

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 20010096
GARY ROBINSON / 4 PBC

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC)).

Pages or sheets covered by this seal: E14017203 thru E14017256

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

North Carolina COA: C-0844



January 30, 2020

Gilbert, Eric

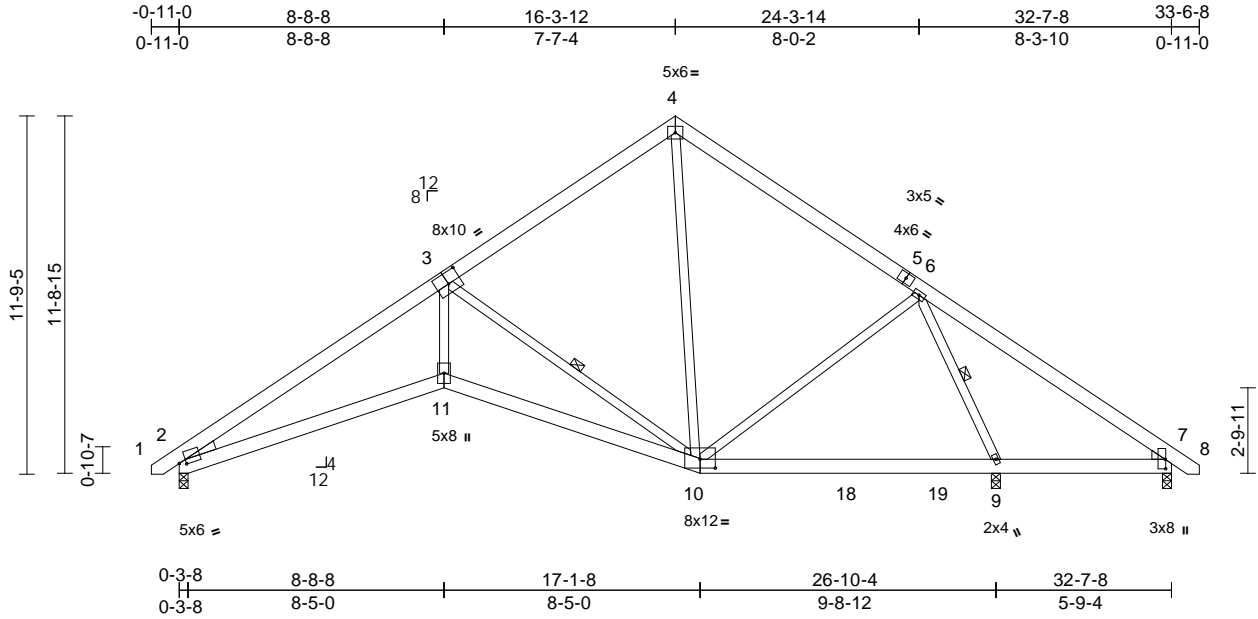
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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

Job 20010096	Truss A1	Truss Type Roof Special	Qty 2	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017203
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:41
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Page: 1



Scale = 1:75.8

Plate Offsets (X, Y): [2:0-2-11,0-1-2], [3:0-5-0,0-4-8], [7:0-3-12,0-0-4], [10:0-6-0,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.10	10-11	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.22	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.13	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 236 lb	FT = 20%	

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.2 *Except* 3-11:2x4 SP No.3
 WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-6 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 6-9, 3-10

REACTIONS

(lb/size) 2=871/0-3-8, 7=137/0-3-8, 9=1544/0-3-8
 Max Horiz 2=-225 (LC 11)
 Max Uplift 2=-9 (LC 13), 7=-326 (LC 25)
 Max Grav 2=1034 (LC 2), 7=53 (LC 30), 9=1810 (LC 2)

FORCES

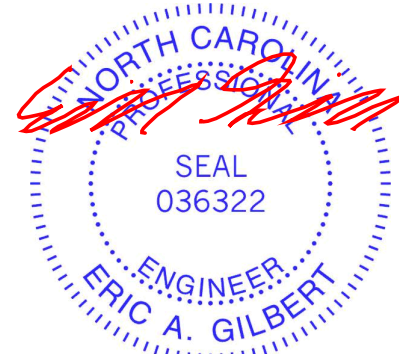
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/30, 2-3=-2241/394, 3-4=-710/311, 4-5=-734/322, 5-6=-748/269, 6-7=0/872, 7-8=0/30
 BOT CHORD 2-11=-213/1912, 10-11=-211/1909, 10-18=-84/228, 18-19=-84/228, 9-19=-84/228, 7-9=-604/11
 WEBS 4-10=-161/372, 6-10=0/580, 6-9=-1663/202, 3-11=-34/1330, 3-10=-1621/342

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; porch 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 7, and 9. 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



January 30, 2020

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

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



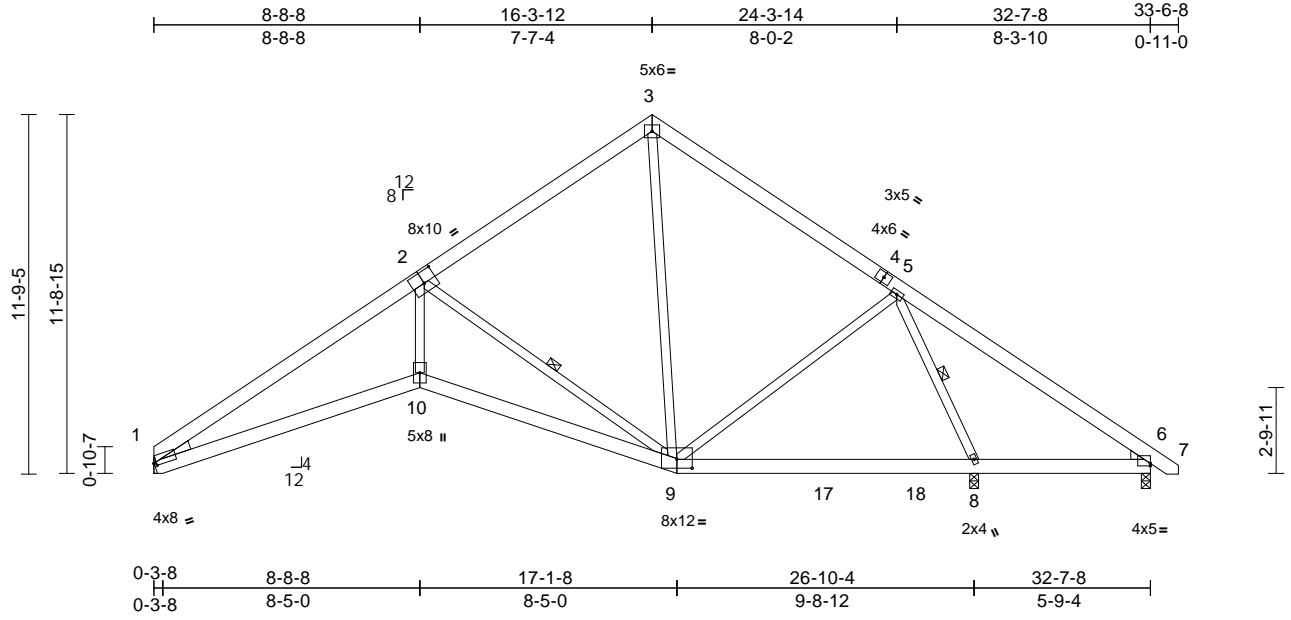
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss A2	Truss Type Roof Special	Qty 7	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017204
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:75.4

Plate Offsets (X, Y): [1:0-1-1,0-1-2], [2:0-5-0,0-4-8], [6:Edge,0-0-15], [9:0-6-0,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.10	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.23	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.14	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 234 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.2 *Except* 2-10:2x4 SP No.3
 WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-5 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

WEBS 1 Row at midpt 5-8, 2-9

REACTIONS (lb/size) 1=841/ Mechanical, 6=115/0-3-8, 8=1518/0-3-8
 Max Horiz 1=222 (LC 11)
 Max Uplift 1=3 (LC 13), 6=301 (LC 25)
 Max Grav 1=996 (LC 2), 6=71 (LC 30), 8=1779 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

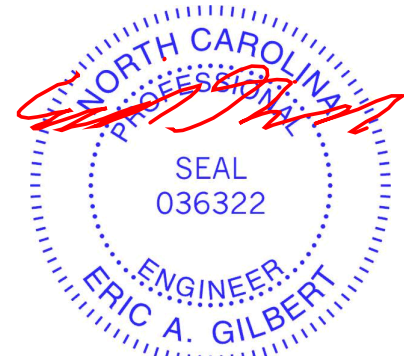
TOP CHORD 1-2=-2261/400, 2-3=-720/314, 3-4=-746/325, 4-5=-760/272, 5-6=0/839, 6-7=0/30
 BOT CHORD 1-10=-218/1929, 9-10=-216/1927, 9-17=-90/244, 17-18=-90/244, 8-18=-90/244, 6-8=-573/9
 WEBS 3-9=-164/384, 5-9=0/562, 5-8=-1644/199, 2-10=-37/1340, 2-9=-1632/345

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; porch 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, with BCDL = 10.0psf.
- Bearings are assumed to be: , Joint 8 SP No.2 crushing capacity of 565 psi, Joint 6 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 1.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 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



January 30, 2020

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

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



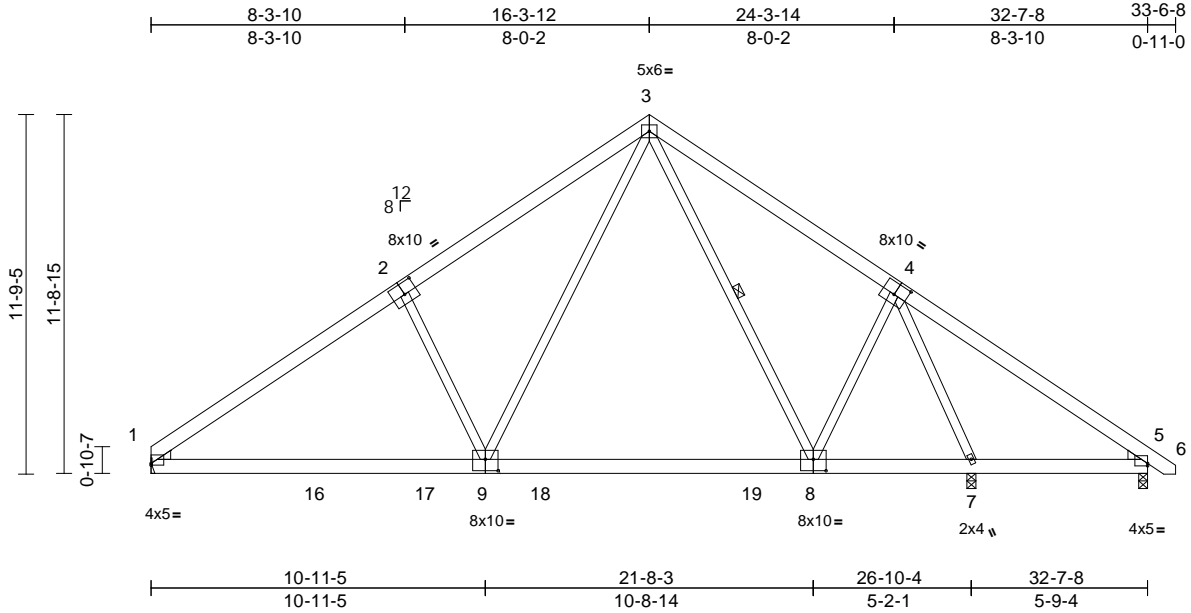
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss A3	Truss Type Common	Qty 2	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017205
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



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Plate Offsets (X, Y): [1:Edge,0-0-11], [2:0-5-0,0-4-8], [4:0-5-0,0-4-8], [5:Edge,0-0-15], [8:0-5-0,0-4-8], [9:0-5-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.14	8-9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.22	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 235 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.2
 WEDGE Left: 2x4 SP No.3
 Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-7-15 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 3-8

REACTIONS

(lb/size) 1=927/ Mechanical, 5=297/0-3-8, 7=1019/0-3-8
 Max Horiz 1=222 (LC 11)
 Max Uplift 5=54 (LC 9)
 Max Grav 1=1172 (LC 25), 5=369 (LC 30), 7=1215 (LC 26)

FORCES

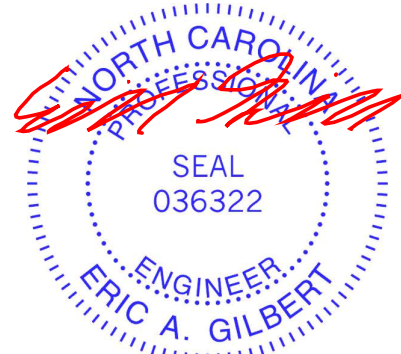
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-1584/307, 2-3=-1430/404, 3-4=-1002/373, 4-5=-283/177, 5-6=0/30
 BOT CHORD 1-16=-216/1377, 16-17=-122/1377, 9-17=-122/1377, 9-18=0/768, 18-19=0/768, 8-19=0/768, 7-8=-69/582, 5-7=-18/139
 WEBS 2-9=-476/300, 3-9=-157/945, 3-8=-127/148, 4-8=0/383, 4-7=-1256/130

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; porch 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, with BCDL = 10.0psf.
- Bearings are assumed to be: , Joint 7 SP No.2 crushing capacity of 565 psi, Joint 5 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 7. 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



January 30, 2020

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



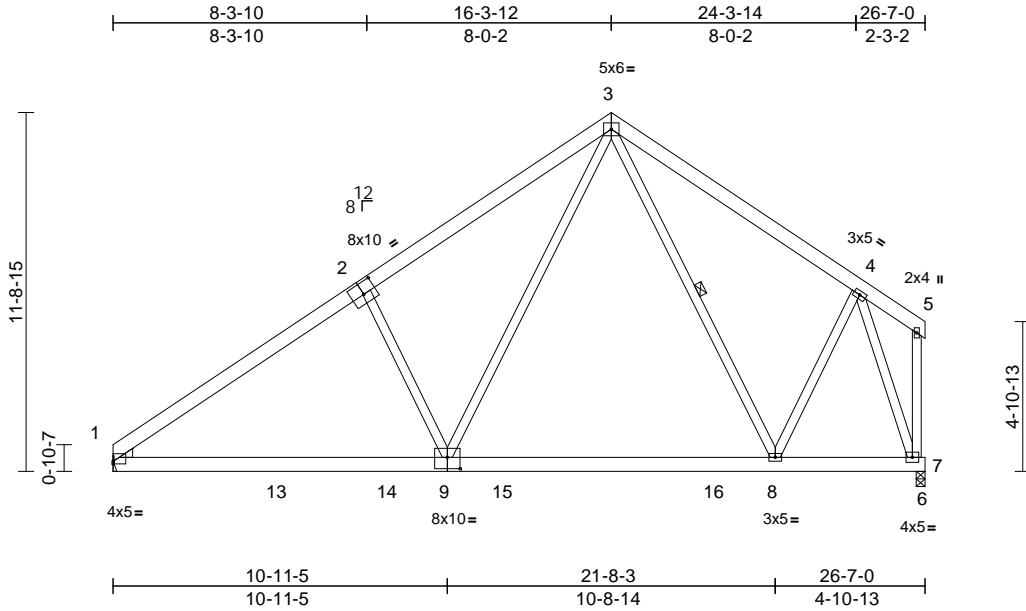
818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss A4	Truss Type Common	Qty 2	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017206
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:75.4

Plate Offsets (X, Y): [1:Edge,0-0-15], [2:0-5-0,0-4-8], [9:0-5-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.14	8-9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.21	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 207 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.2 *Except* 7-5:2x4 SP No.3
 WEDGE Left: 2x4 SP No.3

BRACING

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

REACTIONS (lb/size) 1=891/ Mechanical, 7=896/0-3-8
 Max Horiz 1=211 (LC 10)
 Max Grav 1=1136 (LC 24), 7=1117 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension

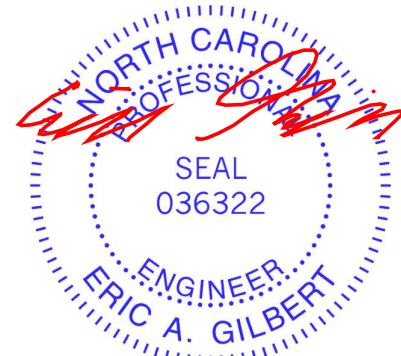
TOP CHORD 1-2=-1525/253, 2-3=-1365/345,
 3-4=-837/256, 4-5=-40/124, 5-7=-75/112
 BOT CHORD 1-13=-285/1301, 13-14=-247/1301,
 9-14=-247/1301, 9-15=-49/687,
 15-16=-49/687, 8-16=-49/687, 7-8=-85/395,
 6-7=0/0
 WEBS 4-7=-1283/275, 2-9=-475/299, 3-9=-152/939,
 3-8=-182/87, 4-8=0/528

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; 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=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, with BCDL = 10.0psf.
- 5) Bearings are assumed to be: , Joint 7 SP No.2 crushing capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 30, 2020

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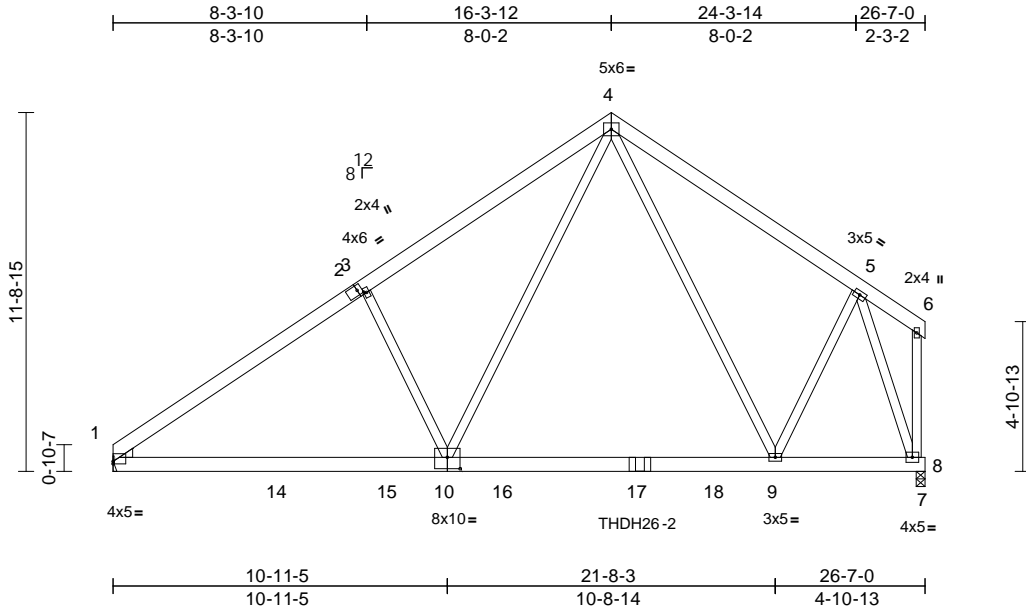
818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss A4A	Truss Type Common Girder	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017207
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:45
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Page: 1



Scale = 1:75.4

Plate Offsets (X, Y): [1:Edge,0-0-15], [2:0-1-12,0-2-0], [10:0-5-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.23	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.42	9-10	>758	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.34	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 414 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2 *Except* 10-7:2x6 SP 2400F 2.0E
 WEBS 2x4 SP No.2 *Except* 8-6:2x4 SP No.3
 WEDGE Left: 2x4 SP No.3

BRACING

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

REACTIONS

(lb/size) 1=1245/ Mechanical, 8=1570/0-3-8
 Max Horiz 1=269 (LC 8)
 Max Uplift 1=-46 (LC 9), 8=-77 (LC 9)
 Max Grav 1=1526 (LC 42), 8=1905 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2293/135, 2-3=-2071/137, 3-4=-2117/220, 4-5=-1642/199, 5-6=-66/127, 6-8=-80/99
 BOT CHORD 1-14=-307/1916, 14-15=-131/1916, 10-15=-131/1916, 10-16=-62/1139, 16-17=-62/1139, 17-18=-62/1139, 9-18=-62/1139, 8-9=-76/743, 7-8=0/0
 WEBS 5-8=-2452/204, 3-10=-473/240, 4-10=-115/1387, 4-9=-204/511, 5-9=-74/1258

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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; MWFERS (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
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: . Joint 8 SP 2400F 2.0E crushing capacity of 805 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 1.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 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.
- Use USP THDH26-2 (With 20-16d nails into Girder & 8-16d nails into Truss) or equivalent at 17-3-0 from the left end to connect truss(es) to front 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: 1-4=-48, 4-6=-48, 7-11=-20
 Concentrated Loads (lb)
 Vert: 17=-1028 (F)



January 30, 2020

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

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



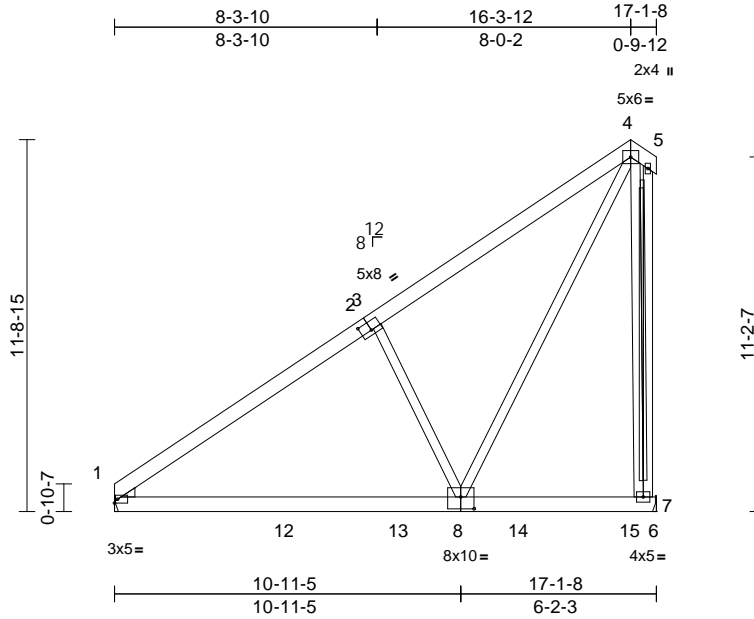
818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss A4B	Truss Type Common	Qty 2	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017208
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:45
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Page: 1



Scale = 1:72.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.07	8-11	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.17	8-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.01	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 149 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.2
 WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS T-Brace: 2x4 SPF No.2 - 5-7, 4-7
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
 Brace must cover 90% of web length.

