

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 21020045-01
162 Crossing-Havenbrooke C-Roof

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: E15385496 thru E15385523

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844



February 5, 2021

Gilbert, Eric

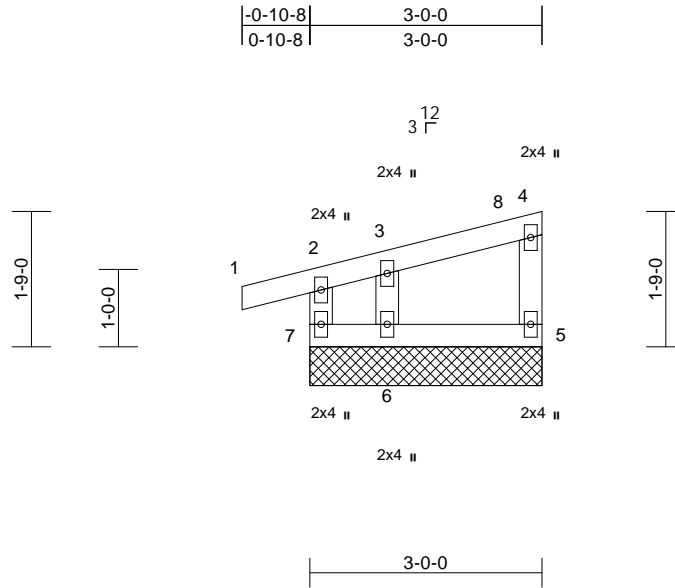
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 21020045-01	Truss M1GE	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385496
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:28
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Page: 1



Scale = 1:29.8

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	0.09	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	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-R								
BCDL	10.0											
											Weight: 14 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 3-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS	
(size)	5=3-0-0, 6=3-0-0, 7=3-0-0
Max Horiz	7=46 (LC 14)
Max Uplift	5=-2 (LC 15), 6=-16 (LC 12), 7=-38 (LC 11)
Max Grav	5=66 (LC 2), 6=98 (LC 33), 7=131 (LC 21)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-7=-122/87, 1-2=0/19, 2-3=-51/30, 3-8=-28/19, 4-8=-21/21, 4-5=-50/45
BOT CHORD	6-7=-28/28, 5-6=-28/28
WEBS	3-6=-75/99

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7, 5, and 6. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

- NOTES**
- 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.



February 5, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



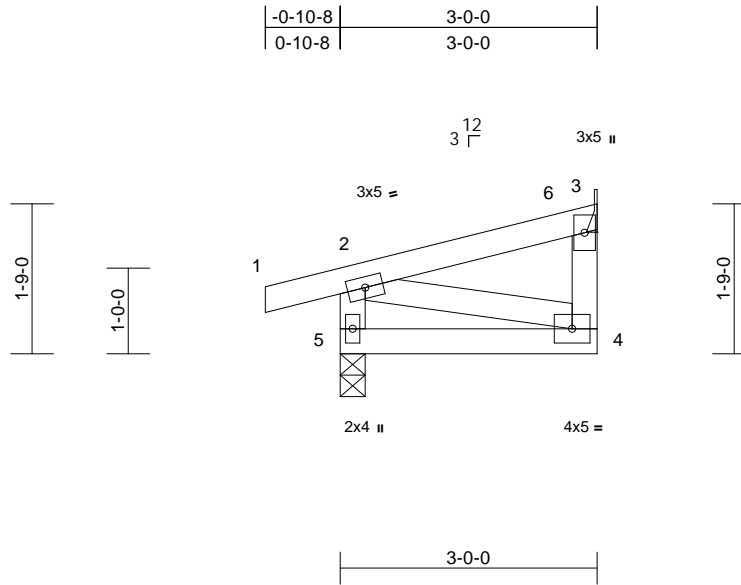
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss M1	Truss Type Monopitch	Qty 7	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385497
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Carter Components (Sanford), Sanford, NC - 27332,

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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	0.10	0.00	5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.06	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 17 lb	FT = 20%

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

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

REACTIONS (size) 3= Mechanical, 5=0-3-8
Max Horiz 5=46 (LC 12)
Max Uplift 3=-5 (LC 12), 5=-36 (LC 11)
Max Grav 3=97 (LC 2), 5=181 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/19, 2-6=-41/27, 3-6=-34/32, 3-4=-7/41, 2-5=-154/128
BOT CHORD 4-5=-103/72
WEBS 2-4=-54/89

- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 3.
- 8) One RT8A 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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.



February 5, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate

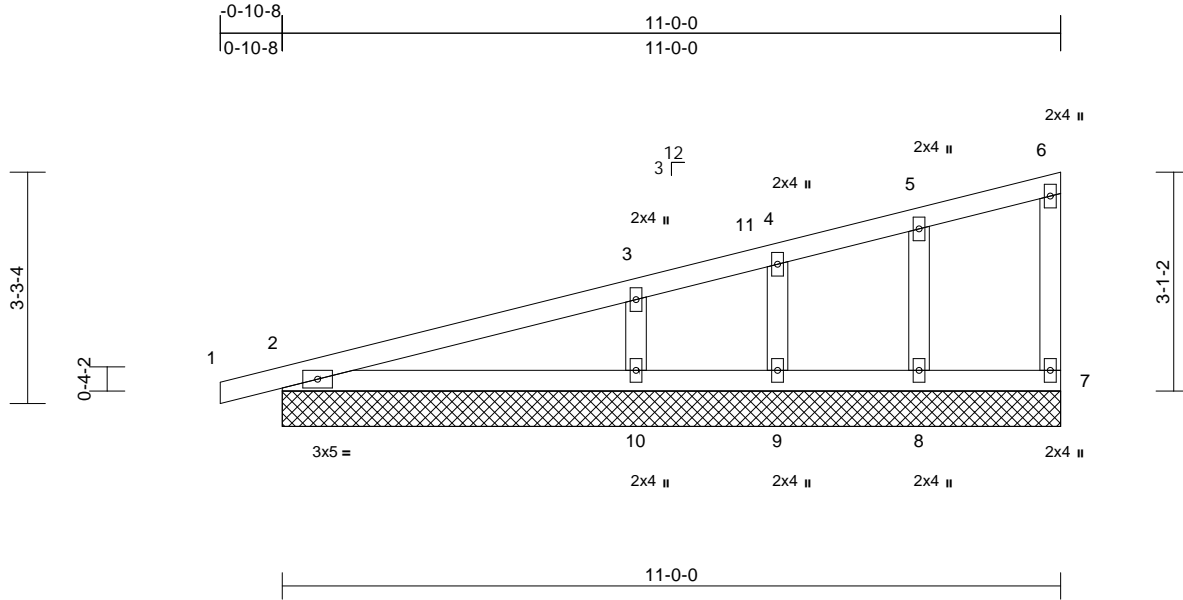
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss M4GE	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385498
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Loading (psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
TCDL	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	7	n/a	n/a		
BCLL	Code	IRC2015/TPI2014	Matrix-SH								
BCDL										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.3

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

REACTIONS (size)
2=11-0-0, 7=11-0-0, 8=11-0-0, 9=11-0-0, 10=11-0-0
Max Horiz 2=87 (LC 12)
Max Uplift 2=-24 (LC 11), 7=-2 (LC 12), 8=-10 (LC 15), 9=-5 (LC 11), 10=-23 (LC 15)
Max Grav 2=221 (LC 2), 7=57 (LC 22), 8=199 (LC 2), 9=47 (LC 22), 10=410 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-3=-144/87, 3-11=-85/42, 4-11=-80/50, 4-5=-71/55, 5-6=-49/44, 6-7=-43/32
BOT CHORD 2-10=-44/49, 9-10=-44/49, 8-9=-44/49, 7-8=-44/49
WEBS 5-8=-145/99, 4-9=-48/38, 3-10=-285/177

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
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 2.
- One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7, 8, 9, and 10. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



February 5, 2021

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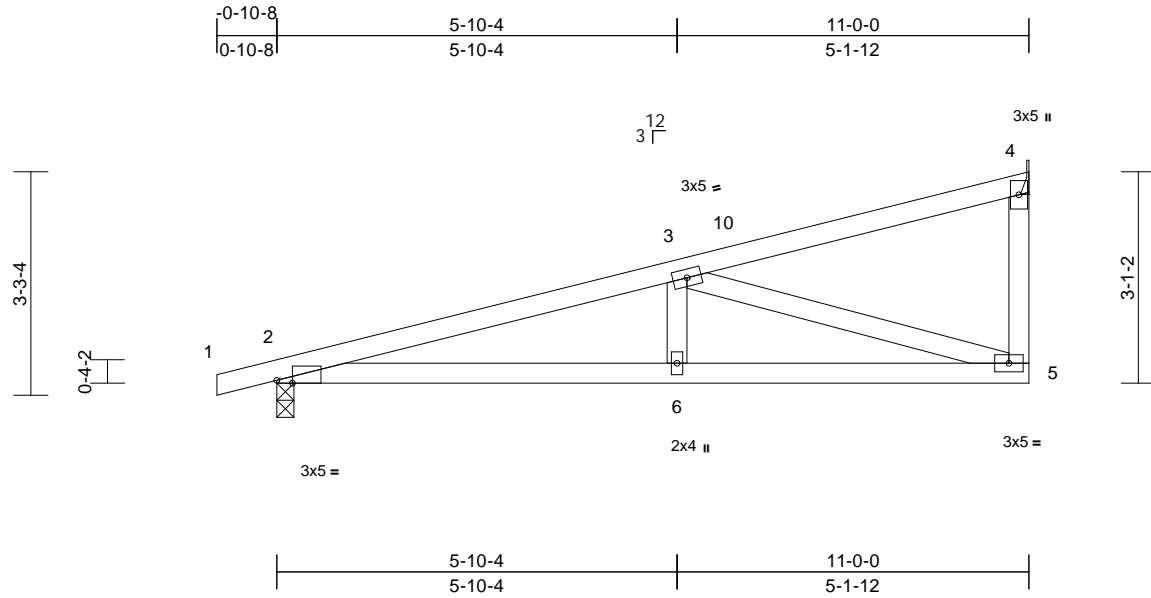
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss M4	Truss Type Monopitch	Qty 3	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385499
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:33.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.04	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.09	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	-0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 47 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-9-13 oc bracing.

REACTIONS

(size) 2=0-3-0, 4= Mechanical
Max Horiz 2=88 (LC 14)
Max Uplift 2=-38 (LC 11), 4=-20 (LC 15)
Max Grav 2=489 (LC 2), 4=432 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-3=-961/286, 3-10=-81/26, 4-10=-54/39, 4-5=-69/311
BOT CHORD 2-6=-350/914, 5-6=-350/914
WEBS 3-6=0/137, 3-5=-931/325

NOTES

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

- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 4.
- 8) One RT16A 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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



February 5, 2021

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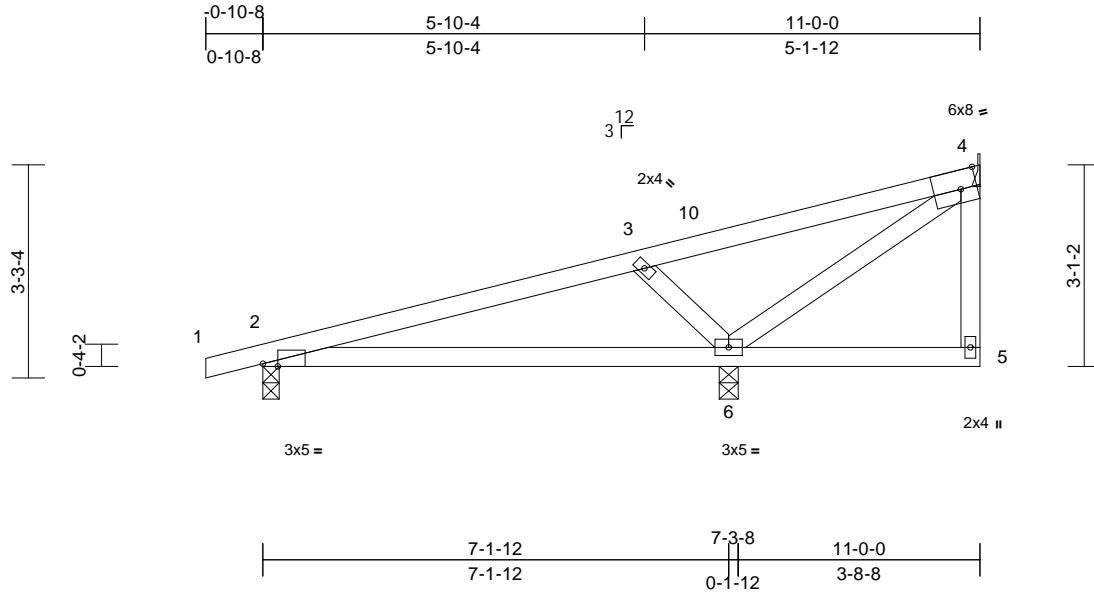
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss M4A	Truss Type Monopitch	Qty 3	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385500
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:29
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Page: 1



