ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 23080035-01
4668 McNeill Hobbs-Roof-H-2020-S

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: I60119785 thru I60119794

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844

August 14,2023

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	Truss	Truss Type	Qty	Ply	4668 McNeill Hobbs-Roof-H-2020-S
23080035-01	A1G	Common Supported Gable	1	1	I60119785 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Fri Aug 11 15:24:18 Page: 1
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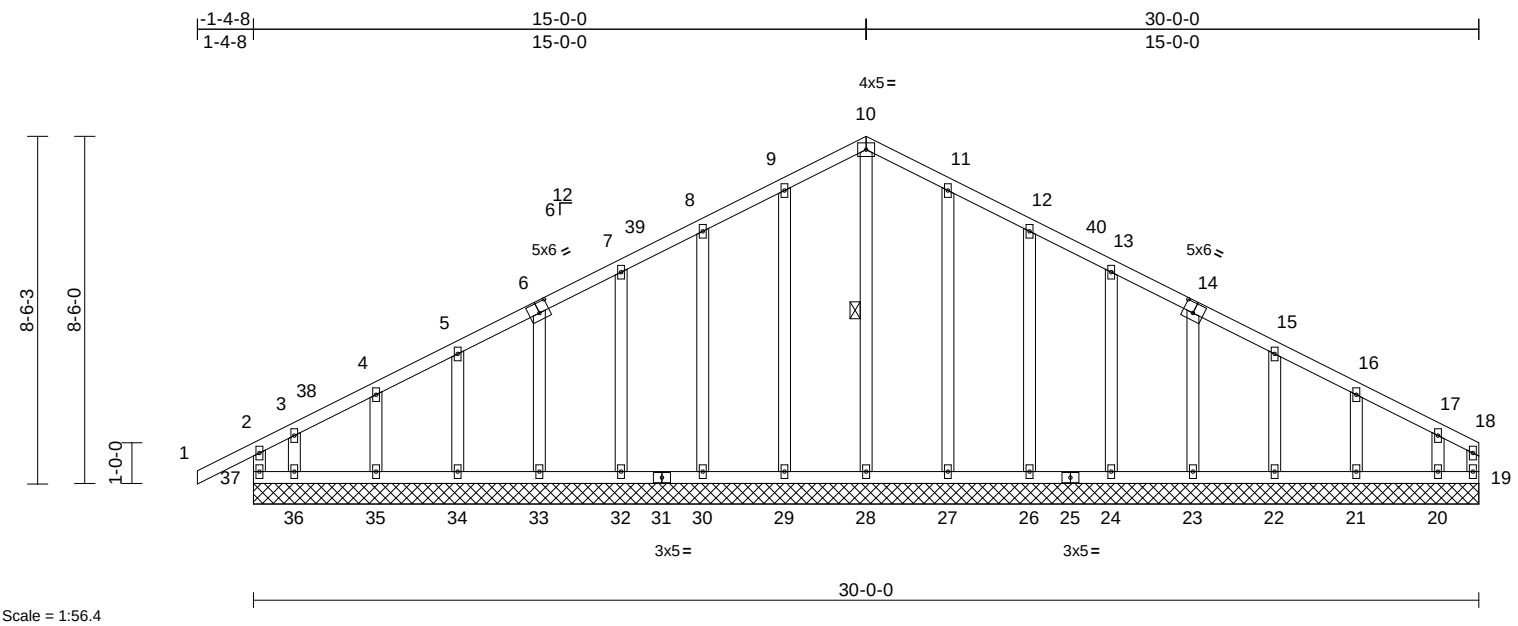

Scale = 1:56.4

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

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	19	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 193 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 6-0-0 oc bracing.
WEBS 1 Row at midpt 10-28

REACTIONS (size) 19=30-0-0, 20=30-0-0, 21=30-0-0, 22=30-0-0, 23=30-0-0, 24=30-0-0, 26=30-0-0, 27=30-0-0, 28=30-0-0, 29=30-0-0, 30=30-0-0, 32=30-0-0, 33=30-0-0, 34=30-0-0, 35=30-0-0, 36=30-0-0, 37=30-0-0
Max Horiz 37=125 (LC 11)
Max Uplift 19=-34 (LC 13), 20=-122 (LC 15), 21=-39 (LC 15), 22=-43 (LC 15), 23=-44 (LC 15), 24=-44 (LC 15), 26=-46 (LC 15), 27=-40 (LC 15), 29=-41 (LC 14), 30=-46 (LC 14), 32=-44 (LC 14), 33=-44 (LC 14), 34=-43 (LC 14), 35=-38 (LC 14), 36=-129 (LC 14), 37=-81 (LC 10)
Max Grav 19=120 (LC 15), 20=141 (LC 25), 21=166 (LC 35), 22=156 (LC 22), 23=160 (LC 1), 24=178 (LC 22), 26=227 (LC 22), 27=245 (LC 22), 28=187 (LC 27), 29=245 (LC 21), 30=227 (LC 21), 32=178 (LC 21), 33=160 (LC 34), 34=155 (LC 21), 35=172 (LC 1), 36=101 (LC 12), 37=202 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-37=-174/120, 18-19=-75/20, 1-2=0/41, 2-3=-133/63, 3-4=-89/70, 4-5=-61/87, 5-7=-49/146, 7-8=-67/192, 8-9=-86/239, 9-10=-104/281, 10-11=-104/281, 11-12=-86/239, 12-13=-67/192, 13-15=-49/147, 15-16=-40/61, 16-17=-63/50, 17-18=-109/38
BOT CHORD 36-37=-39/92, 35-36=-39/92, 34-35=-39/92, 33-34=-39/92, 32-33=-39/93, 30-32=-39/93, 29-30=-39/93, 28-29=-39/93, 27-28=-39/93, 26-27=-39/93, 24-26=-39/93, 23-24=-39/93, 22-23=-39/92, 21-22=-39/92, 20-21=-39/92, 19-20=-39/92
WEBS 10-28=-182/32, 9-29=-205/69, 8-30=-187/81, 7-32=-138/78, 6-33=-120/78, 5-34=-116/73, 4-35=-130/85, 3-36=-74/91, 11-27=-205/69, 12-26=-187/81, 13-24=-138/78, 14-23=-120/78, 15-22=-117/72, 16-21=-125/101, 17-20=-100/140

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -1-4-8 to 1-7-8, Exterior(2N) 1-7-8 to 12-0-0, Corner(3R) 12-0-0 to 18-0-0, Exterior (2N) 18-0-0 to 26-10-4, Corner(3E) 26-10-4 to 29-10-4 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=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * 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.