REACTIONS

(lb/size) 1=571/ Mechanical, 7=576/ Mechanical
 Max Horiz 1=286 (LC 13)
 Max Uplift 7=113 (LC 13)
 Max Grav 1=706 (LC 24), 7=837 (LC 24)

FORCES

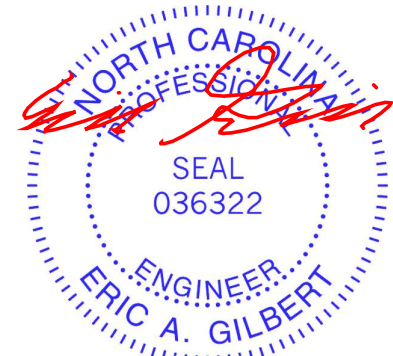
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-768/0, 2-3=-553/0, 3-4=-629/66, 4-5=-47/63, 5-7=-88/95
 BOT CHORD 1-12=-453/653, 12-13=-240/653, 8-13=-240/653, 8-14=-18/44, 14-15=-18/44, 7-15=-18/44, 6-7=0/0
 WEBS 3-8=-519/317, 4-8=-203/906, 4-7=-836/344

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; 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=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, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 7.
- 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard



January 30, 2020

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



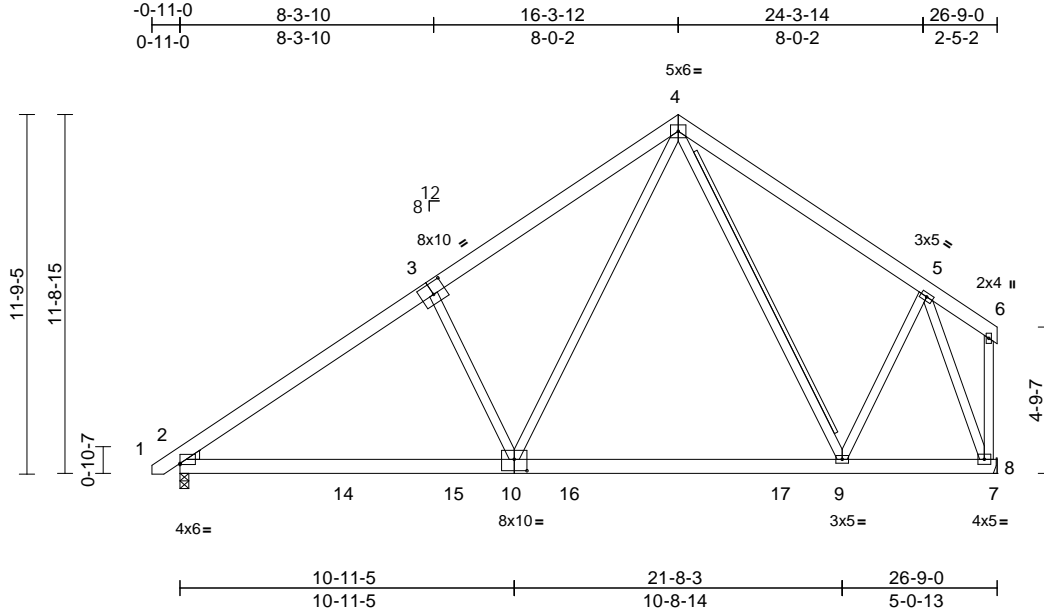
818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss A5	Truss Type Common	Qty 2	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017209
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:46
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Page: 1



Scale = 1:75.4

Plate Offsets (X, Y): [2:Edge,0-0-7], [3:0-5-0,0-4-8], [10:0-5-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.14	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.22	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 210 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.2 *Except* 8-6:2x4 SP No.3
 WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS T-Brace: 2x4 SPF No.2 - 4-9
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
 Brace must cover 90% of web length.

REACTIONS (lb/size) 2=931/0-3-8, 8=902/ Mechanical
 Max Horiz 2=218 (LC 10)
 Max Grav 2=1183 (LC 25), 8=1120 (LC 25)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/30, 2-3=-1531/254, 3-4=-1377/351, 4-5=-860/262, 5-6=-33/119, 6-8=-62/93
 BOT CHORD 2-14=-311/1305, 14-15=-243/1305, 10-15=-243/1305, 10-16=-47/697, 16-17=-47/697, 9-17=-47/697, 8-9=-88/424, 7-8=0/0
 WEBS 3-10=-475/299, 4-10=-155/942, 4-9=-162/90, 5-9=0/504, 5-8=-1276/266

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; 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=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 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, with BCDL = 10.0psf.
- 6) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 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.
- 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard



January 30, 2020

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

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



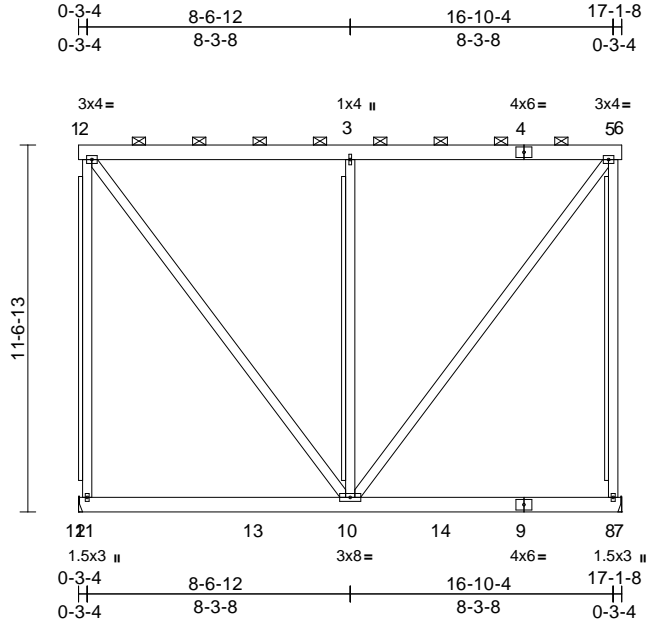
818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss A6	Truss Type Flat	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017210
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:46
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Page: 1



Scale = 1:72.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.05	10-11	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.09	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 167 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 3-10, 2-11, 5-8
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS

(lb/size) 8=665/ Mechanical, 11=665/ Mechanical
Max Uplift 8=-23 (LC 10), 11=-23 (LC 9)
Max Grav 8=751 (LC 3), 11=751 (LC 3)

FORCES

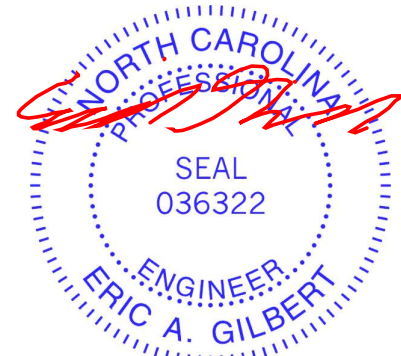
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/0, 2-3=-321/60, 3-4=-321/60, 4-5=-321/60, 5-6=0/0
BOT CHORD 11-12=0/0, 11-13=0/0, 10-13=0/0, 10-14=0/0, 9-14=0/0, 8-9=0/0, 7-8=0/0
WEBS 2-10=-101/536, 3-10=-617/286, 5-10=-101/536, 2-11=-615/174, 5-8=-615/174

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; 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=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

- 3) Provide adequate drainage to prevent water ponding.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 11 and 23 lb uplift at joint 8.
- 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard



January 30, 2020

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

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



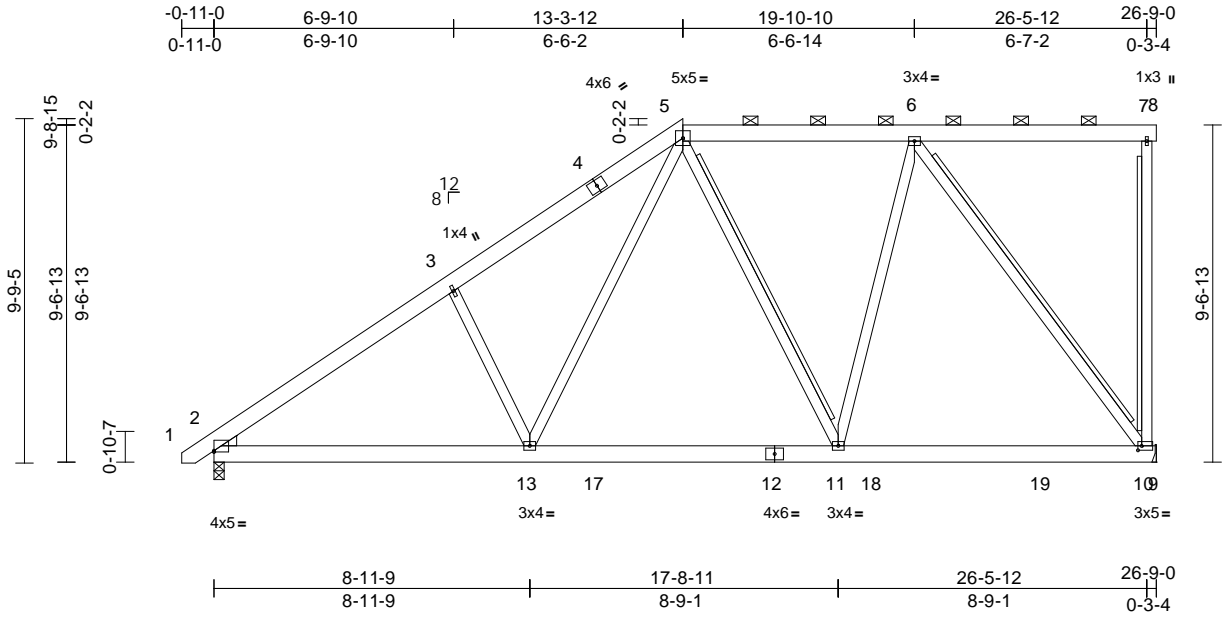
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss A6A	Truss Type Half Hip	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017211
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:47
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Page: 1



Scale = 1:65.4

Plate Offsets (X, Y): [2:Edge,0-0-7], [10:0-1-4,0-1-8]

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	0.29	Vert(LL)	-0.07	11-13	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.12	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.02	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 213 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except* 13-3:2x4 SP No.3
WEDGE Left: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-5 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 7-10, 6-10, 5-11
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (lb/size) 2=964/0-3-8, 10=1016/ Mechanical
Max Horiz 2=246 (LC 13)
Max Uplift 10=40 (LC 10)
Max Grav 2=1108 (LC 25), 10=1129 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-1481/198, 3-4=-1353/258, 4-5=-1238/277, 5-6=-760/165, 6-7=0/0, 7-8=0/0
BOT CHORD 2-13=-422/1214, 13-17=-226/810, 12-17=-226/810, 11-12=-226/810, 11-18=-162/641, 18-19=-162/641, 10-19=-162/641, 9-10=0/0
WEBS 7-10=-169/77, 6-10=-1094/276, 3-13=-373/242, 5-13=-132/600, 5-11=-222/143, 6-11=-10/563

- 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; 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
- 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.
- 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, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 10.
- 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.
- 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.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard



January 30, 2020

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

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



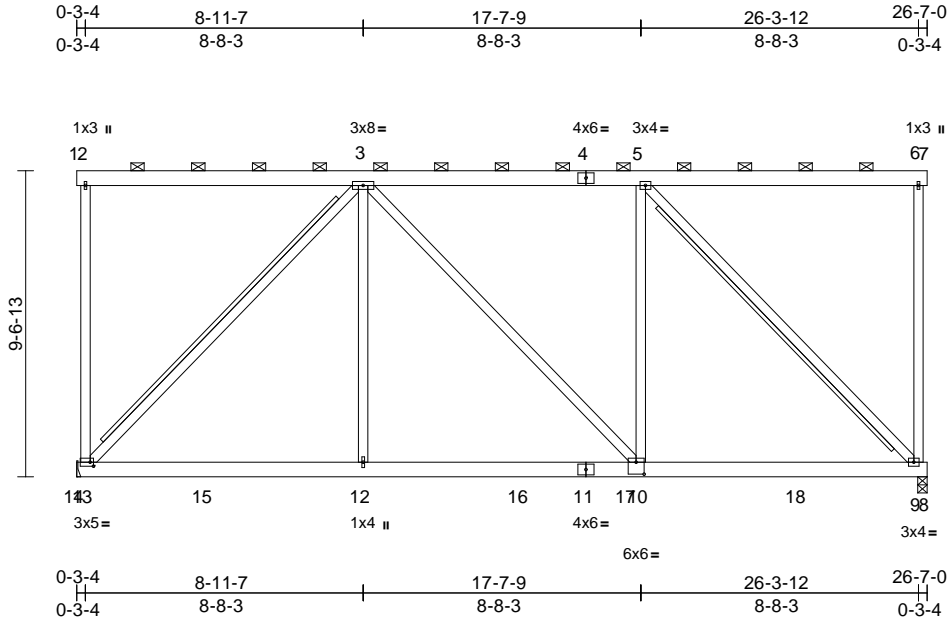
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss A7	Truss Type Flat Girder	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017212
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:48
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Page: 1



Scale = 1:72

Plate Offsets (X, Y): [10:0-3-0,0-4-8], [13:0-1-4,0-1-8]

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	0.25	Vert(LL)	-0.05	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.09	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	1.00	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 459 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 5-9, 3-13
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS

(lb/size) 9=1822/0-3-8, 13=1454/
Mechanical
Max Uplift 9=-213 (LC 6), 13=-131 (LC 5)
Max Grav 9=2041 (LC 3), 13=1639 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/0, 2-3=0/0, 3-4=-1695/198, 4-5=-1695/198, 5-6=0/0, 6-7=0/0
BOT CHORD 13-14=0/0, 13-15=-118/1301, 12-15=-118/1301, 12-16=-118/1301, 11-16=-118/1301, 11-17=-118/1301, 10-17=-118/1301, 10-18=-198/1695, 9-18=-198/1695, 8-9=0/0
WEBS 2-13=-227/54, 6-9=-228/55, 5-9=-2457/287, 3-12=0/537, 3-13=-1886/171, 3-10=-120/574, 5-10=-67/1306

NOTES

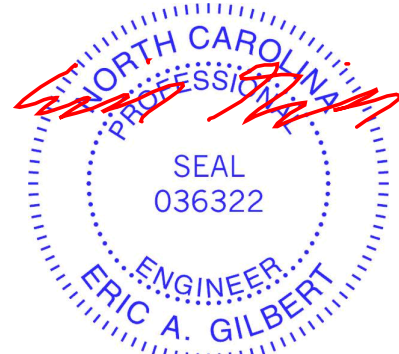
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.

- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 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); 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, with BCDL = 10.0psf.
- Bearings are assumed to be: , Joint 9 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 131 lb uplift at joint 13.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. 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.
- 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) 1392 lb down and 278 lb up at 17-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-7=-58, 8-14=-20
Concentrated Loads (lb)
Vert: 17=-1210 (B)



January 30, 2020

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818 Soundside Road
Edenton, NC 27932

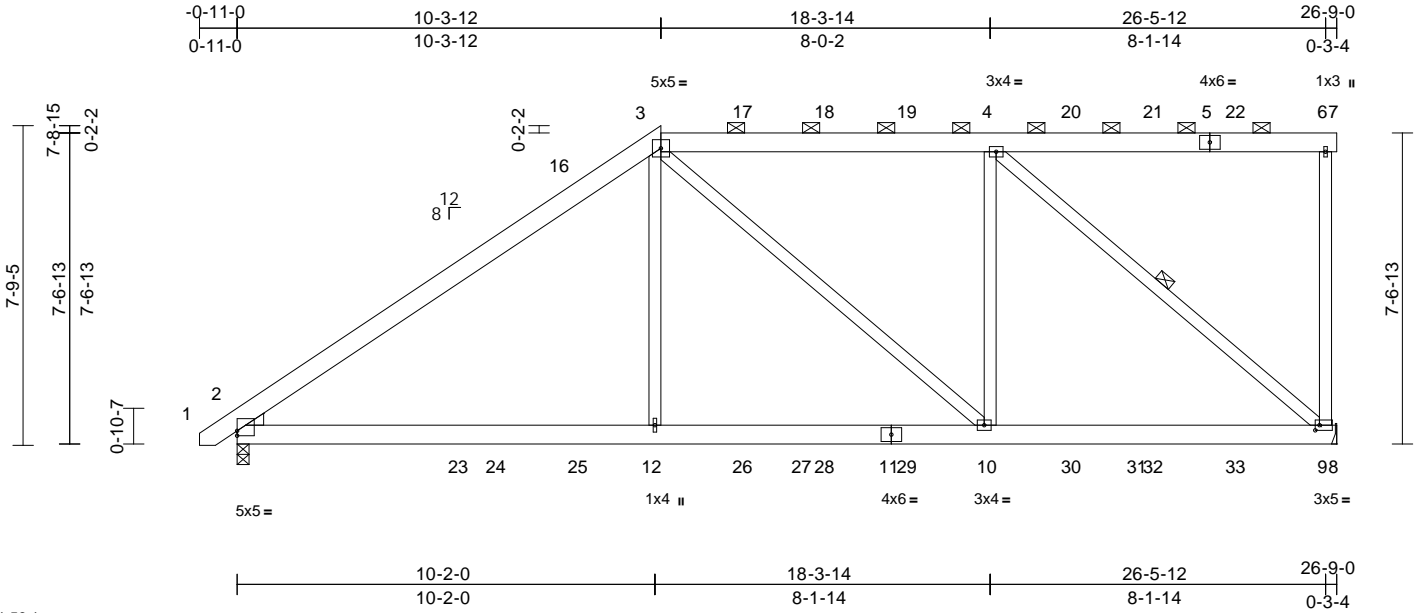
Job 20010096	Truss A7A	Truss Type Half Hip Girder	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017213
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:49

Page: 1

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Scale = 1:56.1

Plate Offsets (X, Y): [2:Edge,0-1-7], [9:0-1-4,0-1-8]

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	0.44	Vert(LL)	0.11	12-15	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.21	12-15	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.52	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 388 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.2
 WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-7.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 4-9

REACTIONS

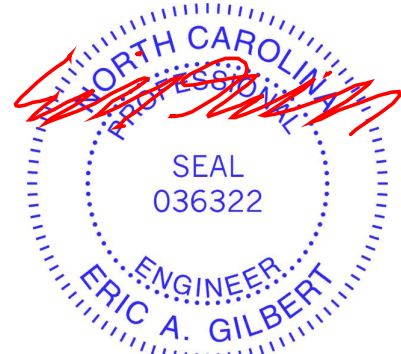
(lb/size) 2=1785/0-3-8, 9=2038/ Mechanical
 Max Horiz 2=192 (LC 9)
 Max Uplift 2=-468 (LC 9), 9=-832 (LC 6)
 Max Grav 2=2168 (LC 44), 9=2460 (LC 47)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/30, 2-16=-2934/717, 3-16=-2714/748, 3-17=-2040/657, 17-18=-2041/657, 18-19=-2042/658, 4-19=-2043/658, 4-20=0/0, 20-21=0/0, 5-21=0/0, 5-22=0/0, 6-22=0/0, 6-7=0/0
 BOT CHORD 2-23=-681/2362, 23-24=-681/2362, 24-25=-681/2362, 12-25=-681/2362, 12-26=-677/2338, 26-27=-677/2338, 27-28=-677/2338, 11-28=-677/2338, 11-29=-677/2338, 10-29=-677/2338, 10-30=-657/2042, 30-31=-657/2042, 31-32=-657/2042, 32-33=-657/2042, 9-33=-657/2042, 8-9=0/0
 WEBS 3-12=-161/1182, 4-9=-2708/871, 6-9=-267/138, 3-10=-398/58, 4-10=-273/1216

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 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); 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
- 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.
- 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, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 832 lb uplift at joint 9.
- 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.
- 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.



