C  
Exterior (2) zone; cantilever left and right exposed; end  
vertical left and right exposed; C-C for members and  
forces & MWFRS for reactions shown; Lumber  
DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber  
DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground  
snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15  
Plate DOL=1.15); Category II; Exp B; Fully Exp.;  
Ct=1.10
- 3) Unbalanced snow loads have been considered for this  
design.
- 4) This truss has been designed for greater of min roof live  
load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on  
overhangs non-concurrent with 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) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 17 lb uplift at joint  
5.
  - 8) One RT7A USP connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 2. This  
connection is for uplift only and does not consider lateral  
forces.
  - 9) This truss is designed in accordance with the 2015  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



**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.

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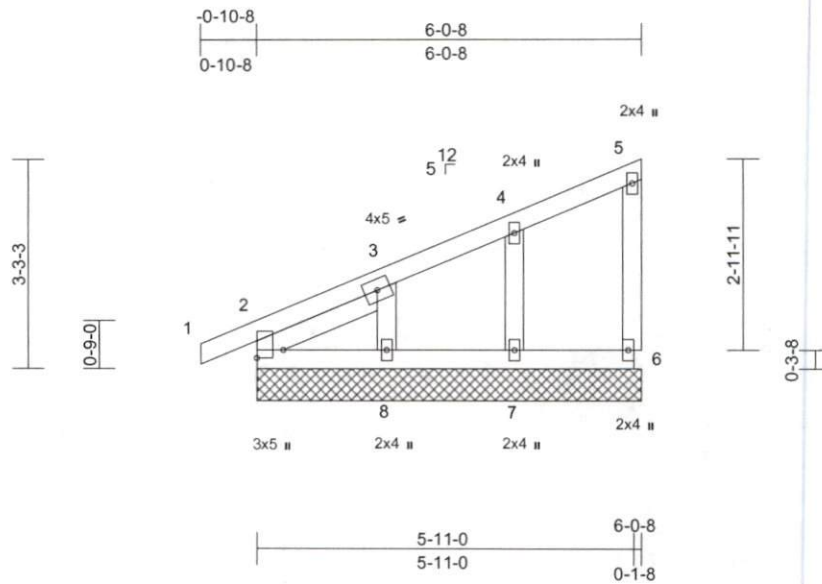
818 Soundside Road  
Edenton, NC 27932

Job 20010097-A	Truss P2GE	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157645
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8:33 S Feb 13 2020 Print: 8:330 S Feb 13 2020 MITek Industries, Inc. Mon Mar 09 09:31:33  
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Page: 1



Scale = 1:34.8

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

Loading	(psf)	Spacing		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 32 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  
 SLIDER Left 2x4 SP No.3 -- 2-1-5

**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)

2=6-0-8, 6=6-0-8, 7=6-0-8,  
 8=6-0-8, 9=6-0-8  
 Max Horiz 2=93 (LC 14), 9=93 (LC 14)  
 Max Uplift 2=-4 (LC 11), 6=-7 (LC 12), 7=-14 (LC 15), 8=-28 (LC 15), 9=-4 (LC 11)  
 Max Grav 2=132 (LC 2), 6=58 (LC 2), 7=172 (LC 2), 8=162 (LC 2), 9=132 (LC 2)

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

TOP CHORD 1-2=0/25, 2-3=-43/21, 3-4=-117/78,  
 4-5=-63/55, 5-6=-49/55  
 BOT CHORD 2-8=-52/57, 7-8=-52/57, 6-7=-52/57  
 WEBS 4-7=-129/117, 3-8=-119/141

**NOTES**

1) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
 Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft;  
 Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- \* 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.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6, 2, 7, and 8. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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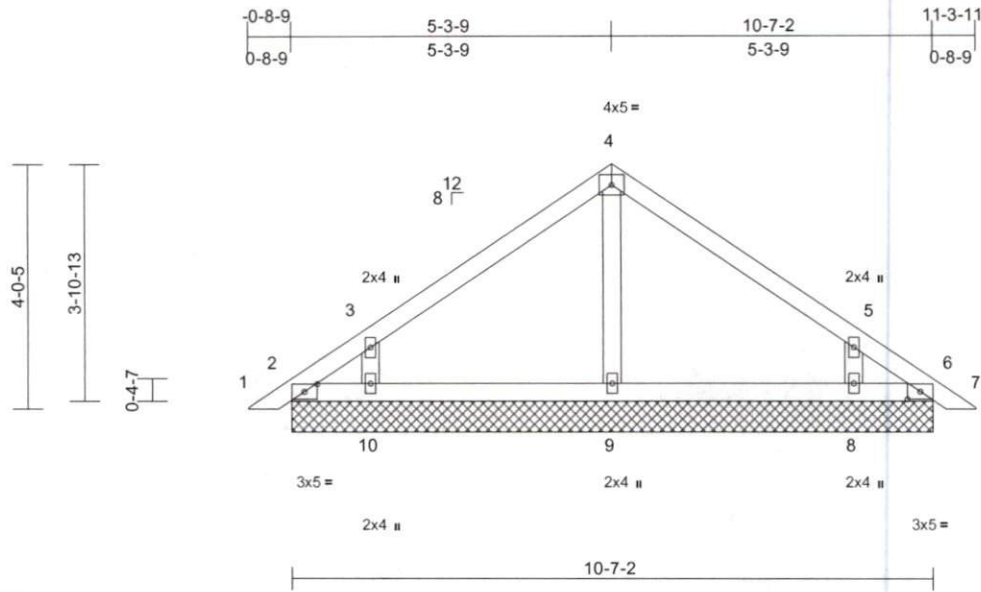
818 Soundside Road  
 Edenton, NC 27932

Job 20010097-A	Truss PB1	Truss Type Piggyback	Qty 10	Ply 1	5 PBC-Roof Job Reference (optional)	E14157646
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MITek Industries, Inc. Mon Mar 09 09:31:33  
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Page: 1



Scale = 1:36.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	15	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 44 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size)

2=10-7-2, 6=10-7-2, 8=10-7-2,  
9=10-7-2, 10=10-7-2, 11=10-7-2,  
15=10-7-2  
Max Horiz 2=-76 (LC 11), 11=-76 (LC 11)  
Max Uplift 2=-32 (LC 9), 6=-18 (LC 10), 8=-64 (LC 14), 10=-64 (LC 13), 11=-32 (LC 9), 15=-18 (LC 10)  
Max Grav 2=52 (LC 26), 6=41 (LC 19), 8=301 (LC 26), 9=266 (LC 2), 10=302 (LC 25), 11=52 (LC 26), 15=41 (LC 19)