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Continued on page 2

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13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 19, 81 lb uplift at joint 37, 41 lb uplift at joint 29, 46 lb uplift at joint 30, 44 lb uplift at joint 32, 44 lb uplift at joint 33, 43 lb uplift at joint 34, 38 lb uplift at joint 35, 129 lb uplift at joint 36, 40 lb uplift at joint 27, 46 lb uplift at joint 26, 44 lb uplift at joint 24, 44 lb uplift at joint 23, 43 lb uplift at joint 22, 39 lb uplift at joint 21 and 122 lb uplift at joint 20.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	4668 McNeill Hobbs-Roof-H-2020-S
23080035-01	A2	Common	11	1	I60119786 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Fri Aug 11 15:24:20 Page: 1

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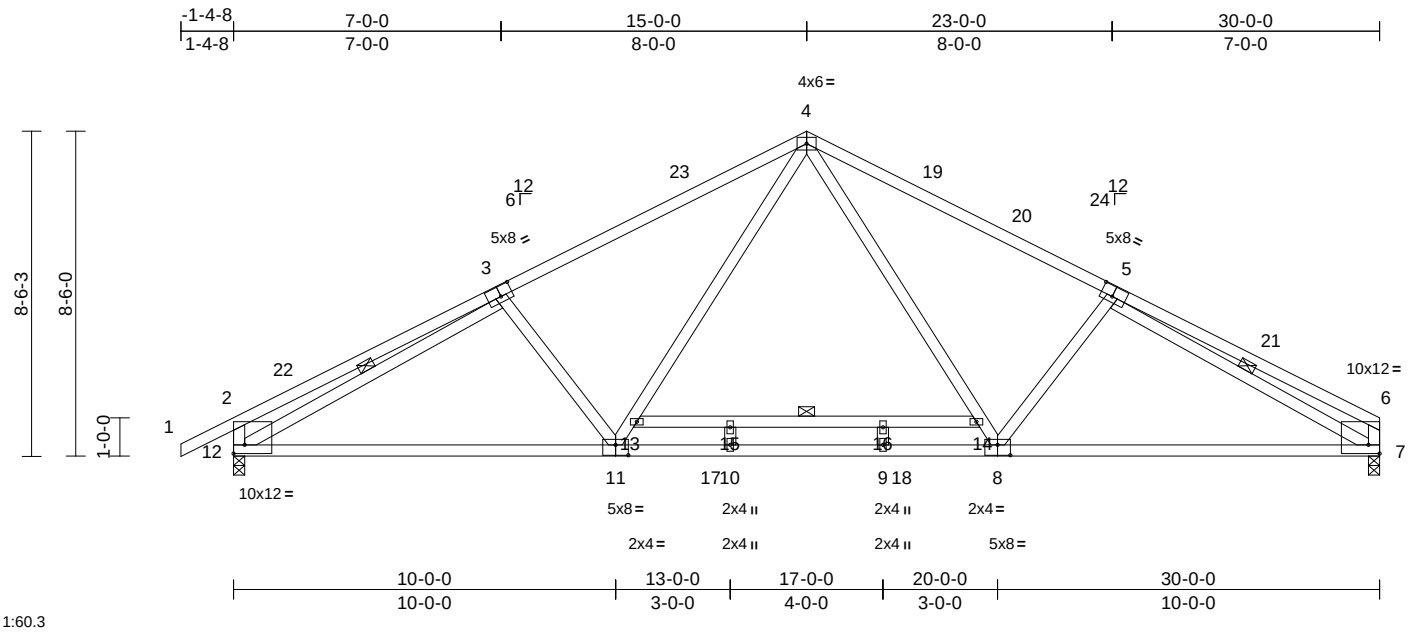

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Plate Offsets (X, Y): [3:0-3-12,0-3-4], [5:0-3-12,0-3-4], [6:Edge,0-2-12], [8:0-4-0,0-3-4], [11:0-4-0,0-3-4], [12:Edge,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.20	11-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.40	9-10	>884	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.07	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 179 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-5-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-12, 5-7, 13-14

REACTIONS (size) 7=0-3-8, 12=0-3-8
Max Horiz 12=125 (LC 13)
Max Uplift 7=-12 (LC 15), 12=-42 (LC 14)
Max Grav 7=1295 (LC 22), 12=1382 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-12=-445/149, 6-7=-317/99, 4-6=-1873/101, 1-2=0/41, 2-4=-1841/126
BOT CHORD 10-12=-43/1712, 9-10=0/1268, 7-9=0/1764
WEBS 4-14=0/717, 8-14=-20/657, 5-8=-371/271, 11-13=-18/609, 4-13=0/668, 3-11=-317/267, 3-12=-1633/0, 5-7=-1768/0, 13-15=-64/0, 15-16=-64/0, 14-16=-64/0, 10-15=0/44, 9-16=0/44

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior (1) 1-7-8 to 12-0-0, Exterior(2R) 12-0-0 to 18-0-0, Interior (1) 18-0-0 to 26-10-4, Exterior(2E) 26-10-4 to 29-10-4 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=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) 200.0lb AC unit load placed on the bottom chord, 15-0-0 from left end, supported at two points, 5-0-0 apart.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 7. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 14,2023

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	4668 McNeill Hobbs-Roof-H-2020-S
23080035-01	A3	Common	1	1	I60119787 Job Reference (optional)