January 30, 2020

Continued on page 2

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818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss A7A	Truss Type Half Hip Girder	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017213
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 2

- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 25 lb down and 29 lb up at 8-4-8, 151 lb down and 147 lb up at 10-3-12, 76 lb down and 66 lb up at 12-4-8, 76 lb down and 66 lb up at 14-4-8, 76 lb down and 66 lb up at 16-4-8, 76 lb down and 66 lb up at 18-4-8, 76 lb down and 66 lb up at 20-4-8, 76 lb down and 66 lb up at 22-4-8, and 76 lb down and 66 lb up at 24-4-8, and 71 lb down and 65 lb up at 26-4-8 on top chord, and 469 lb down and 155 lb up at 6-4-8, 198 lb down and 84 lb up at 8-4-8, 67 lb down at 10-4-8, 160 lb down and 87 lb up at 12-4-8, 160 lb down and 87 lb up at 14-4-8, 160 lb down and 87 lb up at 16-4-8, 160 lb down and 87 lb up at 18-4-8, 160 lb down and 87 lb up at 20-4-8, 160 lb down and 87 lb up at 22-4-8, and 160 lb down and 87 lb up at 24-4-8, and 166 lb down and 81 lb up at 26-4-8 on bottom 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: 1-3=-48, 3-7=-58, 8-13=-20
Concentrated Loads (lb)
Vert: 3=-94 (B), 12=-44 (B), 9=-130 (B), 4=-9 (B), 6=-26 (B), 10=-124 (B), 17=-9 (B), 18=-9 (B), 19=-9 (B), 20=-9 (B), 21=-9 (B), 22=-9 (B), 24=-419 (B), 25=-172 (B), 26=-124 (B), 28=-124 (B), 29=-124 (B), 30=-124 (B), 32=-124 (B), 33=-124 (B)

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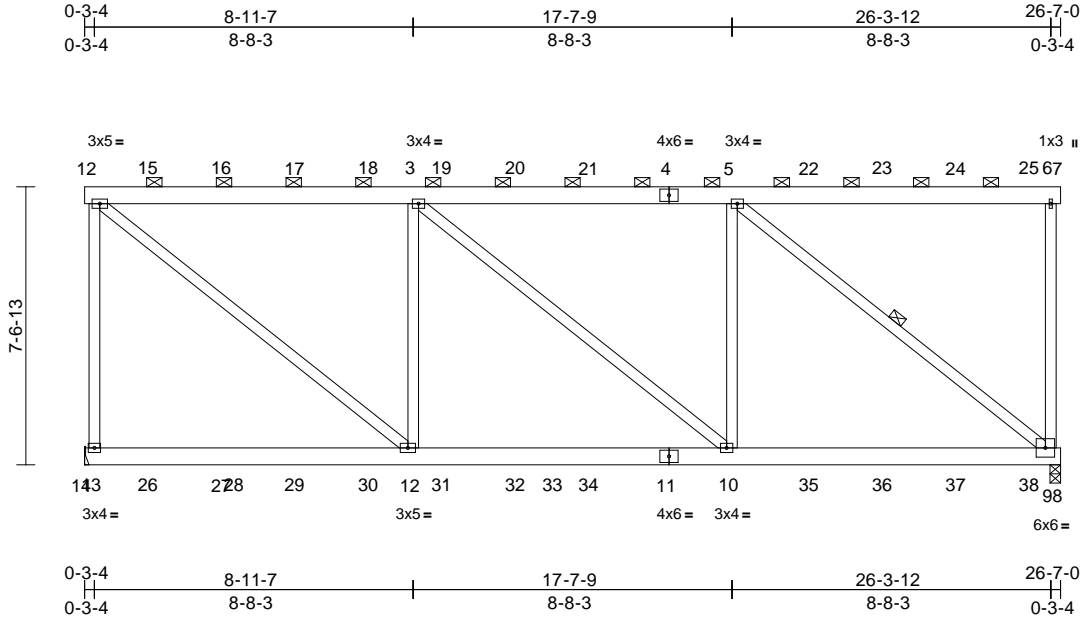
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss A8	Truss Type Flat Girder	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017214
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:51
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Page: 1



Scale = 1:62.7

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)	0.04	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.10	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 423 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 5-9

REACTIONS (lb/size) 9=2112/0-3-8, 13=1864/
Mechanical

Max Uplift 9=-698 (LC 6), 13=-586 (LC 5)
Max Grav 9=2619 (LC 39), 13=2269 (LC 40)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/0, 2-15=-2038/544, 15-16=-2038/544, 16-17=-2038/544, 17-18=-2038/544, 3-18=-2038/544, 3-19=-2060/538, 19-20=-2060/538, 20-21=-2060/538, 4-21=-2060/538, 4-5=-2060/538, 5-22=0/0, 22-23=0/0, 23-24=0/0, 24-25=0/0, 6-25=0/0, 6-7=0/0
BOT CHORD 13-14=0/0, 13-26=0/0, 26-27=0/0, 27-28=0/0, 28-29=0/0, 29-30=0/0, 12-30=0/0, 12-31=-544/2038, 31-32=-544/2038, 32-33=-544/2038, 33-34=-544/2038, 11-34=-544/2038, 10-11=-544/2038, 10-35=-538/2060, 35-36=-538/2060, 36-37=-538/2060, 37-38=-538/2060, 9-38=-538/2060, 8-9=0/0
WEBS 5-9=-2663/695, 2-13=-2030/668, 6-9=-657/384, 3-12=-1164/686, 2-12=-703/2634, 3-10=0/30, 5-10=0/570

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); 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, with BCDL = 10.0psf.
- Bearings are assumed to be: , Joint 9 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 586 lb uplift at joint 13.
- One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 30, 2020

Continued on page 2

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818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss A8	Truss Type Flat Girder	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017214
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 2

- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 155 lb down and 134 lb up at 1-9-12, 155 lb down and 134 lb up at 3-9-12, 155 lb down and 134 lb up at 5-9-12, 155 lb down and 134 lb up at 7-9-12, 155 lb down and 134 lb up at 9-9-12, 155 lb down and 134 lb up at 11-9-12, 155 lb down and 134 lb up at 13-9-12, 155 lb down and 134 lb up at 15-9-12, 155 lb down and 134 lb up at 17-9-12, 174 lb down and 127 lb up at 19-9-12, 174 lb down and 127 lb up at 21-9-12, 174 lb down and 127 lb up at 23-9-12, and 172 lb down and 128 lb up at 25-9-12, and 185 lb down and 126 lb up at 26-7-0 on top chord, and 67 lb down at 1-9-12, 67 lb down at 3-9-12, 67 lb down at 5-9-12, 67 lb down at 7-9-12, 67 lb down at 9-9-12, 67 lb down at 11-9-12, 67 lb down at 13-9-12, 67 lb down at 15-9-12, 67 lb down at 17-9-12, 68 lb down at 19-9-12, 68 lb down at 21-9-12, 68 lb down at 23-9-12, and 69 lb down at 25-9-12, and 74 lb down at 26-7-0 on bottom 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: 1-7=-58, 8-14=-20
Concentrated Loads (lb)
Vert: 4=-89 (F), 11=-44 (F), 9=-52 (F), 5=-89 (F), 6=-118 (F), 10=-44 (F), 15=-89 (F), 16=-89 (F), 17=-89 (F), 18=-89 (F), 19=-89 (F), 20=-89 (F), 21=-89 (F), 22=-91 (F), 23=-91 (F), 24=-91 (F), 25=-98 (F), 26=-44 (F), 27=-44 (F), 29=-44 (F), 30=-44 (F), 31=-44 (F), 32=-44 (F), 34=-44 (F), 35=-42 (F), 36=-42 (F), 37=-42 (F), 38=-45 (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.



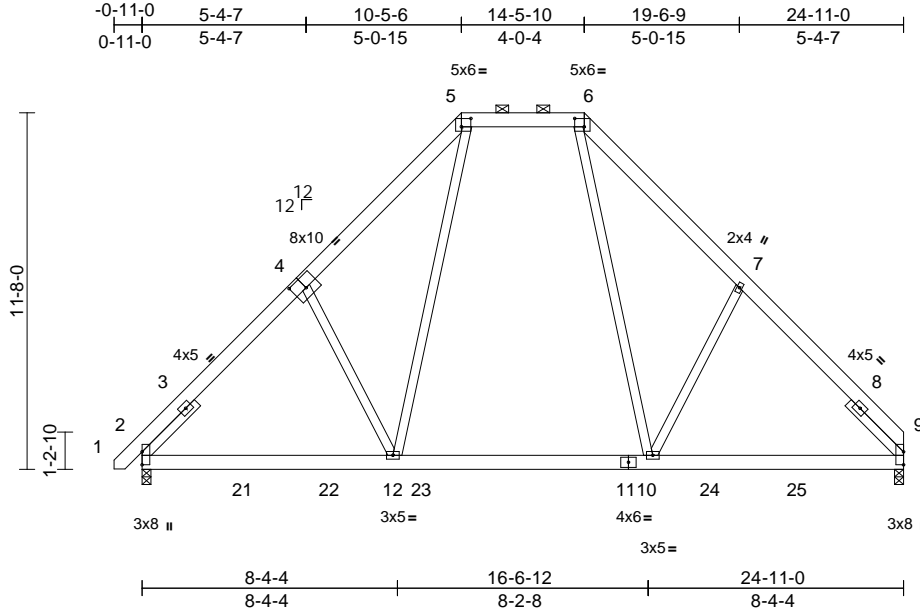
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss B1	Truss Type Piggyback Base	Qty 4	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017215
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:51
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Page: 1



Scale = 1:75.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	0.08	12-19	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.11	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 200 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
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, except 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=900/0-3-8, 9=863/0-3-8
Max Horiz 2=218 (LC 10)
Max Grav 2=1098 (LC 25), 9=1059 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=610/52, 3-4=-1159/239, 4-5=-1074/361, 5-6=-613/300, 6-7=-1079/363, 7-8=-1162/239, 8-9=-621/42
BOT CHORD 2-21=-149/887, 21-22=-69/887, 12-22=-69/887, 12-23=0/653, 11-23=0/653, 10-11=0/653, 10-24=-59/775, 24-25=-59/775, 9-25=-59/775
WEBS 4-12=-325/258, 5-12=-134/543, 6-10=-137/555, 7-10=-327/259

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

- 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
- 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.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 2. 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



January 30, 2020

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

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



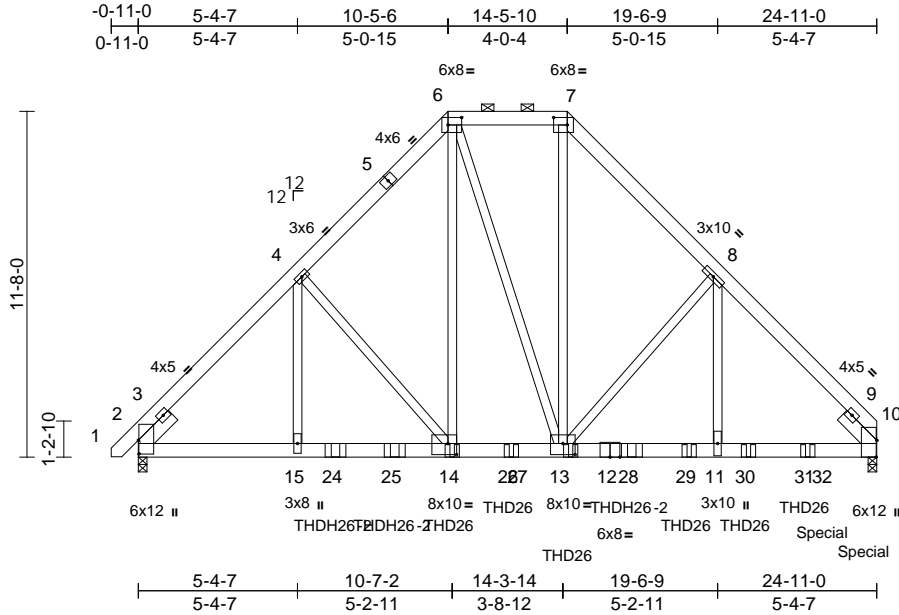
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss B2	Truss Type Piggyback Base Girder	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017216
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:52
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Page: 1



Scale = 1:77.8

Plate Offsets (X, Y): [2:0-5-10,0-0-3], [6:0-5-8,0-0-3-0], [7:0-5-8,0-0-3-0], [10:0-6-14,Edge], [13:0-5-0,0-4-8], [14:0-3-8,0-4-8]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.14	14-15	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.28	14-15	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.54	Horz(CT)	0.05	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 472 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0, Right 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-2 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=5026/0-3-8, 10=7387/0-3-8
Max Horiz 2=212 (LC 30)
Max Uplift 2=-191 (LC 9)
Max Grav 2=5610 (LC 2), 10=8556 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-4819/123, 3-4=-7133/343, 4-5=-5727/36, 5-6=-5638/57, 6-7=-4028/0, 7-8=-5703/0, 8-9=-7937/0, 9-10=-6605/0
BOT CHORD 2-15=-282/4819, 15-24=-282/4819, 24-25=-282/4819, 14-25=-282/4819, 14-26=0/4066, 26-27=0/4066, 13-27=0/4066, 12-13=0/5495, 12-28=0/5495, 28-29=0/5495, 11-29=0/5495, 11-30=0/5495, 30-31=0/5495, 31-32=0/5495, 10-32=0/5495
WEBS 4-15=-524/1872, 4-14=-1279/513, 6-14=-533/3875, 6-13=-244/643, 7-13=0/3769, 8-13=-2326/0, 8-11=0/3153

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; 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
5) 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
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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
9) WARNING: Required bearing size at joint(s) 10 greater than input bearing size.
10) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.

- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 2. 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use USP THDH26-2 (With 20-16d nails into Girder & 8-16d nails into Truss) or equivalent spaced at 8-0-0 to connect truss(es) to front face of bottom chord.
- Use USP THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 4-0-0 oc max. starting at 10-7-1 from the left end to 22-7-1 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.



January 30, 2020

Continued on page 2

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 20010096	Truss B2	Truss Type Piggyback Base Girder	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017216
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 2

- 17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1100 lb down at 23-2-4, and 983 lb down and 15 lb up at 24-7-1 on bottom 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: 1-6=-46, 6-7=-56, 7-10=-46, 16-20=-19
Concentrated Loads (lb)
Vert: 14=-666 (F), 13=-551 (F), 18=-828 (F),
24=-1861 (F), 25=-1465 (F), 26=-551 (F), 28=-1225 (F),
29=-872 (F), 30=-872 (F), 31=-908 (F), 32=-908 (F)

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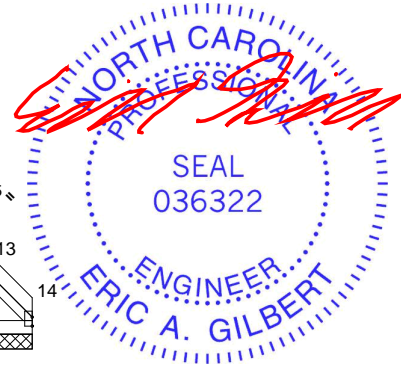
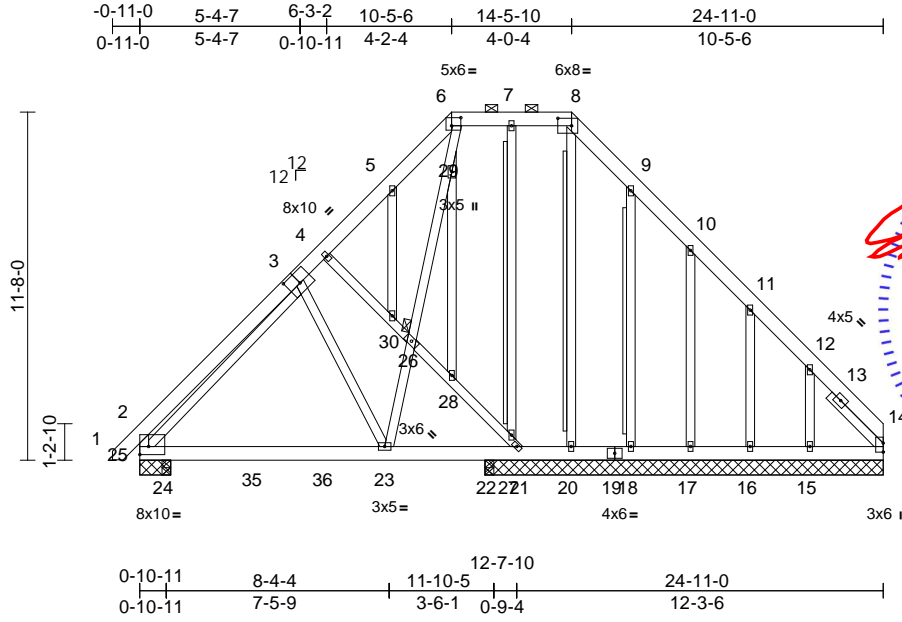
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss B3	Truss Type Piggyback Base Structural Gable	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017217
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:77.2

Plate Offsets (X, Y): [3:0-5-0,0-4-8], [6:0-3-12,0-3-4], [8:0-5-8,0-3-0], [25:Edge,0-3-4]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.02	23-24	>999	240
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.04	23-24	>999	180
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.01	14	n/a	n/a
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH						
BCDL	10.0									
										Weight: 279 lb FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except* 25-2,4-26:2x4 SP No.3
OTHERS 2x4 SP No.2 *Except* 30-5,16-11,15-12:2x4 SP No.3
SLIDER Right 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 7-27, 8-20, 9-18
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
Brace must cover 90% of web length.

JOINTS
1 Brace at Jt(s): 26

REACTIONS (lb/size)
14=247/13-4-3, 15=112/13-4-3, 16=133/13-4-3, 17=138/13-4-3, 18=108/13-4-3, 20=45/13-4-3, 21=197/13-4-3, 22=142/0-3-8, 24=249/0-3-8, 25=334/1-0-7, 31=247/13-4-3
Max Horiz 25=-224 (LC 11)
Max Uplift 14=-50 (LC 10), 15=-145 (LC 14), 16=-35 (LC 14), 17=-67 (LC 14), 18=-52 (LC 14), 20=-16 (LC 11), 21=-23 (LC 10), 22=-8 (LC 10), 25=-82 (LC 14), 31=-50 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-323/221, 3-4=-387/200, 4-5=-371/211, 5-6=-361/259, 6-7=-265/217, 7-8=-265/217, 8-9=-330/254, 9-10=-280/165, 10-11=-291/82, 11-12=-296/82, 12-13=-315/99, 13-14=-163/32, 2-25=-369/229
BOT CHORD 24-25=-123/429, 24-35=-123/429, 35-36=-123/429, 23-36=-123/429, 22-23=-94/435, 21-22=-94/435, 20-21=-65/215, 19-20=-65/215, 18-19=-65/215, 17-18=-65/215, 16-17=-65/215, 15-16=-65/215, 14-15=-64/215
WEBS 3-25=-303/0, 3-23=-64/158, 23-26=-55/128, 26-29=-83/158, 6-29=-85/154, 4-30=-308/95, 26-30=-325/124, 26-28=-308/105, 27-28=-311/102, 21-27=-382/104, 7-27=-125/21, 28-29=-11/15, 5-30=-34/41, 8-20=-92/116, 9-18=-128/100, 10-17=-171/129, 11-16=-146/106, 12-15=-192/172

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=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
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.

January 30, 2020

Continued on page 2

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

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



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	GARY ROBINSON / 4 PBC	E14017217
20010096	B3	Piggyback Base Structural Gable	1	1	Job Reference (optional)	

Carter Components (Sanford), Sanford, NC - 27332,

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Page: 2

- 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, with BCDL = 10.0psf.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14, 25, 21, 20, 18, 17, 16, 15, 24, and 22. This connection is for uplift only and does not consider lateral forces.
- 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.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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.