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

TOP CHORD 1-2=0/20, 2-3=-78/74, 3-4=-115/80, 4-5=-112/80, 5-6=-60/60, 6-7=0/20  
BOT CHORD 2-10=-21/51, 9-10=-20/51, 8-9=-20/51, 6-8=-20/51  
WEBS 4-9=-179/29, 3-10=-270/189, 5-8=-270/189

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 6, 10, and 8. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



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

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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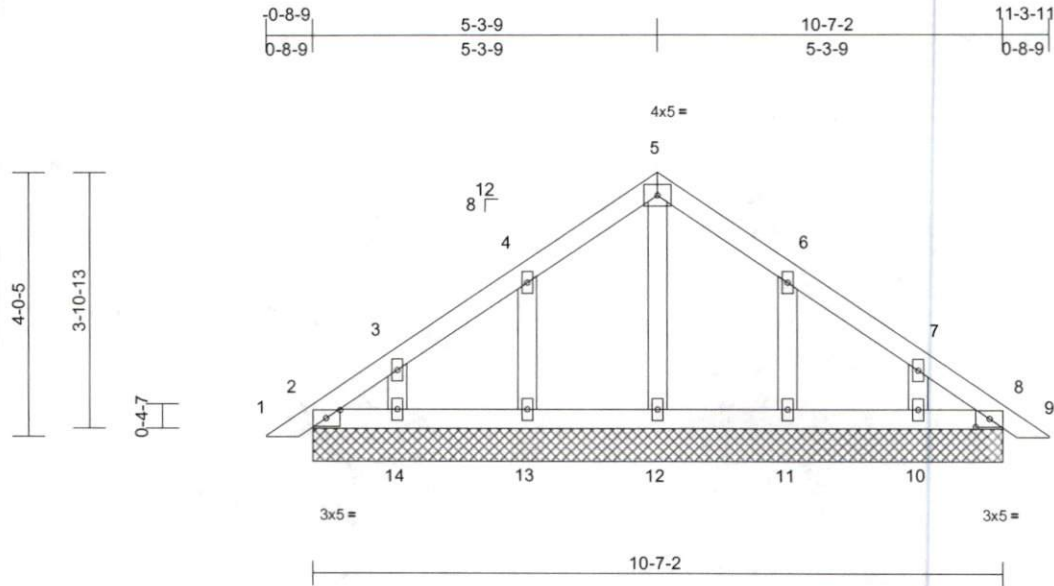
818 Soundside Road  
Edenton, NC 27932

Job 20010097-A	Truss PB1GE	Truss Type Piggyback	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157647
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8:33 S Feb 13 2020 Print: 8:33 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:33  
ID:8pAAku6G3U797Xe7j383\_nzcjiz-AK46UrikHjLWgOGDLR0aBKUyds?libNMvvdQYzicue

Page: 1



Scale = 1:34

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/def	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 50 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size)

2=10-7-2, 8=10-7-2, 10=10-7-2,  
11=10-7-2, 12=10-7-2, 13=10-7-2,  
14=10-7-2, 15=10-7-2, 19=10-7-2  
Max Horiz 2=-76 (LC 11), 15=-76 (LC 11)  
Max Uplift 2=-12 (LC 9), 10=-27 (LC 14),  
11=-33 (LC 14), 13=-33 (LC 13),  
14=-28 (LC 13), 15=-12 (LC 9)  
Max Grav 2=82 (LC 26), 8=81 (LC 2), 10=144  
(LC 26), 11=179 (LC 26), 12=125  
(LC 2), 13=179 (LC 25), 14=145  
(LC 25), 15=82 (LC 26), 19=81 (LC 2)

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

TOP CHORD 1-2=0/20, 2-3=-62/56, 3-4=-71/44,  
4-5=-86/88, 5-6=-86/88, 6-7=-51/23,  
7-8=-41/39, 8-9=0/20  
BOT CHORD 2-14=-39/64, 13-14=-39/64, 12-13=-39/64,  
11-12=-39/64, 10-11=-39/64, 8-10=-39/64  
WEBS 5-12=-85/0, 4-13=-141/95, 3-14=-115/76,  
6-11=-141/95, 7-10=-115/76

**NOTES**

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

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2'-0-0 oc.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06-00 tall by 2'-00-00 wide will fit between the bottom chord and any other members.
- 10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 13, 14, 11, and 10. This connection is for uplift only and does not consider lateral forces.
- 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.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



**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.

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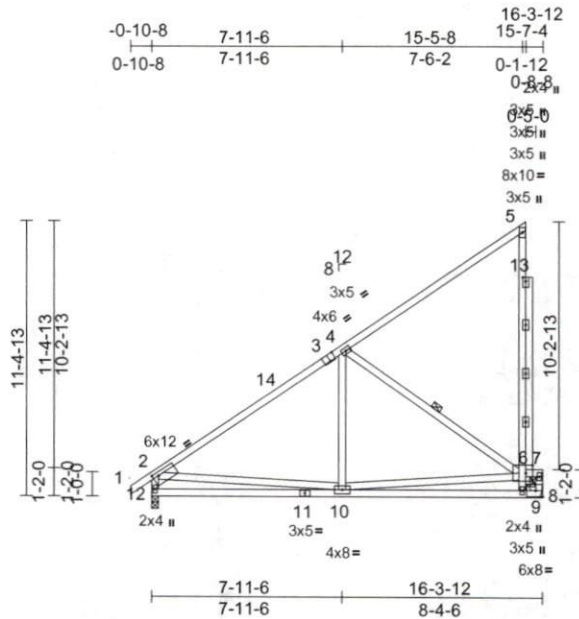
818 Soundside Road  
Edenton, NC 27932

Job 20010097-A	Truss T1	Truss Type Half Hip	Qty 3	Ply 1	5 PBC-Roof Job Reference (optional)	E14157648
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:34  
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Page: 1



Scale = 1:92.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFLL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.02	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.09	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										

Weight: 129 lb FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.1 \*Except\* 6-7:2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 7-8,8-6,12-2:2x4 SP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 4-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-9, 6-7.  
 BOT CHORD Rigid ceiling directly applied or 6-2-4 oc bracing.  
 WEBS 1 Row at midpt 4-6

**REACTIONS** (size) 8= Mechanical, 12=0-3-8  
 Max Horiz 12=588 (LC 15)  
 Max Uplift 8=-251 (LC 15)  
 Max Grav 8=1608 (LC 39), 12=781 (LC 35)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/43, 2-14=-910/14, 3-14=-680/38, 3-4=-641/42, 4-5=-294/236, 6-9=0/133, 6-13=-1094/331, 5-13=-1095/332, 6-7=-76/31, 7-8=-524/353, 2-12=-711/121  
 BOT CHORD 11-12=-898/1015, 10-11=-898/1015, 9-10=-217/862, 8-9=-161/822  
 WEBS 4-10=0/216, 4-6=-767/259, 6-10=-623/319, 6-8=-1384/295, 2-10=-211/456