Scale = 1:35.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.03	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.09	6-9	>920	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
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

BRACING

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

REACTIONS

(size) 2=0-3-0, 4= Mechanical, 6=0-3-8
Max Horiz 2=88 (LC 14)
Max Uplift 2=-30 (LC 11), 4=-7 (LC 12), 6=-22 (LC 15)
Max Grav 2=304 (LC 2), 4=88 (LC 22), 6=542 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

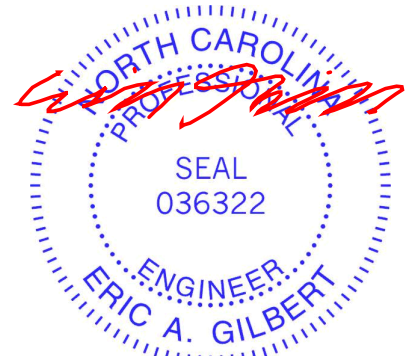
TOP CHORD 1-2=0/16, 2-3=-223/84, 3-10=-108/75, 4-10=-100/127, 4-5=0/19
BOT CHORD 2-6=-168/203, 5-6=-41/42
WEBS 3-6=-430/257, 4-6=-133/80

NOTES

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

- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 6 and 7 lb uplift at joint 4.
- 8) One RT16A 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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



February 5, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Edenton, NC 27932

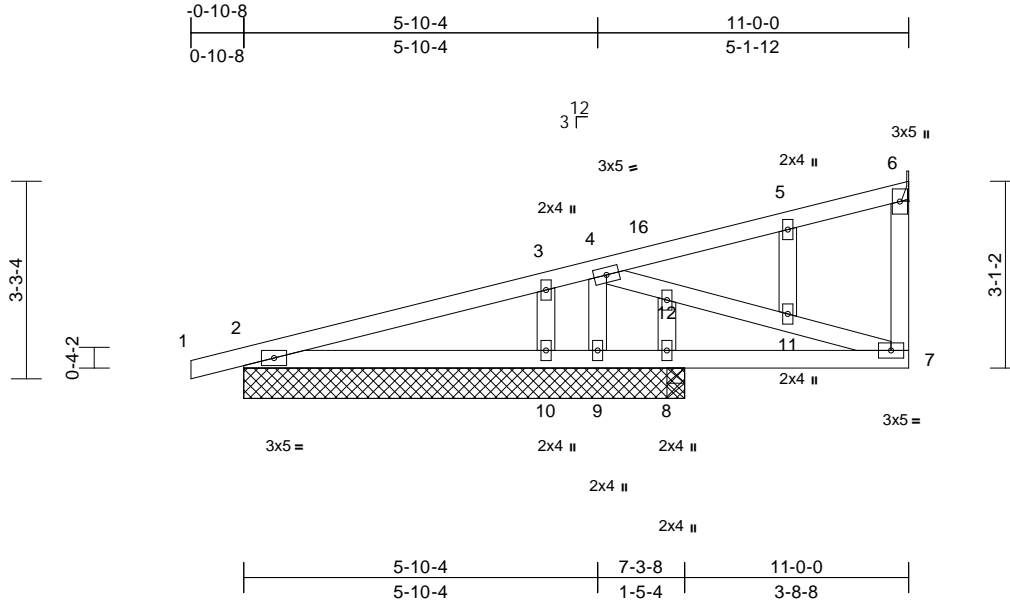
Job 21020045-01	Truss M4SE	Truss Type Monopitch Structural Gable	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385501
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:29

Page: 1

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01	10-15	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.03	10-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 53 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, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

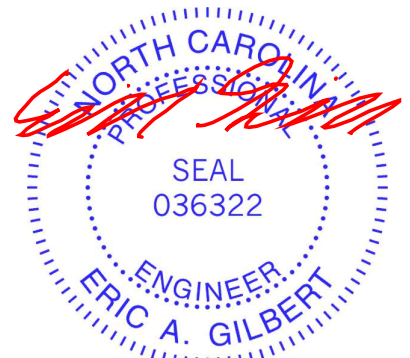
REACTIONS (size) 2=7-3-8, 6= Mechanical, 8=0-3-8, 9=7-3-8, 10=7-3-8, 13=7-3-8
Max Horiz 2=88 (LC 14), 13=88 (LC 14)
Max Uplift 2=-31 (LC 11), 6=-14 (LC 15), 9=-122 (LC 2), 13=-31 (LC 11)
Max Grav 2=231 (LC 2), 6=157 (LC 22), 8=215 (LC 2), 9=-38 (LC 15), 10=441 (LC 2), 13=231 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-103/49, 3-4=-89/49, 4-16=-71/32, 5-16=-65/44, 5-6=-52/44, 6-7=-22/85
BOT CHORD 2-10=-77/98, 9-10=-77/71, 8-9=-77/71, 7-8=-77/71
WEBS 4-9=-41/30, 4-12=-56/68, 11-12=-33/48, 7-11=-53/66, 5-11=-104/72, 8-12=-115/80, 3-10=-226/116

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
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Gable 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 6, 31 lb uplift at joint 2 and 31 lb uplift at joint 2.
- 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.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



February 5, 2021

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

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818 Soundside Road
Edenton, NC 27932

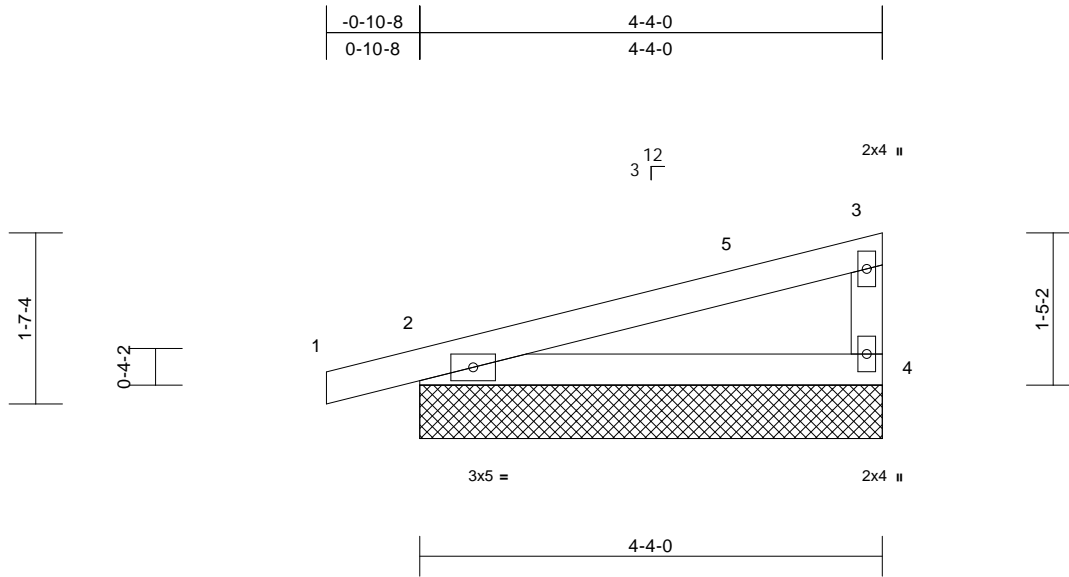
Job 21020045-01	Truss M2GE	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385502
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.15	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P							
BCDL	10.0									Weight: 16 lb	FT = 20%

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

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

REACTIONS (lb/size) 2=188/4-4-0, 4=137/4-4-0
Max Horiz 2=36 (LC 12)
Max Uplift 2=-32 (LC 11), 4=-7 (LC 15)
Max Grav 2=225 (LC 2), 4=162 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 2.
 - One RT8A 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.
 - 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**
- 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
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
 - Gable requires continuous bottom chord bearing.



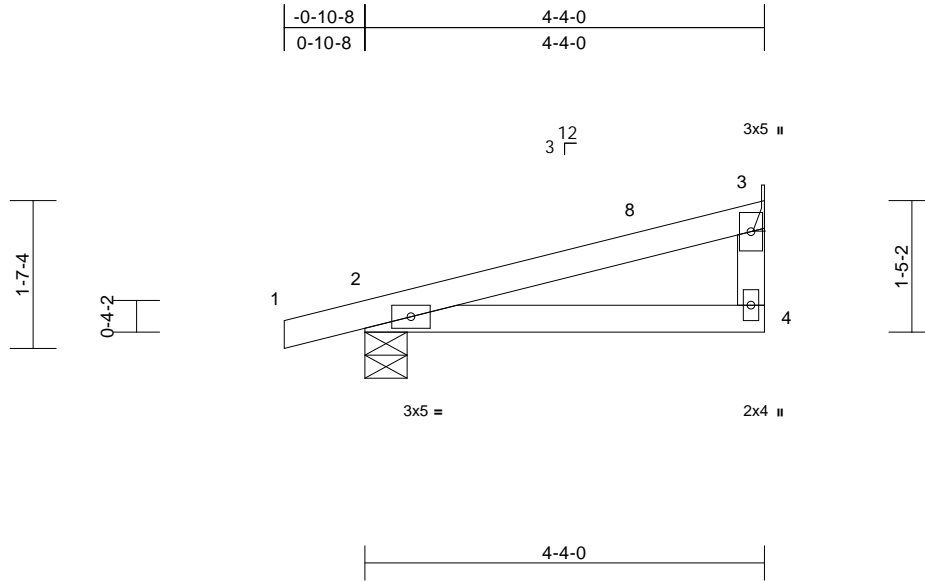
February 5, 2021

Job 21020045-01	Truss M2	Truss Type Monopitch	Qty 2	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385503
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:25

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)	0.02	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 16 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 2=0-5-8, 3= Mechanical
Max Horiz 2=36 (LC 14)
Max Uplift 2=-32 (LC 11), 3=-7 (LC 15)
Max Grav 2=225 (LC 2), 3=162 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

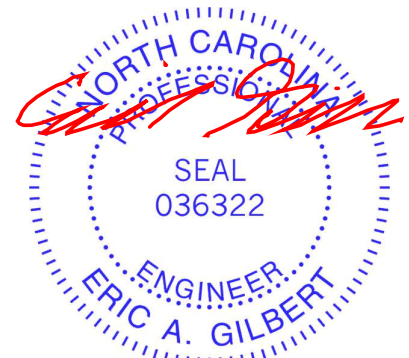
TOP CHORD 1-2=0/16, 2-8=-96/26, 3-8=-36/33, 3-4=-1/57
BOT CHORD 2-4=-50/83

NOTES

- Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C
Exterior (2) zone; cantilever left and right exposed ; end
vertical left and right exposed;C-C for members and
forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber
DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground
snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15
Plate DOL=1.15); Category II; Exp B; Fully Exp.;
Ct=1.10
- Unbalanced snow loads have been considered for this
design.
- This truss has been designed for greater of min roof live
load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on
overhangs non-concurrent with other live loads.

- * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 7 lb uplift at joint
3.
- One RT16A 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.
- Gap between inside of top chord bearing and first
diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



February 5, 2021

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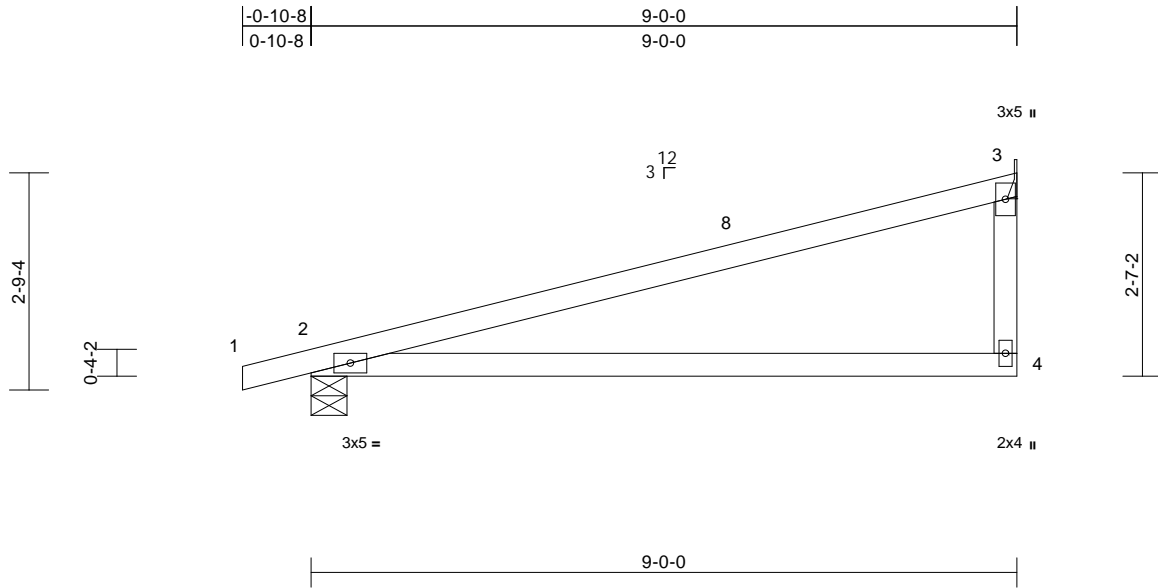
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss M3	Truss Type Monopitch	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385504
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:29.4

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	0.94	Vert(LL)	-0.25	4-7	>433	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.56	4-7	>189	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 32 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-11-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-5-8, 3= Mechanical
Max Horiz 2=72 (LC 14)
Max Uplift 2=-36 (LC 11), 3=-16 (LC 15)
Max Grav 2=409 (LC 2), 3=352 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

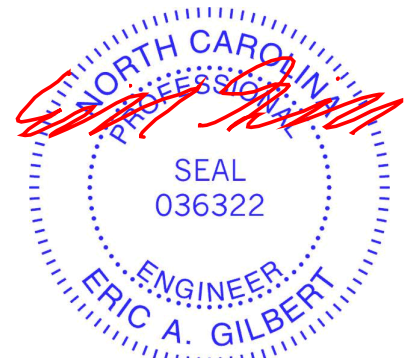
TOP CHORD 1-2=0/16, 2-8=-250/49, 3-8=-73/65,
3-4=0/117
BOT CHORD 2-4=-119/242

NOTES

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C
Exterior (2) zone; cantilever left and right exposed ; end
vertical left and right exposed; C-C for members and
forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber
DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground
snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15
Plate DOL=1.15); Category II; Exp B; Fully Exp.;
Ct=1.10
- 3) Unbalanced snow loads have been considered for this
design.
- 4) This truss has been designed for greater of min roof live
load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on
overhangs non-concurrent with other live loads.

- 5) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 16 lb uplift at joint
3.
- 8) One RT16A 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) Gap between inside of top chord bearing and first
diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



February 5, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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ENGINEERING BY
TRENCO
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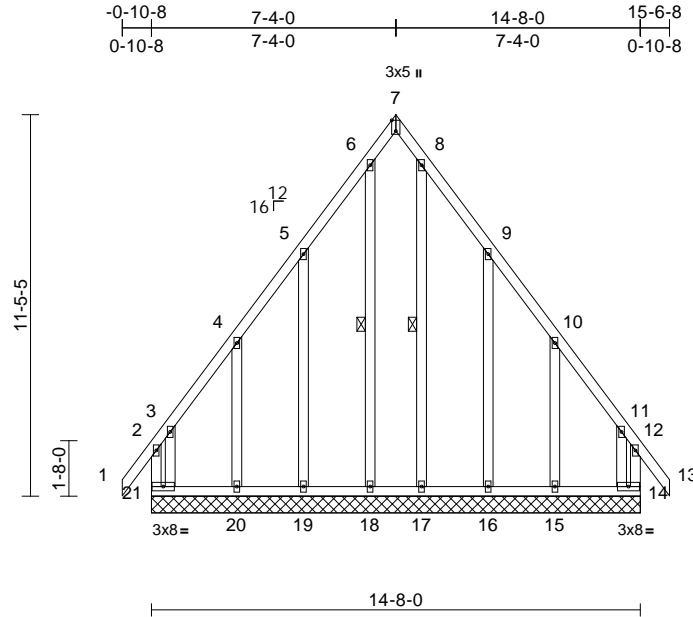
Job 21020045-01	Truss T4GE	Truss Type Common Supported Gable	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385505
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Carter Components (Sanford), Sanford, NC - 27332,

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Scale = 1:69.1

Plate Offsets (X, Y): [7:Edge,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	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-R								
BCDL	10.0											
											Weight: 137 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*
20-4,21-3,15-10,14-11:2x4 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 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-18, 8-17

REACTIONS (size)
14=14-8-0, 15=14-8-0, 16=14-8-0,
17=14-8-0, 18=14-8-0, 19=14-8-0,
20=14-8-0, 21=14-8-0
Max Horiz 21=277 (LC 11)
Max Uplift 14=184 (LC 10), 15=227 (LC 9),
16=115 (LC 14), 17=15 (LC 11),
18=22 (LC 12), 19=114 (LC 13),
20=232 (LC 10), 21=193 (LC 9)
Max Grav 14=292 (LC 25), 15=329 (LC 12),
16=175 (LC 26), 17=237 (LC 13),
18=239 (LC 14), 19=173 (LC 25),
20=335 (LC 11), 21=299 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-21=241/242, 1-2=0/62, 2-3=130/154,
3-4=224/218, 4-5=184/234, 5-6=368/458,
6-7=168/198, 7-8=168/199, 8-9=367/457,
9-10=187/235, 10-11=214/208,
11-12=129/154, 12-13=0/62,
12-14=238/243
BOT CHORD 20-21=147/152, 19-20=147/152,
18-19=147/152, 17-18=147/152,
16-17=147/152, 15-16=147/152,
14-15=147/152

WEBS 6-18=337/210, 8-17=335/208,
5-19=272/263, 4-20=286/272,
3-21=366/320, 9-16=271/262,
10-15=284/271, 11-14=353/307

- 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.
 - 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 193 lb uplift at joint 21 and 184 lb uplift at joint 14.
- One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18, 17, 19, 20, 16, and 15. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



February 5, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



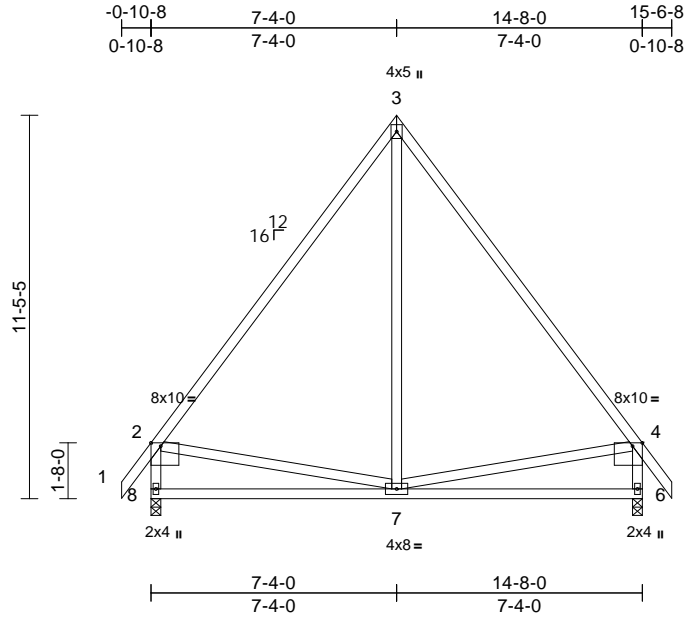
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss T4	Truss Type Common	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385506
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:34
ID:k8YyXGra9r5_wNdxYUyRo9zB1hh-Mock Me

Page: 1



Scale = 1:68.8

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

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	0.81	Vert(LL)	0.01	7-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.06	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 104 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-8-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-9-11 oc bracing.

REACTIONS (size) 6=0-3-8, 8=0-3-8

Max Horiz 8=-277 (LC 11)
Max Uplift 6=-7 (LC 13), 8=-7 (LC 14)
Max Grav 6=636 (LC 2), 8=636 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/62, 2-3=-530/189, 3-4=-530/189, 4-5=0/62, 2-8=-572/194, 4-6=-572/194
BOT CHORD 7-8=-353/467, 6-7=-251/386
WEBS 3-7=-67/271, 2-7=-320/444, 4-7=-322/445

NOTES

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

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



February 5, 2021

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

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



818 Soundside Road
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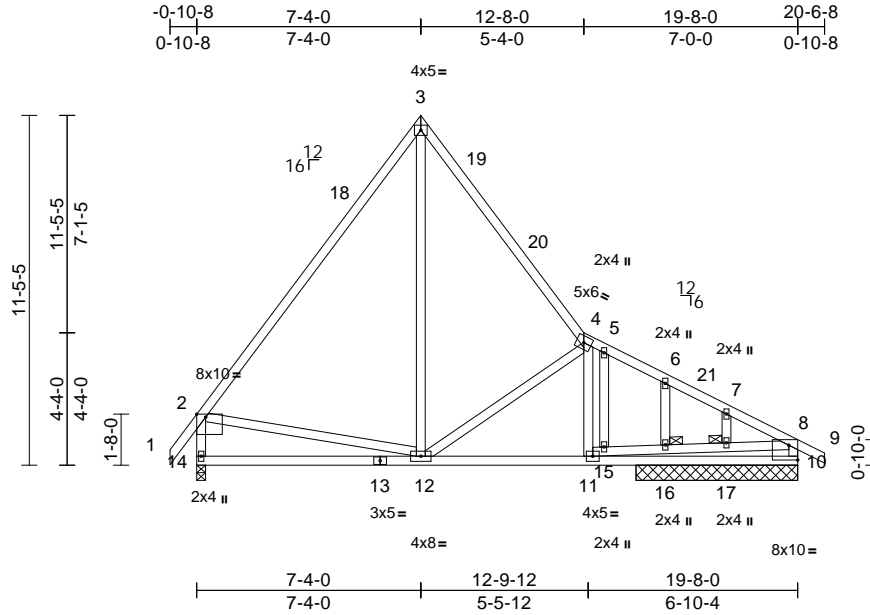
Job 21020045-01	Truss T5SE	Truss Type Roof Special Structural Gable	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385507
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:35

Page: 1

ID:1UTb?fxzW?z_GSfHSSa4aezB1ha-Mock Me



Scale = 1:75.4

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

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	0.88	Vert(LL)	-0.04	11-12	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.10	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.02	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 140 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.2 *Except* 11-4,10-8:2x4 SP No.3
 OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 JOINTS 1 Brace at Jt(s): 16, 17

REACTIONS (size) 10=5-3-8, 14=0-3-8

Max Horiz 14=270 (LC 13)
 Max Grav 10=836 (LC 2), 14=836 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/62, 2-18=-742/187, 3-18=-519/218, 3-19=-543/256, 19-20=-579/229, 4-20=-684/224, 4-5=-913/218, 5-6=-992/236, 6-21=-987/200, 7-21=-1013/195, 7-8=-1085/190, 8-9=0/34, 2-14=-766/217, 8-10=-764/251
 BOT CHORD 13-14=-300/465, 12-13=-300/465, 11-12=-89/881, 10-11=-130/520
 WEBS 3-12=-182/588, 4-12=-687/309, 4-11=-32/143, 2-12=-227/394, 11-15=0/398, 15-16=0/393, 16-17=0/395, 8-17=0/395, 5-15=-49/152, 6-16=-80/53, 7-17=-4/29