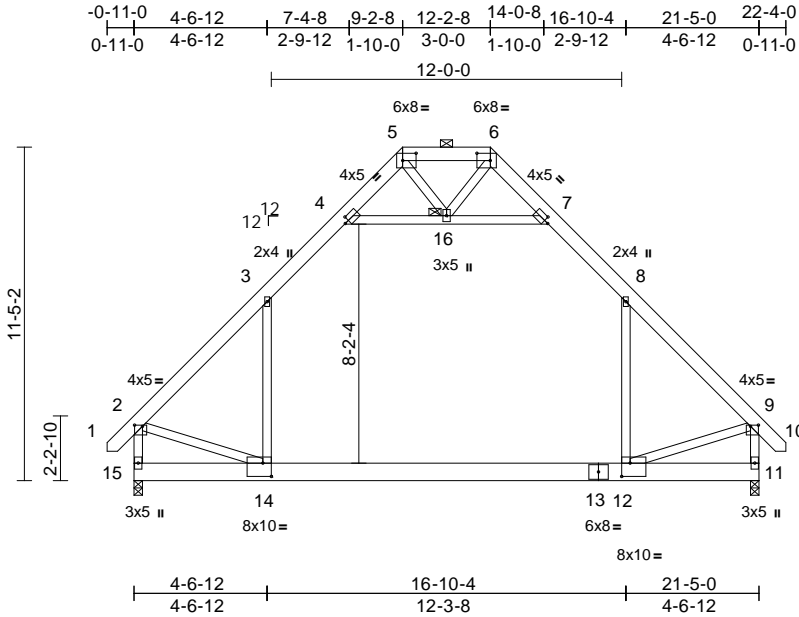
818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss C1	Truss Type Attic	Qty 6	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017218
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:78.9

Plate Offsets (X, Y): [2:0-3-4,0-0-8], [4:0-1-13,0-2-0], [5:0-5-8,0-3-0], [6:0-5-8,0-3-0], [7:0-1-13,0-2-0], [9:0-3-4,0-0-8], [12:0-3-8,0-5-8], [14:0-3-8,0-5-8]

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	0.86	Vert(LL)	-0.32	12-14	>804	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.43	12-14	>588	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.21	12-14	>698	360		
BCDL	10.0										Weight: 192 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x8 SP 2400F 2.0E
 WEBS 2x4 SP No.3 *Except* 3-14,8-12,4-7:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-8-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 JOINTS 1 Brace at Jt(s): 16

REACTIONS (lb/size) 11=896/0-3-8, 15=896/0-3-8
 Max Horiz 15=-249 (LC 11)
 Max Grav 11=1275 (LC 3), 15=1275 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/47, 2-3=-1348/44, 3-4=-823/182, 4-5=-198/146, 5-6=-48/255, 6-7=-198/146, 7-8=-822/182, 8-9=-1348/44, 9-10=0/47, 2-15=-1410/71, 9-11=-1410/71
 BOT CHORD 14-15=-226/291, 13-14=0/851, 12-13=0/851, 11-12=-43/115
 WEBS 3-14=-61/643, 8-12=-61/643, 4-16=-999/218, 7-16=-998/218, 2-14=0/822, 9-12=0/823, 5-16=-44/95, 6-16=-44/95

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) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Ceiling dead load (5.0 psf) on member(s). 3-4, 7-8, 4-16, 7-16; Wall dead load (5.0psf) on member(s).3-14, 8-12
- 8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 12-14
- 9) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
- 10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 11. 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



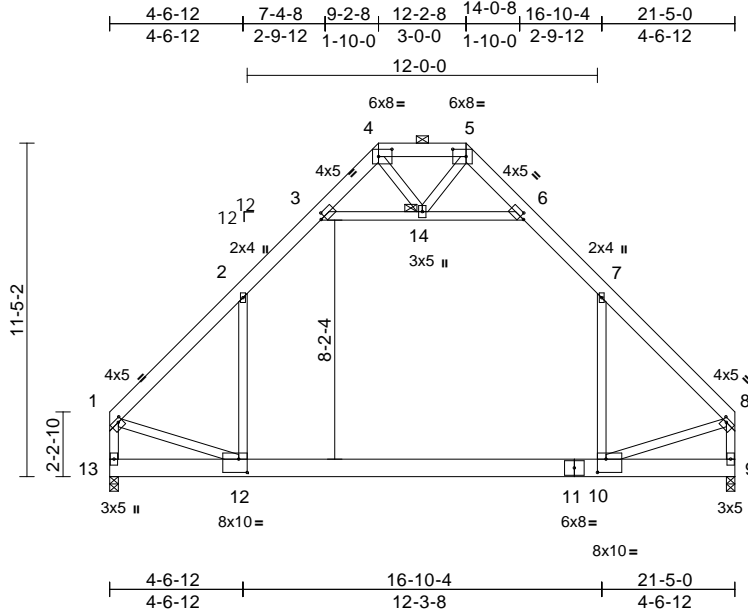
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss C3	Truss Type Attic	Qty 4	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017220
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:55
ID:FtguvPlppzAYAt0yEvJvC2zvqx6-CbKPpFpnLV1aiMY9nFqjDFer_QWl1Gz9lv2OwBzqCFo

Page: 1



Scale = 1:78.9

Plate Offsets (X, Y): [1:0-1-12,0-1-8], [3:0-1-13,0-2-0], [4:0-5-8,0-3-0], [5:0-5-8,0-3-0], [6:0-1-13,0-2-0], [8:0-1-12,0-1-8], [10:0-3-8,0-5-8], [12:0-3-8,0-5-8]

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	0.86	Vert(LL)	-0.32	10-12	>801	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.43	10-12	>585	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.21	10-12	>697	360		
BCDL	10.0											
										Weight: 187 lb	FT = 20%	

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x8 SP 2400F 2.0E
 WEBS 2x4 SP No.3 *Except* 2-12,7-10,3-6:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-8-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

JOINTS 1 Brace at Jt(s): 14

REACTIONS (lb/size) 9=853/0-3-8, 13=853/0-3-8
 Max Horiz 13=-231 (LC 9)
 Max Grav 9=1232 (LC 25), 13=1232 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1347/32, 2-3=-825/179, 3-4=-195/148, 4-5=-45/258, 5-6=-195/148, 6-7=-825/179, 7-8=-1347/33, 1-13=-1374/34, 8-9=-1374/34
 BOT CHORD 12-13=-225/265, 11-12=0/845, 10-11=0/845, 9-10=-46/95

WEBS 2-12=-66/637, 7-10=-66/637, 3-14=-1006/213, 6-14=-1006/213, 1-12=0/833, 8-10=0/834, 4-14=-44/95, 5-14=-43/95

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) 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) Provide adequate drainage to prevent water ponding.
- 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) Ceiling dead load (5.0 psf) on member(s). 2-3, 6-7, 3-14, 6-14; Wall dead load (5.0psf) on member(s).2-12, 7-10
- 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 10-12
- 8) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
- 9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13 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.
- 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



January 30, 2020

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

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



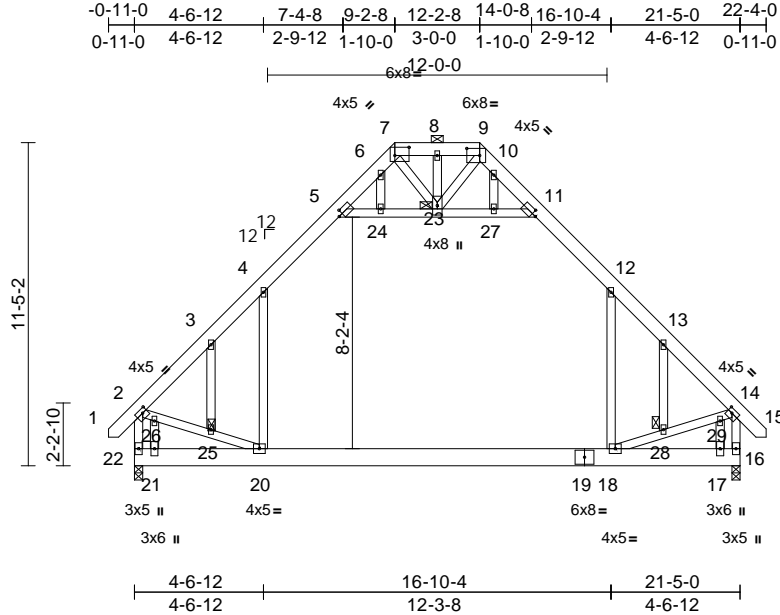
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss C4	Truss Type Attic Supported Gable	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017221
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:55
ID:yA76cyd6Uiab8k_GrafKUezvqyY-CbKPoFpnLV1aiMY9nFqjDFesyQWk19w9lv2OwBzqCfO

Page: 1



Scale = 1:81.5

Plate Offsets (X, Y): [2:0-2-0,0-1-12], [5:0-1-13,0-2-0], [7:0-6-0,0-3-8], [9:0-5-8,0-3-0], [11:0-1-13,0-2-0], [14:0-2-0,0-1-12]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.29	18-20	>882	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.39	18-20	>647	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.01	16	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.20	18-20	>756	360		
BCDL	10.0											
											Weight: 211 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x8 SP 2400F 2.0E
 WEBS 2x4 SP No.2 *Except*
 22-2,16-14,7-23,23-9:2x4 SP No.3
 OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-5-2 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 7-9.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

JOINTS 1 Brace at Jt(s): 23, 25, 28

REACTIONS (lb/size) 16=868/0-3-8, 22=868/0-3-8
 Max Horiz 22=-241 (LC 11)
 Max Grav 16=1235 (LC 3), 22=1235 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/46, 2-3=-1255/9, 3-4=-1286/73, 4-5=-799/176, 5-6=-188/142, 6-7=-28/362, 7-8=0/407, 8-9=0/407, 9-10=-28/362, 10-11=-188/142, 11-12=-798/176, 12-13=-1286/73, 13-14=-1254/9, 14-15=0/46, 2-22=-1042/0, 14-16=-1042/0
 BOT CHORD 21-22=-216/277, 20-21=-216/277, 19-20=0/826, 18-19=0/826, 17-18=-37/104, 16-17=-37/104

WEBS 4-20=-5/737, 12-18=-5/737, 5-24=-1011/216, 23-24=-1041/223, 23-27=-1040/223, 11-27=-1010/216, 8-23=-247/38, 6-24=-43/313, 3-25=-213/70, 21-26=-393/101, 10-27=-43/313, 13-28=-213/70, 17-29=-393/101, 7-23=-200/49, 9-23=-200/49, 18-28=0/782, 28-29=0/839, 14-29=0/680, 2-26=0/679, 25-26=0/838, 20-25=0/781

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=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
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 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.
- Ceiling dead load (5.0 psf) on member(s). 4-5, 11-12, 5-24, 23-24, 23-27, 11-27; Wall dead load (5.0psf) on member(s).4-20, 12-18
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 18-20
- All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.

- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 22 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



January 30, 2020

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

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



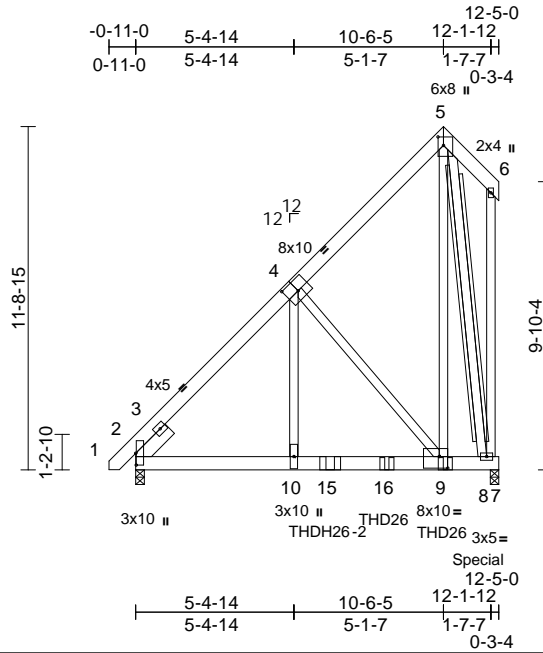
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss E1	Truss Type Common Girder	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017223
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:56
 ID:RVnbgE4teg3KQFVTNEBYvLzVqox-gnun?apP6p9RJW7LLyLlTB8FqymZgJXZoxSdzqCFn

Page: 1



Scale = 1:78.8

Plate Offsets (X, Y): [2:0-4-14,0-0-3], [4:0-5-0,0-4-8], [5:0-3-8,0-2-4], [9:0-3-8,0-4-12]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.09	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.17	9-10	>839	180		
TCDL	10.0	Rep Stress Incr	NO	WB	1.00	Horz(CT)	-0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 286 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP 2400F 2.0E
 WEBS 2x4 SP No.2
 SLIDER Left 2x6 SP No.2 -- 1-6-0

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.
 WEBS I-Brace: 2x4 SPF No.2 - 5-8
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
 Brace must cover 90% of web length.

REACTIONS (lb/size) 2=1720/0-3-8, 8=3901/0-3-8
 Max Horiz 2=263 (LC 33)
 Max Uplift 2=-264 (LC 10), 8=-34 (LC 9)
 Max Grav 2=1961 (LC 2), 8=4472 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/38, 2-3=-1487/241, 3-4=-2556/461, 4-5=-751/95, 5-6=-31/53
 BOT CHORD 2-10=-457/1668, 10-15=-459/1675, 15-16=-459/1675, 9-16=-459/1675, 8-9=-64/483, 7-8=0/0
 WEBS 4-9=-1843/611, 5-9=-469/3932, 5-8=-3708/491, 4-10=-665/2470, 6-8=-54/21

NOTES

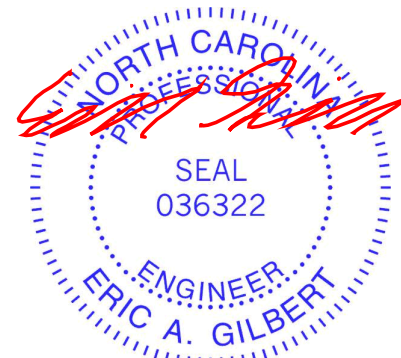
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-4-0 oc.
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc.

- 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); 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.
- All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 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.
- Use USP THDH26-2 (With 20-16d nails into Girder & 8-16d nails into Truss) or equivalent at 6-7-13 from the left end to connect truss(es) to front face of bottom chord.

- 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 8-7-1 from the left end to 10-7-1 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1074 lb down at 11-9-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-5=-46, 5-6=-46, 7-11=-19
 Concentrated Loads (lb)



January 30, 2020

Continued on page 2

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

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818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss E1	Truss Type Common Girder	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017223
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:56
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Page: 2

Vert: 9=-882 (F), 8=-886 (F), 15=-2019 (F), 16=-997 (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 BCS1 Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



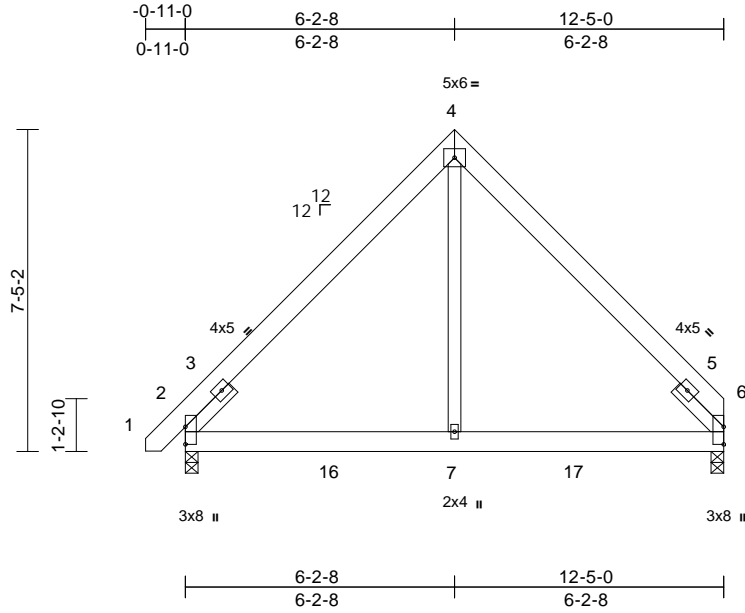
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss F1	Truss Type Common	Qty 3	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017224
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:57
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Page: 1



Scale = 1:53.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	0.01	7-14	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.02	7-14	>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: 88 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.2
SLIDER	Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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

(lb/size)	2=457/0-3-8, 6=419/0-3-8
Max Horiz	2=133 (LC 12)
Max Grav	2=566 (LC 25), 6=533 (LC 25)

FORCES

(lb) - Maximum Compression/Maximum Tension	
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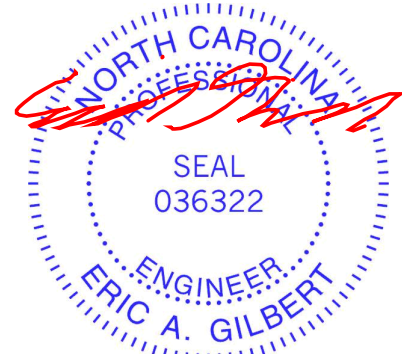
TOP CHORD	1-2=0/39, 2-3=-282/128, 3-4=-544/143, 4-5=-543/143, 5-6=-235/0
BOT CHORD	2-16=-117/337, 7-16=0/337, 7-17=0/337, 6-17=0/337
WEBS	4-7=-9/321

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) 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 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, with BCDL = 10.0psf.
- 6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 2. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 30, 2020

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

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



818 Soundside Road
Edenton, NC 27932

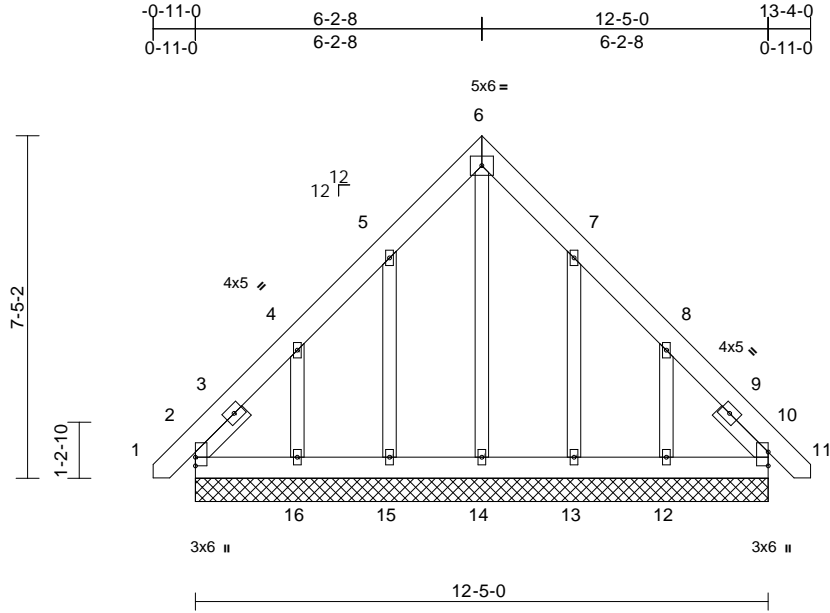
Job 20010096	Truss F2	Truss Type Common Supported Gable	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017225
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:58

Page: 1

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Scale = 1:49.9

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 112 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
OTHERS 2x4 SP No.3 *Except* 14-6:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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.