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

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Fri Aug 11 15:24:21 Page: 1
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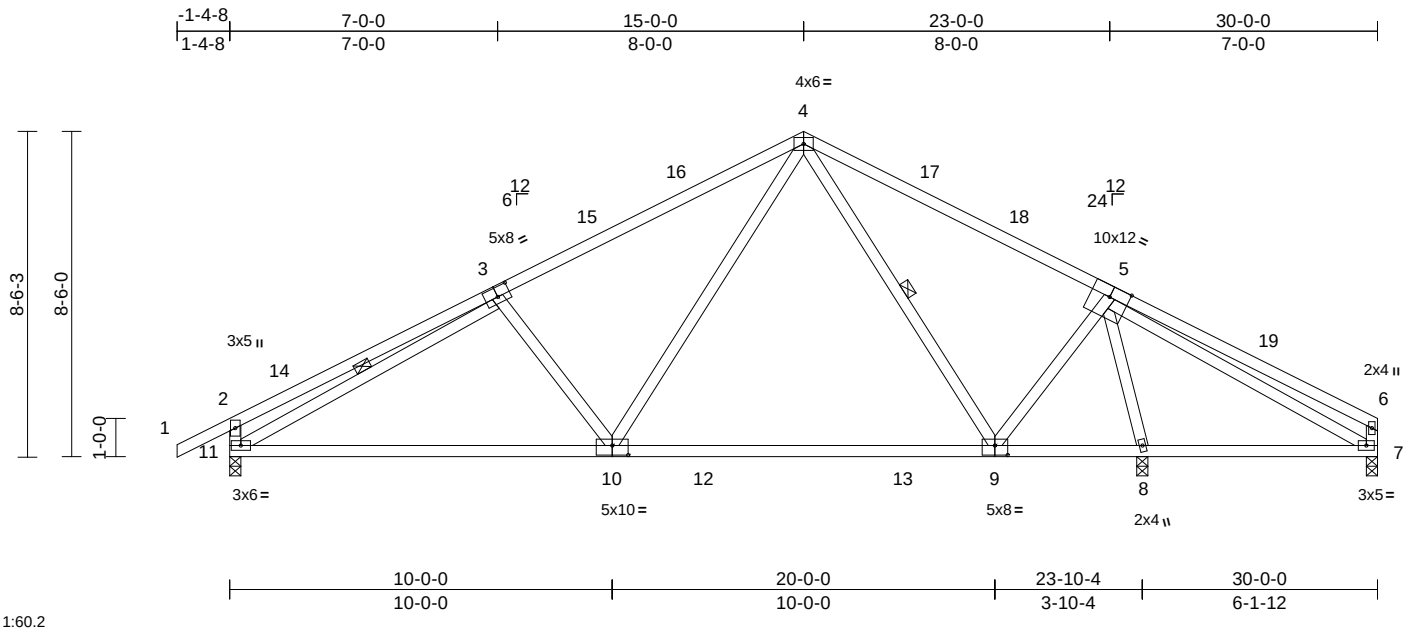

Scale = 1:60.2

Plate Offsets (X, Y): [3:0-4-0,0-3-0], [9:0-4-0,0-3-0], [10:0-5-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.32	9-10	>893	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.48	9-10	>593	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 169 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 5-6,3-1:2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 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, Except:
6-0-0 oc bracing: 7-8.
WEBS 1 Row at midpt 3-11, 4-9

REACTIONS (size) 7=0-3-8, 8=0-3-8, 11=0-3-8
Max Horiz 11=125 (LC 13)
Max Uplift 7=-40 (LC 15), 8=-90 (LC 15), 11=-132 (LC 14)
Max Grav 7=191 (LC 35), 8=1436 (LC 6), 11=1124 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-11=-425/147, 6-7=-233/104, 1-2=0/41, 2-4=-1348/208, 4-6=-724/184
BOT CHORD 8-11=-198/1288, 7-8=-148/42
WEBS 3-11=-1158/136, 5-7=-55/311, 3-10=-416/249, 4-10=-80/795, 4-9=-388/82, 5-9=0/734, 5-8=-1344/159

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior (1) 1-7-8 to 12-0-0, Exterior(2R) 12-0-0 to 18-0-0, Interior (1) 18-0-0 to 26-10-4, Exterior(2E) 26-10-4 to 29-10-4 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=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11, 7, and 8. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 14,2023

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	4668 McNeill Hobbs-Roof-H-2020-S
23080035-01	A4	Common	9	1	I60119788 Job Reference (optional)

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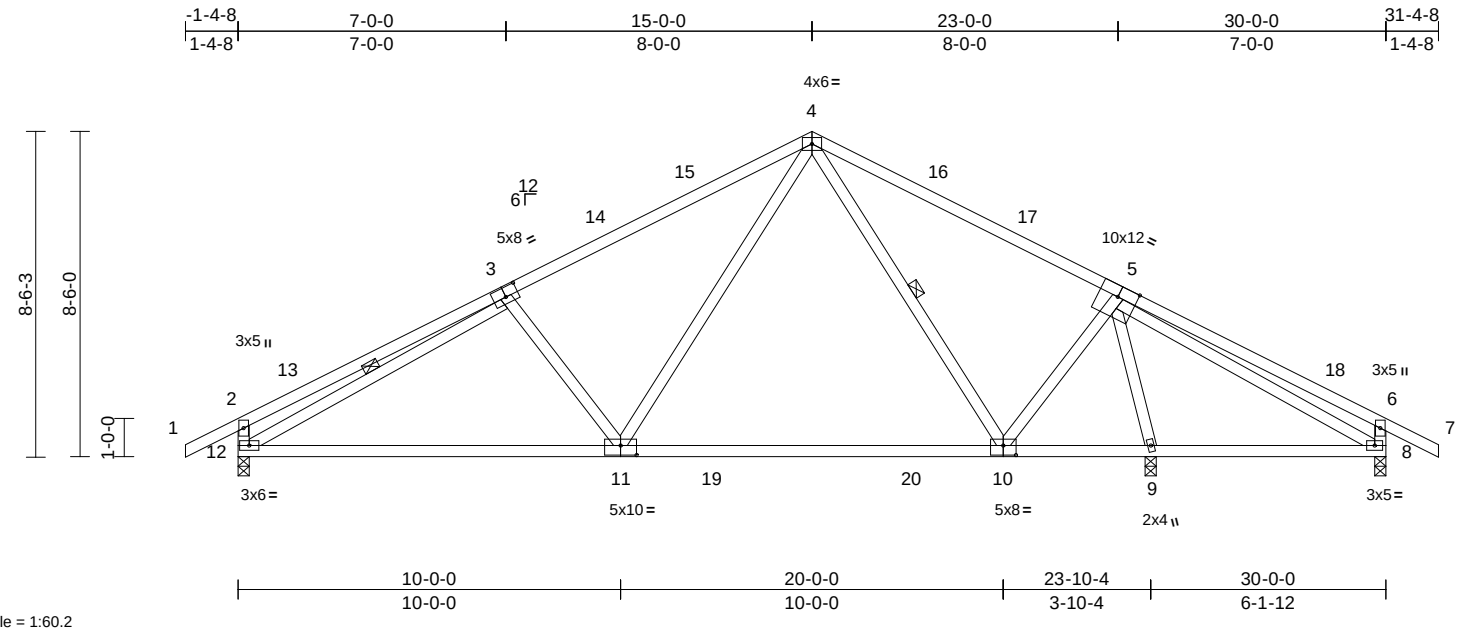