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; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

LOAD CASE(S) Standard



February 5, 2021

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

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



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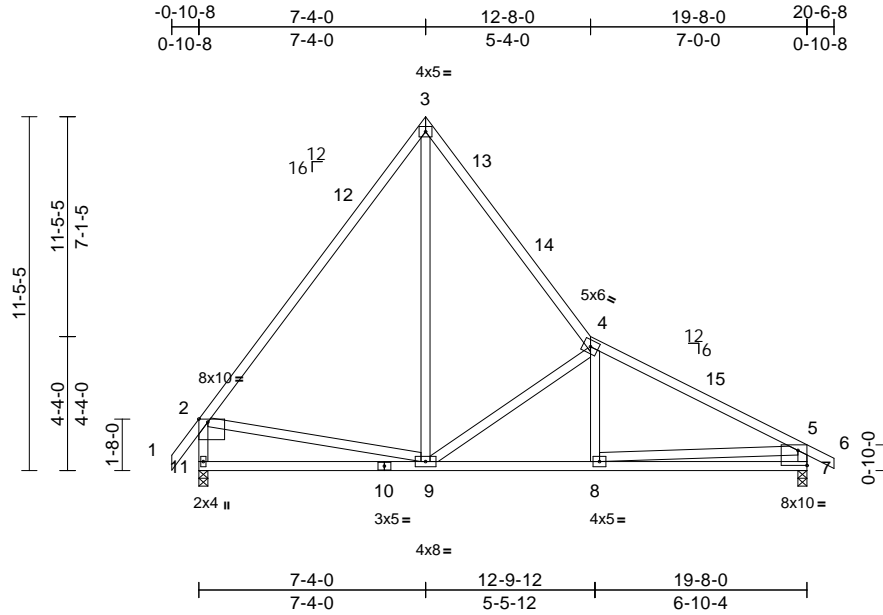
Job 21020045-01	Truss T5	Truss Type Roof Special	Qty 3	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385508
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:34

Page: 1

ID:8jE4AHtSSmTZnqLWdCv8PozB1he-Mock Me



Scale = 1:74.5

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

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	0.88	Vert(LL)	-0.03	8-9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.09	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 130 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.2 *Except* 8-4,7-5:2x4 SP No.3

BRACING

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

REACTIONS (size) 7=0-3-8, 11=0-3-8

Max Horiz 11=270 (LC 13)
 Max Grav 7=836 (LC 2), 11=836 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

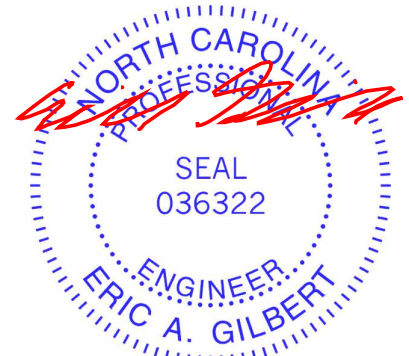
TOP CHORD 1-2=0/62, 2-12=-742/187, 3-12=-519/218, 3-13=-538/253, 13-14=-576/226, 4-14=-683/222, 4-15=-989/223, 5-15=-1092/203, 5-6=0/34, 2-11=-765/217, 5-7=-770/252
 BOT CHORD 10-11=-300/465, 9-10=-300/465, 8-9=-86/882, 7-8=-178/476
 WEBS 3-9=-179/581, 4-9=-688/305, 4-8=0/105, 2-9=-226/393, 5-8=0/463

NOTES

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

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

LOAD CASE(S) Standard



February 5, 2021

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

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



818 Soundside Road
 Edenton, NC 27932

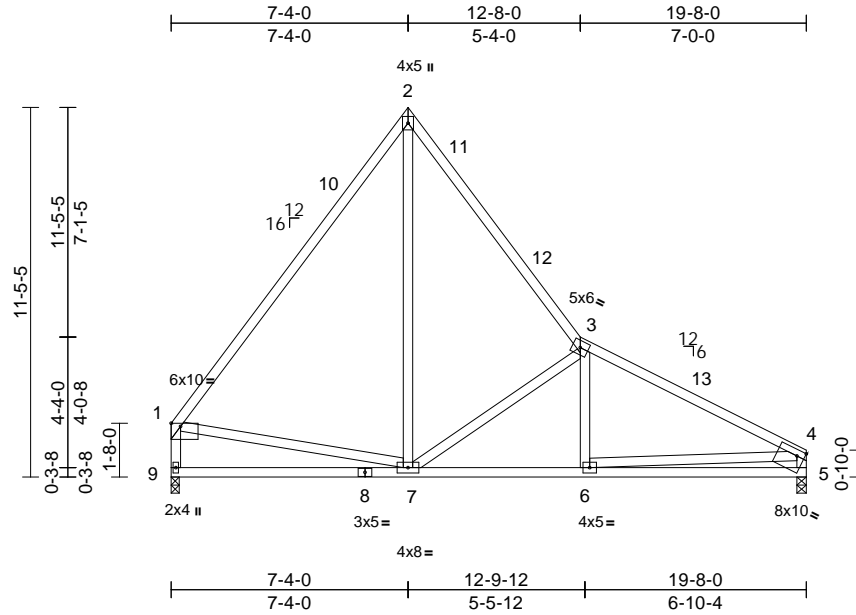
Job 21020045-01	Truss T5A	Truss Type Roof Special	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385509
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:35

Page: 1

ID:dvoTNDu4D4bQP_winK0Ny?zB1hd-Mock Me



Scale = 1:71.3

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

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	0.76	Vert(LL)	-0.03	6-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.09	7-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 127 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-2:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 6-3,9-1,5-4:2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-11-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=0-3-8, 9=0-3-0
Max Horiz 9=-252 (LC 11)
Max Uplift 9=-1 (LC 16)
Max Grav 5=775 (LC 2), 9=775 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-10=-734/164, 2-10=-496/199, 2-11=-539/253, 11-12=-577/226, 3-12=-690/218, 3-13=-1000/220, 4-13=-1095/201, 1-9=-705/175, 4-5=-708/193
BOT CHORD 8-9=-245/378, 7-8=-245/378, 6-7=-123/892, 5-6=-123/355
WEBS 2-7=-153/552, 3-7=-696/304, 3-6=0/102, 1-7=-88/276, 4-6=0/561

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=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One 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.

LOAD CASE(S) Standard



February 5, 2021

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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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



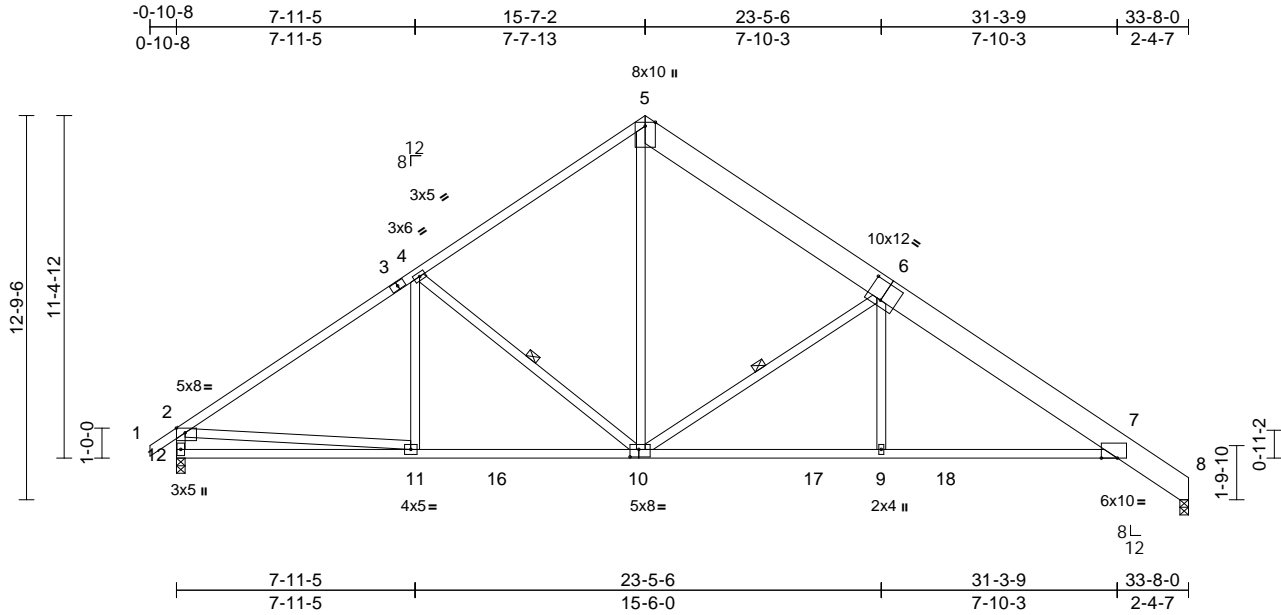
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss T1	Truss Type Roof Special	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385510
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:30
ID:1DyARjIWNqPjqs0yNm5O2zB1hr-Mock Me

Page: 1



Scale = 1:76.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.15	9-15	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.34	9-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.18	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 235 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 5-6,6-8:2x10 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 12-2:2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-10, 6-10

REACTIONS (size) 8=0-3-8, 12=0-3-8
Max Horiz 12=-241 (LC 9)
Max Grav 8=1361 (LC 26), 12=1397 (LC 2)

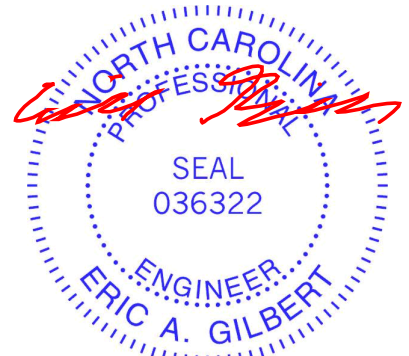
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-1811/316, 3-4=-1570/320, 4-5=-1377/359, 5-6=-1412/355, 6-7=-2171/366, 7-8=-746/146, 2-12=-1323/294
BOT CHORD 11-12=-230/566, 11-16=-84/1542, 10-16=-84/1542, 10-17=-167/1881, 9-17=-167/1881, 9-18=-170/1871, 7-18=-170/1871
WEBS 4-11=0/185, 4-10=-570/215, 5-10=-210/1071, 6-10=-1179/305, 6-9=0/331, 2-11=0/1097

- 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.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

LOAD CASE(S) Standard

NOTES

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



February 5, 2021

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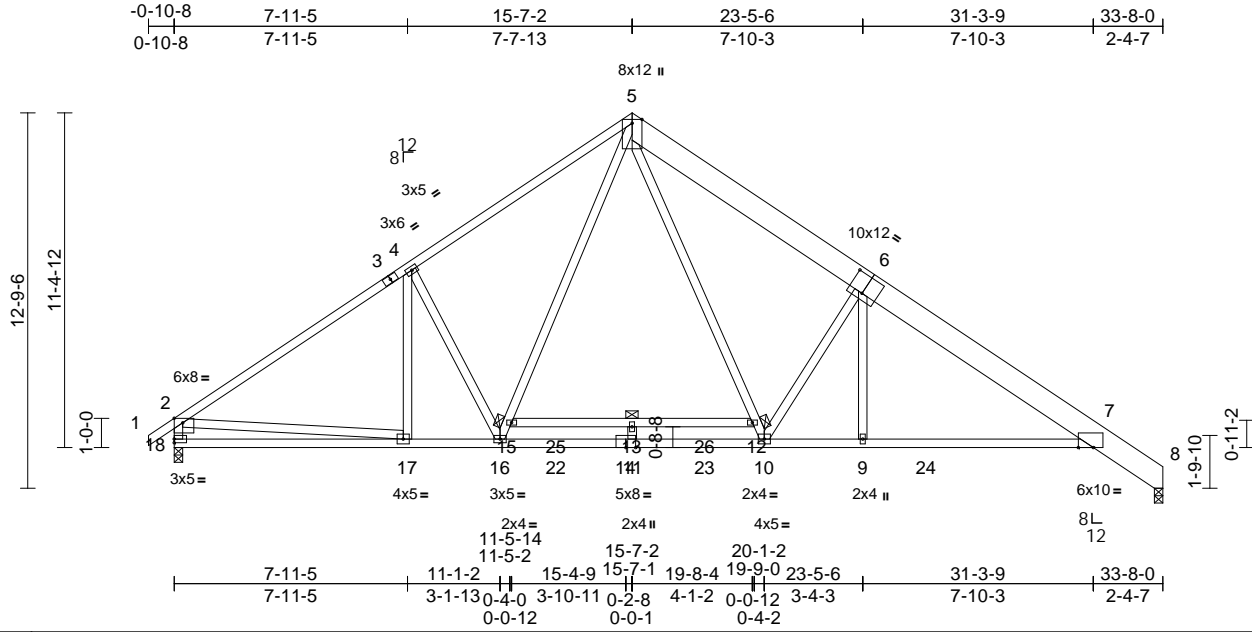
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss T1A	Truss Type Roof Special	Qty 2	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385511
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:30
ID:zc3wsXIY2O46z80P4opZTTzB1hp-Mock Me

