

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 22050115
DRB GROUP - 137 FaNC

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: I52223717 thru I52223753

My license renewal date for the state of North Carolina is December 31, 2022.

North Carolina COA: C-0844



May 30, 2022

Gilbert, Eric

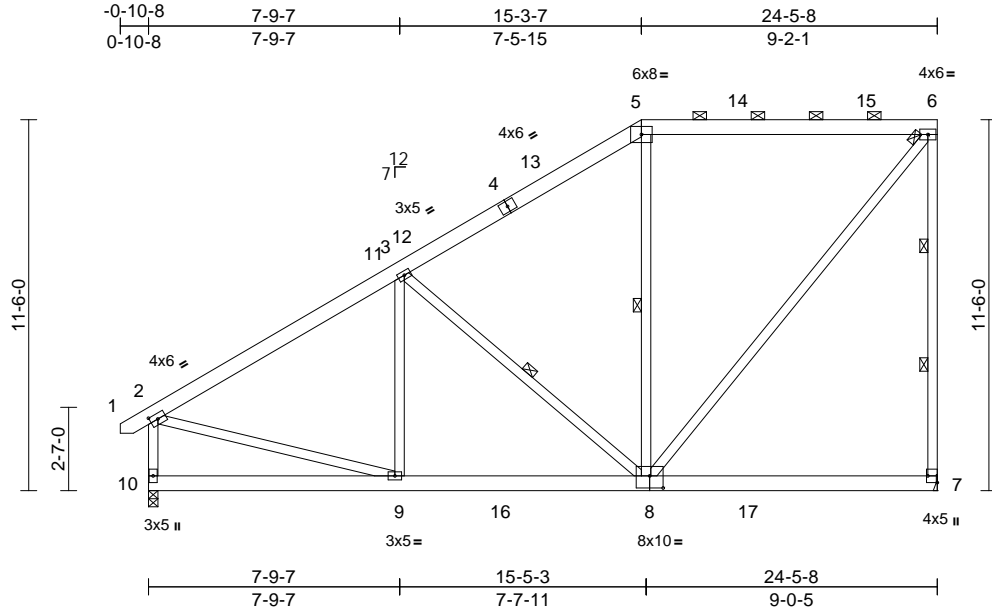
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 22050115	Truss A01	Truss Type Piggyback Base	Qty 5	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	I52223717
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:19
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Page: 1



Scale = 1:71.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.09	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.15	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 212 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3 *Except* 6-7,8-5,8-6:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 3-8, 5-8
 WEBS 2 Rows at 1/3 pts 6-7

REACTIONS

(lb/size) 7=966/ Mechanical, 10=1016/0-3-8
 Max Horiz 10=400 (LC 13)
 Max Uplift 7=-169 (LC 11), 10=-99 (LC 14)
 Max Grav 7=1189 (LC 37), 10=1202 (LC 40)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/25, 2-3=-1254/143, 3-5=-868/198, 5-6=-605/216, 6-7=-1006/198, 2-10=-1081/136
 BOT CHORD 9-10=-379/292, 7-9=-228/1158
 WEBS 3-9=-97/178, 3-8=-649/211, 5-8=-286/188, 6-8=-135/1002, 2-9=0/984

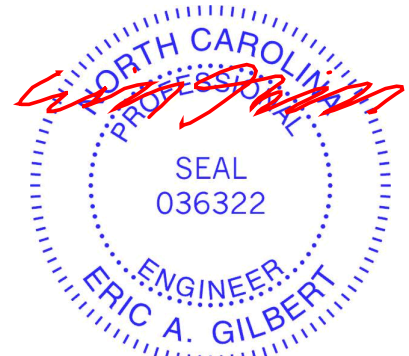
NOTES

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

- 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) -0-8-1 to 2-3-15, Interior (1) 2-3-15 to 12-3-7, Exterior(2R) 12-3-7 to 18-3-7, Interior (1) 18-3-7 to 21-3-12, Exterior(2E) 21-3-12 to 24-3-12 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
- 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
- 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 169 lb uplift at joint 7.
- One H2.5A Simpson Strong-Tie 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.
- 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.

13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 30, 2022

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



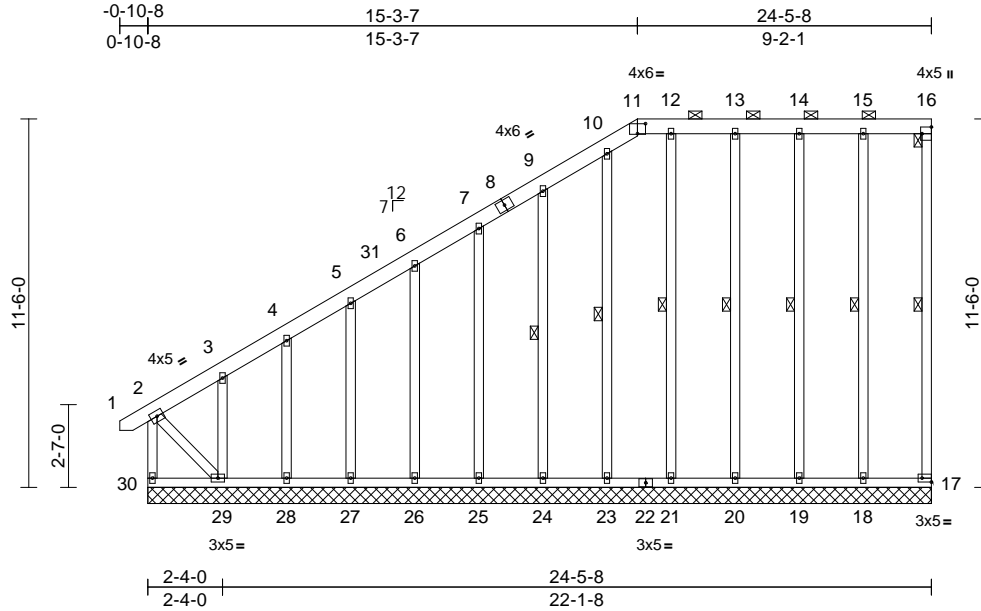
818 Soundside Road
 Edenton, NC 27932

Job 22050115	Truss A02	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223718
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:22
ID:uyiQOAFIaNPenL2x7DkPcXyEN44-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:71.9