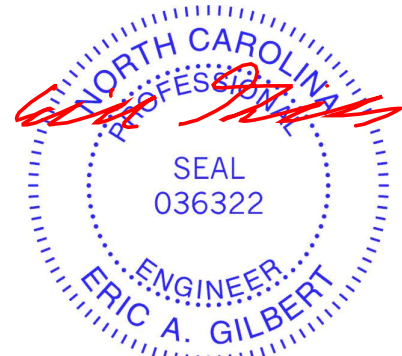
REACTIONS (lb/size)
2=131/12-5-0, 10=131/12-5-0, 12=138/12-5-0, 13=129/12-5-0, 14=86/12-5-0, 15=129/12-5-0, 16=138/12-5-0, 17=131/12-5-0, 21=131/12-5-0
Max Horiz 2=-133 (LC 11), 17=-133 (LC 11)
Max Uplift 2=-34 (LC 9), 10=-15 (LC 10), 12=-111 (LC 14), 13=-34 (LC 14), 15=-35 (LC 13), 16=-114 (LC 13), 17=-34 (LC 9), 21=-15 (LC 10)
Max Grav 2=183 (LC 26), 10=167 (LC 25), 12=205 (LC 26), 13=163 (LC 26), 14=121 (LC 28), 15=163 (LC 25), 16=209 (LC 25), 17=183 (LC 26), 21=167 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-61/39, 3-4=-117/92, 4-5=-107/69, 5-6=-154/155, 6-7=-154/155, 7-8=-91/69, 8-9=-99/68, 9-10=-50/22, 10-11=0/38
BOT CHORD 2-16=-70/122, 15-16=-71/123, 14-15=-72/124, 13-14=-72/124, 12-13=-71/123, 10-12=-70/122
WEBS 6-14=-143/88, 5-15=-139/100, 4-16=-192/160, 7-13=-139/99, 8-12=-192/160

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
- 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 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 10, 14, 15, 16, 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



January 30, 2020

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

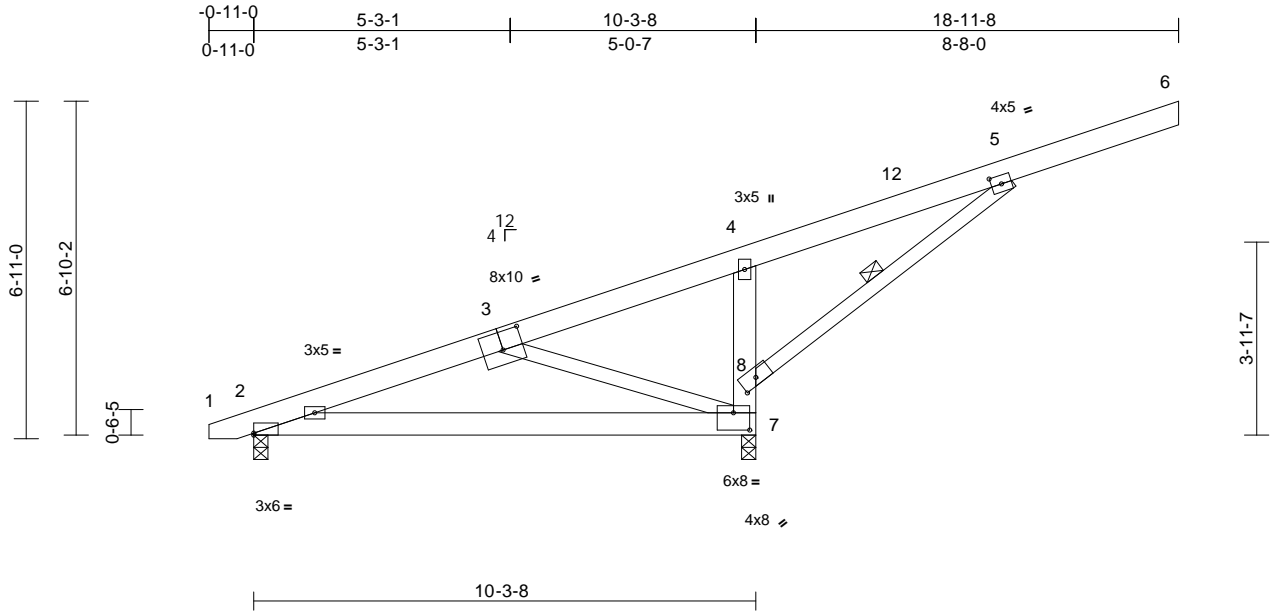
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss G1	Truss Type Monopitch	Qty 6	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017226
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:59
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Page: 1



Scale = 1:47.2

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

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	0.62	Vert(LL)	0.12	7-11	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.08	7-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 98 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x6 SP No.2 *Except* 7-3:2x4 SP No.3,
 8-5:2x4 SP No.2

BRACING

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

REACTIONS

(lb/size) 2=184/0-3-8, 7=952/0-3-8
 Max Horiz 2=172 (LC 11)
 Max Uplift 2=-30 (LC 11), 7=-315 (LC 11)
 Max Grav 2=206 (LC 2), 7=1171 (LC 2)

FORCES

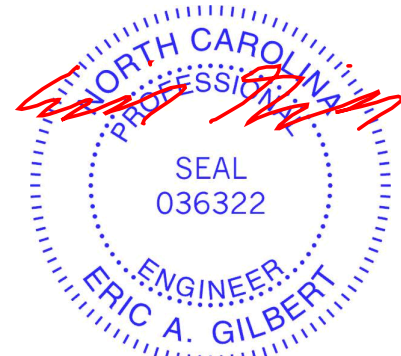
(lb) - Maximum Compression/Maximum
 Tension
 TOP CHORD 1-2=0/15, 2-3=-429/411, 3-4=-840/809,
 4-12=-1041/1082, 5-12=-1023/1130,
 5-6=-83/0, 7-8=-926/751, 4-8=-206/131
 BOT CHORD 2-7=-354/169
 WEBS 3-7=-563/535, 5-8=-1293/1078

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; porch 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 studs spaced at 0-0-0 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) All bearings are assumed to be SP No.2 crushing
 capacity of 565 psi.
- 9) One RT7A USP connectors recommended to connect
 truss to bearing walls due to UPLIFT at jt(s) 2 and 7.
 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



January 30, 2020

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

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



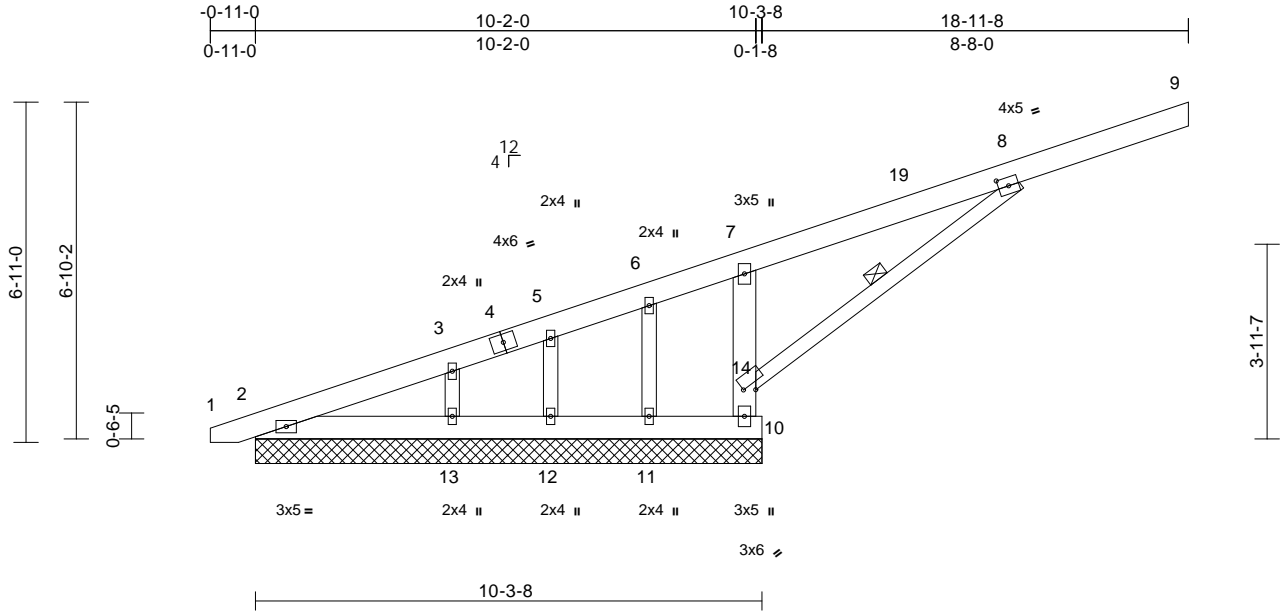
818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss G2	Truss Type Monopitch	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017227
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:59
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Page: 1



Scale = 1:46.8

Plate Offsets (X, Y): [8:0-2-8,0-2-1], [14:0-2-7,0-1-12]

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	0.59	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	-0.02	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 98 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x6 SP No.2 *Except* 14-8:2x4 SP No.2
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. Except: 10-0-0 oc bracing: 10-14
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 8-14

REACTIONS

(lb/size)	2=-51/10-3-8, 10=-72/10-3-8, 11=127/10-3-8, 12=73/10-3-8, 13=283/10-3-8, 14=773/10-3-8, 15=-51/10-3-8
Max Horiz	2=159 (LC 11), 15=159 (LC 11)
Max Uplift	2=-136 (LC 22), 10=-108 (LC 22), 12=-8 (LC 11), 13=-30 (LC 15), 14=-262 (LC 12), 15=-136 (LC 22)
Max Grav	2=132 (LC 12), 10=42 (LC 12), 11=148 (LC 2), 12=86 (LC 2), 13=335 (LC 2), 14=1013 (LC 22), 15=132 (LC 12)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/15, 2-3=-1012/877, 3-4=-961/827, 4-5=-954/855, 5-6=-923/851, 6-7=-932/904, 7-19=-1061/1110, 8-19=-1043/1157, 8-9=-84/0, 10-14=0/0, 7-14=-253/199
BOT CHORD	2-13=-802/687, 12-13=-802/687, 11-12=-802/687, 10-11=-802/687
WEBS	8-14=-1318/1095, 3-13=-204/131, 5-12=-118/95, 6-11=-50/66

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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 10.

- 12) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at it(s) 2, 14, 13, 12, and 11. This connection is for uplift only and does not consider lateral forces.
- 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.
- 14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



January 30, 2020

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



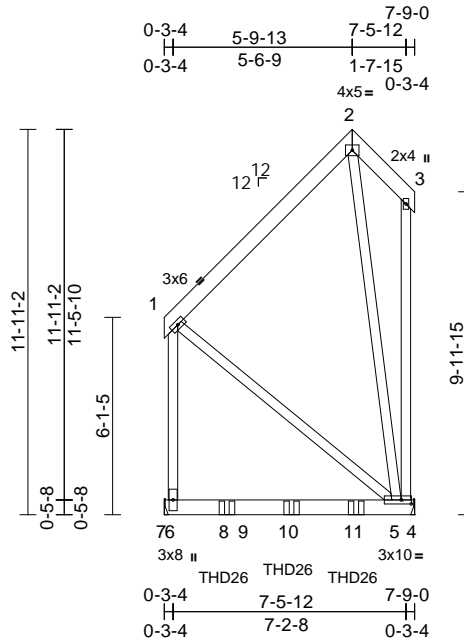
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss GR1	Truss Type Common Girder	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017228
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:55:59
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Page: 1



Scale = 1:71.3

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

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	0.15	Vert(LL)	-0.13	5-6	>653	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.24	5-6	>344	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 193 lb	FT = 20%

LUMBER

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

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

(lb/size) 5=1230/ Mechanical, 6=1048/ Mechanical
 Max Horiz 6=121 (LC 9)
 Max Uplift 5=-258 (LC 9), 6=-127 (LC 5)
 Max Grav 5=1419 (LC 3), 6=1321 (LC 43)

FORCES

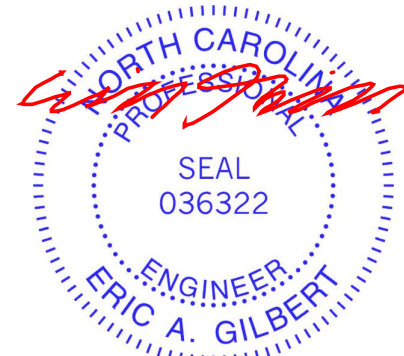
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-141/91, 2-3=-32/39
 BOT CHORD 6-7=0/0, 6-8=-121/80, 8-9=-121/80,
 9-10=-121/80, 10-11=-121/80, 5-11=-121/80,
 4-5=0/0
 WEBS 1-5=-83/147, 1-6=-218/12, 3-5=-56/34,
 2-5=-217/70

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 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); 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 a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 258 lb uplift at joint 5 and 127 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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 5-9-15 from the left end to 9-9-15 to connect truss(es) to front face of bottom chord.

- 11) 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: 1-2=-48, 2-3=-48, 4-7=-20
 Concentrated Loads (lb)
 Vert: 8=-556 (F), 10=-556 (F), 11=-665 (F)



January 30, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

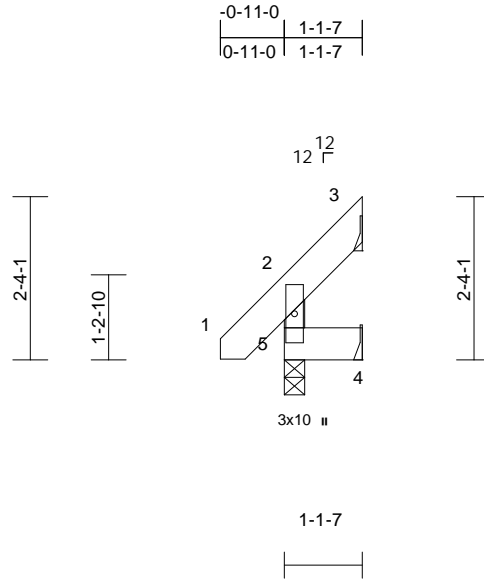
ENGINEERING BY
TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss J01	Truss Type Jack-Open	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017229
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:00
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Page: 1



Scale = 1:33

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	0.11	Vert(LL)	0.00	5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 10 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-1-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 3=6/ Mechanical, 4=7/ Mechanical, 5=94/0-3-8
Max Horiz 5=44 (LC 10)
Max Uplift 3=-26 (LC 13), 4=-12 (LC 13)
Max Grav 3=19 (LC 11), 4=21 (LC 11), 5=117 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

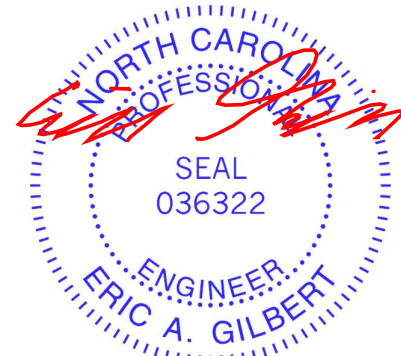
TOP CHORD 2-5=-104/44, 1-2=0/47, 2-3=-40/36
BOT CHORD 4-5=0/0

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) 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.

- 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) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 4 and 26 lb uplift at joint 3.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. 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



January 30, 2020

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

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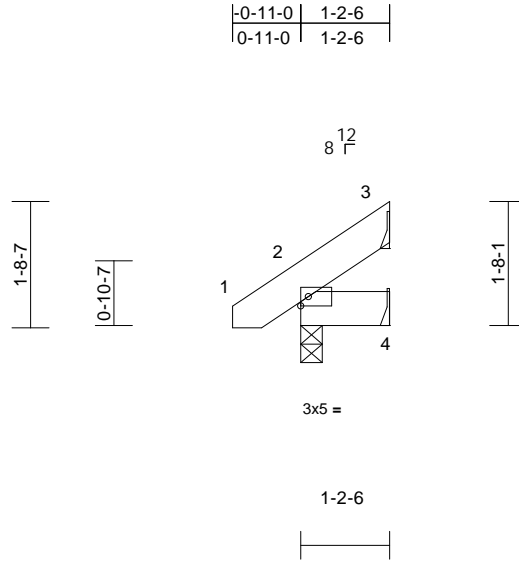
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss J01A	Truss Type Jack-Open	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017230
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:00
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Page: 1



Scale = 1:31

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	0.02	Vert(LL)	0.00	7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 9 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-2-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 2=85/0-3-8, 3=18/ Mechanical, 4=11/ Mechanical
Max Horiz 2=32 (LC 13)
Max Uplift 3=-15 (LC 13)
Max Grav 2=104 (LC 2), 3=26 (LC 25), 4=14 (LC 11)

FORCES

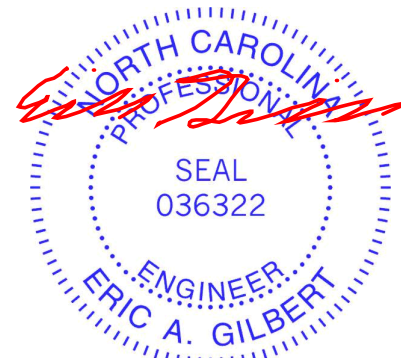
(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-21/21
BOT CHORD 2-4=-41/27

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) 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.
- 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) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
 - 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 3.
 - 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



January 30, 2020

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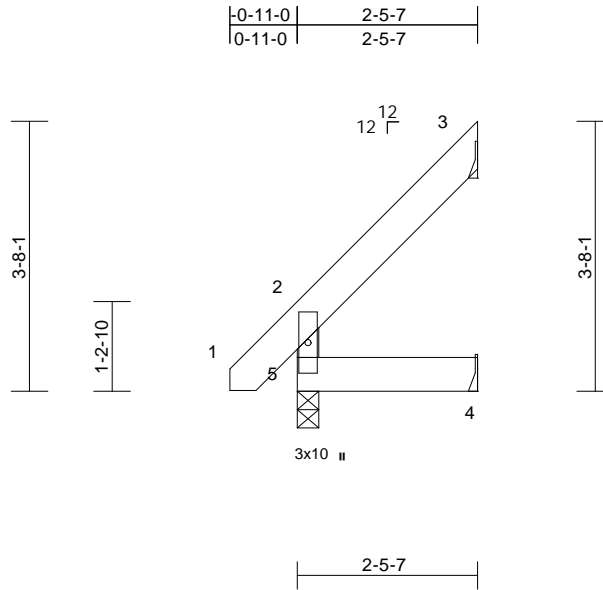
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss J02	Truss Type Jack-Open	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017231
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:00
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Page: 1



Scale = 1:31.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	0.00	4-5	>999	240	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	4-5	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR							
BCDL	10.0										
										Weight: 18 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-5-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 3=45/ Mechanical, 4=23/
Mechanical, 5=126/0-3-8
Max Horiz 5=74 (LC 13)
Max Uplift 3=53 (LC 13), 4=3 (LC 13)
Max Grav 3=70 (LC 25), 4=31 (LC 11), 5=153 (LC 2)

FORCES

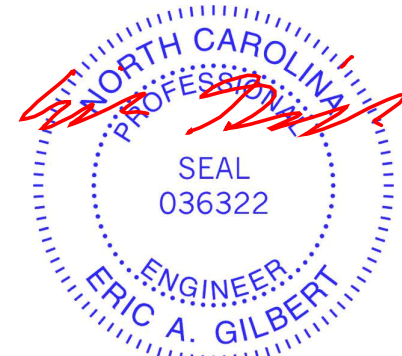
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-131/27, 1-2=0/47, 2-3=-83/71
BOT CHORD 4-5=0/0

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) 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.