Page: 1



Scale = 1:78.5
Plate Offsets (X, Y): [2:0-3-8,Edge], [6:0-6-0,0-7-8], [7:0-6-2,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	0.94	Vert(LL)	-0.34	13	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.63	12-13	>635	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.18	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 257 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 5-6,6-8:2x10 SP 2400F 2.0E
BOT CHORD 2x4 SP No.1 *Except* 15-12:2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 18-2,11-13:2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
6-0-0 oc bracing: 12-15

REACTIONS (size) 8=0-3-8, 18=0-3-8
Max Horiz 18=241 (LC 9)
Max Grav 8=1513 (LC 26), 18=1550 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-2037/234, 3-4=-1821/238,
4-5=-1917/339, 5-6=-2239/358,
6-7=-2477/277, 7-8=-830/119,
2-18=-1463/243
BOT CHORD 17-18=-220/614, 16-17=-15/1750,
16-22=0/1355, 14-22=0/1355, 11-14=0/1355,
11-23=0/1354, 10-23=0/1354, 9-10=-88/2151,
9-24=-89/2147, 7-24=-89/2147, 15-25=-81/0,
13-25=-81/0, 13-26=-79/0, 12-26=-79/0
WEBS 4-17=-123/47, 6-9=0/106, 2-17=0/1259,
4-16=-434/248, 15-16=-125/692,
5-15=-89/824, 5-12=-128/1355,
10-12=-164/1223, 6-10=-990/317,
11-13=-120/0

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

LOAD CASE(S) Standard

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



February 5, 2021

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

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



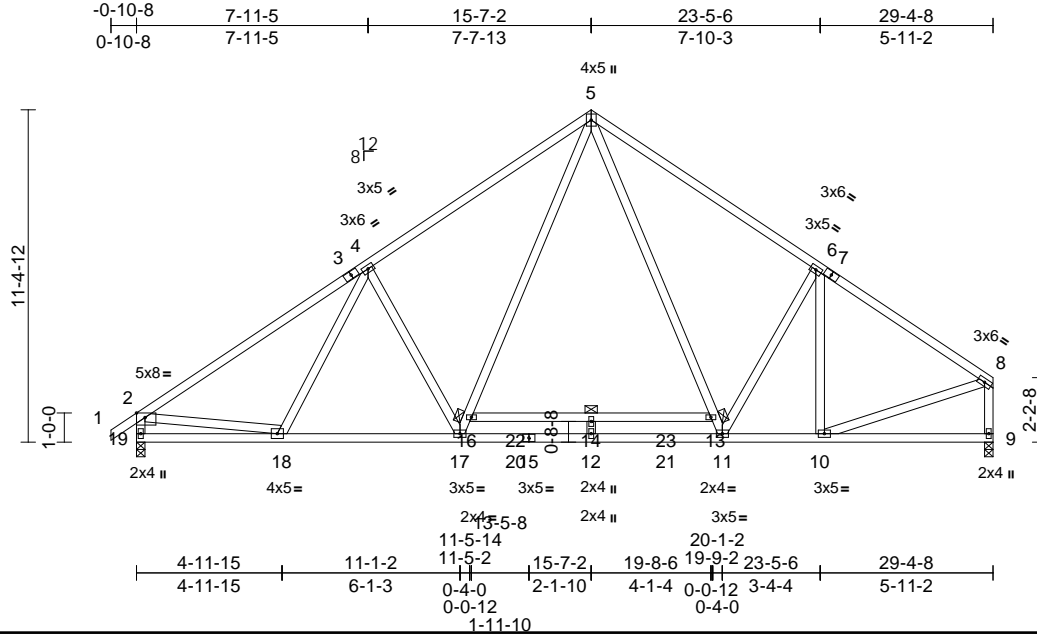
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss T3A	Truss Type Common	Qty 5	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385512
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:33
ID: oIRB7aqJeEqGh3TZQ3wzkiB1hj-Mock Me

Page: 1



Scale = 1:79
Plate Offsets (X, Y): [2:0-3-8,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	0.88	Vert(LL)	-0.34	12-17	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.57	12-17	>610	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 202 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 15-9:2x4 SP No.1
WEBS 2x4 SP No.2 *Except*
19-2,9-8,18-2,12-14:2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 12-17.
6-0-0 oc bracing: 13-16

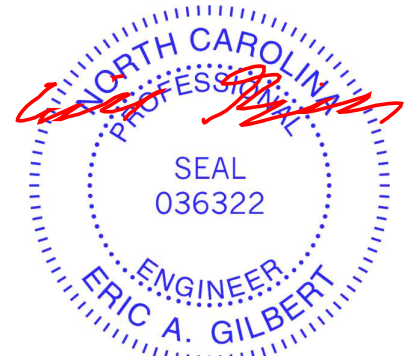
REACTIONS (size) 9=0-3-8, 19=0-3-8
Max Horiz 19=248 (LC 10)
Max Grav 9=1311 (LC 26), 19=1353 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-1670/190, 3-4=-1454/194,
4-5=-1590/306, 5-6=-1481/286,
6-7=-1258/191, 7-8=-1419/189,
2-19=-1289/205, 8-9=-1241/164
BOT CHORD 18-19=-284/535, 17-18=-143/1485,
17-20=0/1057, 15-20=0/1057, 12-15=0/1057,
12-21=0/1057, 11-21=0/1057,
10-11=-109/1129, 9-10=-24/67, 16-22=-71/0,
14-22=-71/0, 14-23=-71/0, 13-23=-71/0
WEBS 4-18=-130/39, 2-18=0/1010, 4-17=-428/266,
16-17=-127/704, 5-16=-90/836,
5-13=-53/604, 11-13=-90/472, 6-11=-211/227,
6-10=-400/63, 8-10=-90/1142, 12-14=-114/0

- Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C
Exterior (2) zone; cantilever left and right exposed ; end
vertical left and right exposed;C-C for members and
forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber
DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground
snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15
Plate DOL=1.15); Category II; Exp B; Fully Exp.;
Ct=1.10
- This truss has been designed for greater of min roof live
load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on
overhangs non-concurrent with other live loads.
- * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members, with BCDL = 10.0psf.

LOAD CASE(S) Standard

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



February 5, 2021

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

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



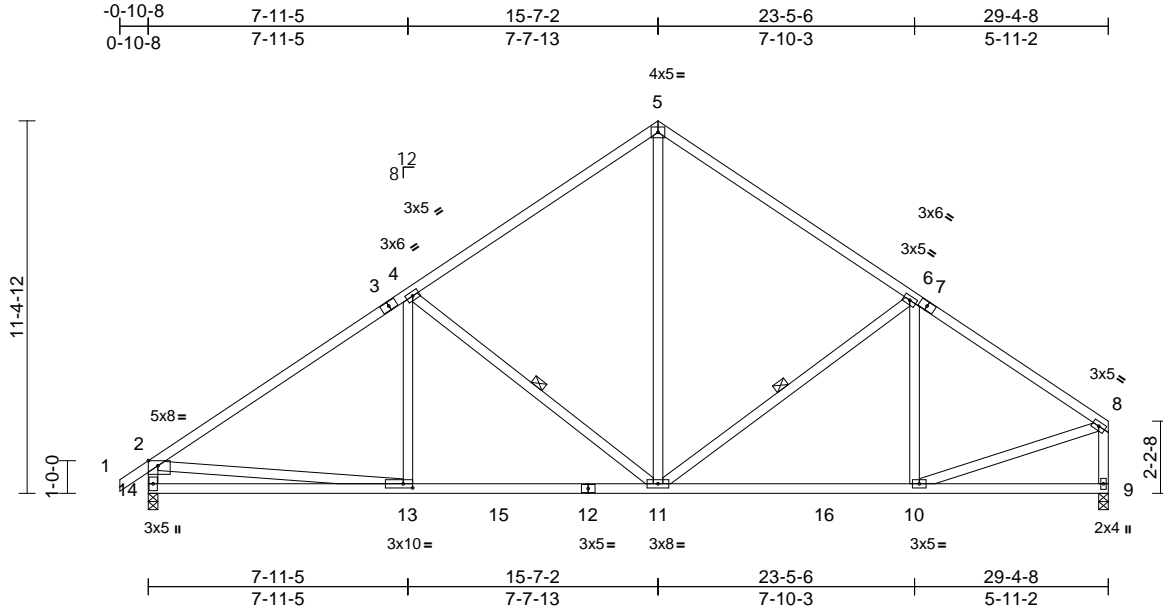
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss T3	Truss Type Common	Qty 5	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385513
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 16:12:38
ID:R39kehprwLZ7vOs7a7nCGzB1hX-lbe?Cp2C7a_shUWjy5i9czC?aR04ENY1i1KiUYzo92u

Page: 1



Scale = 1:70.5

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

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	0.90	Vert(LL)	-0.08	11-13	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.17	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 182 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.2 *Except* 14-2,9-8;2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 4-11, 6-11

REACTIONS

(lb/size) 9=984/0-3-8, 14=1034/0-3-8
 Max Horiz 14=248 (LC 12)
 Max Grav 9=1162 (LC 2), 14=1226 (LC 2)

FORCES

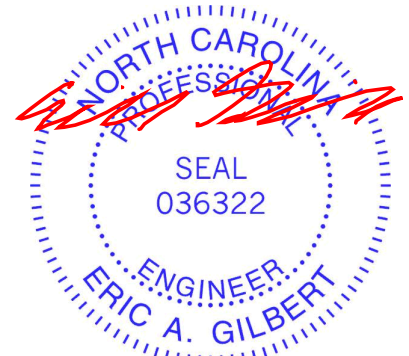
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1542/272, 3-4=-1302/276, 4-5=-1081/312, 5-6=-1083/308, 6-7=-1089/248, 7-8=-1259/245, 2-14=-1152/268, 8-9=-1114/211
 BOT CHORD 13-14=-259/543, 13-15=-194/1310, 12-15=-194/1310, 11-12=-194/1310, 11-16=-156/988, 10-16=-156/988
 WEBS 4-11=-598/217, 5-11=-145/696, 6-11=-355/177, 2-13=0/868, 8-10=-135/1010

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) 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