**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -0-10-8 to 16-2-0 zone; cantilever left and right exposed; end vertical left and right exposed.C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 251 lb uplift at joint 8.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 795 lb down and 115 lb up at 15-7-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-2=-48, 2-5=-48, 6-7=-58, 8-12=-20  
 Concentrated Loads (lb)  
 Vert: 5=-606



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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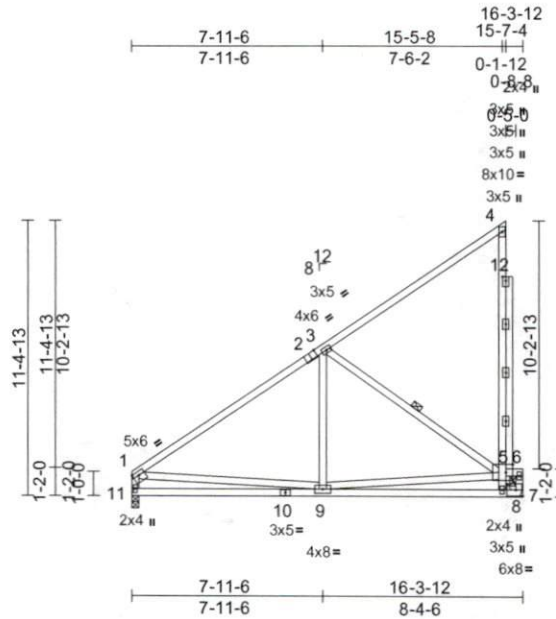
818 Soundside Road  
 Edenton, NC 27932

Job 20010097-A	Truss T1A	Truss Type Half Hip	Qty 6	Ply 1	5 PBC-Roof Job Reference (optional)	E14157649
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:34  
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Page: 1



Scale = 1:92.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	0.02	8-9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.09	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 128 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 6-7,11-1,7-5:2x4 SP No.3

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 4-8-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-8, 5-6.  
BOT CHORD Rigid ceiling directly applied or 6-3-14 oc bracing.  
WEBS 1 Row at midpt 3-5

#### REACTIONS

(size) 7= Mechanical, 11=0-3-8  
Max Horiz 11=596 (LC 13)  
Max Uplift 7=-265 (LC 13)  
Max Grav 7=1479 (LC 24), 11=672 (LC 2)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-778/14, 2-3=-518/18, 3-4=-316/257, 5-8=0/132, 5-12=-1012/342, 4-12=-1012/343, 5-6=-74/32, 6-7=-534/363, 1-11=-602/61  
BOT CHORD 10-11=-859/944, 9-10=-859/944, 8-9=-215/861, 7-8=-166/750  
WEBS 3-9=0/205, 5-9=-634/331, 1-9=-130/410, 5-7=-1252/303, 3-5=-693/264

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 16-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 265 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 780 lb down and 115 lb up at 15-7-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-4=-48, 5-6=-58, 7-11=-20  
Concentrated Loads (lb)  
Vert: 4=-606 (F)



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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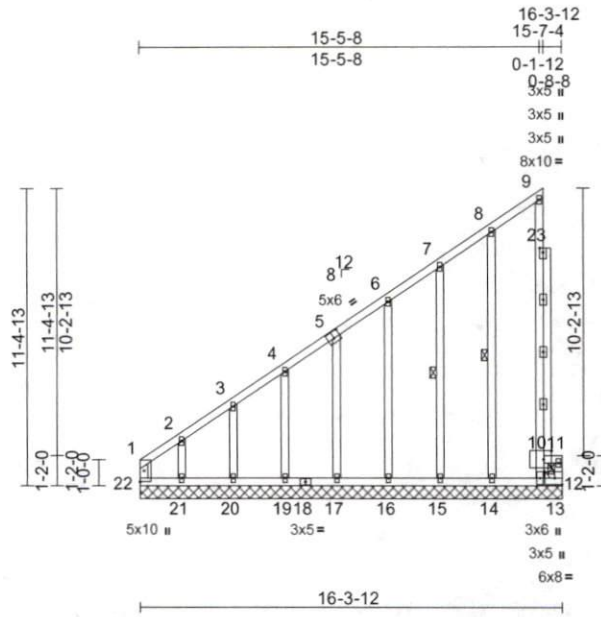
818 Soundside Road  
Edenton, NC 27932

Job 20010097-A	Truss T1AGE	Truss Type Half Hip Supported Gable	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157650
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:35  
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Page: 1



Scale = 1:85.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.37	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	NO	WB	0.18	Horiz(TL)	0.00	12	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
											Weight: 142 lb FT = 20%

LUMBER	TOP CHORD	1-22=-473/384, 1-2=-692/593, 2-3=-543/467, 3-4=-496/428, 4-5=-441/382, 5-6=-382/336, 6-7=-322/285, 7-8=-267/243, 8-9=-181/160, 10-13=-1010/505, 10-23=-732/220, 9-23=-732/220, 10-11=-59/70, 11-12=-265/287	8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
TOP CHORD	2x4 SP No.2		
BOT CHORD	2x4 SP No.2		
WEBS	2x4 SP No.3 *Except* 9-13,10-23:2x4 SP No.2		9) Gable studs spaced at 2-0-0 oc.
OTHERS	2x4 SP No.2 *Except* 19-4,20-3,21-2:2x4 SP No.3		10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
BRACING			11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 22, 13, 14, 15, 16, 17, 19, and 21. This connection is for uplift only and does not consider lateral forces.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 10-13, 10-11.		12) One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12. This connection is for uplift only and does not consider lateral forces.
BOT CHORD	Rigid ceiling directly applied or 9-1-1 oc bracing.		13) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
WEBS	1 Row at midpt 8-14, 7-15		14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
REACTIONS (size)	12=16-3-12, 13=16-3-12, 14=16-3-12, 15=16-3-12, 16=16-3-12, 17=16-3-12, 19=16-3-12, 20=16-3-12, 21=16-3-12, 22=16-3-12		
Max Horiz	22=463 (LC 14)		
Max Uplift	12=-603 (LC 14), 13=-230 (LC 10), 14=-55 (LC 13), 15=-26 (LC 13), 16=-30 (LC 13), 17=-32 (LC 13), 19=-32 (LC 13), 21=-284 (LC 13), 22=-99 (LC 11)		
Max Grav	12=486 (LC 12), 13=879 (LC 27), 14=179 (LC 24), 15=158 (LC 24), 16=174 (LC 24), 17=165 (LC 24), 19=158 (LC 24), 20=165 (LC 29), 21=215 (LC 24), 22=441 (LC 13)		
FORCES	(lb) - Maximum Compression/Maximum Tension		
NOTES			
1) Unbalanced roof live loads have been considered for this design.			
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 0-1-12 to 16-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33			
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.			
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0			
5) Provide adequate drainage to prevent water ponding.			
6) All plates are 2x4 MT20 unless otherwise indicated.			
7) Gable requires continuous bottom chord bearing.			