- 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) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 3 and 3 lb uplift at joint 4.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. 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



January 30, 2020

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818 Soundside Road
Edenton, NC 27932

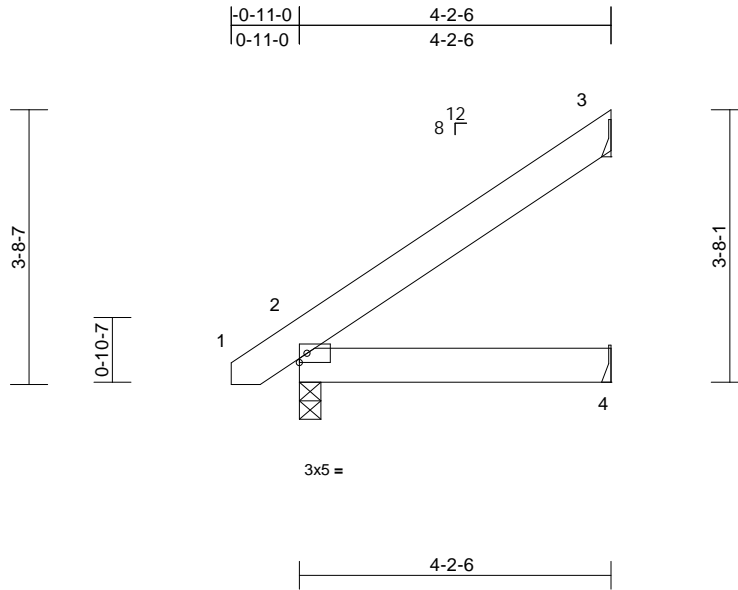
Job 20010096	Truss J04	Truss Type Jack-Open	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017232
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:01

Page: 1

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Scale = 1:31

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	0.11	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 25 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-2-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 2=177/0-3-8, 3=88/ Mechanical, 4=49/ Mechanical
Max Horiz 2=84 (LC 13)
Max Uplift 3=48 (LC 13)
Max Grav 2=213 (LC 2), 3=116 (LC 25), 4=54 (LC 25)

FORCES

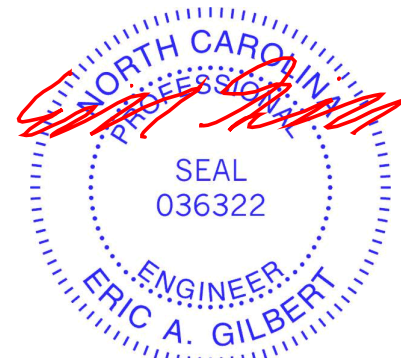
(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-96/68
BOT CHORD 2-4=-153/121

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) 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.
- 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) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
 - 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 3.
 - 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



January 30, 2020

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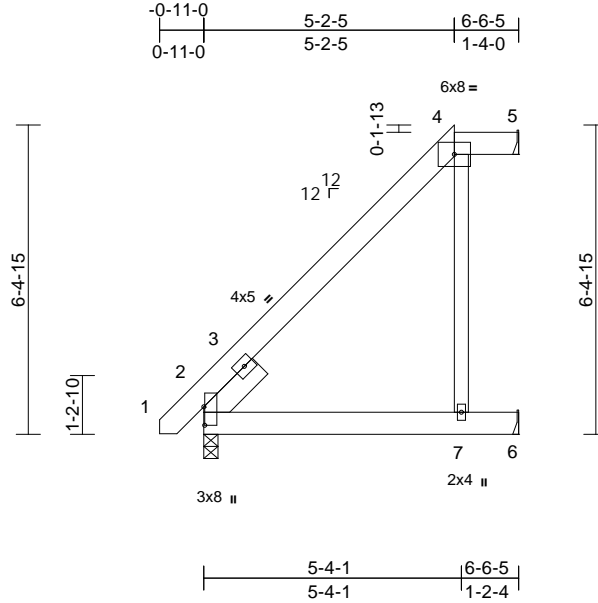
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss J06	Truss Type Jack-Open	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017233
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:01
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Page: 1



Scale = 1:47.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.05	7-10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.07	7-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.07	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 50 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.2
SLIDER	Left 2x6 SP No.2 -- 1-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins: 4-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size)	2=257/0-3-8, 5=37/ Mechanical, 6=192/ Mechanical
Max Horiz	2=154 (LC 13)
Max Uplift	5=-9 (LC 9), 6=-64 (LC 13)
Max Grav	2=305 (LC 2), 5=38 (LC 2), 6=228 (LC 25)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/39, 2-3=-233/104, 3-4=-146/135, 4-5=0/0
BOT CHORD	2-7=-160/137, 6-7=0/0
WEBS	4-7=-229/192

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; 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
- 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.
- 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.
- Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 5 and 64 lb uplift at joint 6.
- 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.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



January 30, 2020

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

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



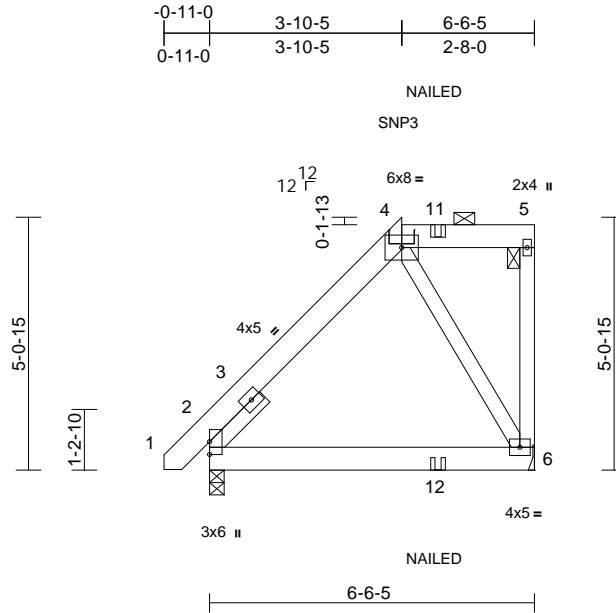
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss J06A	Truss Type Jack-Closed Girder	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017234
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:01
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	0.01	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.03	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.16	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 53 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=368/0-3-8, 6=439/ Mechanical
Max Horiz 2=141 (LC 8)
Max Uplift 2=43 (LC 9), 6=135 (LC 6)
Max Grav 2=426 (LC 2), 6=489 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-294/0, 3-4=-256/107, 4-11=-51/38, 5-11=-51/38, 5-6=-97/27
BOT CHORD 2-12=-136/178, 6-12=-112/178
WEBS 4-6=-342/138

NOTES

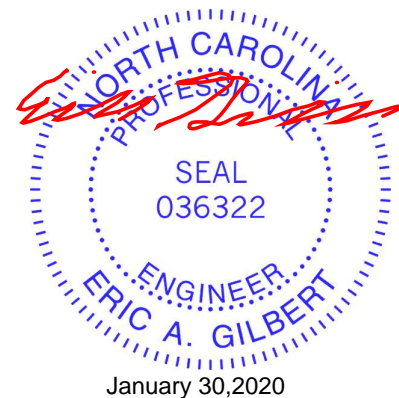
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip 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=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
- 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.
- 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.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 135 lb uplift at joint 6.
- 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.
- 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.
- Use USP SNP3 (With 6-8d x 1-1/2 nails into Girder & 6-8d x 1-1/2 nails into Truss) or equivalent at 3-10-5 from the left end to connect truss(es) to front face of top chord, skewed 33.7 deg.to the left, sloping 0.0 deg. down.
- Fill all nail holes where hanger is in contact with lumber.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- A minimum of (6) 8d x 1-1/2" nails are required into each member for SNP3 installation. All nailing is required in face of supported chords. For sloped applications, flanges may protrude above or below truss chords. Bending of extended flanges is permitted.
- 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, 4-5=-58, 6-7=-20
Concentrated Loads (lb)
Vert: 4=-188 (F), 11=-50 (F), 12=-78 (F)



January 30, 2020

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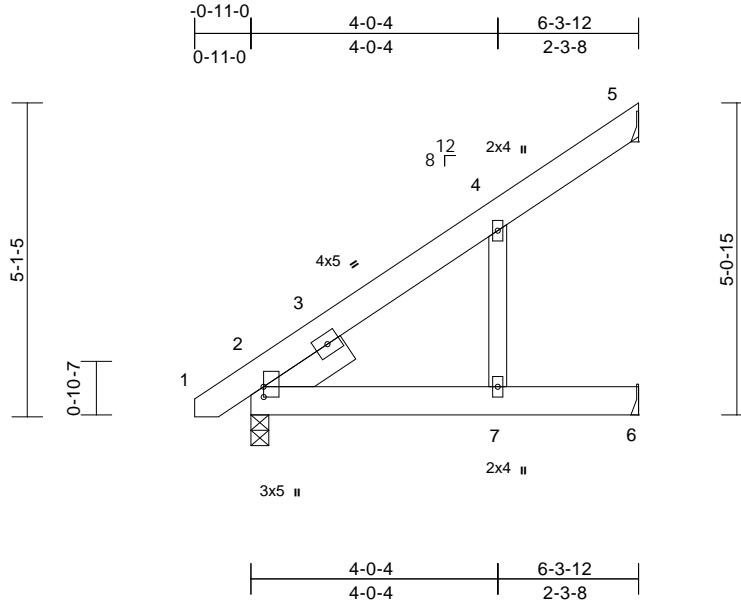
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss J06B	Truss Type Jack-Open	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017235
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:37.5

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

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	0.17	Vert(LL)	0.03	7-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.05	7-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 43 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 -- 1-6-0

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 (lb/size) 2=251/0-3-8, 5=106/ Mechanical, 6=98/ Mechanical
Max Horiz 2=122 (LC 13)
Max Uplift 5=-40 (LC 13), 6=-13 (LC 13)
Max Grav 2=300 (LC 2), 5=135 (LC 25), 6=118 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/36, 2-3=-145/62, 3-4=-131/101, 4-5=-59/80

BOT CHORD 2-7=0/0, 6-7=0/0
WEBS 4-7=-84/95

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; 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) 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.
- 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) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 5 and 13 lb uplift at joint 6.
- 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



January 30, 2020

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ENGINEERING BY
TRENCO
A MiTek Affiliate

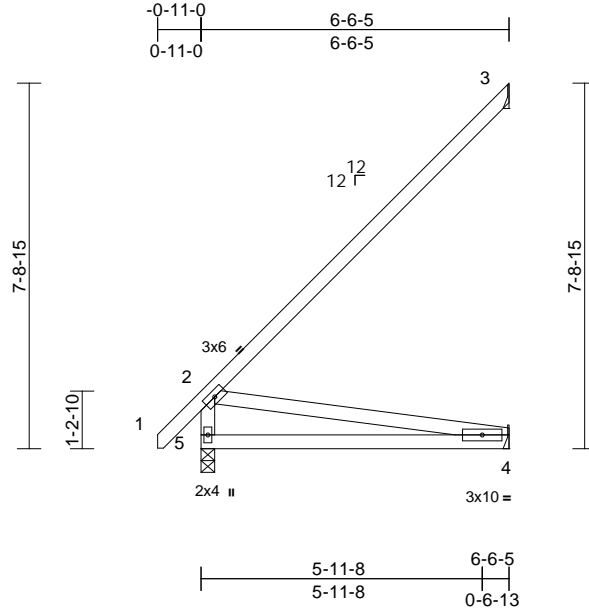
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss J06C	Truss Type Jack-Open	Qty 10	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017236
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:02
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Page: 1



Scale = 1:48.8

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	0.99	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.10	4-5	>770	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 36 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 4-2:2x4 SP No.2

BRACING

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

REACTIONS

(lb/size) 3=147/ Mechanical, 4=64/ Mechanical, 5=266/0-3-8
 Max Horiz 5=184 (LC 13)
 Max Uplift 3=130 (LC 13)
 Max Grav 3=210 (LC 25), 4=79 (LC 11), 5=318 (LC 2)

FORCES

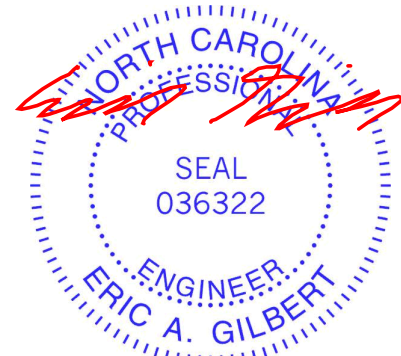
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 2-5=-254/0, 1-2=0/53, 2-3=-204/185
 BOT CHORD 4-5=-319/253
 WEBS 2-4=-257/323

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) 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.

- 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) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 3.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. 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



January 30, 2020

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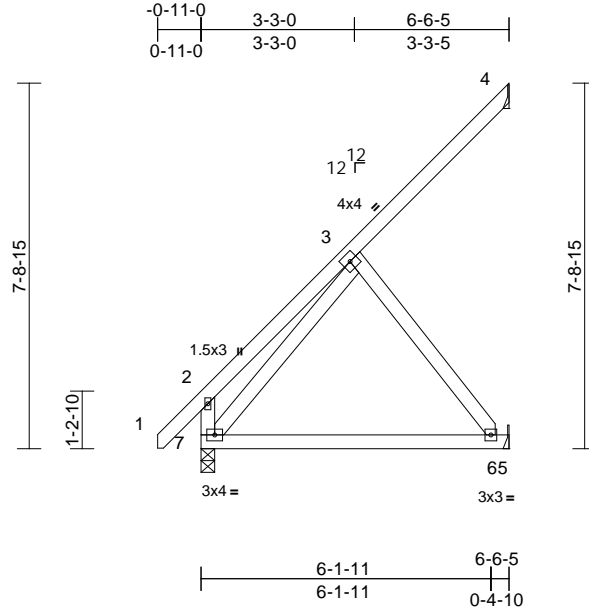
818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss J06D	Truss Type Jack-Open	Qty 8	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017237
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:48.8

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	0.16	Vert(LL)	0.02	6-7	>999	240	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.12	6-7	>659	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	4	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							
BCDL	10.0										
										Weight: 41 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(lb/size) 4=66/ Mechanical, 5=144/ Mechanical, 7=266/0-3-8
Max Horiz 7=184 (LC 13)
Max Uplift 4=-55 (LC 13), 5=-67 (LC 13)
Max Grav 4=93 (LC 25), 5=192 (LC 25), 7=318 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-7=-201/195, 1-2=0/53, 2-3=-141/166, 3-4=-97/78
BOT CHORD 6-7=-145/155, 5-6=0/0
WEBS 3-7=-292/165, 3-6=-250/234

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) 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.

- 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) Bearings are assumed to be: , Joint 7 SP No.2 crushing capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 4 and 67 lb uplift at joint 5.
- 8) One RT4 USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. 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



January 30, 2020

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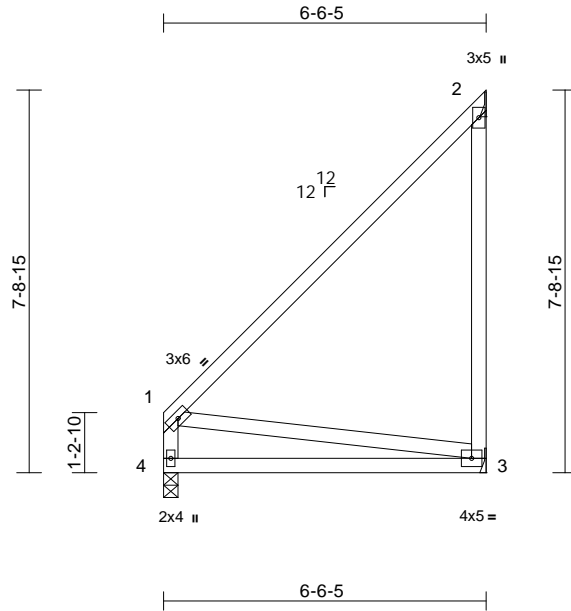
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss J06E	Truss Type Jack-Open	Qty 5	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017238
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:02
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Page: 1



Scale = 1:46.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.09	3-4	>826	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	-0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 44 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.2 *Except* 4-1:2x4 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 8-5-3 oc bracing.

REACTIONS

(lb/size) 2=149/ Mechanical, 3=62/ Mechanical, 4=211/0-3-8
 Max Horiz 4=220 (LC 10)
 Max Uplift 2=-123 (LC 10)
 Max Grav 2=228 (LC 24), 3=80 (LC 11), 4=297 (LC 25)

FORCES

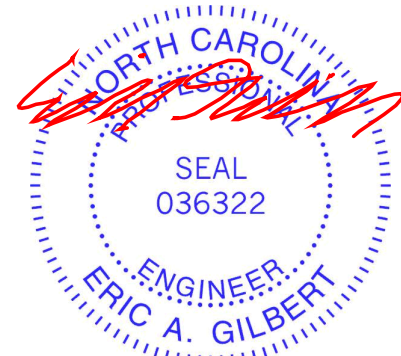
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-331/322, 2-3=0/0, 1-4=-234/90
 BOT CHORD 3-4=-457/423
 WEBS 1-3=-328/373

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

- 4) Bearings are assumed to be: , Joint 4 SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 2.
- 7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



January 30, 2020

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



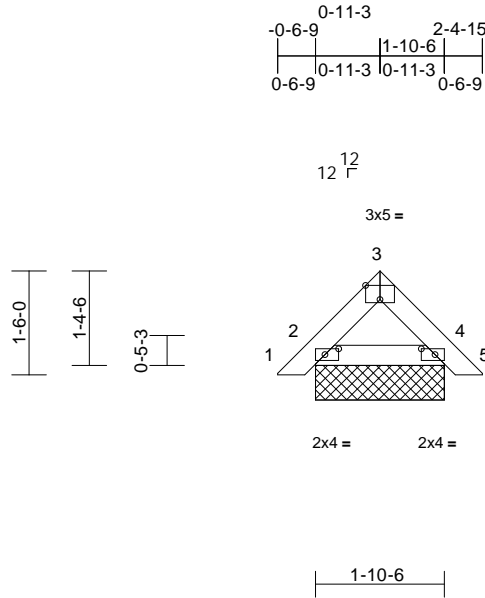
818 Soundside Road
 Edenton, NC 27932

Job 20010096	Truss PB03	Truss Type	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017239
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:03
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Page: 1



Scale = 1:33.3

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.01	Vert(LL)	n/a	-	n/a	999	MT20	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	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 9 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(lb/size) 2=77/1-10-6, 4=77/1-10-6, 6=77/1-10-6, 9=77/1-10-6
Max Horiz 2=-25 (LC 11), 6=-25 (LC 11)
Max Uplift 2=-1 (LC 13), 4=-1 (LC 14), 6=-1 (LC 13), 9=-1 (LC 14)
Max Grav 2=93 (LC 2), 4=93 (LC 2), 6=93 (LC 2), 9=93 (LC 2)

FORCES

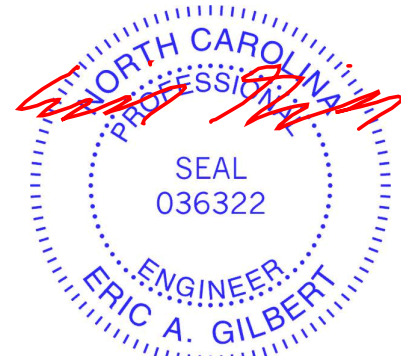
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/18, 2-3=-42/17, 3-4=-42/17, 4-5=0/18
BOT CHORD 2-4=-4/35

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) 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. 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 studs as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



January 30, 2020

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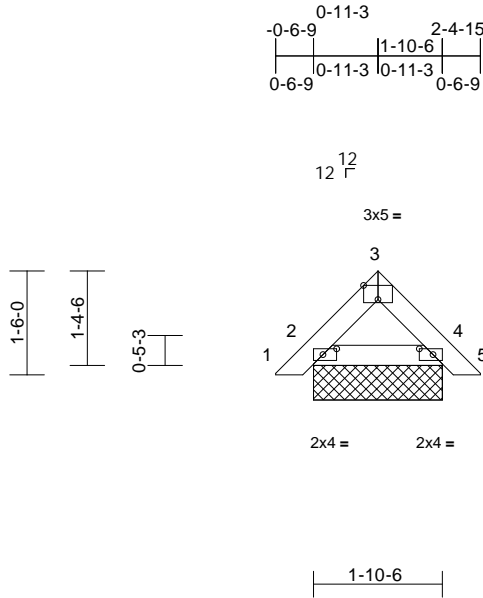
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss PB03A	Truss Type	Qty 12	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017240
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:03
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Page: 1



Scale = 1:33.3

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

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	0.02	Vert(LL)	n/a	-	n/a	999	MT20	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	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 9 lb	FT = 20%	

LUMBER

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

BRACING

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

REACTIONS

(lb/size) 2=80/1-10-6, 4=80/1-10-6, 6=80/1-10-6, 9=80/1-10-6
Max Horiz 2=-25 (LC 11), 6=-25 (LC 11)
Max Uplift 2=-1 (LC 13), 4=-1 (LC 14), 6=-1 (LC 13), 9=-1 (LC 14)
Max Grav 2=96 (LC 2), 4=96 (LC 2), 6=96 (LC 2), 9=96 (LC 2)

FORCES

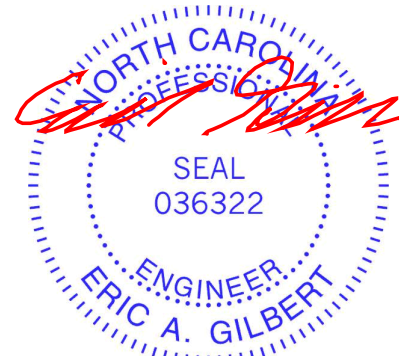
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/19, 2-3=-44/18, 3-4=-44/18, 4-5=0/19
BOT CHORD 2-4=-4/36

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) 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. 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



January 30,2020

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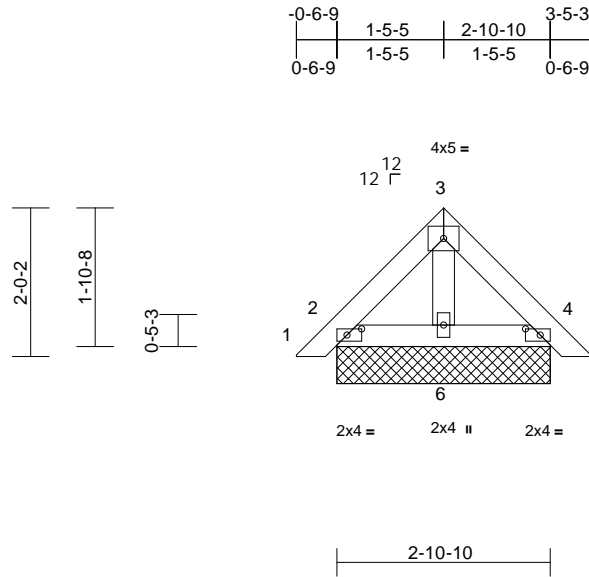
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss PB04	Truss Type Piggyback	Qty 1	Ply 2	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017241
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:04
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Page: 1