February 5, 2021

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

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



818 Soundside Road
 Edenton, NC 27932

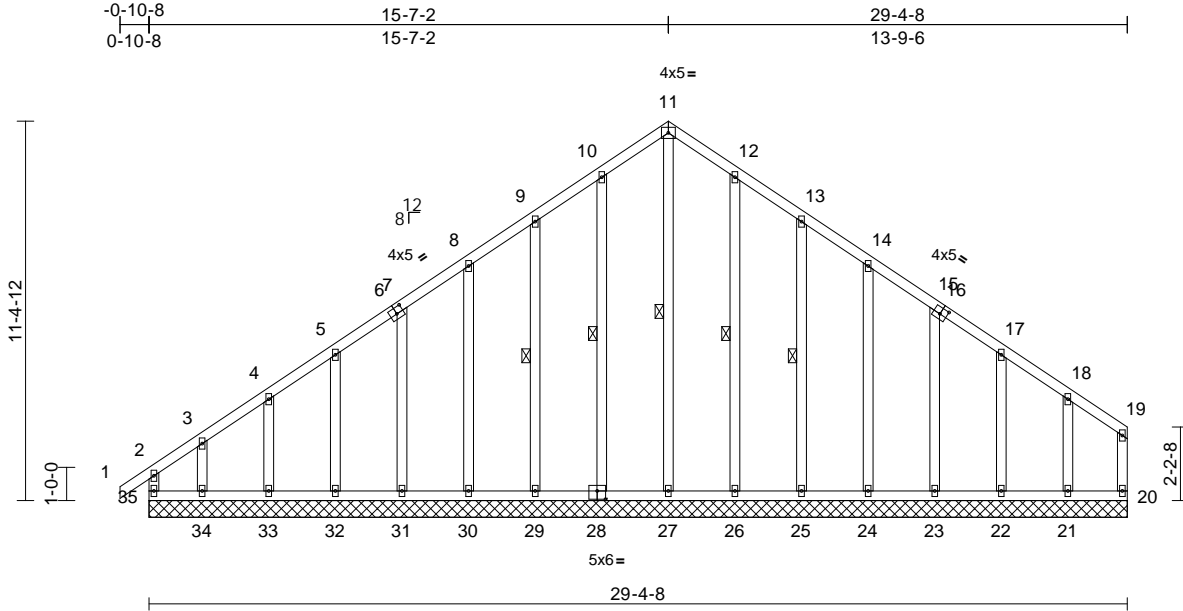
Job 21020045-01	Truss T3GE	Truss Type Common Supported Gable	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385514
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:33

Page: 1

ID:Gy_aKwqxOYz7ID2L_mRCFyzB1hi-Mock Me



Scale = 1:69.2

Plate Offsets (X, Y): [6:0-2-8,0-2-4], [16:0-2-8,0-2-4], [28:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	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(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.00	20	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-R								
BCDL	10.0											
											Weight: 230 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*
32-5,33-4,34-3,22-17,21-18:2x4 SP No.3

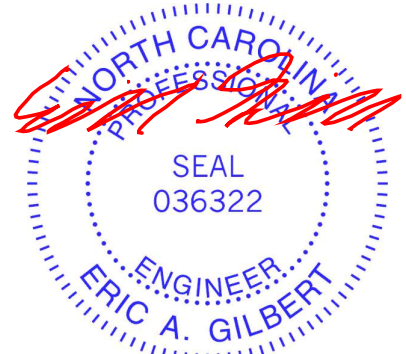
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 11-27, 10-28, 9-29, 12-26, 13-25

REACTIONS (size)
20=29-4-8, 21=29-4-8, 22=29-4-8, 23=29-4-8, 24=29-4-8, 25=29-4-8, 26=29-4-8, 27=29-4-8, 28=29-4-8, 29=29-4-8, 30=29-4-8, 31=29-4-8, 32=29-4-8, 33=29-4-8, 34=29-4-8, 35=29-4-8
Max Horiz 35=248 (LC 10)
Max Uplift 20=20 (LC 10), 21=63 (LC 14), 22=23 (LC 14), 23=32 (LC 14), 24=28 (LC 14), 25=36 (LC 14), 26=18 (LC 14), 27=50 (LC 12), 28=21 (LC 13), 29=36 (LC 13), 30=29 (LC 13), 31=29 (LC 13), 32=33 (LC 13), 33=16 (LC 13), 34=161 (LC 10), 35=210 (LC 9)
Max Grav 20=78 (LC 25), 21=197 (LC 26), 22=161 (LC 2), 23=168 (LC 26), 24=165 (LC 26), 25=168 (LC 26), 26=168 (LC 26), 27=262 (LC 14), 28=177 (LC 25), 29=162 (LC 25), 30=167 (LC 25), 31=165 (LC 25), 32=169 (LC 25), 33=167 (LC 2), 34=239 (LC 11), 35=280 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-35=-222/166, 1-2=0/43, 2-3=-269/249, 3-4=-215/204, 4-5=-210/208, 5-6=-196/193, 6-7=-176/205, 7-8=-187/214, 8-9=-235/272, 9-10=-287/334, 10-11=-330/384, 11-12=-330/384, 12-13=-289/335, 13-14=-237/273, 14-15=-189/216, 15-16=-120/157, 16-17=-140/150, 17-18=-92/99, 18-19=-48/36, 19-20=-50/24
BOT CHORD 34-35=-48/51, 33-34=-48/51, 32-33=-48/51, 31-32=-48/51, 30-31=-48/51, 29-30=-48/51, 28-29=-48/51, 27-28=-47/50, 26-27=-47/50, 25-26=-47/50, 24-25=-47/50, 23-24=-47/50, 22-23=-47/50, 21-22=-47/50, 20-21=-47/50
WEBS 11-27=-353/244, 10-28=-137/65, 9-29=-135/91, 8-30=-126/80, 7-31=-128/82, 5-32=-127/82, 4-33=-129/83, 3-34=-154/110, 12-26=-128/65, 13-25=-135/91, 14-24=-126/80, 15-23=-128/82, 17-22=-127/80, 18-21=-137/93

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.

- 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.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 28.



February 5, 2021

Continued on page 2

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

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



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	162 Crossing-Havenbrooke C-Roof	E15385514
21020045-01	T3GE	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:33
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Page: 2

- 12) One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 35, 20, 27, 29, 30, 31, 32, 33, 34, 26, 25, 24, 23, 22, and 21. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

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

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818 Soundside Road
 Edenton, NC 27932

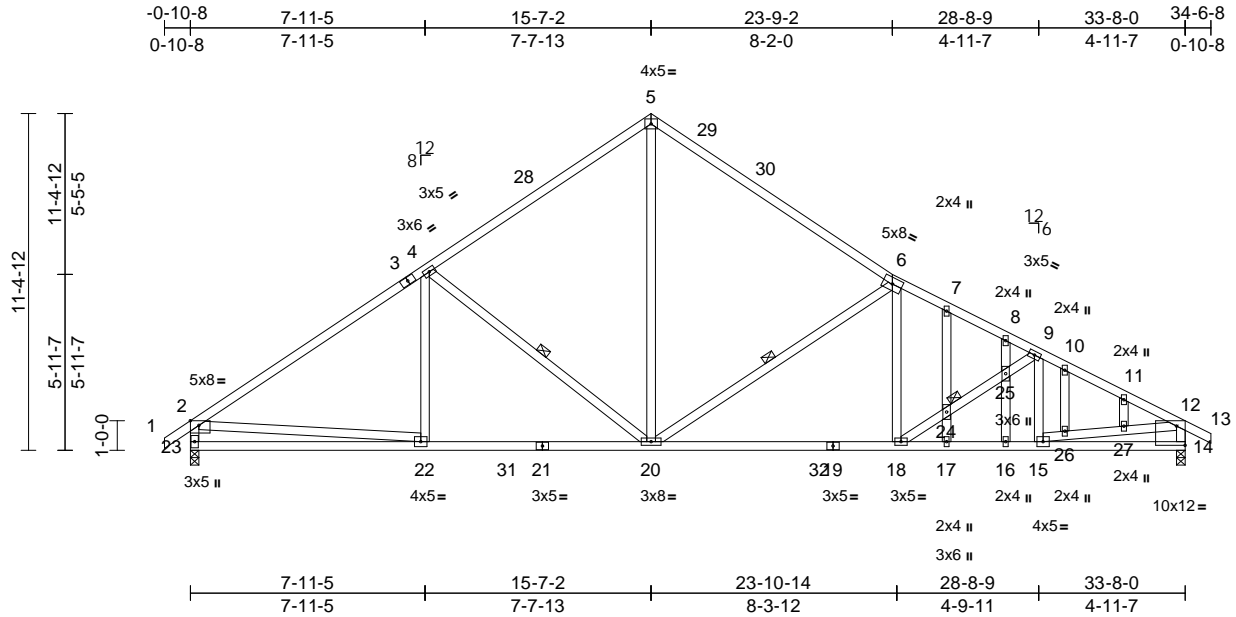
Job 21020045-01	Truss T2SE	Truss Type Roof Special Structural Gable	Qty 2	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385515
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:32

Page: 1

ID:KZtpvEphwtiP3vuMlLokAXzB1hk-Mock Me



Scale = 1:78

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

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	0.92	Vert(LL)	-0.10	20-22	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.26	18-20	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.06	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 221 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP 2400F 2.0E *Except* 6-13:2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 23-2,14-12,15-9:2x4 SP No.3
OTHERS	2x4 SP No.3

WEBS	
4-22=	0/189, 4-20=-574/209, 5-20=-195/935,
6-20=	826/288, 6-18=0/330, 2-22=-7/1052,
18-24=	202/109, 24-25=-194/104,
9-25=	192/102, 9-15=-373/106,
15-26=	215/1491, 26-27=-212/1454,
12-27=	214/1457, 7-24=-66/42,
17-24=	67/12, 8-25=0/34, 16-25=0/49,
10-26=	32/221, 11-27=-20/24

- 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.
- 11) One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14. This connection is for uplift only and does not consider lateral forces.

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 3-6-6 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-20, 6-20
JOINTS	1 Brace at Jt(s): 24

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
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 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.

LOAD CASE(S) Standard

REACTIONS	(size)	
	14=0-3-8, 23=0-3-8	
Max Horiz	23=240 (LC 13)	
Max Uplift	14=5 (LC 16)	
Max Grav	14=1396 (LC 2), 23=1396 (LC 2)	

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/43, 2-3=-1808/334, 3-4=-1548/337, 4-28=-1369/351, 5-28=-1233/376, 5-29=-1144/363, 29-30=-1209/340, 6-30=-1366/336, 6-7=-1854/414, 7-8=-1898/407, 8-9=-1945/391, 9-10=-1858/396, 10-11=-2005/404, 11-12=-2058/383, 12-13=0/34, 2-23=-1321/307, 12-14=-1331/338
BOT CHORD	22-23=-168/554, 22-31=-116/1521, 21-31=-116/1521, 20-21=-116/1521, 20-32=-186/1671, 19-32=-186/1671, 18-19=-186/1671, 17-18=-270/1763, 16-17=-270/1763, 15-16=-270/1763, 14-15=-59/320



February 5, 2021

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

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818 Soundside Road
Edenton, NC 27932

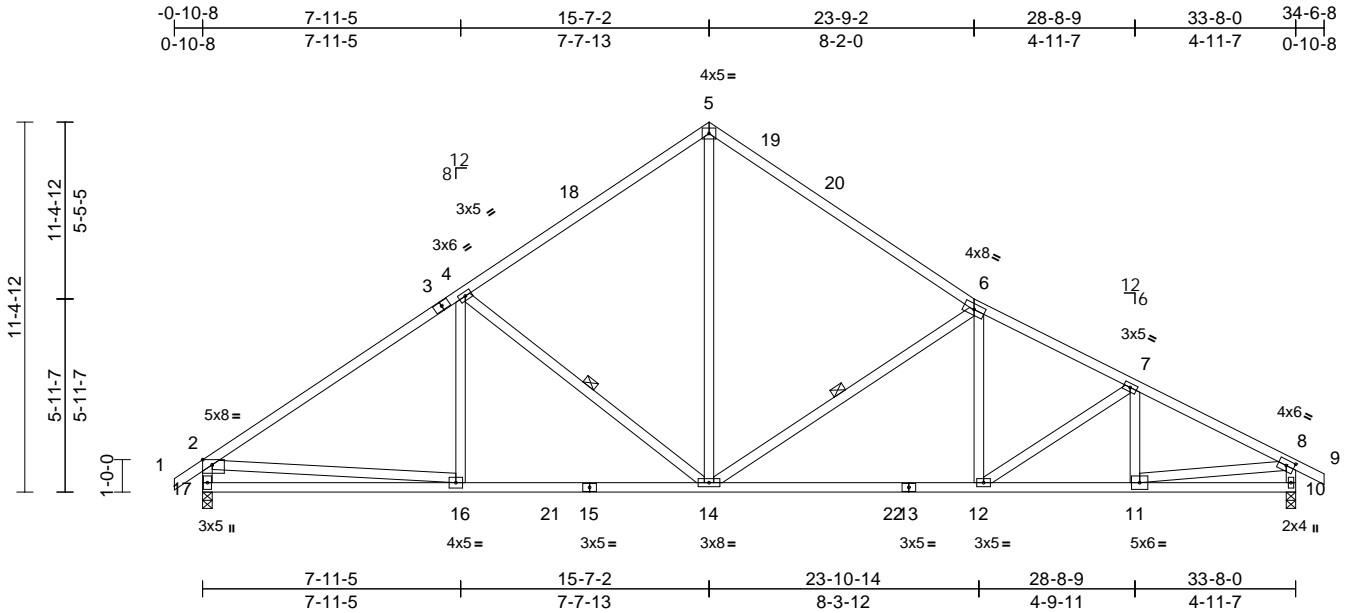
Job 21020045-01	Truss T2	Truss Type Roof Special	Qty 3	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385516
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:31