Plate Offsets (X, Y): [11:0-3-0,0-3-12], [16:Edge,0-3-8], [17:Edge,0-1-8]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	-0.01	17	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 258 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 16-17:2x4 SP No.2
OTHERS 2x4 SP No.3 *Except* 18-15,19-14,20-13,21-12,23-10:2x4 SP No.2

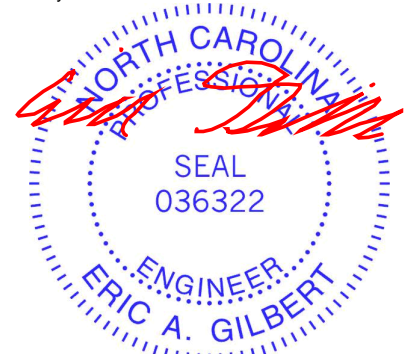
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 11-16.
BOT CHORD Rigid ceiling directly applied or 9-8-7 oc bracing.
WEBS 1 Row at midpt 16-17, 15-18, 14-19, 13-20, 12-21, 10-23, 9-24

REACTIONS (lb/size)
17=66/24-5-8, 18=163/24-5-8, 19=157/24-5-8, 20=155/24-5-8, 21=155/24-5-8, 23=156/24-5-8, 24=154/24-5-8, 25=155/24-5-8, 26=155/24-5-8, 27=155/24-5-8, 28=152/24-5-8, 29=169/24-5-8, 30=128/24-5-8
Max Horiz 30=390 (LC 13)
Max Uplift 17=-15 (LC 11), 18=-45 (LC 10), 19=-46 (LC 11), 20=-39 (LC 10), 21=-50 (LC 11), 23=-38 (LC 11), 24=-53 (LC 14), 25=-50 (LC 14), 26=-49 (LC 14), 27=-48 (LC 14), 28=-52 (LC 14), 29=-299 (LC 11), 30=-214 (LC 12)
Max Grav 17=92 (LC 35), 18=224 (LC 35), 19=218 (LC 35), 20=218 (LC 35), 21=197 (LC 35), 23=195 (LC 36), 24=217 (LC 36), 25=217 (LC 36), 26=205 (LC 36), 27=167 (LC 40), 28=160 (LC 24), 29=324 (LC 40), 30=440 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-30=-424/228, 1-2=0/24, 2-3=-292/187, 3-4=-265/170, 4-5=-238/152, 5-6=-225/142, 6-7=-211/139, 7-9=-199/136, 9-10=-186/158, 10-11=-162/168, 11-12=-153/169, 12-13=-153/169, 13-14=-153/169, 14-15=-153/169, 15-16=-153/169, 16-17=-131/122
BOT CHORD 29-30=-375/243, 28-29=-148/164, 27-28=-148/164, 26-27=-148/164, 25-26=-148/164, 24-25=-148/164, 23-24=-148/164, 21-23=-148/164, 20-21=-148/164, 19-20=-148/164, 18-19=-148/164, 17-18=-148/164
WEBS 15-18=-181/103, 14-19=-181/50, 13-20=-179/56, 12-21=-158/72, 10-23=-157/62, 9-24=-178/76, 7-25=-178/74, 6-26=-166/72, 5-27=-128/72, 4-28=-124/74, 3-29=-125/76, 2-29=-277/409

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) -0-8-1 to 2-4-0, Interior (1) 2-4-0 to 12-3-7, Exterior(2R) 12-3-7 to 18-4-0, Interior (1) 18-4-0 to 21-3-12, Exterior(2E) 21-3-12 to 24-3-12 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.

- 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
- 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



May 30, 2022

Continued on page 2

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	Truss	Truss Type	Qty	Ply	DRB GROUP - 137 FaNC	I52223718
22050115	A02	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:22
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Page: 2

- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 214 lb uplift at joint 30, 15 lb uplift at joint 17, 45 lb uplift at joint 18, 46 lb uplift at joint 19, 39 lb uplift at joint 20, 50 lb uplift at joint 21, 38 lb uplift at joint 23, 53 lb uplift at joint 24, 50 lb uplift at joint 25, 49 lb uplift at joint 26, 48 lb uplift at joint 27, 52 lb uplift at joint 28 and 299 lb uplift at joint 29.
- 15) 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.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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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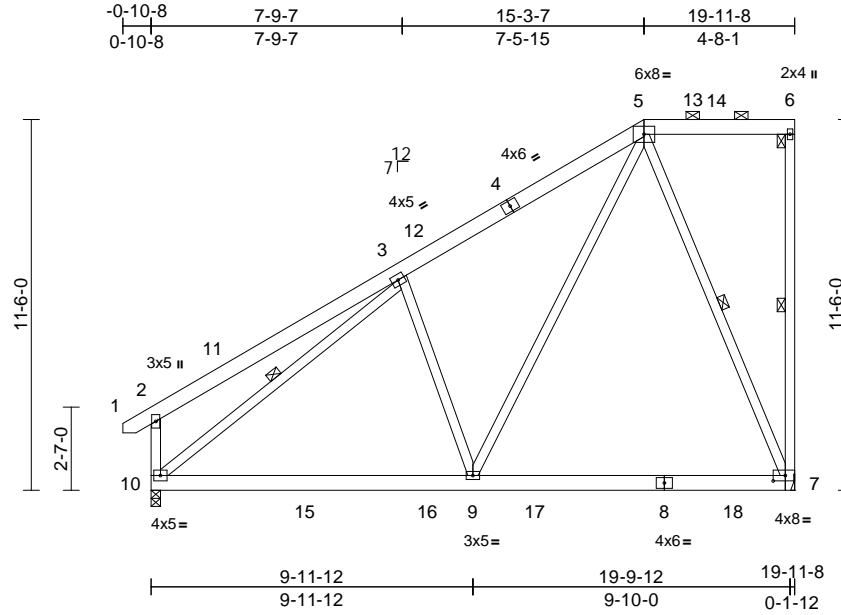
818 Soundside Road
 Edenton, NC 27932

Job 22050115	Truss B01	Truss Type Piggyback Base	Qty 7	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223719
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:71.4

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

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	0.46	Vert(LL)	-0.13	7-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.20	7-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 178 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.2 *Except* 10-2,10-3,9-3:2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 6-7, 5-7, 3-10