Scale = 1:60.2

Plate Offsets (X, Y): [3:0-4-0,0-3-0], [10:0-4-0,0-3-0], [11:0-5-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.32	10-11	>893	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.48	10-11	>593	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 172 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E *Except* 1-3,5-7:2x4 SP No.2

BOT CHORD 2x4 SP No.1

WEBS 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, Except:
6-0-0 oc bracing: 8-9.

WEBS 1 Row at midpt 3-12, 4-10

REACTIONS (size) 8=0-3-8, 9=0-3-8, 12=0-3-8
Max Horiz 12=121 (LC 13)
Max Uplift 8=-86 (LC 15), 9=-71 (LC 15), 12=-134 (LC 14)
Max Grav 8=295 (LC 35), 9=1430 (LC 6), 12=1124 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/41, 2-4=-1349/212, 4-6=-719/189, 6-7=0/41, 2-12=-424/147, 6-8=-338/165

BOT CHORD 9-12=-190/1288, 8-9=-148/71

WEBS 3-12=-1159/140, 5-8=-63/312, 3-11=-416/248, 4-11=-79/795, 4-10=-389/76, 5-10=0/734, 5-9=-1337/137

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior (1) 1-7-8 to 12-0-0, Exterior(2R) 12-0-0 to 18-0-0, Interior (1) 18-0-0 to 28-4-8, Exterior(2E) 28-4-8 to 31-4-8 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=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12, 8, and 9. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 14,2023

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	4668 McNeill Hobbs-Roof-H-2020-S
23080035-01	A4G	Common	1	1	I60119789 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Fri Aug 11 15:24:21 Page: 1

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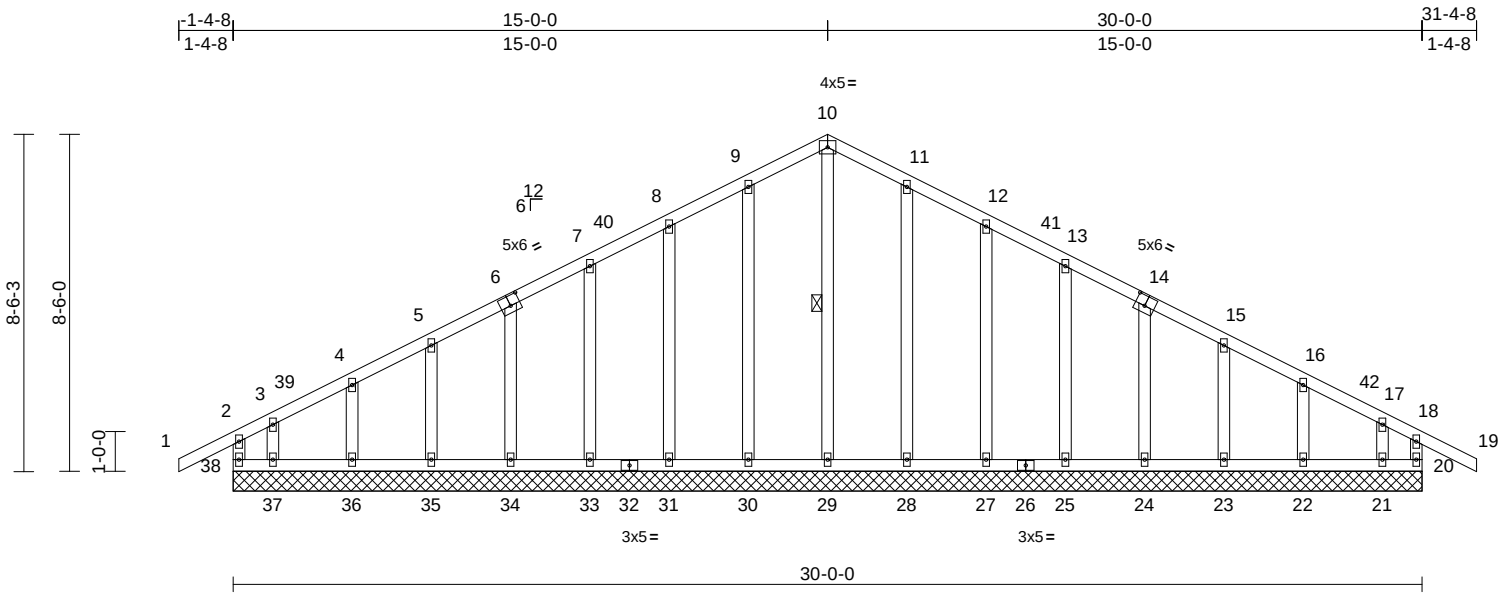


Scale = 1:58.1

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

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	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	20	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 195 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 6-0-0 oc bracing.
WEBS	1 Row at midpt 10-29

REACTIONS (size) 20=30-0-0, 21=30-0-0, 22=30-0-0, 23=30-0-0, 24=30-0-0, 25=30-0-0, 27=30-0-0, 28=30-0-0, 29=30-0-0, 30=30-0-0, 31=30-0-0, 33=30-0-0, 34=30-0-0, 35=30-0-0, 36=30-0-0, 37=30-0-0, 38=30-0-0

Max Horiz 38=121 (LC 13)

Max Uplift 20=-50 (LC 11), 21=-101 (LC 15), 22=-40 (LC 15), 23=-43 (LC 15), 24=-44 (LC 15), 25=-44 (LC 15), 27=-46 (LC 15), 28=-40 (LC 15), 30=-41 (LC 14), 31=-46 (LC 14), 33=-44 (LC 14), 34=-44 (LC 14), 35=-43 (LC 14), 36=-39 (LC 14), 37=-125 (LC 14), 38=-84 (LC 10)