Continued on page 2

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

Design valid for use only with MITTEK® 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 20010097-A	Truss T1AGE	Truss Type Half Hip Supported Gable	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157650
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:35  
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Page: 2

15) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-9=-48, 10-11=-58, 12-22=-20

Concentrated Loads (lb)

Vert: 9=-606 (F)

**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

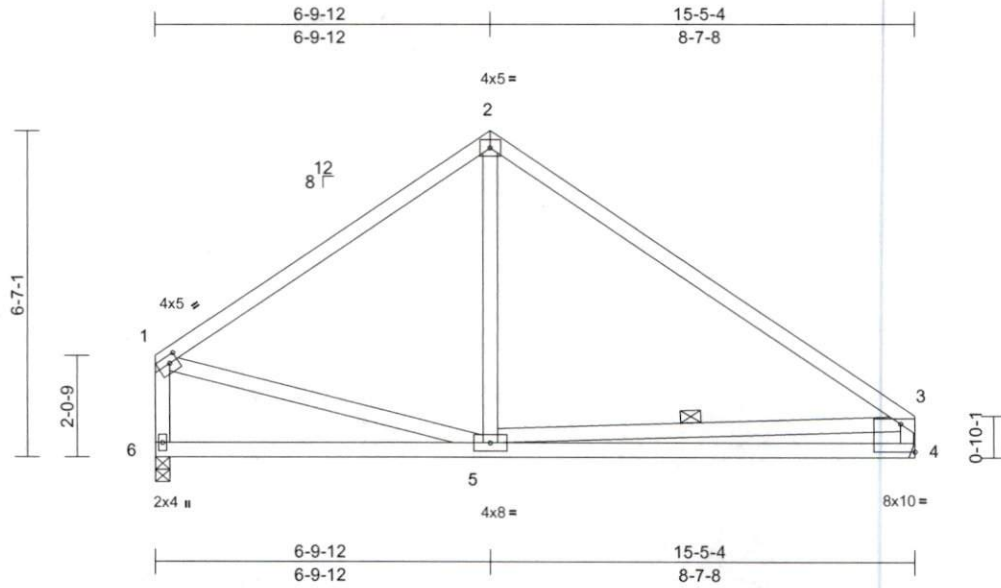


Job 20010097-A	Truss T2	Truss Type Common	Qty 9	Ply 1	5 PBC-Roof Job Reference (optional)	E14157651
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 Mitek Industries, Inc. Mon Mar 09 09:31:35  
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Page: 1



Scale = 1:45

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.01	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.15	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 85 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2 \*Except\* 2-3:2x4 SP No.1  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 6-1,4-3:2x4 SP No.3

**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 3-5

**REACTIONS**

(size) 4= Mechanical, 6=0-3-8  
 Max Horiz 6=-143 (LC 11)  
 Max Grav 4=606 (LC 2), 6=606 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-599/137, 2-3=-634/127, 1-6=-558/132,  
 3-4=-525/148  
 BOT CHORD 5-6=-129/178, 4-5=-183/491  
 WEBS 2-5=0/139, 1-5=0/375, 3-5=-210/219

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust)  
 Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft;  
 Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10

4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

5) Refer to girder(s) for truss to truss connections.  
 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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

Design valid for use only with Mitek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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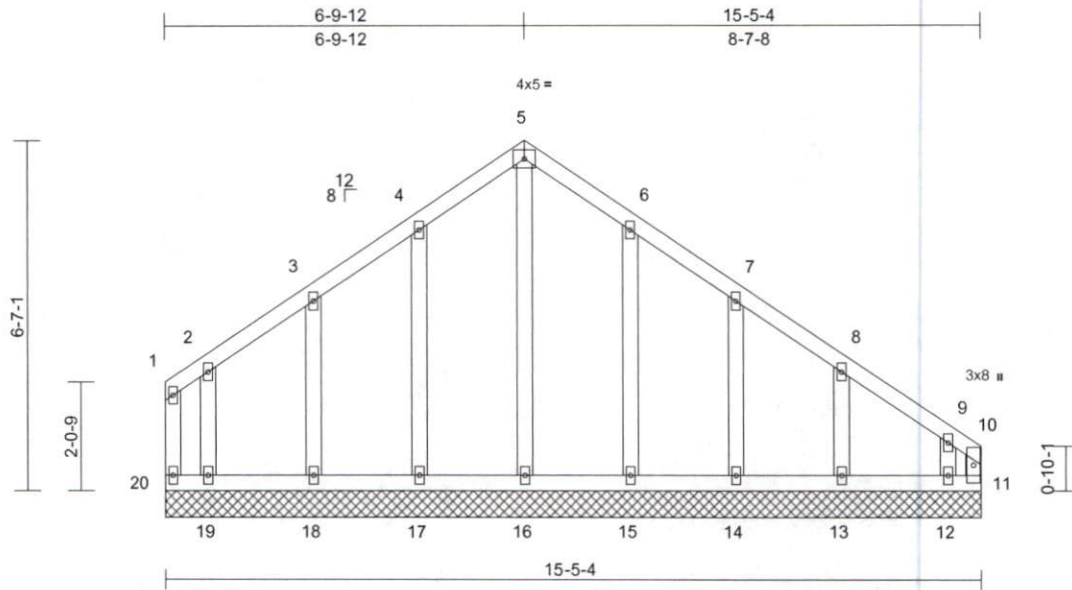
818 Soundside Road  
 Edenton, NC 27932

Job 20010097-A	Truss T2GE	Truss Type Common Supported Gable	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157652
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8:33 S Feb 13 2020 Print: 8:330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:35  
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Page: 1



Scale = 1:41.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	11	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR							
BCDL	10.0										
										Weight: 94 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3 \*Except\* 16-5:2x4 SP No.2