REACTIONS (lb/size) 7=786/ Mechanical, 10=837/0-3-8
 Max Horiz 10=313 (LC 14)
 Max Uplift 7=-200 (LC 14), 10=-30 (LC 14)
 Max Grav 7=952 (LC 40), 10=1057 (LC 40)

FORCES

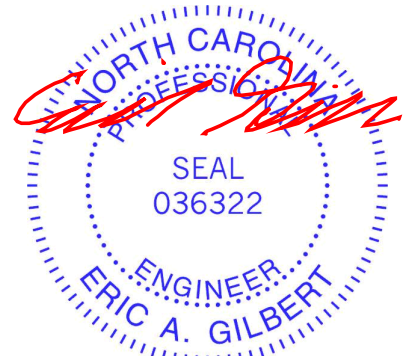
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/25, 2-3=-249/138, 3-5=-1007/127, 5-6=-6/0, 6-7=-187/59, 2-10=-325/135
 BOT CHORD 9-10=-267/888, 7-9=-94/328
 WEBS 5-7=-854/250, 3-10=-917/0, 3-9=-409/306, 5-9=-159/980

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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) -0-8-1 to 2-3-15, Interior (1) 2-3-15 to 11-0-8, Exterior(2R) 11-0-8 to 16-9-12, Exterior (2E) 16-9-12 to 19-9-12 zone; cantilever left exposed; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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
- 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 200 lb uplift at joint 7.
- One H2.5A Simpson Strong-Tie 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.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 30,2022

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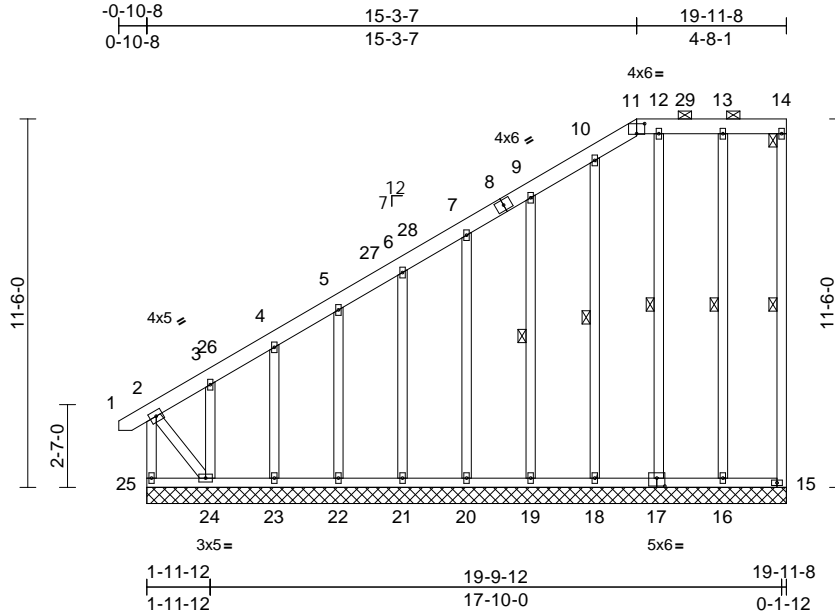
818 Soundside Road
 Edenton, NC 27932

Job 22050115	Truss B03	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223720
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:22
ID:2VuldpuPTjAcxqRhVYSG2yEN?u-RfC?PsB70Hq3NSgPqnL8w3UlTbGKwRcDoi7J4zJC?f

Page: 1



Scale = 1:71.9

Plate Offsets (X, Y): [11:0-3-0,0-3-12], [17:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.00	24	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 207 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 14-15:2x4 SP No.2
OTHERS 2x4 SP No.3 *Except* 17-12,16-13:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 11-14.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
9-2-7 oc bracing: 24-25
10-0-0 oc bracing: 16-17,15-16.
WEBS 1 Row at midpt 14-15, 9-19, 10-18, 12-17, 13-16

REACTIONS (lb/size)
15=63/19-11-8, 16=161/19-11-8, 17=165/19-11-8, 18=158/19-11-8, 19=160/19-11-8, 20=160/19-11-8, 21=160/19-11-8, 22=160/19-11-8, 23=161/19-11-8, 24=156/19-11-8, 25=119/19-11-8
Max Horiz 25=312 (LC 14)
Max Uplift 15=-12 (LC 11), 16=-26 (LC 10), 17=-23 (LC 11), 18=-46 (LC 14), 19=-52 (LC 14), 20=-51 (LC 14), 21=-50 (LC 14), 22=-50 (LC 14), 23=-58 (LC 14), 24=-435 (LC 14), 25=-179 (LC 12)
Max Grav 15=88 (LC 35), 16=226 (LC 35), 17=198 (LC 35), 18=208 (LC 36), 19=226 (LC 36), 20=224 (LC 36), 21=205 (LC 36), 22=168 (LC 40), 23=169 (LC 24), 24=297 (LC 40), 25=545 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-25=-612/305, 1-2=0/25, 2-3=-376/202, 3-4=-333/180, 4-5=-276/150, 5-6=-225/123, 6-7=-172/96, 7-9=-120/69, 9-10=-69/50, 10-11=-42/14, 11-12=0/1, 12-13=0/0, 13-14=0/0, 14-15=-74/27
BOT CHORD 24-25=-413/202, 23-24=-1/0, 22-23=-1/0, 18-19=-1/0, 16-18=-1/0, 15-16=0/0
WEBS 7-20=-184/80, 6-21=-165/80, 5-22=-128/78, 4-23=-131/92, 3-24=-112/63, 9-19=-186/80, 10-18=-169/77, 12-17=-158/65, 13-16=-182/63, 2-24=-321/656

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - 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) -0-8-1 to 2-3-15, Exterior(2N) 2-3-15 to 12-3-7, Corner(3R) 12-3-7 to 16-9-12, Corner (3E) 16-9-12 to 19-9-12 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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 7-16; 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
 - 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.

- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 179 lb uplift at joint 25, 12 lb uplift at joint 15, 51 lb uplift at joint 20, 50 lb uplift at joint 21, 50 lb uplift at joint 22, 58 lb uplift at joint 23, 52 lb uplift at joint 19, 46 lb uplift at joint 18, 23 lb uplift at joint 17, 26 lb uplift at joint 16 and 435 lb uplift at joint 24.