Scale = 1:31.2

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.01	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 29 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 4-0-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 2=72/2-10-10, 4=72/2-10-10, 6=78/2-10-10, 7=72/2-10-10, 10=72/2-10-10
Max Horiz 2=34 (LC 12), 7=34 (LC 12)
Max Uplift 2=-4 (LC 13), 4=-6 (LC 14), 7=-4 (LC 13), 10=-6 (LC 14)
Max Grav 2=87 (LC 2), 4=87 (LC 2), 6=90 (LC 2), 7=87 (LC 2), 10=87 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/18, 2-3=-48/31, 3-4=-46/32, 4-5=0/18
BOT CHORD 2-6=-15/39, 4-6=-15/39
WEBS 3-6=-35/0

NOTES

- 2-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected with 10d (0.131"x3") nails 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) 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.
- 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 4, 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



January 30, 2020

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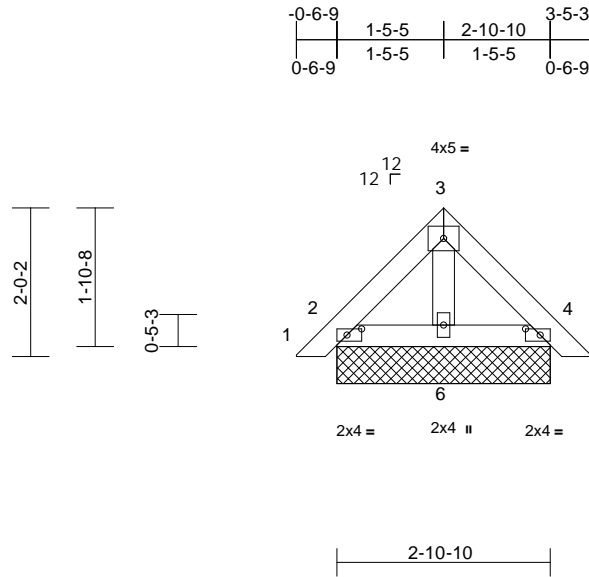
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss PB04A	Truss Type Piggyback	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017242
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:04
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Page: 1



Scale = 1:31.2

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.02	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	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 14 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 4-0-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 2=73/2-10-10, 4=73/2-10-10, 6=77/2-10-10, 7=73/2-10-10, 10=73/2-10-10
Max Horiz 2=34 (LC 12), 7=34 (LC 12)
Max Uplift 2=-3 (LC 13), 4=-6 (LC 14), 7=-3 (LC 13), 10=-6 (LC 14)
Max Grav 2=88 (LC 2), 4=88 (LC 2), 6=89 (LC 2), 7=88 (LC 2), 10=88 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/18, 2-3=-49/31, 3-4=-47/31, 4-5=0/18
BOT CHORD 2-6=-15/39, 4-6=-15/39
WEBS 3-6=-32/0

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
- 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 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 4, 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



January 30, 2020

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

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



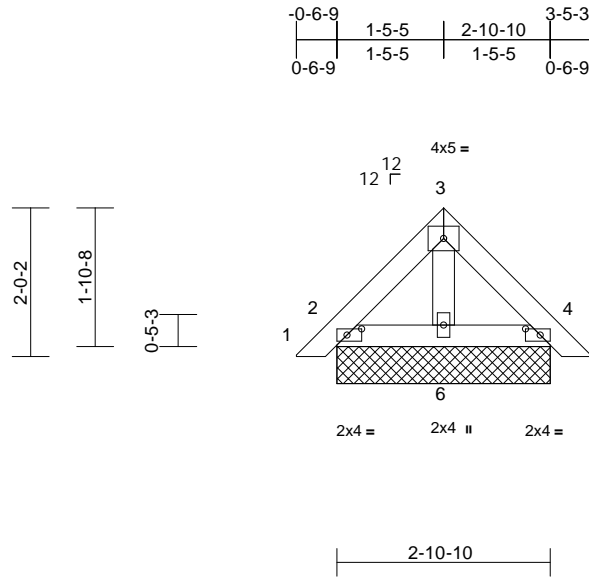
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss PB04B	Truss Type Piggyback	Qty 4	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017243
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:04
ID:Ga41gOP7xaajjekpCY_ebyzvr8S-RKNphKwQEGAIHlltpeUq49Wan3hReP9UNpkMk9zqCFf

Page: 1



Scale = 1:31.2

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

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	0.02	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	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 14 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 4-0-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 2=75/2-10-10, 4=75/2-10-10, 6=79/2-10-10, 7=75/2-10-10, 10=75/2-10-10
Max Horiz 2=36 (LC 12), 7=36 (LC 12)
Max Uplift 2=-3 (LC 13), 4=-6 (LC 14), 7=-3 (LC 13), 10=-6 (LC 14)
Max Grav 2=91 (LC 2), 4=91 (LC 2), 6=91 (LC 2), 7=91 (LC 2), 10=91 (LC 2)

FORCES

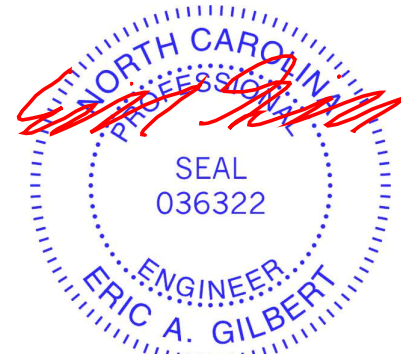
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/19, 2-3=-51/32, 3-4=-49/32, 4-5=0/19
BOT CHORD 2-6=-15/41, 4-6=-15/41
WEBS 3-6=-34/0

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
- 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 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 4, 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



January 30,2020

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

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



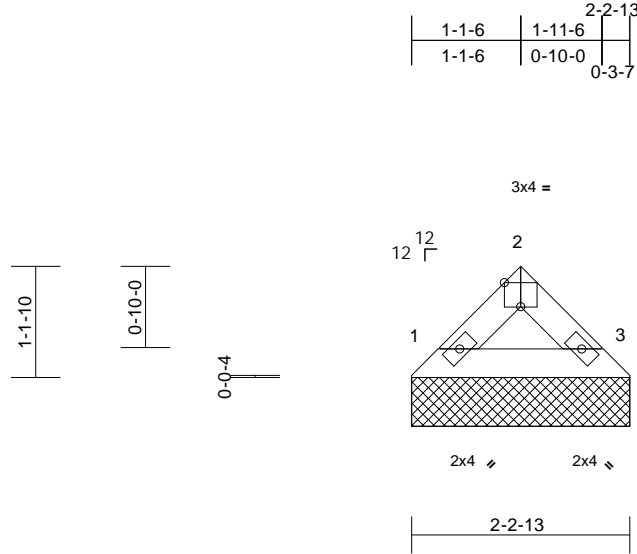
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss V03	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017244
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:06
ID:tkciJryDLh5z0lma0SNDodzvqem-OiVZ6?xhtQ0W2uGw3Wl9acwQsM26Jknq7DT02zqCFD

Page: 1



Scale = 1:23.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.01	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
										Weight: 7 lb	FT = 20%	

LUMBER

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

BRACING

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

REACTIONS (lb/size) 1=53/2-2-13, 3=53/2-2-13
Max Horiz 1=-16 (LC 9)
Max Grav 1=63 (LC 2), 3=63 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-47/20, 2-3=-47/20
BOT CHORD 1-3=-3/25

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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 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



January 30,2020

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

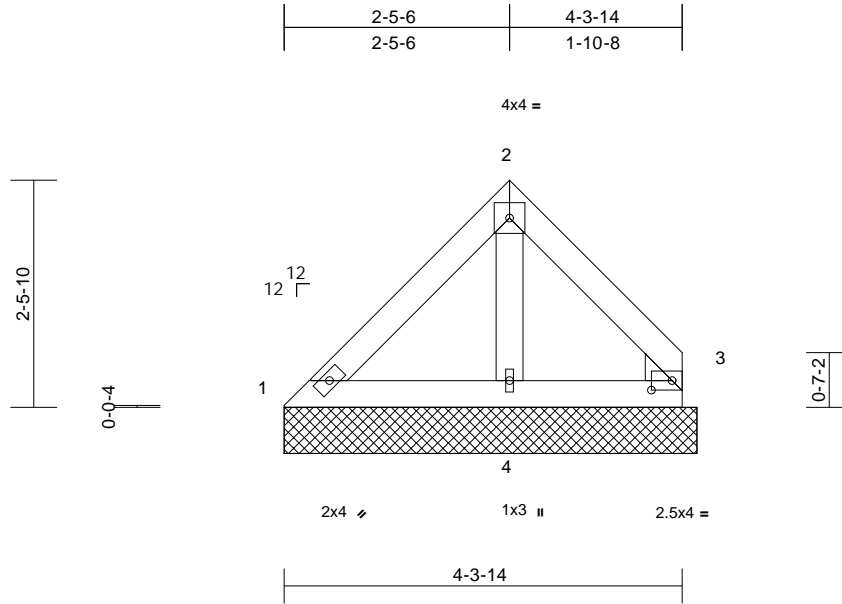
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss V04A	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017245
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:07
ID:cLYsZf3izVPP9DARH0_80zrvvC-su3xJLyJWBYt8CTSUm2Xin85OGhGmaw3ny0LUzqCFc

Page: 1



Scale = 1:25

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

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	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	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 18 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
WEDGE Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-3-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(lb/size) 1=61/4-5-13, 3=43/4-5-13, 4=199/4-5-13
Max Horiz 1=45 (LC 10)
Max Uplift 3=-2 (LC 9), 4=-16 (LC 13)
Max Grav 1=73 (LC 2), 3=70 (LC 29), 4=234 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

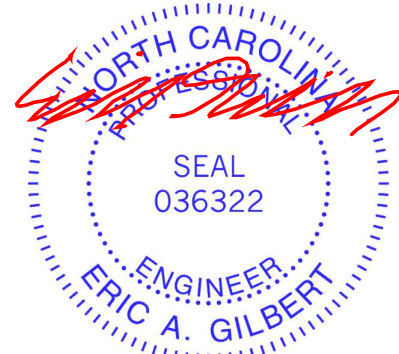
TOP CHORD 1-2=-72/65, 2-3=-23/44
BOT CHORD 1-4=-52/59, 3-4=-52/51
WEBS 2-4=-128/37

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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 3 and 16 lb uplift at joint 4.
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 3.
- 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



January 30, 2020

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

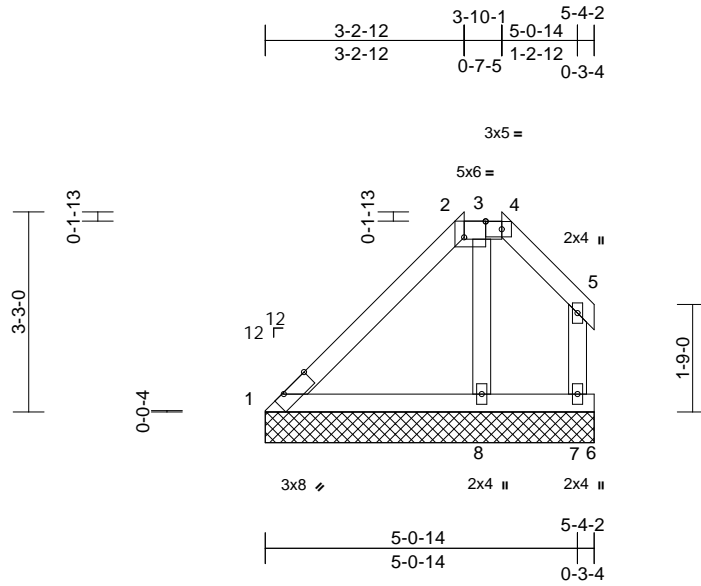
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss V05	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017246
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:08
ID:n64aKFlE7DAvXoZy5Ihe8PzvrwM-K5dKWHzxHVgkmM2f2UZmF?hC9gwzaDh4HRIatxqCFb

Page: 1



Scale = 1:37.4

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

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	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.57	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 25 lb	FT = 20%	

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-2 oc purlins, except 2-0-0 oc purlins: 2-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

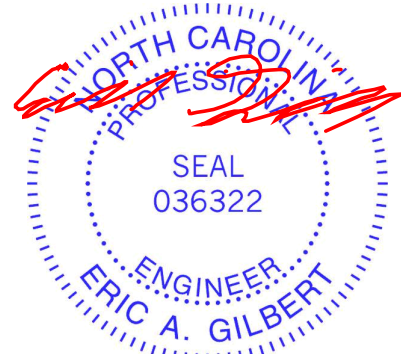
REACTIONS (lb/size)
1=96/5-4-2, 6=94/5-4-2, 7=-104/5-4-2, 8=270/5-4-2
Max Horiz 1=60 (LC 15)
Max Uplift 6=-74 (LC 15), 7=-270 (LC 45), 8=-56 (LC 15)
Max Grav 1=168 (LC 37), 6=207 (LC 45), 7=124 (LC 12), 8=429 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-149/35, 2-3=-39/49, 3-4=-39/49, 4-5=-34/38
BOT CHORD 1-8=-51/105, 7-8=0/0, 6-7=0/0
WEBS 3-8=-149/23, 5-7=-61/42

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) 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=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
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 6, 56 lb uplift at joint 8 and 270 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.

LOAD CASE(S) Standard



January 30, 2020

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

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



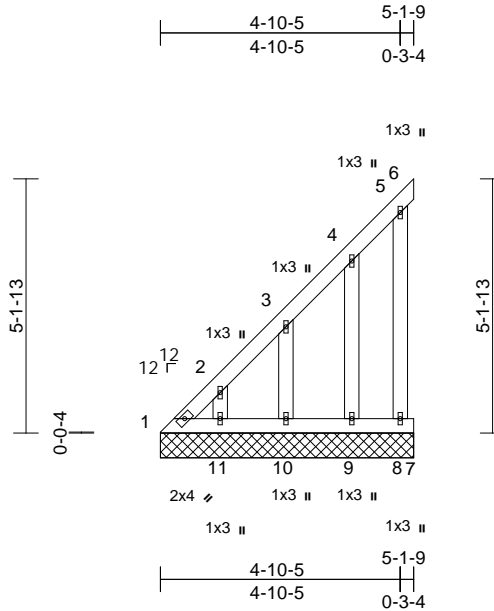
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss V05B	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017247
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:08
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Page: 1



Scale = 1:46.7

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 33 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-1-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 1=32/5-1-9, 6=9/5-1-9, 7=-1/5-1-9, 8=36/5-1-9, 9=84/5-1-9, 10=92/5-1-9, 11=95/5-1-9
Max Horiz 1=133 (LC 13)
Max Uplift 1=-20 (LC 11), 6=-8 (LC 13), 7=-1 (LC 11), 8=-10 (LC 13), 9=-36 (LC 13), 10=-46 (LC 13), 11=-12 (LC 13)
Max Grav 1=99 (LC 13), 6=13 (LC 24), 7=0 (LC 13), 8=45 (LC 24), 9=109 (LC 24), 10=121 (LC 24), 11=114 (LC 24)

FORCES

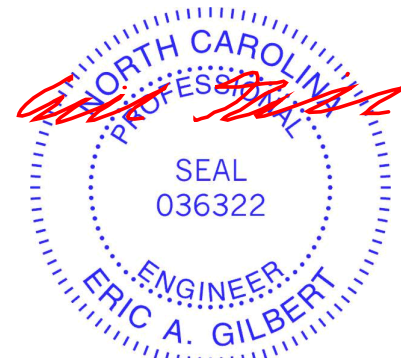
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-252/207, 2-3=-205/166, 3-4=-119/97, 4-5=-44/34, 5-6=-12/11
BOT CHORD 1-11=-48/50, 10-11=0/0, 9-10=0/0, 8-9=0/0, 7-8=0/0
WEBS 3-10=-124/106, 2-11=-85/60, 4-9=-108/90, 5-8=-39/33

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

- 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 1x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 7, 20 lb uplift at joint 1, 8 lb uplift at joint 6, 46 lb uplift at joint 10, 12 lb uplift at joint 11, 36 lb uplift at joint 9 and 10 lb uplift at joint 8.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 30, 2020

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

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



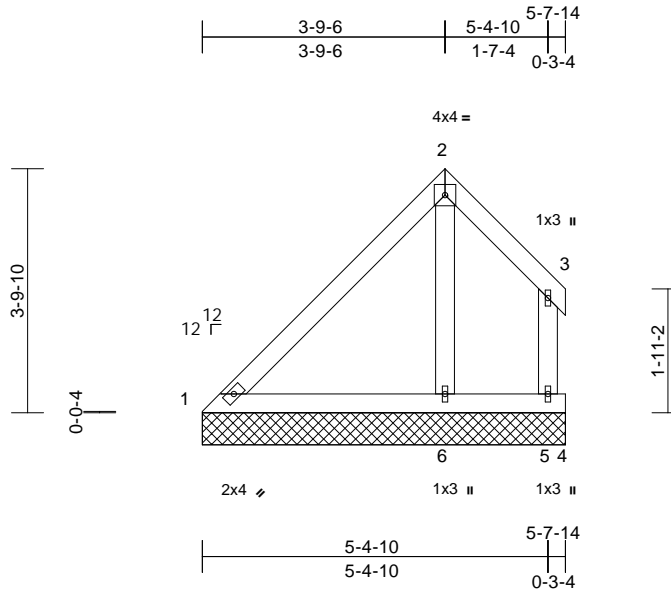
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss V05C	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017248
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:09
ID:cLYyZf3izVPP9DARH0_80zvrvc-oHBik1zZ2oobNWdrbB4?nCDPC4LJguDW5R7PNzqCFA

Page: 1



Scale = 1:35.9

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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 27 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-7-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 1=114/5-7-14, 4=65/5-7-14, 5=48/5-7-14, 6=239/5-7-14
Max Horiz 1=69 (LC 13)
Max Uplift 4=25 (LC 13), 5=89 (LC 28), 6=19 (LC 13)
Max Grav 1=136 (LC 28), 4=82 (LC 24), 5=35 (LC 10), 6=299 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum Tension

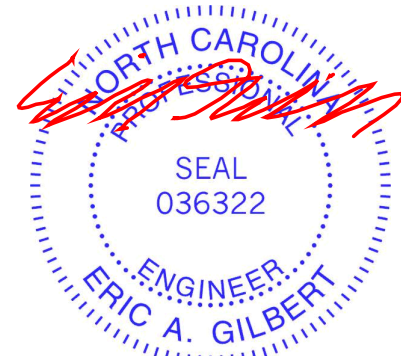
TOP CHORD 1-2=-145/73, 2-3=-47/53
BOT CHORD 1-6=-78/131, 5-6=0/0, 4-5=0/0
WEBS 2-6=-150/25, 3-5=-69/58

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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 4, 19 lb uplift at joint 6 and 89 lb uplift at joint 5.
- 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



January 30, 2020

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

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



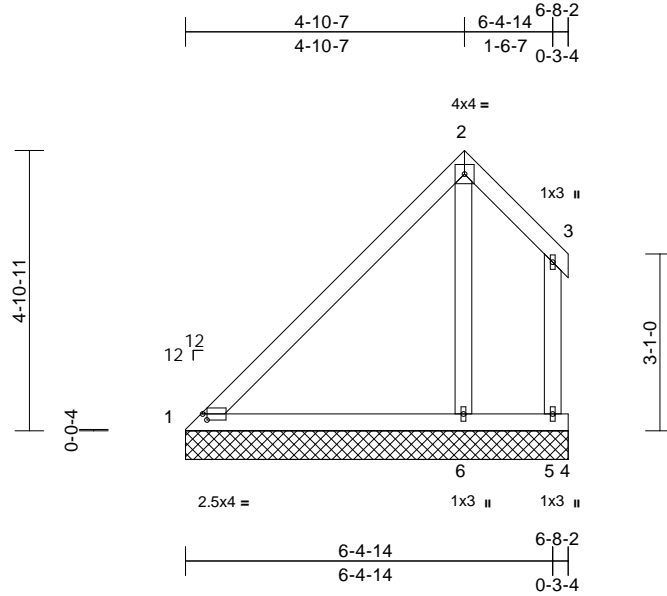
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss V06	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017249
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:09
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Page: 1



Scale = 1:40.2

Plate Offsets (X, Y): [1:0-0-14,0-1-4]

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	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.35	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.01	4	n/a	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

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

(lb/size)	1=146/6-8-2, 4=123/6-8-2, 5=143/6-8-2, 6=314/6-8-2
Max Horiz	1=100 (LC 13)
Max Uplift	4=33 (LC 13), 5=196 (LC 24), 6=43 (LC 13)
Max Grav	1=173 (LC 28), 4=152 (LC 24), 5=44 (LC 13), 6=393 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-179/92, 2-3=-44/50
BOT CHORD	1-6=-99/170, 5-6=0/0, 4-5=0/0
WEBS	2-6=-180/57, 3-5=-66/55

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=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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 4, 43 lb uplift at joint 6 and 196 lb uplift at joint 5.
- 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