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

**REACTIONS** (size)  
 11=15-5-4, 12=15-5-4, 13=15-5-4,  
 14=15-5-4, 15=15-5-4, 16=15-5-4,  
 17=15-5-4, 18=15-5-4, 19=15-5-4,  
 20=15-5-4  
 Max Horiz 20=-143 (LC 9)  
 Max Uplift 11=-213 (LC 12), 12=-160 (LC 9),  
 13=-29 (LC 14), 14=-31 (LC 14),  
 15=-29 (LC 14), 17=-29 (LC 13),  
 18=-32 (LC 13), 19=-61 (LC 10),  
 20=-51 (LC 11)  
 Max Grav 11=224 (LC 9), 12=243 (LC 25),  
 13=170 (LC 25), 14=164 (LC 25),  
 15=175 (LC 25), 16=156 (LC 25),  
 17=171 (LC 24), 18=170 (LC 24),  
 19=170 (LC 24), 20=56 (LC 10)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-20=-27/20, 1-2=-31/28, 2-3=-74/80,  
 3-4=-127/142, 4-5=-175/199, 5-6=-175/199,  
 6-7=-126/142, 7-8=-111/108, 8-9=-123/110,  
 9-10=-166/153, 10-11=-140/128  
 BOT CHORD 19-20=-106/117, 18-19=-106/117,  
 17-18=-106/117, 16-17=-106/117,  
 15-16=-106/117, 14-15=-106/117,  
 13-14=-106/117, 12-13=-106/117,  
 11-12=-106/117

**WEBS** 5-16=-162/83, 4-17=-131/81, 3-18=-135/89,  
 2-19=-113/73, 6-15=-135/81, 7-14=-129/85,  
 8-13=-132/85, 9-12=-148/112

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - \* This truss has been designed for a 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.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20, 11, 17, 18, 19, 15, 14, 13, and 12. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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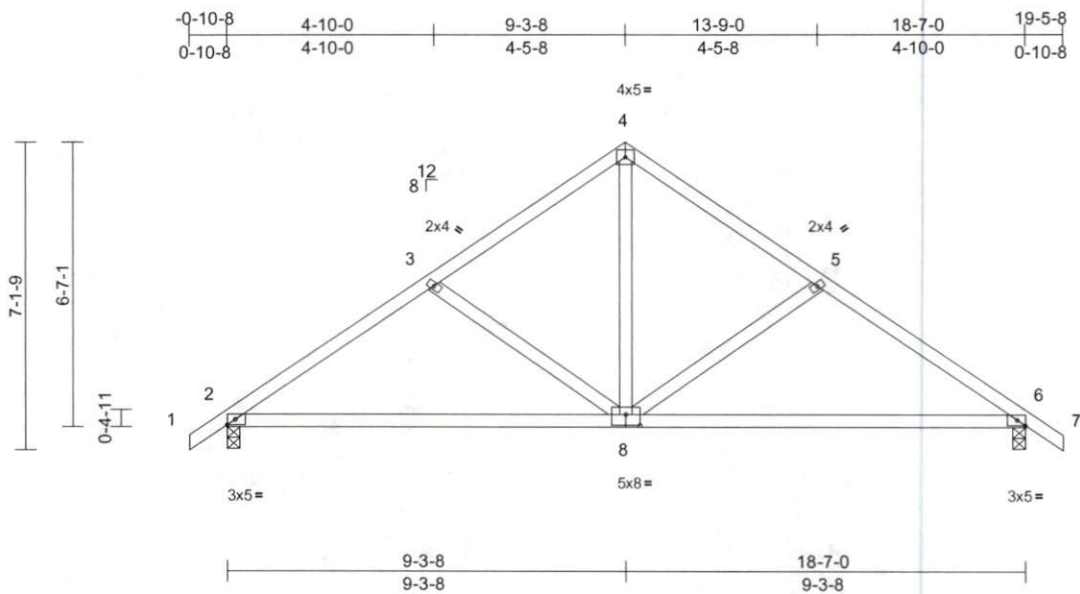
818 Soundside Road  
 Edenton, NC 27932

Job 20010097-A	Truss T3	Truss Type Common	Qty 5	Ply 1	5 PBC-Roof Job Reference (optional)	E14157653
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Carter Components (Sanford), Sanford, NC - 27332.

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Page: 1



Scale = 1:51.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.03	8-11	>999	240	MT20	244/190
Snow (P/f/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.16	8-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 89 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=0-3-8, 6=0-3-8  
Max Horiz 2=-134 (LC 11)  
Max Uplift 2=-2 (LC 13), 6=-2 (LC 14)  
Max Grav 2=796 (LC 2), 6=796 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/37, 2-3=-1023/211, 3-4=-787/180,  
4-5=-787/180, 5-6=-1023/211, 6-7=0/37  
BOT CHORD 2-8=-82/827, 6-8=-84/822  
WEBS 4-8=-79/571, 3-8=-318/168, 5-8=-317/168

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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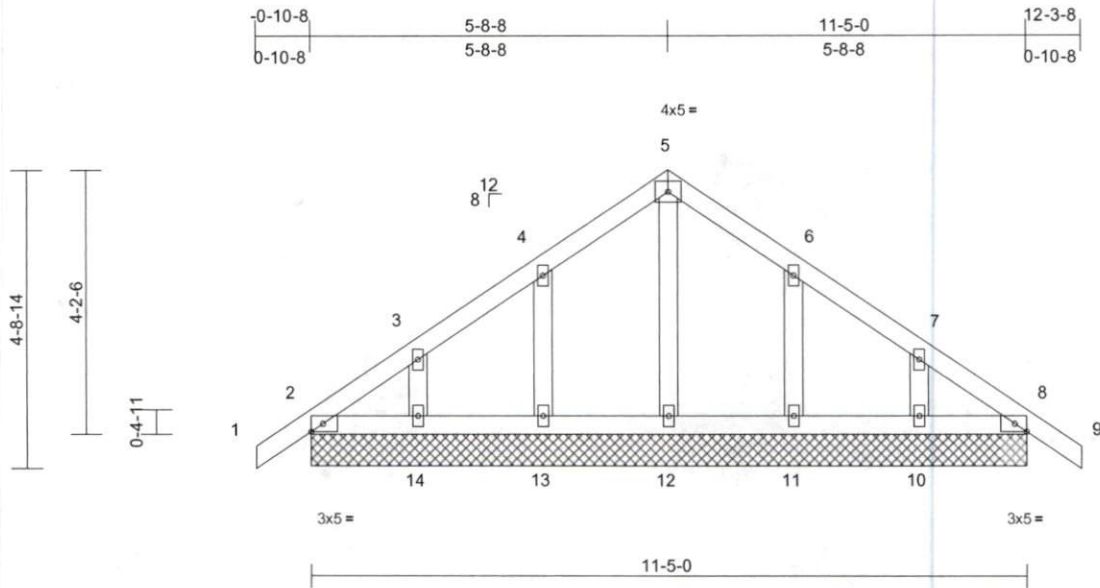
818 Soundside Road  
Edenton, NC 27932