May 30, 2022

Continued on page 2

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	Truss	Truss Type	Qty	Ply	DRB GROUP - 137 FaNC	I52223720
22050115	B03	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:22
 ID:2VuldpuPTjAcxEqRhVYSG2yEN?u-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?fi

Page: 2

- 16) 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.
- 17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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ENGINEERING BY
TRENCO
 A MiTek Affiliate

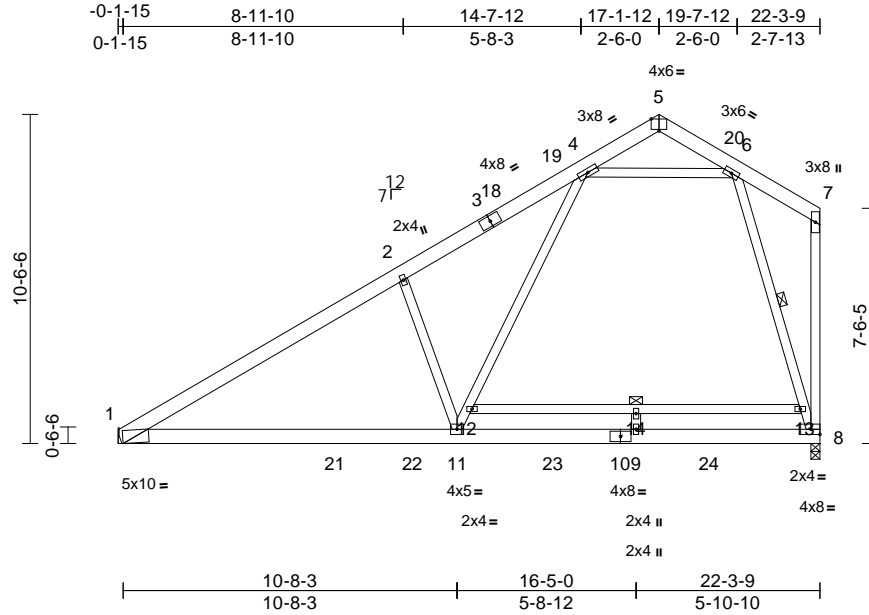
818 Soundside Road
 Edenton, NC 27932

Job 22050115	Truss C01	Truss Type Common	Qty 6	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	I52223721
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:23
ID:ecZulQRhcRtdtdrTWwhmsqdyEMuk-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:73.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.26	11-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.59	9-11	>448	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 182 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 1-3:2x6 SP No.2

BOT CHORD 2x6 SP No.2

WEBS 2x4 SP No.3 *Except* 8-7,12-13:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-4-5 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 6-8, 12-13

REACTIONS (lb/size) 1=939/ Mechanical, 8=1033/0-3-8

Max Horiz 1=323 (LC 13)

Max Uplift 1=39 (LC 14)

Max Grav 1=1079 (LC 24), 8=1172 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1501/6, 2-4=-1447/97, 4-5=-30/482, 5-6=-266/52, 6-7=-88/409, 7-8=-62/686

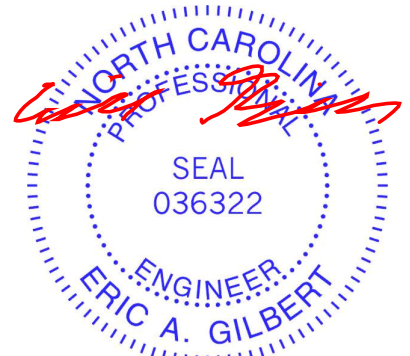
BOT CHORD 1-11=-89/1389, 9-11=-20/666, 8-9=-20/666

WEBS 2-11=-756/300, 11-12=-38/1352, 4-12=-23/1439, 6-13=-1649/122, 8-13=-1724/107, 4-6=-632/131, 12-14=-154/1, 13-14=-154/1, 9-14=0/61

- 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
 - Unbalanced snow loads have been considered for this design.
 - 200.0lb AC unit load placed on the bottom chord, 16-5-0 from left end, supported at two points, 5-0-0 apart.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 1.
 - 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.
 - Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- LOAD CASE(S)** Standard

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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) 0-1-15 to 3-1-15, Interior (1) 3-1-15 to 14-3-11, Exterior(2R) 14-3-11 to 19-3-12, Exterior(2E) 19-3-12 to 22-3-12 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



May 30, 2022

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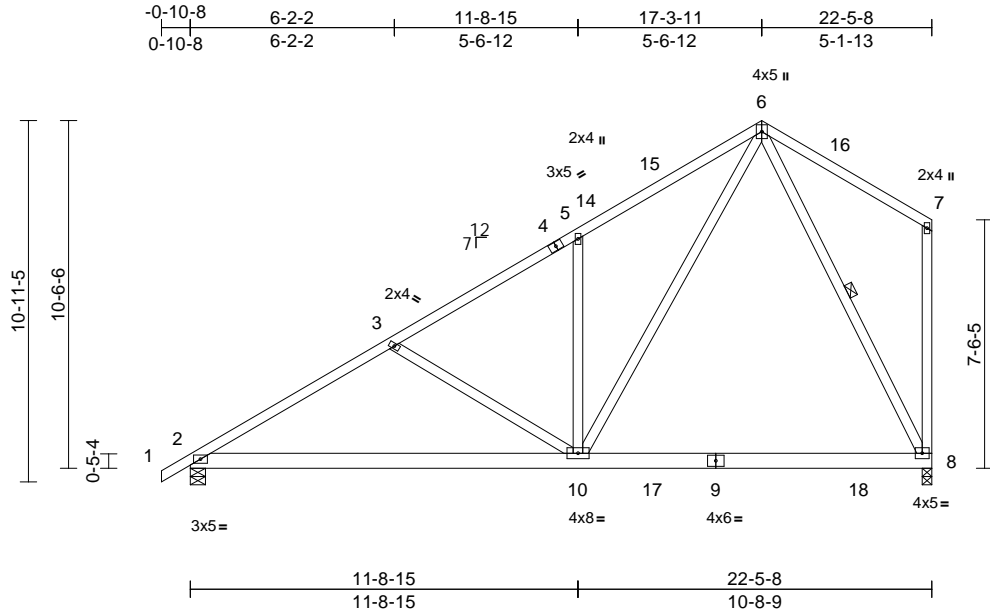
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss C02	Truss Type Common	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223722
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:69.8