Page: 1

ID:v_BhHCmpa?KqCS9nBDr1YuzB1hn-Mock Me



Scale = 1:71

Plate Offsets (X, Y): [2:0-3-8,Edge], [8:0-2-15,0-2-0]

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	0.94	Vert(LL)	-0.10	14-16	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.27	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.06	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 205 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 5-6:2x4 SP 2400F 2.0E
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.2 *Except* 17-2,10-8,11-7,11-8:2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 4-14, 6-14

REACTIONS

(size) 10=0-3-8, 17=0-3-8
 Max Horiz 17=240 (LC 13)
 Max Uplift 10=5 (LC 16)
 Max Grav 10=1396 (LC 2), 17=1396 (LC 2)

FORCES

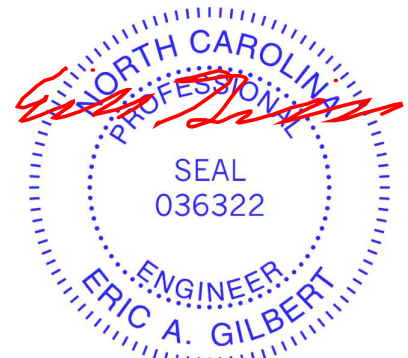
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/43, 2-3=-1808/334, 3-4=-1549/338, 4-18=-1369/350, 5-18=-1232/376, 5-19=-1142/362, 19-20=-1208/339, 6-20=-1364/334, 6-7=-1931/415, 7-8=-2029/406, 8-9=0/34, 2-17=-1321/307, 8-10=-1338/340
 BOT CHORD 16-17=-177/565, 16-21=-116/1521, 15-21=-116/1521, 14-15=-116/1521, 14-22=-184/1668, 13-22=-184/1668, 12-13=-184/1668, 11-12=-273/1753, 10-11=-50/211
 WEBS 4-16=0/188, 4-14=-573/210, 5-14=-193/935, 6-14=-823/285, 6-12=0/288, 2-16=0/1052, 7-12=-192/112, 7-11=-176/90, 8-11=-228/1561

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) 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) * 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.
- 7) One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



February 5, 2021

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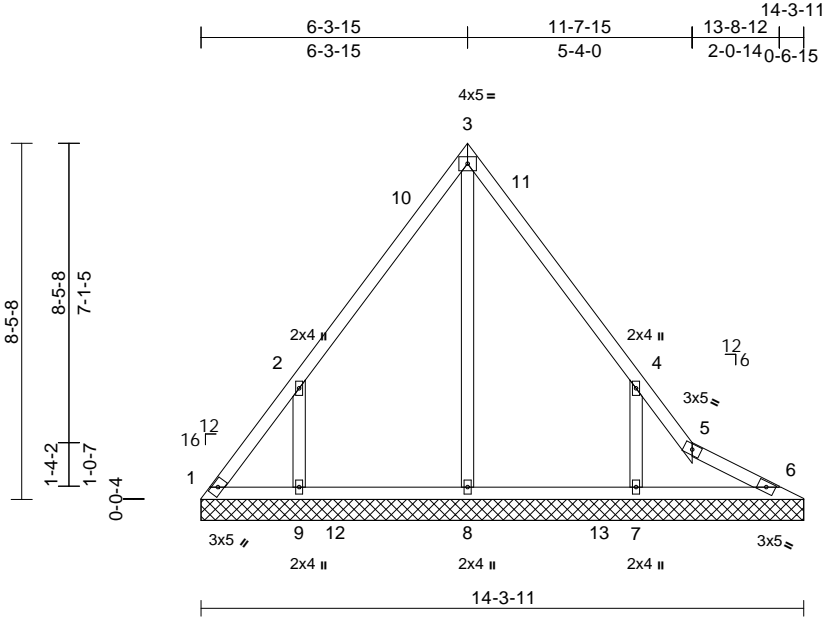
Job 21020045-01	Truss V1	Truss Type Valley	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385517
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:36

Page: 1

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Scale = 1:54.7

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	0.23	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	0.26	Horiz(TL)	0.00	6	n/a	n/a		
BCLL 0.0*	Code	IRC2015/TPI2014	Matrix-SH								
BCDL 10.0										Weight: 73 lb	FT = 20%

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

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

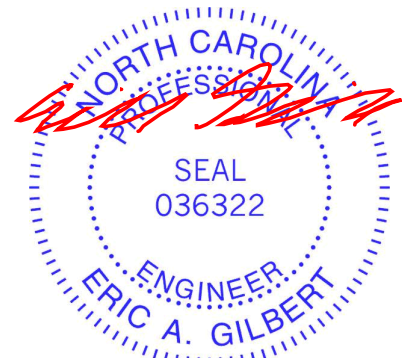
REACTIONS (size) 1=14-3-11, 6=14-3-11, 7=14-3-11, 8=14-3-11, 9=14-3-11
Max Horiz 1=-174 (LC 13)
Max Uplift 1=-145 (LC 13), 7=-150 (LC 16), 9=-196 (LC 15)
Max Grav 1=193 (LC 12), 6=101 (LC 2), 7=424 (LC 29), 8=446 (LC 31), 9=415 (LC 28)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-238/238, 2-10=-194/179, 3-10=-147/197, 3-11=-141/194, 4-11=-192/176, 4-5=-115/118, 5-6=-115/76
BOT CHORD 1-9=-64/118, 9-12=-64/118, 8-12=-64/118, 8-13=-64/118, 7-13=-64/118, 6-7=-64/118
WEBS 3-8=-238/57, 2-9=-405/364, 4-7=-380/327

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

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 145 lb uplift at joint 1, 196 lb uplift at joint 9 and 150 lb uplift at joint 7.

LOAD CASE(S) Standard



February 5, 2021

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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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



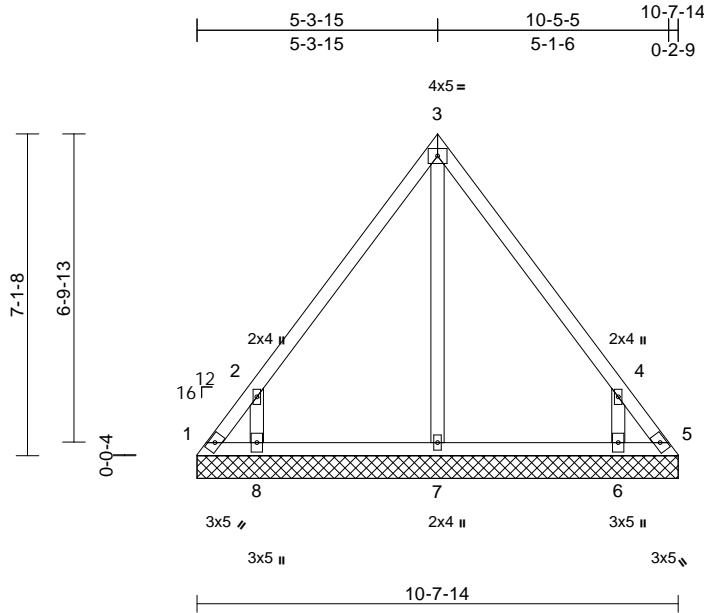
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss V2	Truss Type Valley	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385518
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:36
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Page: 1



Scale = 1:51

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)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-SH								
BCDL	10.0											
											Weight: 54 lb	FT = 20%

LUMBER

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- OTHERS 2x4 SP No.3 *Except* 7-3:2x4 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

- (size) 1=10-7-14, 5=10-7-14, 6=10-7-14, 7=10-7-14, 8=10-7-14
- Max Horiz 1=-144 (LC 9)
- Max Uplift 1=-158 (LC 11), 5=-139 (LC 12), 6=-208 (LC 14), 8=-208 (LC 13)
- Max Grav 1=179 (LC 13), 5=170 (LC 14), 6=387 (LC 25), 7=201 (LC 2), 8=387 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum Tension

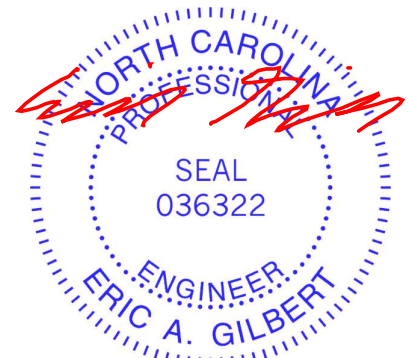
- TOP CHORD 1-2=-286/228, 2-3=-186/115, 3-4=-171/115, 4-5=-286/228
- BOT CHORD 1-8=-76/122, 7-8=-76/122, 6-7=-76/122, 5-6=-76/122
- WEBS 3-7=-114/0, 2-8=-464/441, 4-6=-464/441

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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 158 lb uplift at joint 1, 139 lb uplift at joint 5, 208 lb uplift at joint 8 and 208 lb uplift at joint 6.

LOAD CASE(S) Standard



February 5, 2021

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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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



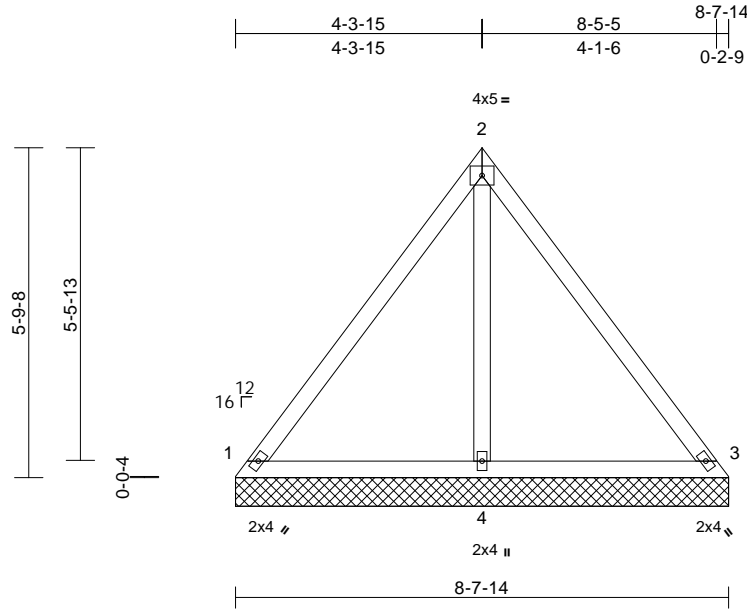
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss V3	Truss Type Valley	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385519
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:36
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Page: 1



Scale = 1:40.4

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	0.46	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	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 41 lb	FT = 20%

LUMBER

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

(size) 1=8-7-14, 3=8-7-14, 4=8-7-14
Max Horiz 1=-116 (LC 9)
Max Uplift 1=-30 (LC 14), 3=-23 (LC 13)
Max Grav 1=207 (LC 2), 3=207 (LC 2), 4=233 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-170/73, 2-3=-156/73
BOT CHORD 1-4=-46/86, 3-4=-46/86
WEBS 2-4=-132/41

NOTES

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

- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1 and 23 lb uplift at joint 3.