Max Grav 20=182 (LC 22), 21=77 (LC 13), 22=172 (LC 35), 23=155 (LC 22), 24=160 (LC 1), 25=178 (LC 22), 27=227 (LC 22), 28=245 (LC 22), 29=196 (LC 27), 30=245 (LC 21), 31=227 (LC 21), 33=178 (LC 21), 34=160 (LC 1), 35=155 (LC 21), 36=172 (LC 34), 37=105 (LC 12), 38=187 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/41, 2-3=-127/69, 3-4=-83/81, 4-5=-54/91, 5-7=-44/149, 7-8=-62/194, 8-9=-81/241, 9-10=-99/283, 10-11=-99/283, 11-12=-81/241, 12-13=-62/194, 13-15=-44/149, 15-16=-30/69, 16-17=-59/62, 17-18=-97/41, 18-19=0/41, 2-38=-168/122, 18-20=-168/109
BOT CHORD	37-38=-40/129, 36-37=-40/129, 35-36=-40/129, 34-35=-40/129, 33-34=-40/130, 31-33=-40/130, 30-31=-40/130, 29-30=-40/130, 28-29=-40/130, 27-28=-40/130, 25-27=-40/130, 24-25=-40/130, 23-24=-39/129, 22-23=-39/129, 21-22=-39/129, 20-21=-39/129
WEBS	10-29=-184/27, 9-30=-205/69, 8-31=-187/81, 7-33=-138/78, 6-34=-120/78, 5-35=-116/73, 4-36=-130/85, 3-37=-77/89, 11-28=-205/69, 12-27=-187/81, 13-25=-138/78, 14-24=-120/78, 15-23=-116/73, 16-22=-130/84, 17-21=-70/76

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -1-4-8 to 1-7-8, Exterior(2N) 1-7-8 to 12-0-0, Corner(3R) 12-0-0 to 18-0-0, Exterior (2N) 18-0-0 to 28-4-8, Corner(3E) 28-4-8 to 31-4-8 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=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * 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.

August 14,2023

Continued on page 2

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

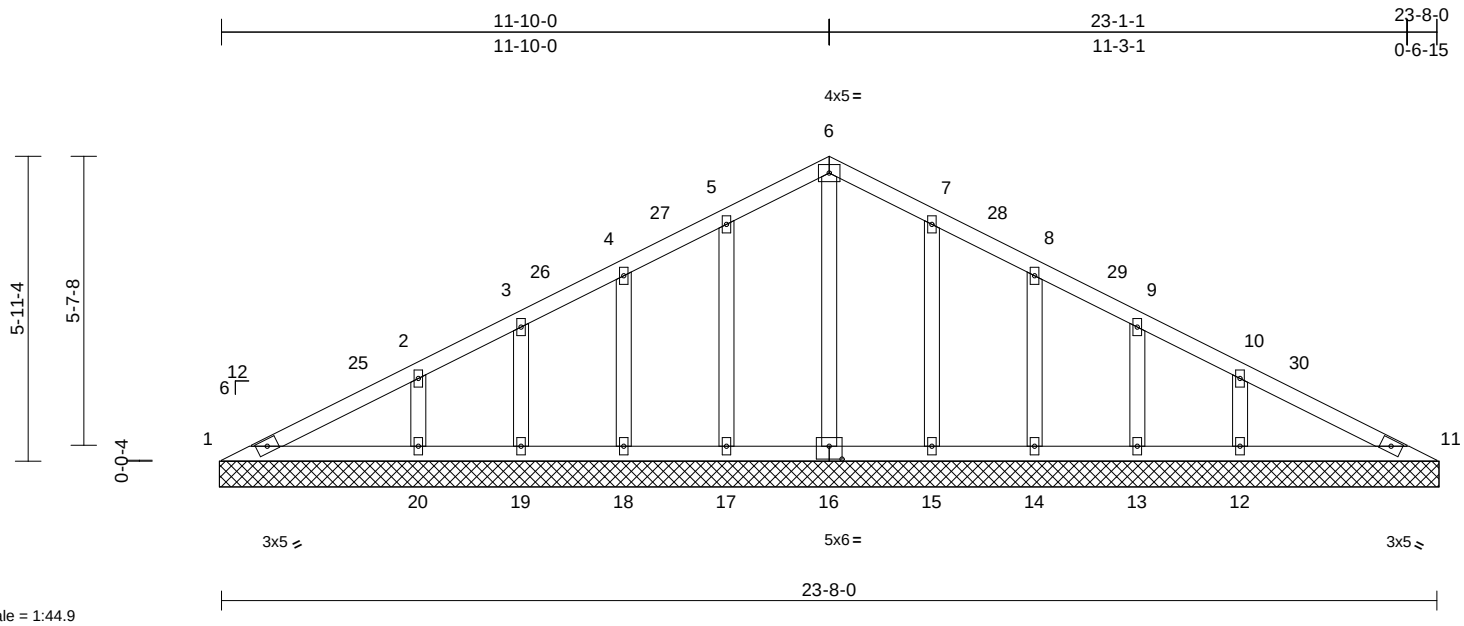
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 38, 50 lb uplift at joint 20, 41 lb uplift at joint 30, 46 lb uplift at joint 31, 44 lb uplift at joint 33, 44 lb uplift at joint 34, 43 lb uplift at joint 35, 39 lb uplift at joint 36, 125 lb uplift at joint 37, 40 lb uplift at joint 28, 46 lb uplift at joint 27, 44 lb uplift at joint 25, 44 lb uplift at joint 24, 43 lb uplift at joint 23, 40 lb uplift at joint 22 and 101 lb uplift at joint 21.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	4668 McNeill Hobbs-Roof-H-2020-S
23080035-01	V1G	Valley	1	1	I60119790 Job Reference (optional)

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

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Fri Aug 11 15:24:22 Page: 1
ID:?THDCg4hl8IVPSoqLeuC?Ez?4ZG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:44.9

Plate Offsets (X, Y): [16:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 115 lb	FT = 20%