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.18	8-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.26	8-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 155 lb	FT = 20%

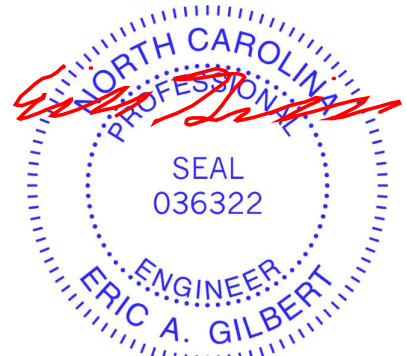
- LUMBER**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 10-6,6-8:2x4 SP No.2
- BRACING**
TOP CHORD Structural wood sheathing directly applied or 4-4-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-8
- REACTIONS** (lb/size) 2=916/0-5-8, 8=864/0-3-8
Max Horiz 2=324 (LC 13)
Max Uplift 2=-107 (LC 14), 8=-107 (LC 14)
Max Grav 2=1048 (LC 24), 8=1057 (LC 24)
- FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-1414/173, 3-5=-1157/126, 5-6=-1196/261, 6-7=-180/190, 7-8=-241/135
BOT CHORD 2-10=-242/1340, 8-10=-76/430
WEBS 5-10=-441/220, 6-10=-211/1220, 3-10=-380/192, 6-8=-888/97

- 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 14-3-11, Exterior(2R) 14-3-11 to 19-3-12, Exterior(2E) 19-3-12 to 22-3-12 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
- 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



May 30, 2022

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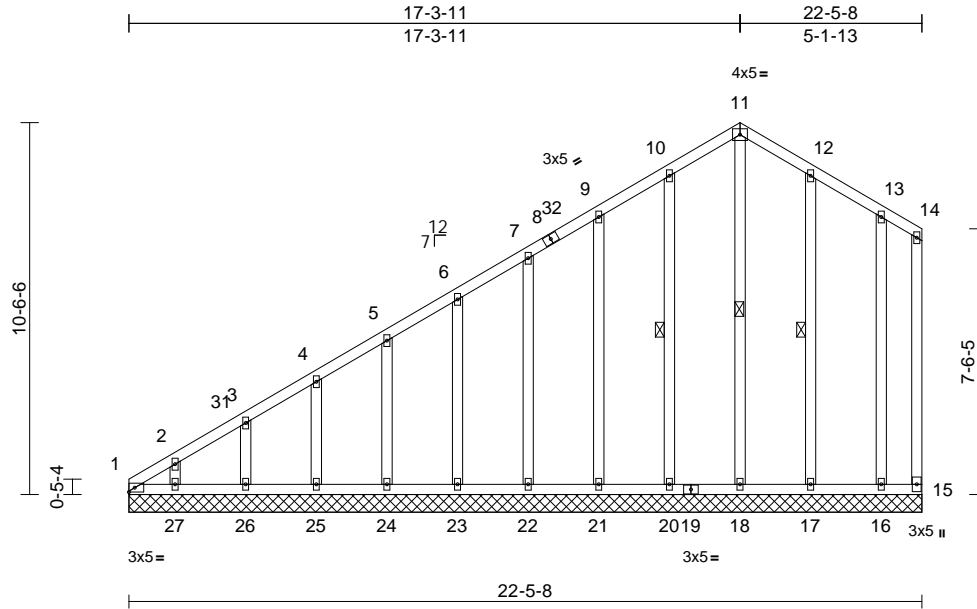
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss C03	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223723
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:23
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Page: 1



Scale = 1:65.3

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	n/a	-	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.00	15	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
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.
WEBS 1 Row at midpt 11-18, 10-20, 12-17

REACTIONS (lb/size)
1=34/22-5-8, 15=25/22-5-8,
16=125/22-5-8, 17=167/22-5-8,
18=143/22-5-8, 20=161/22-5-8,
21=154/22-5-8, 22=155/22-5-8,
23=155/22-5-8, 24=155/22-5-8,
25=154/22-5-8, 26=158/22-5-8,
27=142/22-5-8, 28=34/22-5-8

Max Horiz 1=318 (LC 13), 28=318 (LC 13)
Max Uplift 1=107 (LC 12), 15=26 (LC 14),
16=31 (LC 10), 17=58 (LC 15),
18=57 (LC 13), 20=45 (LC 14),
21=51 (LC 14), 22=48 (LC 14),
23=49 (LC 14), 24=49 (LC 14),
25=50 (LC 14), 26=46 (LC 14),
27=74 (LC 14), 28=107 (LC 12)
Max Grav 1=181 (LC 11), 15=48 (LC 24),
16=184 (LC 21), 17=251 (LC 21),
18=176 (LC 27), 20=244 (LC 20),
21=219 (LC 20), 22=162 (LC 23),
23=161 (LC 23), 24=161 (LC 23),
25=161 (LC 23), 26=162 (LC 23),
27=166 (LC 23), 28=181 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-305/227, 2-3=-279/209, 3-4=-252/191,
4-5=-230/174, 5-6=-217/168, 6-7=-204/165,
7-9=-190/161, 9-10=-178/204,
10-11=-176/246, 11-12=-176/246,
12-13=-151/199, 13-14=-156/189,
14-15=-140/162
BOT CHORD 1-27=-111/120, 26-27=-101/120,
25-26=-101/120, 24-25=-101/120,
23-24=-101/120, 22-23=-101/120,
21-22=-101/120, 20-21=-101/120,
18-20=-101/120, 17-18=-101/120,
16-17=-101/120, 15-16=-101/120
WEBS 11-18=-186/99, 10-20=-205/69,
9-21=-180/76, 7-22=-123/72, 6-23=-123/72,
5-24=-123/72, 4-25=-122/72, 3-26=-125/78,
2-27=-115/82, 12-17=-211/77, 13-16=-152/90

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - 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) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 14-3-11, Corner(3R) 14-3-11 to 19-3-11, Corner (3E) 19-3-11 to 22-3-12 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
 - 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 7-16; 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
 - Unbalanced snow loads have been considered for this design.
 - 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - N/A
 - 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