Job 20010097-A	Truss T3GE	Truss Type Common Supported Gable	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157654
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MITek Industries, Inc. Mon Mar 09 09:31:36  
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Page: 1



Scale = 1:35.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	19	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 56 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size)

2=11-5-0, 8=11-5-0, 10=11-5-0,  
 11=11-5-0, 12=11-5-0, 13=11-5-0,  
 14=11-5-0, 15=11-5-0, 19=11-5-0  
 Max Horiz 2=87 (LC 12), 15=87 (LC 12)  
 Max Uplift 2=-10 (LC 9), 10=-28 (LC 14),  
 11=-32 (LC 14), 13=-32 (LC 13),  
 14=-28 (LC 13), 15=-10 (LC 9)  
 Max Grav 2=133 (LC 2), 8=133 (LC 2),  
 10=152 (LC 26), 11=177 (LC 26),  
 12=125 (LC 2), 13=177 (LC 25),  
 14=153 (LC 25), 15=133 (LC 2),  
 19=133 (LC 2)

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

TOP CHORD 1-2=0/37, 2-3=-69/59, 3-4=-73/47,  
 4-5=-95/99, 5-6=-95/99, 6-7=-51/34,  
 7-8=-46/40, 8-9=0/37  
 BOT CHORD 2-14=-46/80, 13-14=-46/80, 12-13=-46/80,  
 11-12=-46/80, 10-11=-46/80, 8-10=-46/80  
 WEBS 5-12=-86/0, 4-13=-139/93, 3-14=-128/78,  
 6-11=-138/93, 7-10=-128/78

**NOTES**

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

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at j(s) 2, 13, 14, 11, and 10. This connection is for uplift only and does not consider lateral forces.
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 15.
- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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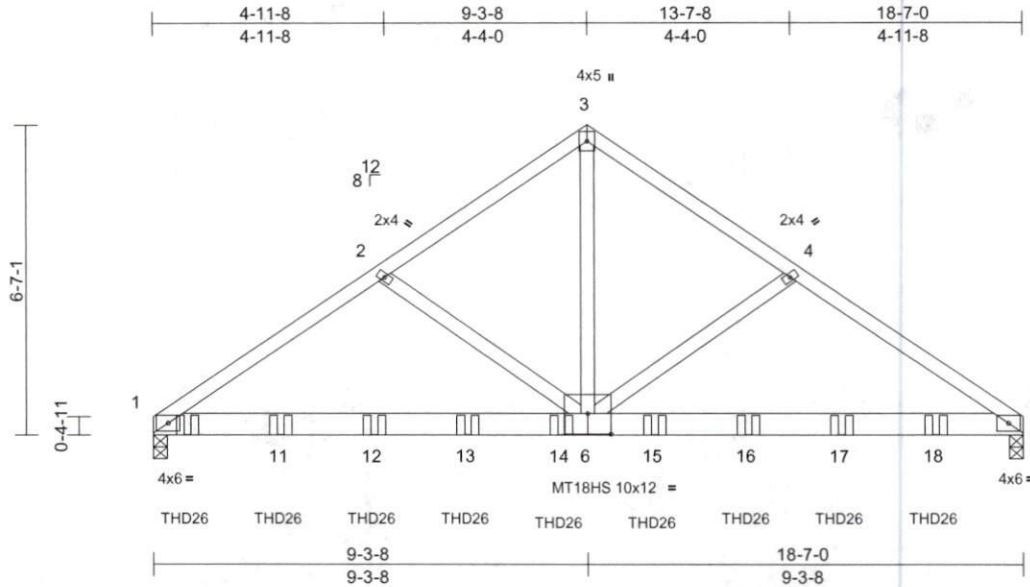
818 Soundside Road  
 Edenton, NC 27932

Job 20010097-A	Truss T3GR	Truss Type Common Girder	Qty 1	Ply 2	5 PBC-Roof Job Reference (optional)	E14157655
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 Mitek Industries, Inc. Mon Mar 09 09:31:36  
ID:F2xfvX3m?GdfwKLU37qxczj1-bvmF7tkcZej5Xr?o0ZZHpy6HJ4ryVr0octr481zcler

Page: 1



Scale = 1:47.4

Plate Offsets (X, Y): [6:0-6-0,0-5-4]

Loading	(psf)	Spacing		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.79	Vert(LL)	-0.15	6-8	>999	240	MT20	244/190
Snow (P/F/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.30	6-8	>741	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.48	Horz(CT)	0.03	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 202 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP 2400F 2.0E  
WEBS 2x4 SP No.2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-5-2 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=-123 (LC 28)  
Max Grav 1=3545 (LC 2), 5=3217 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-4590/0, 2-3=-3806/0, 3-4=-3806/0, 4-5=-4092/0  
BOT CHORD 1-11=0/3424, 11-12=0/3424, 12-13=0/3424, 13-14=0/3424, 6-14=0/3424, 6-15=0/3420, 15-16=0/3420, 16-17=0/3420, 17-18=0/3420, 5-18=0/3420  
WEBS 3-6=0/3938, 2-6=-427/68, 4-6=-423/70

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

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- All plates are MT20 plates unless otherwise indicated.
- \* 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.
- 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.
- Use USP THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-8-12 from the left end to 16-8-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S) Standard**

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-48, 3-5=-48, 1-5=-20  
Concentrated Loads (lb)  
Vert: 8=-496 (B), 11=-493 (B), 12=-493 (B), 13=-493 (B), 14=-493 (B), 15=-493 (B), 16=-493 (B), 17=-493 (B), 18=-493 (B)