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

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

REACTIONS (size) 1=23-9-0, 11=23-9-0, 12=23-9-0, 13=23-9-0, 14=23-9-0, 15=23-9-0, 16=23-9-0, 17=23-9-0, 18=23-9-0, 19=23-9-0, 20=23-9-0
Max Horiz 1=-92 (LC 15)
Max Uplift 1=-8 (LC 15), 12=-71 (LC 15), 13=-33 (LC 15), 14=-47 (LC 15), 15=-44 (LC 15), 17=-45 (LC 14), 18=-47 (LC 14), 19=-33 (LC 14), 20=-72 (LC 14)
Max Grav 1=109 (LC 33), 11=109 (LC 34), 12=306 (LC 34), 13=115 (LC 21), 14=242 (LC 21), 15=243 (LC 21), 16=208 (LC 1), 17=243 (LC 20), 18=242 (LC 20), 19=115 (LC 20), 20=306 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-157/127, 2-3=-48/105, 3-4=-10/123, 4-5=-12/131, 5-6=-31/136, 6-7=-31/130, 7-8=-12/111, 8-9=0/98, 9-10=-8/84, 10-11=-157/118
BOT CHORD 1-20=-71/143, 19-20=-71/88, 18-19=-71/88, 17-18=-71/88, 15-17=-71/88, 14-15=-71/88, 13-14=-71/88, 12-13=-71/88, 11-12=-71/136
WEBS 6-16=-167/0, 5-17=-206/75, 4-18=-194/70, 3-19=-105/60, 2-20=-196/89, 7-15=-206/75, 8-14=-194/70, 9-13=-105/60, 10-12=-196/89

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 8-10-8, Exterior(2R) 8-10-8 to 14-10-8, Interior (1) 14-10-8 to 20-9-0, Exterior(2E) 20-9-0 to 23-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1, 45 lb uplift at joint 17, 47 lb uplift at joint 18, 33 lb uplift at joint 19, 72 lb uplift at joint 20, 44 lb uplift at joint 15, 47 lb uplift at joint 14, 33 lb uplift at joint 13 and 71 lb uplift at joint 12.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 11.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

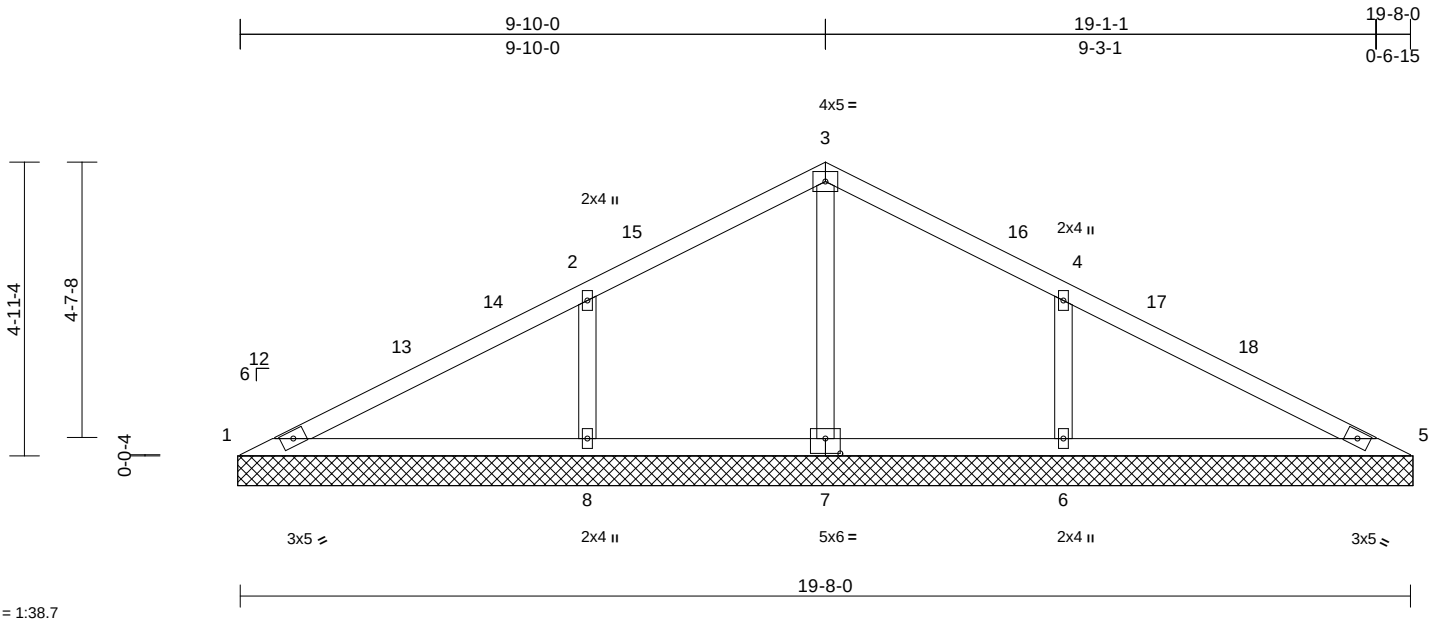
LOAD CASE(S) Standard

August 14,2023

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

Job	Truss	Truss Type	Qty	Ply	4668 McNeill Hobbs-Roof-H-2020-S
23080035-01	V2	Valley	1	1	I60119791 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Fri Aug 11 15:24:22 Page: 1
ID:q0nMo8?A4Nb4Z7QD4XwtlOyryi8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.29	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 74 lb	FT = 20%

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

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

REACTIONS (size) 1=19-9-0, 5=19-9-0, 6=19-9-0, 7=19-9-0, 8=19-9-0
Max Horiz 1=-76 (LC 15)
Max Uplift 5=-8 (LC 15), 6=-131 (LC 15), 8=-131 (LC 14)
Max Grav 1=107 (LC 33), 5=107 (LC 34), 6=609 (LC 21), 7=464 (LC 1), 8=609 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-140/364, 2-3=0/324, 3-4=0/324, 4-5=-140/364
BOT CHORD 1-8=-255/122, 6-8=-255/114, 5-6=-255/122
WEBS 3-7=-430/69, 2-8=-461/172, 4-6=-461/172