May 30, 2022

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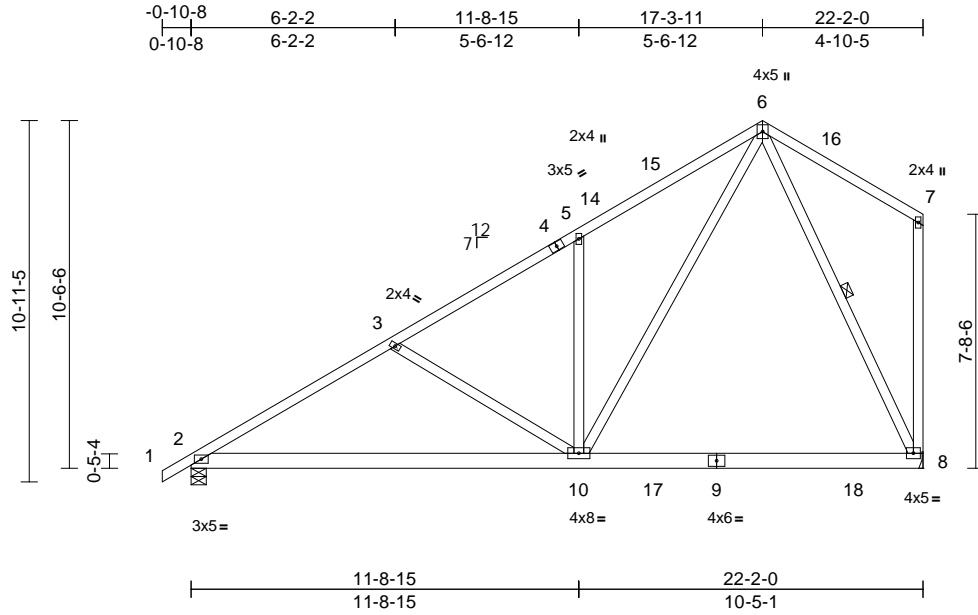
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss C04	Truss Type Common	Qty 3	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223724
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:24
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Page: 1



Scale = 1:69.8

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.16	8-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.25	10-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 154 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3 *Except* 6-10,8-6:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-4-15 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 6-8

REACTIONS

(lb/size) 2=905/0-5-8, 8=852/ Mechanical
 Max Horiz 2=326 (LC 13)
 Max Uplift 2=-105 (LC 14), 8=-110 (LC 14)
 Max Grav 2=1034 (LC 24), 8=1046 (LC 24)

FORCES

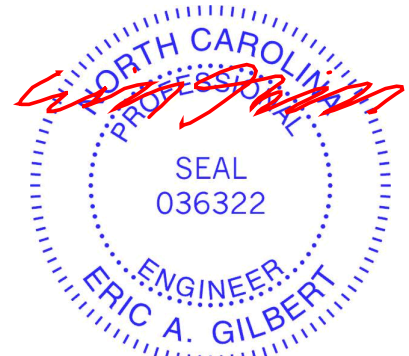
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/26, 2-3=-1384/171, 3-5=-1124/125, 5-6=-1160/259, 6-7=-178/189, 7-8=-225/134
 BOT CHORD 2-10=-240/1315, 8-10=-78/408
 WEBS 3-10=-381/191, 5-10=-435/221, 6-10=-214/1212, 6-8=-883/98

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 14-3-11, Exterior(2R) 14-3-11 to 19-0-4, Exterior (2E) 19-0-4 to 22-0-4 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) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 8.
- 10) One H2.5A Simpson Strong-Tie 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.
- 11) 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



May 30, 2022

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 ANSITPI 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

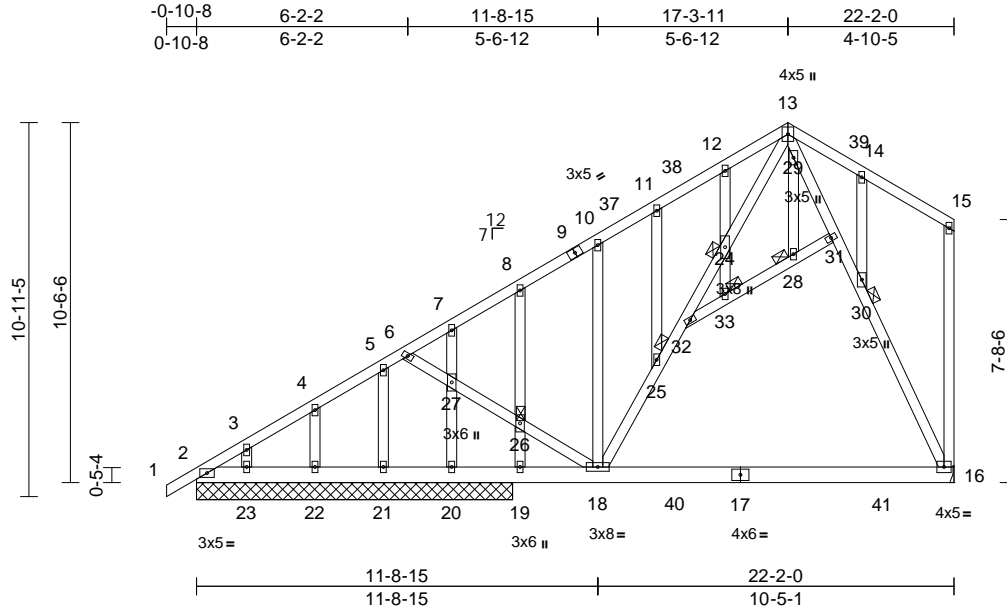
Job 22050115	Truss C05	Truss Type Common Structural Gable	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	I52223725
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:24

Page: 1

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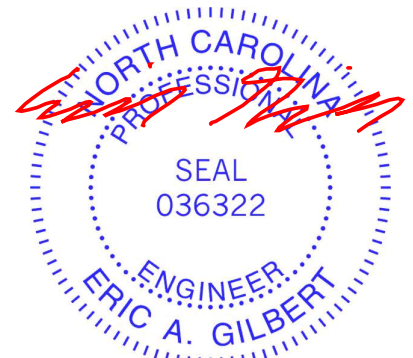
Scale = 1:67.4

Loading (psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.17	16-18	>999	240
Snow (Pf)	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.26	16-18	>662	180
TCDL	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.00	16	n/a	n/a
BCLL	Code	IRC2018/TPI2014	Matrix-MSH						
BCDL									
								Weight: 205 lb	FT = 20%