January 30, 2020

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

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



818 Soundside Road
Edenton, NC 27932

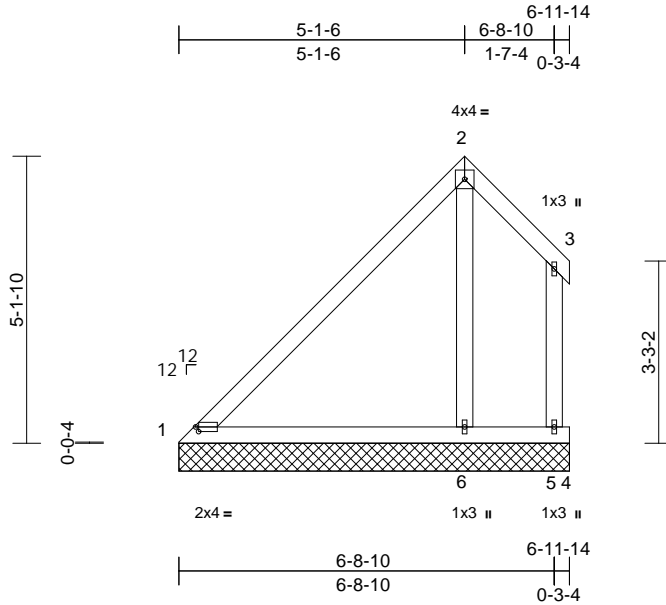
Job 20010096	Truss V07	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017250
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:09

Page: 1

ID:AtJLinDas6?w2cwlcsFzLzvsB6-oHBik1zZ2oobNWdrbB4?nCDMT4zJfDDW5R7PNzqCFA



Scale = 1:41.2

Plate Offsets (X, Y): [1:0-0-10,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.39	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 36 lb	FT = 20%	

LUMBER

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

BRACING

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

REACTIONS	(lb/size)	1=154/6-11-14, 4=137/6-11-14, 5=-161/6-11-14, 6=331/6-11-14
	Max Horiz	1=105 (LC 13)
	Max Uplift	4=-35 (LC 13), 5=-219 (LC 24), 6=-45 (LC 13)
	Max Grav	1=183 (LC 28), 4=170 (LC 24), 5=47 (LC 13), 6=414 (LC 24)

FORCES

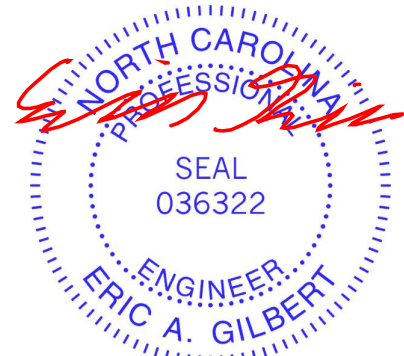
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-189/96, 2-3=-46/52
BOT CHORD	1-6=-103/179, 5-6=0/0, 4-5=0/0
WEBS	2-6=-189/60, 3-5=-69/57

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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 4, 45 lb uplift at joint 6 and 219 lb uplift at joint 5.
- 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



January 30, 2020

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

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



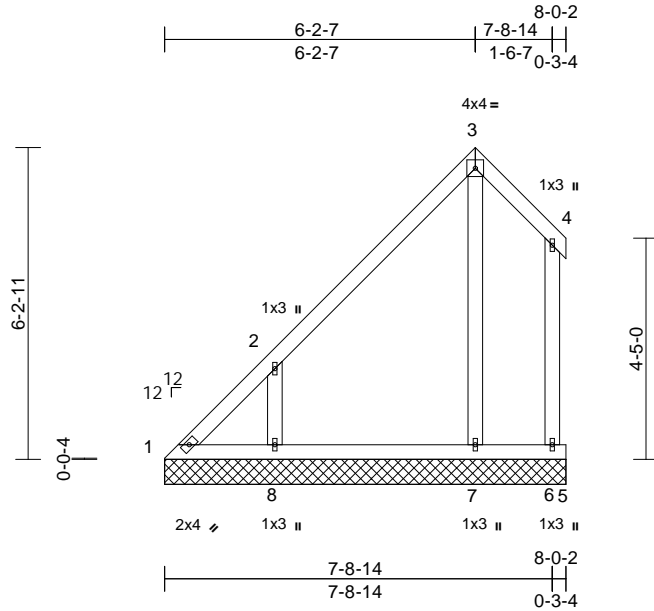
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss V08	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017251
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:09
ID:A_URH9kuSw7b?7IspABT1Bzvryz-oHBik1zZ2oobNWdrbB4?nCDO44N?Jf2DW5R7PNzqCFA

Page: 1



Scale = 1:46

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 45 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.2 *Except* 8-2:2x4 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

(lb/size)	1=32/8-0-2, 5=21/8-0-2, 6=17/8-0-2, 7=189/8-0-2, 8=270/8-0-2
Max Horiz	1=136 (LC 13)
Max Uplift	1=48 (LC 11), 6=40 (LC 14), 8=114 (LC 13)
Max Grav	1=116 (LC 13), 5=23 (LC 24), 6=34 (LC 25), 7=234 (LC 24), 8=347 (LC 24)

FORCES

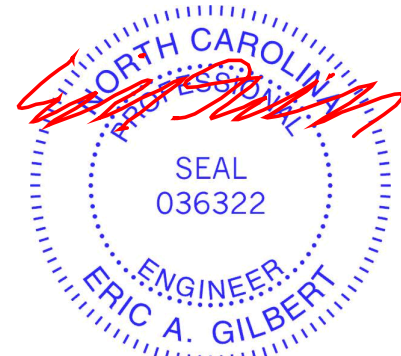
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-243/223, 2-3=-117/76, 3-4=-44/49
BOT CHORD	1-8=-26/35, 7-8=0/0, 6-7=0/0, 5-6=0/0
WEBS	3-7=-158/41, 2-8=-357/289, 4-6=-65/53

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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 1, 114 lb uplift at joint 8 and 40 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 30, 2020

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

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



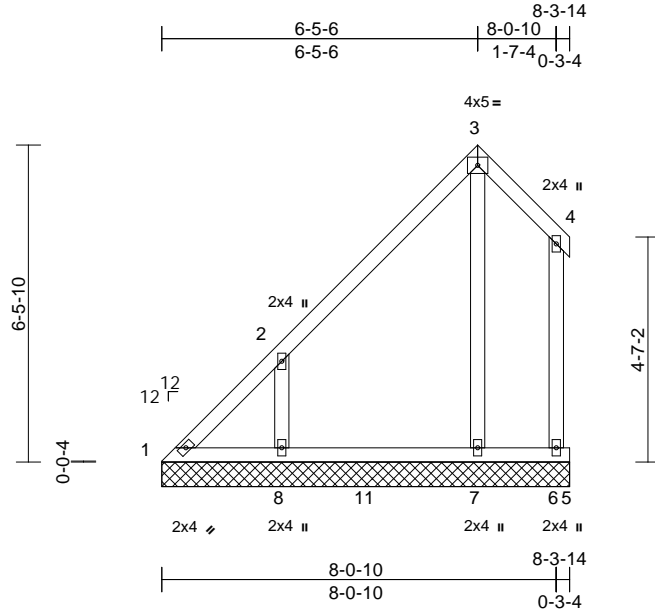
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss V08A	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017252
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:10
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Page: 1



Scale = 1:47

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 48 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.2 *Except* 8-2:2x4 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

(lb/size)	1=44/8-3-14, 5=19/8-3-14, 6=24/8-3-14, 7=189/8-3-14, 8=275/8-3-14
Max Horiz	1=141 (LC 13)
Max Uplift	1=40 (LC 11), 6=-80 (LC 19), 8=-117 (LC 13)
Max Grav	1=117 (LC 13), 5=71 (LC 19), 6=34 (LC 29), 7=308 (LC 24), 8=376 (LC 24)

FORCES

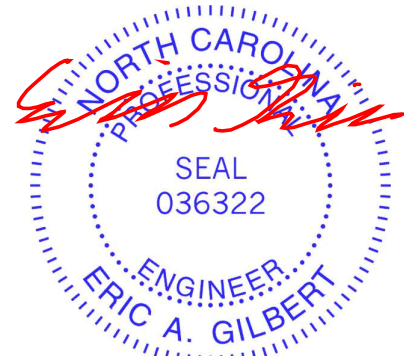
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-238/218, 2-3=-118/77, 3-4=-46/51
BOT CHORD	1-8=-34/50, 8-11=0/0, 7-11=0/0, 6-7=0/0, 5-6=0/0
WEBS	3-7=-160/38, 2-8=-354/284, 4-6=-68/55

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=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, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 1, 117 lb uplift at joint 8 and 80 lb uplift at joint 6.
- 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



January 30, 2020

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

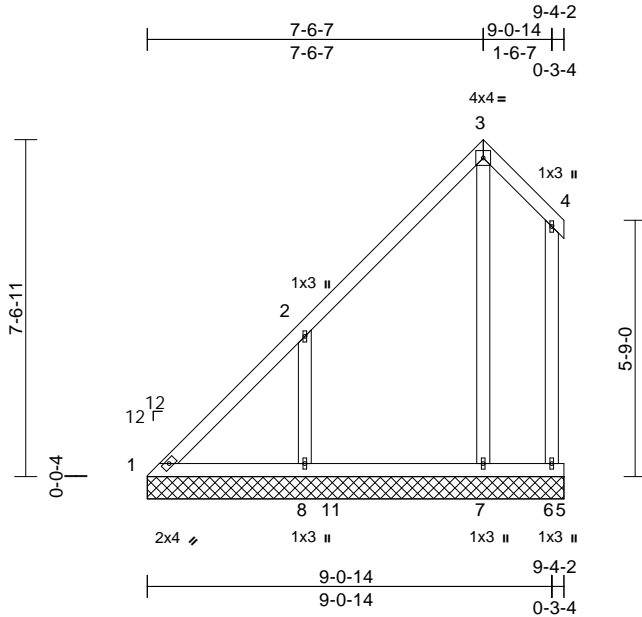
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss V09	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017253
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:10
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Page: 1



Scale = 1:51.7

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	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.00	5	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
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.2 *Except* 8-2:2x4 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

(lb/size)	1=89/9-4-2, 5=12/9-4-2, 6=16/9-4-2, 7=201/9-4-2, 8=303/9-4-2
Max Horiz	1=172 (LC 13)
Max Uplift	1=-12 (LC 11), 6=-119 (LC 19), 7=-11 (LC 13), 8=-123 (LC 13)
Max Grav	1=132 (LC 26), 5=89 (LC 19), 6=29 (LC 29), 7=348 (LC 24), 8=433 (LC 24)

FORCES

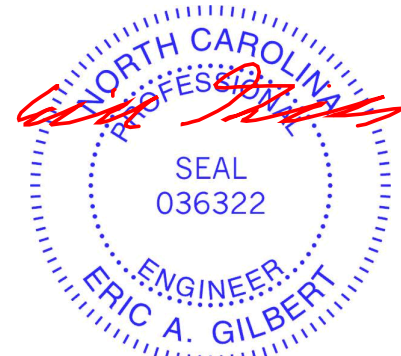
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-250/227, 2-3=-113/98, 3-4=-22/50
BOT CHORD	1-8=-66/108, 8-11=0/0, 7-11=0/0, 6-7=0/0, 5-6=0/0
WEBS	3-7=-191/78, 2-8=-349/272, 4-6=-38/26

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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 11 lb uplift at joint 7, 123 lb uplift at joint 8 and 119 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 30, 2020

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

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



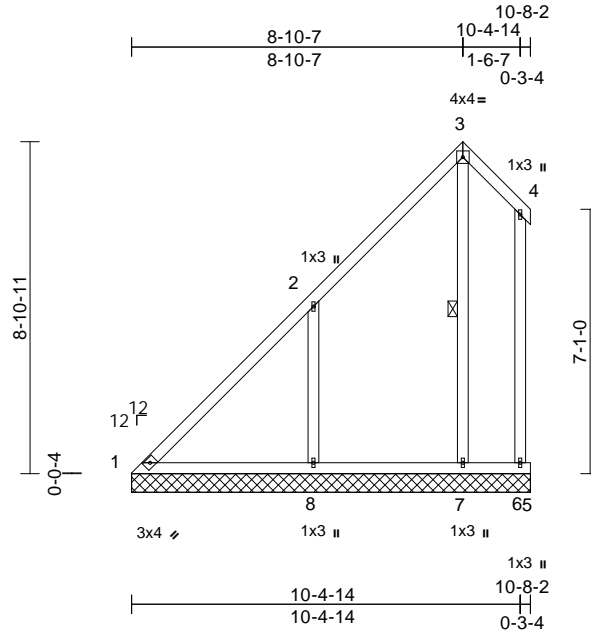
818 Soundside Road
Edenton, NC 27932

Job 20010096	Truss V10	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017254
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:11
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Page: 1



Scale = 1:61.7

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 67 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.2 *Except* 8-2:2x4 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.
WEBS	1 Row at midpt 3-7

REACTIONS (lb/size)	1=131/10-8-2, 5=-5/10-8-2, 6=46/10-8-2, 7=170/10-8-2, 8=368/10-8-2
	Max Horiz 1=207 (LC 13)
	Max Uplift 5=-9 (LC 2), 6=-108 (LC 19), 7=-2 (LC 13), 8=-151 (LC 13)
	Max Grav 1=179 (LC 26), 5=84 (LC 19), 6=58 (LC 2), 7=314 (LC 24), 8=533 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension

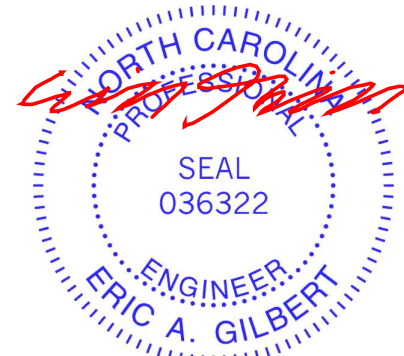
TOP CHORD	1-2=-281/257, 2-3=-118/90, 3-4=-25/48
BOT CHORD	1-8=-91/159, 7-8=0/0, 6-7=0/0, 5-6=0/0
WEBS	3-7=-175/64, 2-8=-405/307, 4-6=-41/29

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; 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, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 5, 2 lb uplift at joint 7, 151 lb uplift at joint 8 and 108 lb uplift at joint 6.
- 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



January 30, 2020

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

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



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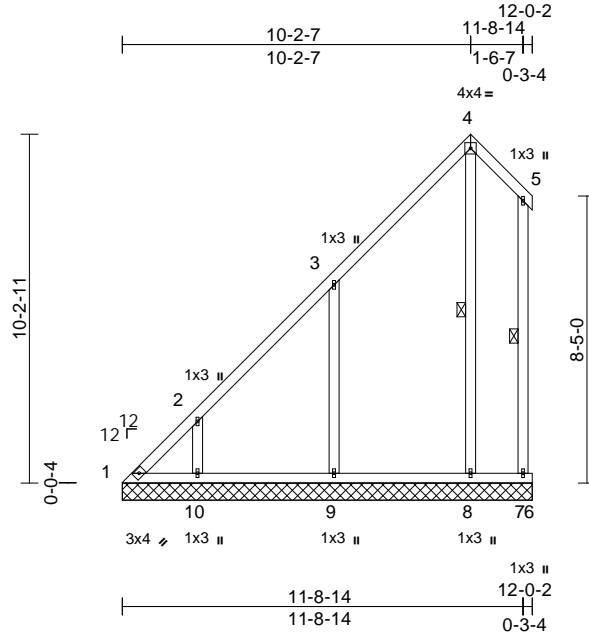
Job 20010096	Truss V12	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017255
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:11

Page: 1

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Scale = 1:67.5

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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 80 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.2 *Except* 10-2:2x4 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.
WEBS	1 Row at midpt 4-8, 5-7
REACTIONS (lb/size)	
	1=44/12-0-2, 6=16/12-0-2, 7=10/12-0-2, 8=203/12-0-2, 9=296/12-0-2, 10=231/12-0-2
Max Horiz	1=243 (LC 13)
Max Uplift	1=-80 (LC 11), 7=-126 (LC 19), 8=-8 (LC 13), 9=-137 (LC 13), 10=-73 (LC 13)
Max Grav	1=204 (LC 13), 6=94 (LC 19), 7=28 (LC 29), 8=352 (LC 24), 9=452 (LC 24), 10=278 (LC 24)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-423/365, 2-3=-268/236, 3-4=-114/95, 4-5=-23/49
BOT CHORD	1-10=-53/64, 9-10=0/0, 8-9=0/0, 7-8=0/0, 6-7=0/0
WEBS	4-8=-186/67, 3-9=-367/289, 2-10=-263/201, 5-7=-38/27

- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 1, 8 lb uplift at joint 8, 137 lb uplift at joint 9, 73 lb uplift at joint 10 and 126 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=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;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.

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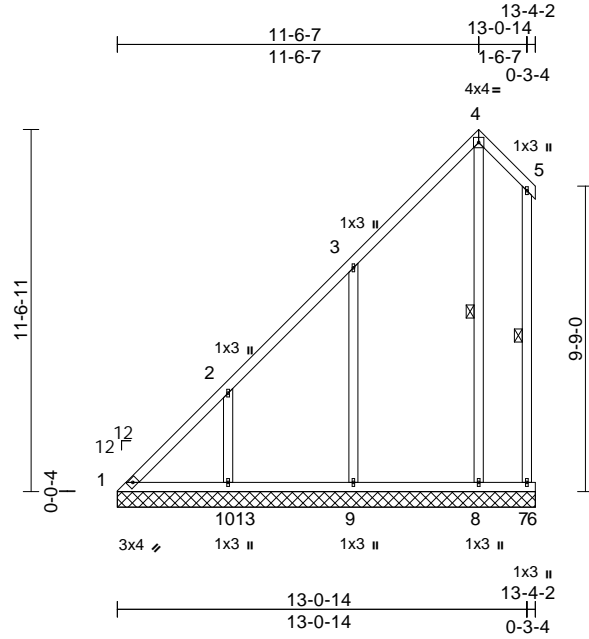
Job 20010096	Truss V13	Truss Type Valley	Qty 1	Ply 1	GARY ROBINSON / 4 PBC Job Reference (optional)	E14017256
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Jan 22 2020 Print: 8.330 S Jan 22 2020 MiTek Industries, Inc. Thu Jan 30 09:56:12

Page: 1

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Scale = 1:73.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horiz(TL)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 93 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2 *Except* 10-2:2x4 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.
WEBS 1 Row at midpt 4-8, 5-7

REACTIONS (lb/size)
1=93/13-4-2, 6=18/13-4-2,
7=6/13-4-2, 8=208/13-4-2,
9=285/13-4-2, 10=281/13-4-2
Max Horiz 1=279 (LC 13)
Max Uplift 1=-53 (LC 11), 7=-98 (LC 19),
8=-10 (LC 13), 9=-134 (LC 13),
10=-100 (LC 13)
Max Grav 1=225 (LC 13), 6=76 (LC 19), 7=25
(LC 29), 8=340 (LC 24), 9=506 (LC
24), 10=395 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-444/387, 2-3=-262/230, 3-4=-113/96,
4-5=-22/49
BOT CHORD 1-10=-77/121, 10-13=0/0, 9-13=0/0, 8-9=0/0,
7-8=0/0, 6-7=0/0
WEBS 4-8=-187/66, 3-9=-358/280, 2-10=-302/223,
5-7=-38/26

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;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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 1, 10 lb uplift at joint 8, 134 lb uplift at joint 9, 100 lb uplift at joint 10 and 98 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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

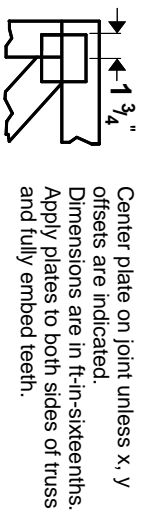
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



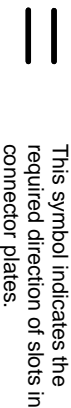
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.



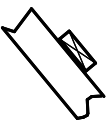
* Plate location details available in **MITrak 20/20 software or upon request.**

PLATE SIZE

4 X 4

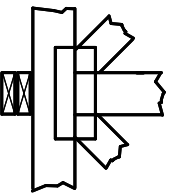
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

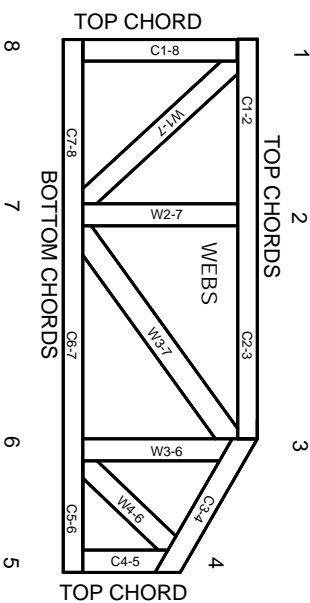


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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