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 6-10-8, Exterior(2R) 6-10-8 to 12-10-8, Interior (1) 12-10-8 to 16-9-0, Exterior(2E) 16-9-0 to 19-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 5, 131 lb uplift at joint 8 and 131 lb uplift at joint 6.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

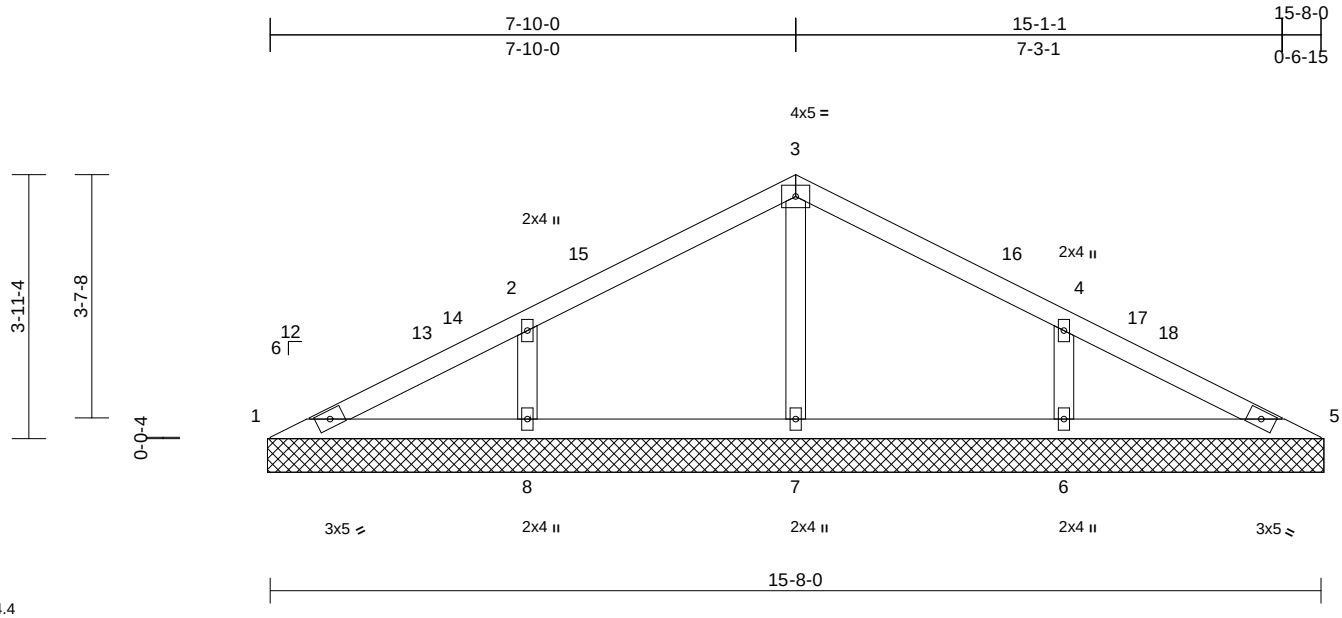
LOAD CASE(S) Standard

August 14,2023

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

Job	Truss	Truss Type	Qty	Ply	4668 McNeill Hobbs-Roof-H-2020-S
23080035-01	V3	Valley	1	1	I60119792 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Fri Aug 11 15:24:22 Page: 1
ID:q0nMo8?A4Nb4Z7QD4XwtlOyryi8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:34.4

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	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 56 lb	FT = 20%

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

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

REACTIONS (size) 1=15-9-0, 5=15-9-0, 6=15-9-0, 7=15-9-0, 8=15-9-0
Max Horiz 1=60 (LC 14)
Max Uplift 1=-6 (LC 15), 5=-7 (LC 15), 6=-100 (LC 15), 8=-101 (LC 14)
Max Grav 1=98 (LC 33), 5=98 (LC 34), 6=495 (LC 21), 7=351 (LC 20), 8=495 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-136/133, 2-3=-44/133, 3-4=-44/127, 4-5=-136/133
BOT CHORD 1-8=-67/116, 7-8=-67/61, 6-7=-67/61, 5-6=-67/116
WEBS 3-7=-280/76, 2-8=-396/168, 4-6=-396/168

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-10-8, Exterior(2R) 4-10-8 to 10-10-8, Interior (1) 10-10-8 to 12-9-0, Exterior(2E) 12-9-0 to 15-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1, 7 lb uplift at joint 5, 101 lb uplift at joint 8 and 100 lb uplift at joint 6.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 14,2023

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

Job	Truss	Truss Type	Qty	Ply	4668 McNeill Hobbs-Roof-H-2020-S
23080035-01	V4	Valley	1	1	I60119793 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Fri Aug 11 15:24:23 Page: 1
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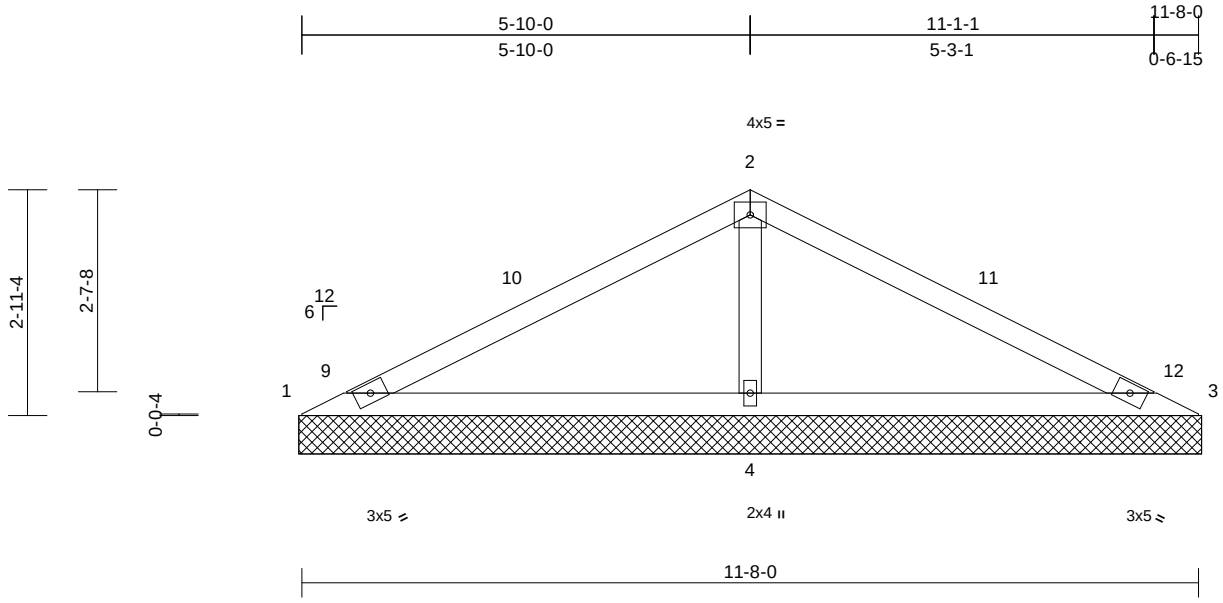