**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.

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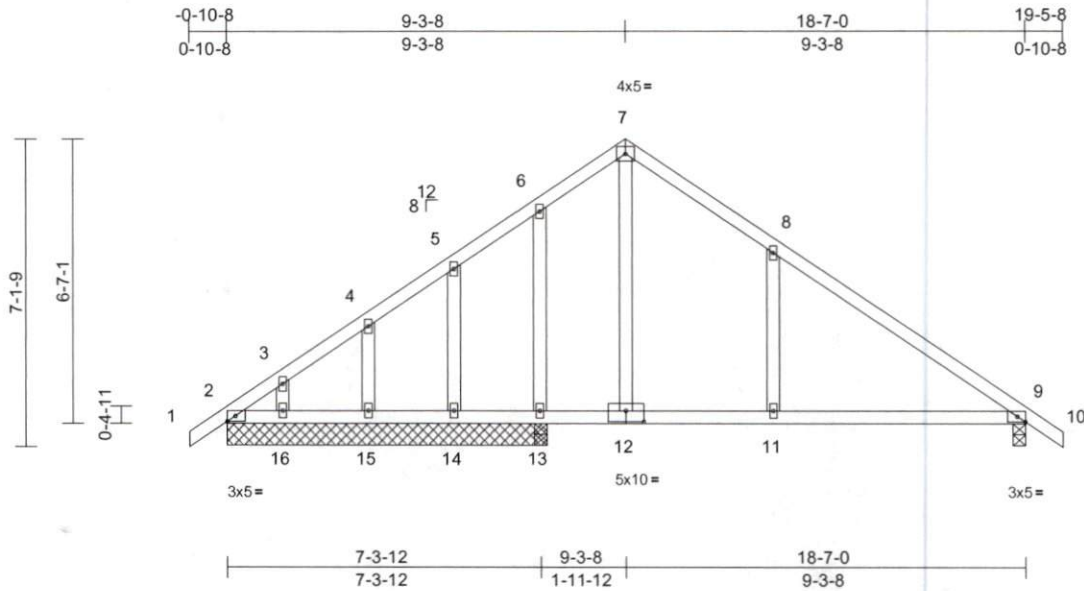
818 Soundside Road  
Edenton, NC 27932

Job 20010097-A	Truss T3SE	Truss Type Common Structural Gable	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157656
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8:33 S Feb 13 2020 Print: 8:33 S Feb 13 2020 MITek Industries, Inc. Mon Mar 09 09:31:37  
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Page: 1



Scale = 1:51.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.25	11-22	>551	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.50	11-22	>270	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.01	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 95 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-8-2 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 2=7-5-8, 9=0-3-8, 13=7-5-8, 14=7-5-8, 15=7-5-8, 16=7-5-8, 17=7-5-8  
Max Horiz 2=-134 (LC 11), 17=-134 (LC 11)  
Max Uplift 2=-11 (LC 14), 9=-33 (LC 14), 13=-288 (LC 26), 14=-41 (LC 13), 15=-27 (LC 13), 16=-32 (LC 13), 17=-11 (LC 14)  
Max Grav 2=631 (LC 26), 9=833 (LC 26), 13=97 (LC 14), 14=198 (LC 2), 15=170 (LC 25), 16=101 (LC 29), 17=631 (LC 26)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/37, 2-3=-929/41, 3-4=-932/88, 4-5=-926/147, 5-6=-918/210, 6-7=-847/244, 7-8=-851/237, 8-9=-909/127, 9-10=0/37  
BOT CHORD 2-16=0/669, 15-16=0/669, 14-15=0/669, 13-14=0/669, 12-13=0/669, 11-12=0/669, 9-11=0/669  
WEBS 7-12=-150/623, 8-11=-171/150, 6-13=-86/63, 5-14=-137/91, 4-15=-133/83, 3-16=-104/66

**NOTES**

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

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - \* 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.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 9, 13, 14, 15, and 16. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S) Standard



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

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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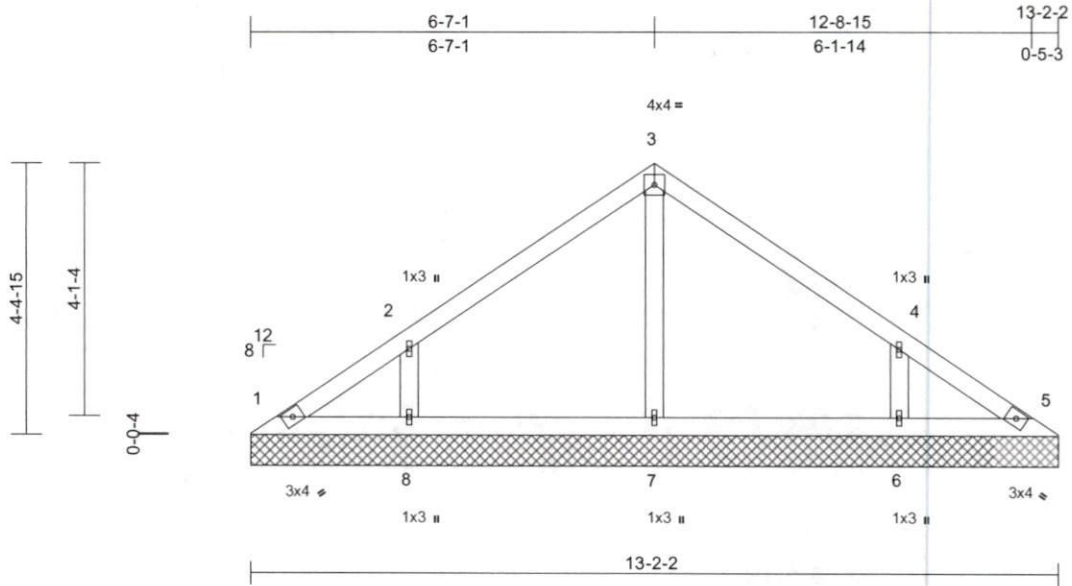
818 Soundside Road  
Edenton, NC 27932

Job 20010097-A	Truss V1	Truss Type Valley	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157657
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:37  
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Page: 1



Scale = 1:36.2

<b>Loading</b>	(psf)	<b>Spacing</b>	2-0-0	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-SH								
BCDL	10.0										Weight: 51 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=13-2-2, 5=13-2-2, 6=13-2-2,  
7=13-2-2, 8=13-2-2  
Max Horiz 1=81 (LC 12)  
Max Uplift 1=-13 (LC 9), 6=-62 (LC 14), 8=-62 (LC 13)  
Max Grav 1=77 (LC 25), 5=65 (LC 24), 6=310 (LC 25), 7=266 (LC 2), 8=310 (LC 24)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-85/67, 2-3=-117/88, 3-4=-111/88, 4-5=-63/38  
BOT CHORD 1-8=-20/48, 7-8=-20/48, 6-7=-20/48, 5-6=-20/48  
WEBS 3-7=-181/15, 2-8=-244/161, 4-6=-244/161

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) One RT4 USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 8, and 6. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