LUMBER	WEBS
TOP CHORD 2x4 SP No.2	6-27=0/505, 26-27=0/511, 18-26=0/531,
BOT CHORD 2x6 SP No.2	10-18=-288/158, 18-25=-69/445,
WEBS 2x4 SP No.3 *Except* 13-18,16-13:2x4 SP No.2	25-32=-78/511, 24-32=-118/612,
OTHERS 2x4 SP No.3	13-24=-111/579, 13-29=-455/61,
BRACING	29-31=-549/82, 30-31=-508/74,
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	16-30=-600/88, 12-24=-139/54,
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.	11-25=-94/30, 8-26=-109/36, 19-26=-140/22,
JOINTS 1 Brace at Jt(s): 24, 25, 26, 28, 30, 33	7-27=-271/89, 20-27=-296/103,
REACTIONS (lb/size)	5-21=-519/49, 4-22=-90/81, 3-23=-122/61,
2=129/9-3-0, 16=616/ Mechanical, 20=399/9-3-0, 21=391/9-3-0, 22=143/9-3-0, 23=136/9-3-0, 34=129/9-3-0	28-29=-54/142, 14-30=-201/94,
Max Horiz 2=337 (LC 13), 34=337 (LC 13)	32-33=-106/45, 28-33=-94/41,
Max Uplift 2=-42 (LC 10), 16=-56 (LC 14), 20=-132 (LC 14), 22=-64 (LC 14), 23=-41 (LC 14), 34=-42 (LC 10)	28-31=-106/45, 24-33=-167/62
Max Grav 2=174 (LC 29), 16=766 (LC 24), 20=407 (LC 24), 21=575 (LC 5), 22=159 (LC 24), 23=180 (LC 24), 34=174 (LC 29)	
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD 1-2=0/26, 2-3=-214/138, 3-4=-198/122, 4-5=-170/115, 5-6=-331/54, 6-7=-537/23, 7-8=-602/64, 8-10=-597/92, 10-11=-612/160, 11-12=-579/176, 12-13=-552/212, 13-14=-181/207, 14-15=-168/174, 15-16=-151/122	
BOT CHORD 2-23=-156/132, 22-23=-156/132, 21-22=-156/132, 20-21=-156/132, 19-20=-156/132, 18-19=-156/132, 16-18=-83/291	

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 14-3-11, Exterior(2R) 14-3-11 to 19-0-4, Exterior (2E) 19-0-4 to 22-0-4 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 studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 16.
 - N/A
 - 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



May 30, 2022

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



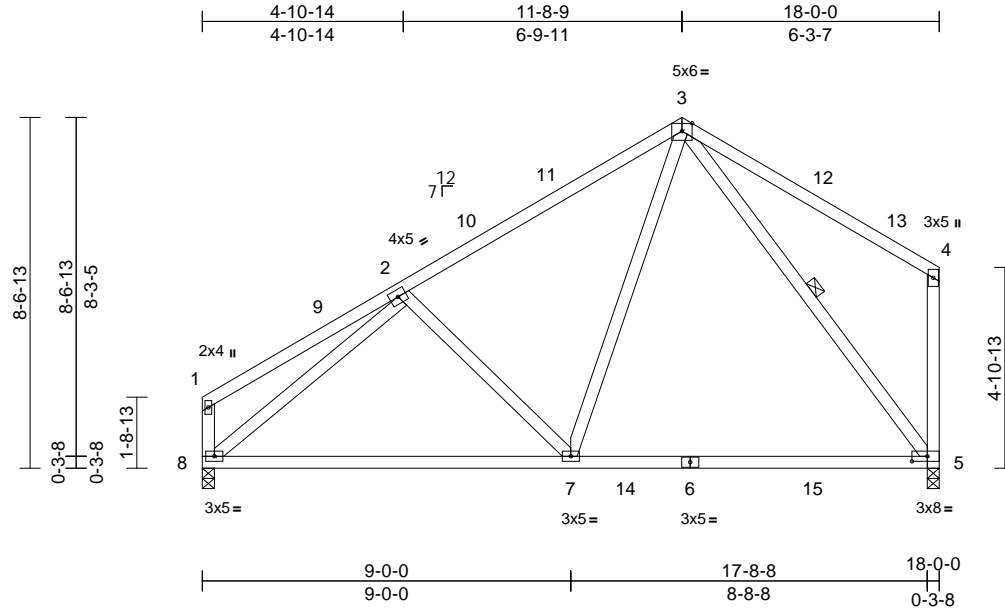
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss D01	Truss Type Common	Qty 7	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	I52223726
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:25
ID: Sr7tMDseearAJFdPspS7byEMp1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCdoi7J4zJC7f

Page: 1



Scale = 1:56.3

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

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	0.98	Vert(LL)	-0.28	5-7	>756	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.42	5-7	>508	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 111 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, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 3-5

REACTIONS

(lb/size) 5=708/0-3-8, 8=708/0-3-8
Max Horiz 8=249 (LC 11)
Max Uplift 5=-61 (LC 14), 8=-66 (LC 14)
Max Grav 5=834 (LC 6), 8=819 (LC 5)

FORCES

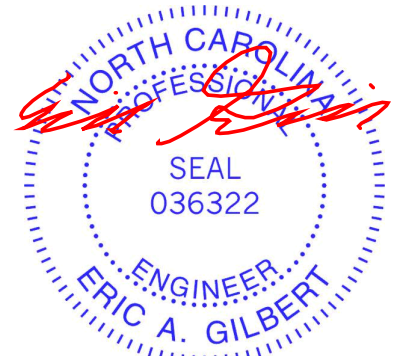
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-162/59, 2-3=-807/148, 3-4=-199/173, 4-5=-281/134, 1-8=-158/47
BOT CHORD 7-8=-142/798, 5-7=-46/462
WEBS 3-5=-690/50, 2-8=-885/104, 3-7=-27/587, 2-7=-264/209

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) 2-1-7 to 5-1-7, Interior (1) 5-1-7 to 10-8-5, Exterior(2R) 10-8-5 to 16-9-15, Exterior (2E) 16-9-15 to 19-9-15 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 a 10.0 psf bottom chord live load nonconcurrent with any 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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 5. 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