Scale = 1:30

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	0.61	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.55	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 38 lb	FT = 20%

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

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

REACTIONS (size) 1=11-9-0, 3=11-9-0, 4=11-9-0
Max Horiz 1=44 (LC 14)
Max Uplift 1=-66 (LC 21), 3=-66 (LC 20), 4=-80 (LC 14)
Max Grav 1=103 (LC 20), 3=103 (LC 21), 4=928 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-189/552, 2-3=-189/552
BOT CHORD 1-4=-399/239, 3-4=-399/239
WEBS 2-4=-728/368

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 8-9-0, Exterior(2E) 8-9-0 to 11-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 1, 66 lb uplift at joint 3 and 80 lb uplift at joint 4.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 14,2023

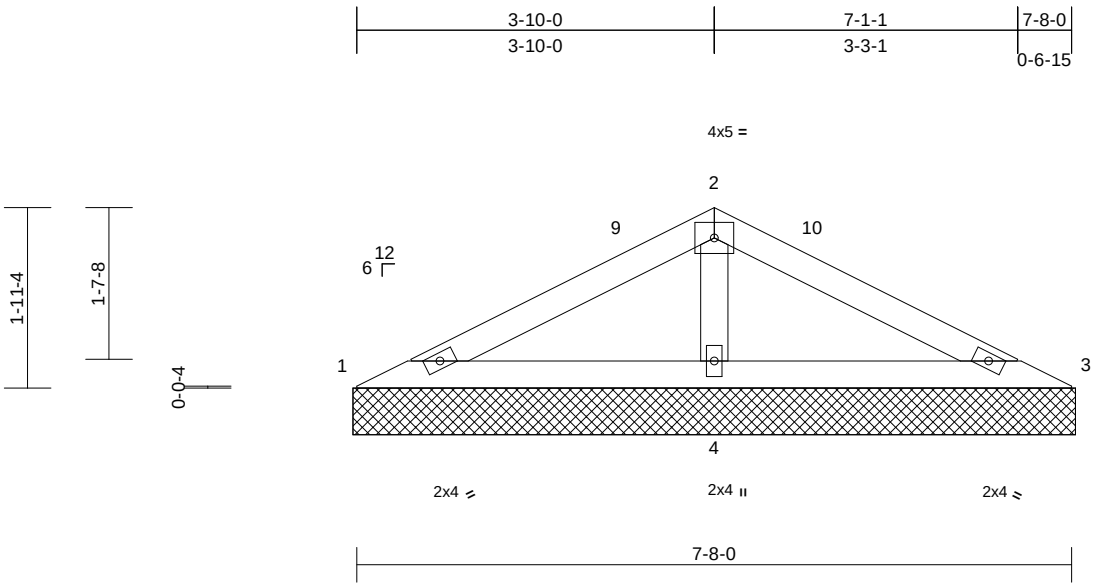
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	4668 McNeill Hobbs-Roof-H-2020-S
23080035-01	V5	Valley	1	1	I60119794
					Job Reference (optional)

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

Run: 8.63 S Jul 28 2023 Print: 8.630 S Jul 28 2023 MiTek Industries, Inc. Fri Aug 11 15:24:23

ID:IDLI?T?prhjxBH?QeFR6Hbyryi7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:24.7

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 24 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 7-8-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=7-9-0, 3=7-9-0, 4=7-9-0
Max Horiz 1=28 (LC 14)
Max Uplift 1=-10 (LC 14), 3=-16 (LC 15), 4=-42 (LC 14)
Max Grav 1=112 (LC 20), 3=112 (LC 21), 4=524 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-126/272, 2-3=-126/272
BOT CHORD 1-4=-203/155, 3-4=-203/155
WEBS 2-4=-364/212

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 4-9-0, Exterior(2E) 4-9-0 to 7-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 16 lb uplift at joint 3 and 42 lb uplift at joint 4.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 14,2023

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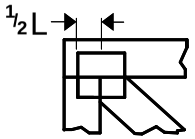
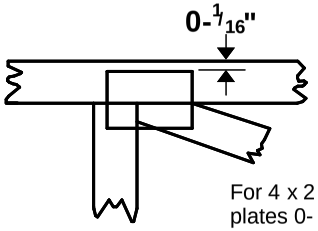
Symbols

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.

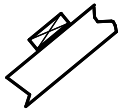
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

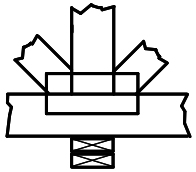
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

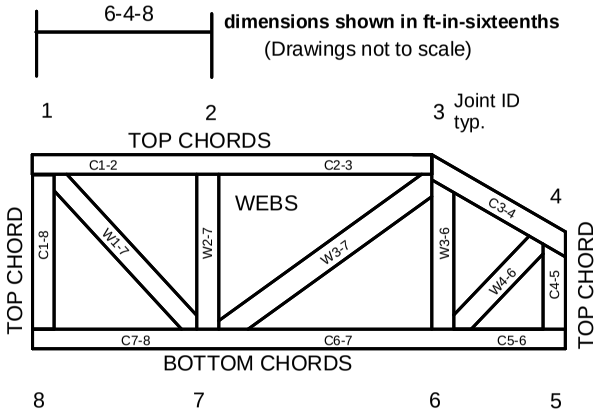


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

MiTek®

ENGINEERING BY TRENCO
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MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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