**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.

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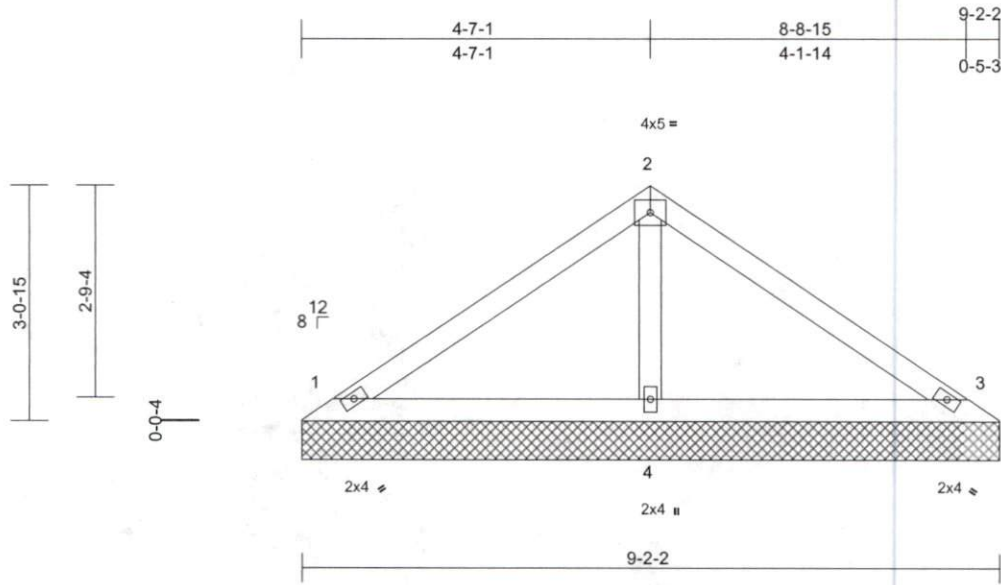
818 Soundside Road  
Edenton, NC 27932

Job 20010097-A	Truss V2	Truss Type Valley	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157658
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:37  
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Page: 1



Scale = 1:29.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	3	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-SH							
BCDL	10.0										
										Weight: 32 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=9-2-2, 3=9-2-2, 4=9-2-2  
Max Horiz 1=55 (LC 12)  
Max Uplift 1=-7 (LC 13), 3=-12 (LC 14)  
Max Grav 1=159 (LC 2), 3=159 (LC 2), 4=344 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-113/53, 2-3=-111/53  
BOT CHORD 1-4=-8/44, 3-4=-8/44  
WEBS 2-4=-204/67

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); PF=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10

- Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - \* 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.
  - One RT16A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 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

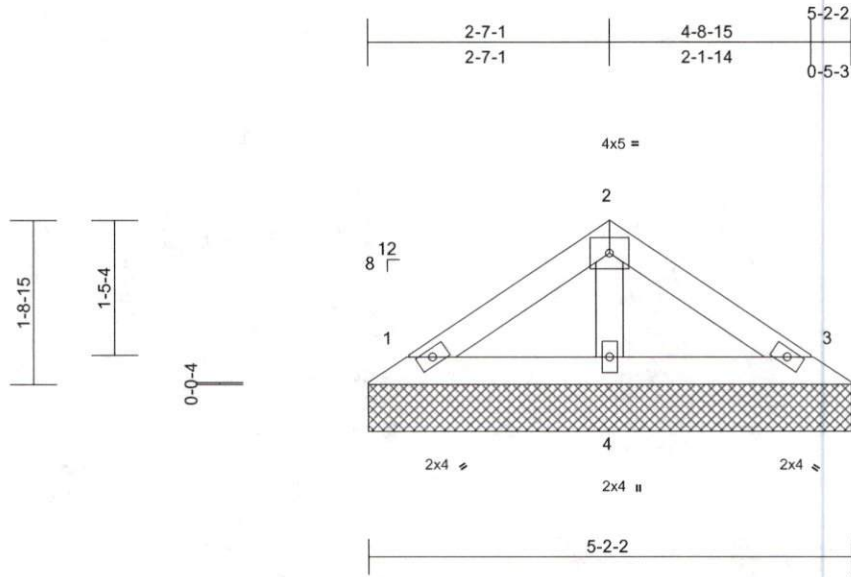


Job 20010097-A	Truss V3	Truss Type Valley	Qty 1	Ply 1	5 PBC-Roof Job Reference (optional)	E14157659
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Carter Components (Sanford), Sanford, NC - 27332.

Run: 8.33 S Feb 13 2020 Print: 8.330 S Feb 13 2020 MiTek Industries, Inc. Mon Mar 09 09:31:37  
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Page: 1



Scale = 1:23.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P							
BCDL	10.0										
										Weight: 17 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-2-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 1=5-2-2, 3=5-2-2, 4=5-2-2  
Max Horiz 1=28 (LC 12)  
Max Uplift 1=-8 (LC 13), 3=-10 (LC 14)  
Max Grav 1=92 (LC 2), 3=92 (LC 2), 4=157 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-53/28, 2-3=-50/28  
BOT CHORD 1-4=-5/22, 3-4=-5/22  
WEBS 2-4=-104/41

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10

- Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - \* 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.
  - One RT16A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



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

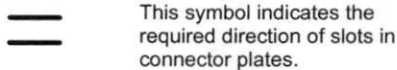
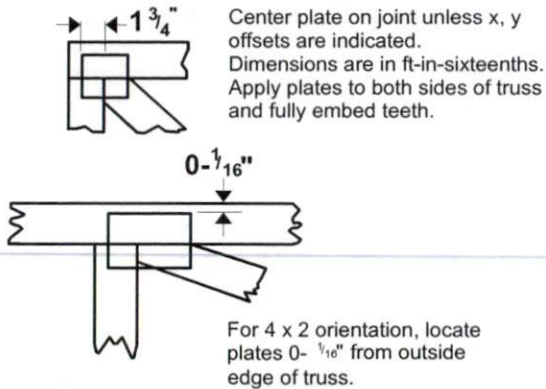
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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# Symbols

## PLATE LOCATION AND ORIENTATION



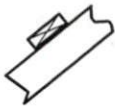
\* Plate location details available in MiTek 20/20 software or upon request.

## PLATE SIZE

4 x 4

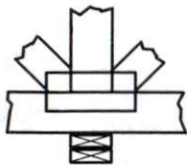
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

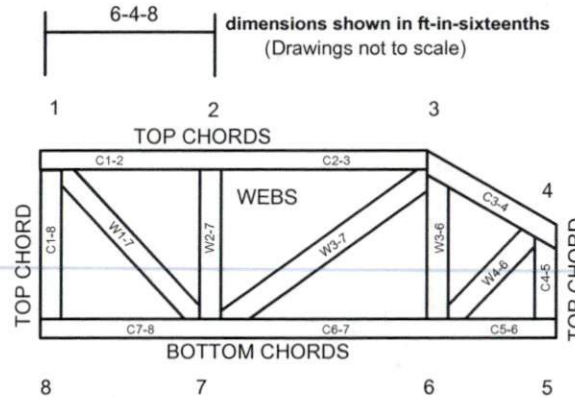


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

- ANSI/TPI1: 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.

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MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
- 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.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.
- 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.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- Connections not shown are the responsibility of others.
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.