LOAD CASE(S) Standard



February 5, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



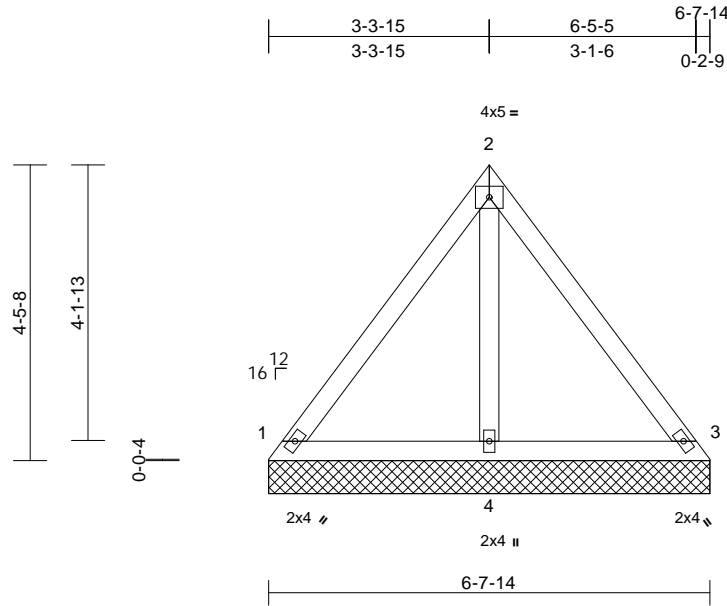
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss V4	Truss Type Valley	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385520
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:37
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Page: 1



Scale = 1:34.7

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	0.26	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	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 31 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=6-7-14, 3=6-7-14, 4=6-7-14
Max Horiz 1=-87 (LC 9)
Max Uplift 1=-23 (LC 14), 3=-18 (LC 13)
Max Grav 1=158 (LC 2), 3=158 (LC 2), 4=172 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-129/58, 2-3=-119/58
BOT CHORD 1-4=-35/68, 3-4=-35/68
WEBS 2-4=-96/32

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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 18 lb uplift at joint 3.

LOAD CASE(S) Standard



February 5, 2021

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

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



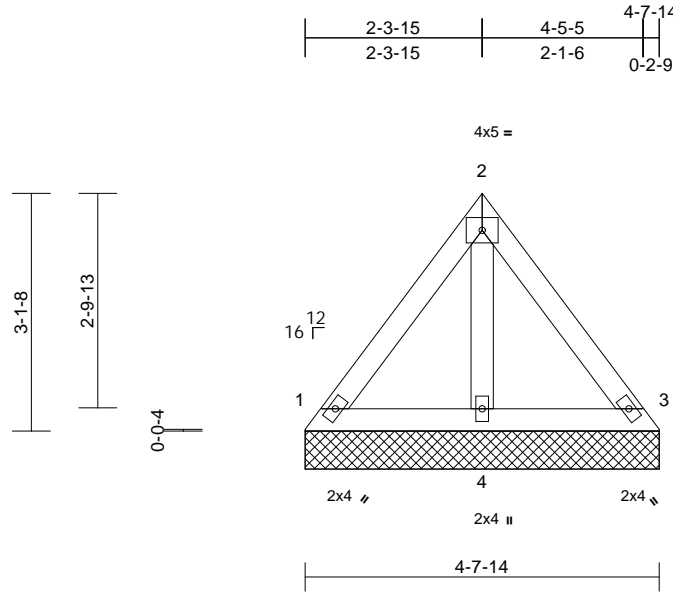
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss V5	Truss Type Valley	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385521
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:37
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Page: 1



Scale = 1:30.3

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 21 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 4-8-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=4-7-14, 3=4-7-14, 4=4-7-14
Max Horiz 1=-59 (LC 9)
Max Uplift 1=-15 (LC 14), 3=-12 (LC 13)
Max Grav 1=106 (LC 2), 3=106 (LC 2), 4=116 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-87/41, 2-3=-80/41
BOT CHORD 1-4=-25/47, 3-4=-25/47
WEBS 2-4=-65/23

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 2-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1 and 12 lb uplift at joint 3.

LOAD CASE(S) Standard



February 5, 2021

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

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



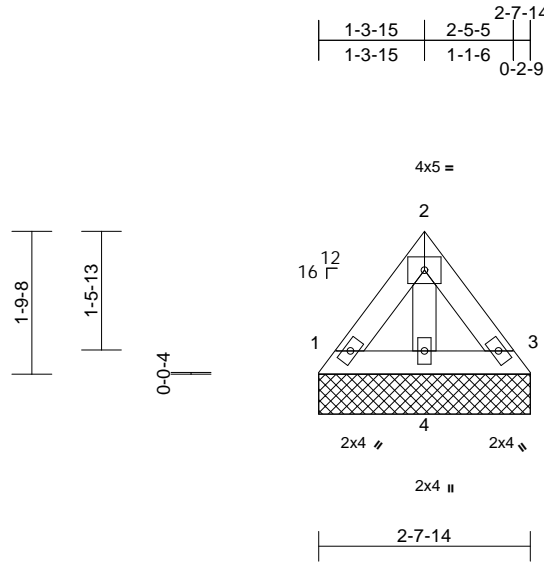
818 Soundside Road
Edenton, NC 27932

Job 21020045-01	Truss V6	Truss Type Valley	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385522
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:37
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Page: 1



Scale = 1:28.9

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	0.03	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(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
										Weight: 11 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 2-8-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=2-7-14, 3=2-7-14, 4=2-7-14
Max Horiz 1=-30 (LC 9)
Max Uplift 1=-8 (LC 14), 3=-6 (LC 13)
Max Grav 1=54 (LC 2), 3=54 (LC 2), 4=59 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-45/21, 2-3=-41/21
BOT CHORD 1-4=-13/24, 3-4=-13/24
WEBS 2-4=-33/12

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 2-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1 and 6 lb uplift at joint 3.

LOAD CASE(S) Standard



February 5, 2021

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

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



818 Soundside Road
Edenton, NC 27932

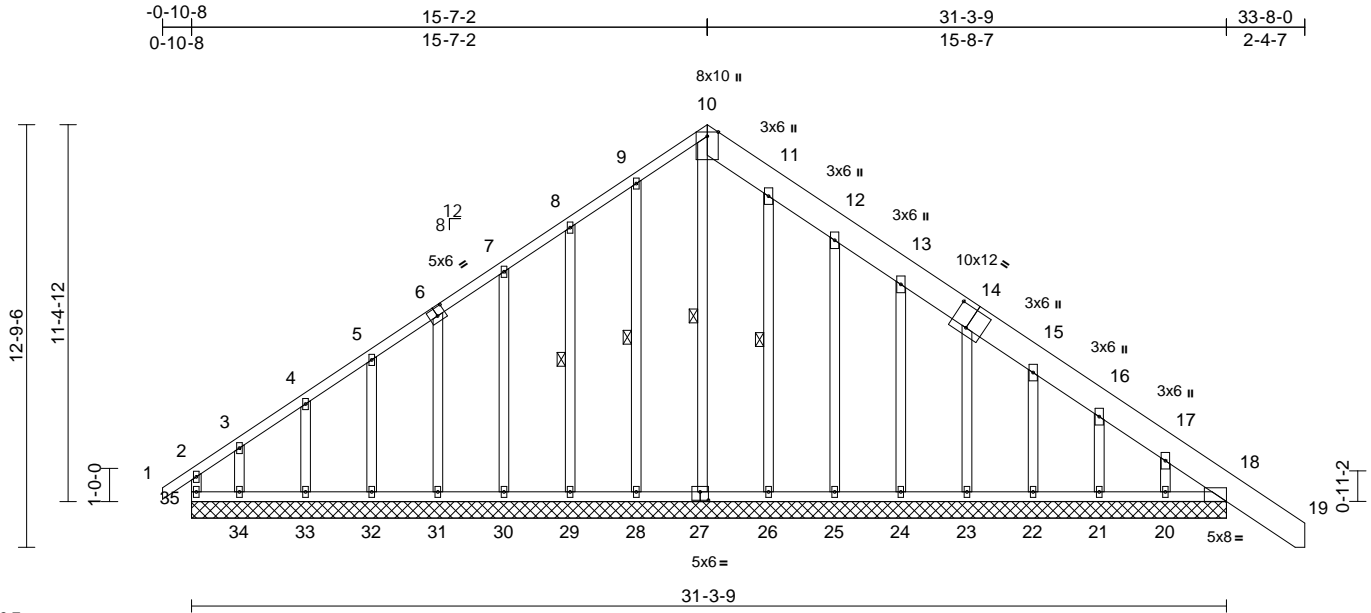
Job 21020045-01	Truss T1GE	Truss Type Common Supported Gable	Qty 1	Ply 1	162 Crossing-Havenbrooke C-Roof Job Reference (optional)	E15385523
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:31

Page: 1

ID:FMp59DAAMBIC?FXPbf5MGizB0kb-Mock Me



Scale = 1:69.7

Plate Offsets (X, Y): [6:0-3-0,0-0-3-0], [14:0-6-0,0-7-8], [27:0-3-0,0-0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	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(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	18	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-SH								
BCDL	10.0											
											Weight: 289 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 10-14,14-19:2x10 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.2 *Except* 32-5,33-4,34-3,22-15,21-16,20-17:2x4 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 6-0-0 oc bracing.
WEBS 1 Row at midpt 10-27, 9-28, 8-29, 11-26

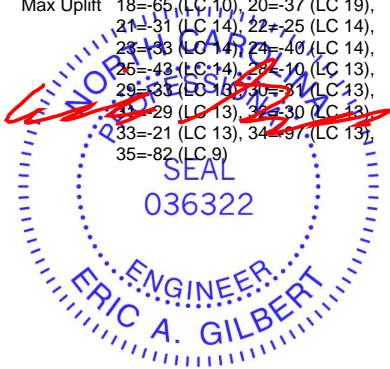
REACTIONS (size)
18=31-3-9, 20=31-3-9, 21=31-3-9, 22=31-3-9, 23=31-3-9, 24=31-3-9, 25=31-3-9, 26=31-3-9, 27=31-3-9, 28=31-3-9, 29=31-3-9, 30=31-3-9, 31=31-3-9, 32=31-3-9, 33=31-3-9, 34=31-3-9, 35=31-3-9

Max Horiz 35=245 (LC 11)
Max Uplift 18=65 (LC 10), 20=37 (LC 19), 21=31 (LC 14), 22=25 (LC 14), 23=33 (LC 14), 24=40 (LC 14), 25=43 (LC 14), 26=40 (LC 13), 29=33 (LC 13), 30=31 (LC 13), 32=29 (LC 13), 33=30 (LC 13), 33=21 (LC 13), 34=37 (LC 13), 35=82 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-35=146/65, 1-2=0/43, 2-3=138/126, 3-4=92/93, 4-5=88/85, 5-6=93/121, 6-7=141/179, 7-8=190/238, 8-9=240/300, 9-10=275/338, 10-11=258/318, 11-12=246/307, 12-13=191/236, 13-14=137/170, 14-15=109/120, 15-16=121/120, 16-17=136/125, 17-18=183/135, 18-19=0/78
BOT CHORD 34-35=134/163, 33-34=134/163, 32-33=134/163, 31-32=134/163, 30-31=135/163, 29-30=135/163, 28-29=135/163, 27-28=135/163, 26-27=134/164, 25-26=133/164, 24-25=133/164, 23-24=132/163, 22-23=129/162, 21-22=128/162, 20-21=126/161, 18-20=124/159
WEBS 10-27=256/144, 9-28=134/49, 8-29=130/87, 7-30=131/83, 6-31=127/82, 5-32=122/78, 4-33=130/82, 3-34=136/97, 11-26=119/9, 12-25=145/103, 13-24=143/99, 14-23=131/86, 15-22=120/76, 16-21=128/83, 17-20=157/68

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

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.



February 5, 2021

Continued on page 2

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

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



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	162 Crossing-Havenbrooke C-Roof	E15385523
21020045-01	T1GE	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Fri Feb 05 12:24:31
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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.
- 10) One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 35, 28, 29, 30, 31, 32, 33, 34, 25, 24, 23, 22, 21, 20, and 18. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

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

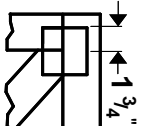
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



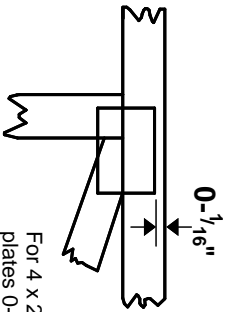
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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



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

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

PLATE SIZE

4 X 4

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

LATERAL BRACING LOCATION



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

BEARING



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

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TFP 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. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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