May 30, 2022

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



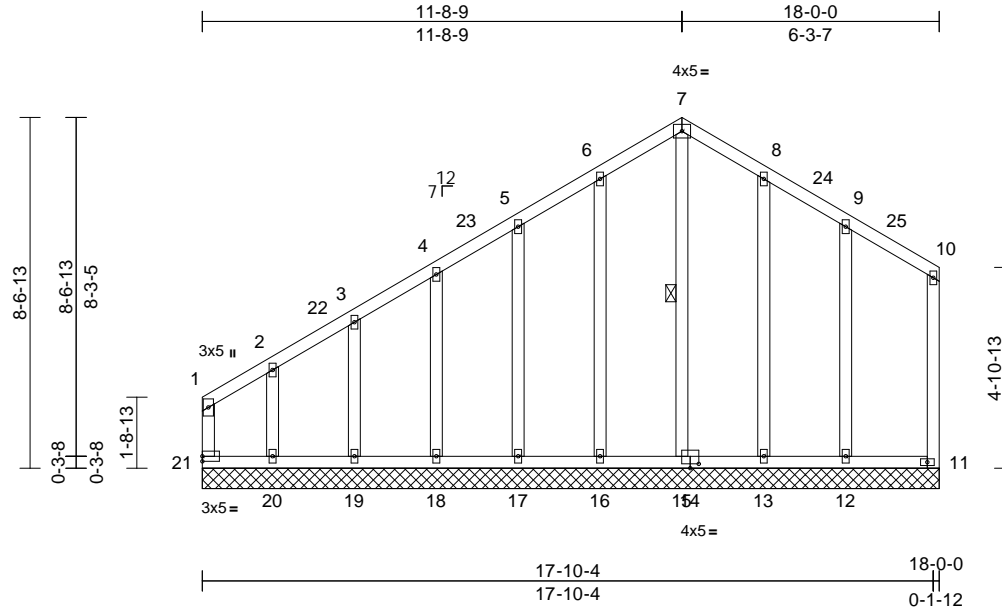
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss D02	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223727
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:25
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Page: 1



Scale = 1:56.3
Plate Offsets (X, Y): [14:0-2-8,0-1-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 131 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.

WEBS 1 Row at midpt 7-15

REACTIONS (lb/size)
11=75/18-0-0, 12=180/18-0-0,
13=162/18-0-0, 15=148/18-0-0,
16=166/18-0-0, 17=159/18-0-0,
18=160/18-0-0, 19=161/18-0-0,
20=156/18-0-0, 21=50/18-0-0
Max Horiz 21=249 (LC 11)
Max Uplift 11=46 (LC 14), 12=49 (LC 15),
13=52 (LC 15), 15=24 (LC 13),
16=49 (LC 14), 17=50 (LC 14),
18=57 (LC 14), 19=21 (LC 14),
20=271 (LC 11), 21=231 (LC 12)
Max Grav 11=79 (LC 24), 12=249 (LC 21),
13=247 (LC 21), 15=172 (LC 23),
16=252 (LC 20), 17=226 (LC 20),
18=174 (LC 23), 19=161 (LC 1),
20=331 (LC 12), 21=323 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=251/207, 2-3=178/145, 3-4=174/150,
4-5=158/151, 5-6=146/209, 6-7=160/259,
7-8=160/260, 8-9=133/207, 9-10=110/147,
10-11=98/119, 1-21=198/144
BOT CHORD 20-21=68/80, 19-20=68/80, 18-19=68/80,
17-18=68/80, 16-17=68/80, 15-16=68/80,
13-15=68/80, 12-13=68/80, 11-12=68/80

WEBS 7-15=-192/70, 6-16=-212/77, 5-17=-186/89,
4-18=-129/85, 3-19=-121/83, 2-20=-198/153,
8-13=-209/81, 9-12=-204/94

- 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) 2-1-7 to 5-1-7, Exterior(2N) 5-1-7 to 10-8-5, Corner(3R) 10-8-5 to 16-9-15, Corner (3E) 16-9-15 to 19-9-15 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 9) Gable studs spaced at 2-0-0 oc.
 - 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 11) * 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.

- 12) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 13) N/A

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



May 30, 2022

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



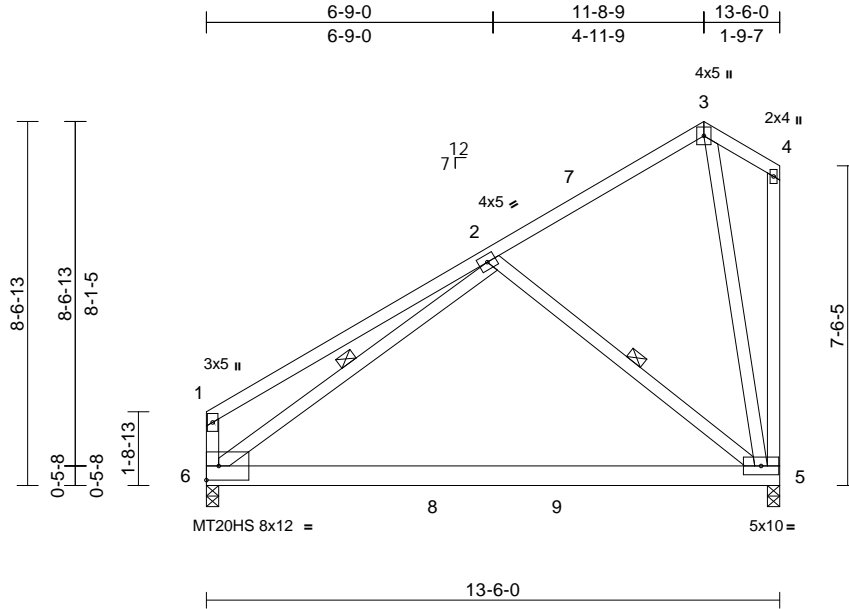
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss D03	Truss Type Common	Qty 2	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223728
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:25
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Page: 1



Scale = 1:54.2					
Loading (psf)	Spacing 2-0-0	CSI	DEFL in (loc) l/defl L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.76	Vert(LL) -0.44 5-6 >359 240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.97	Vert(CT) -0.77 5-6 >207 180	MT20HS	187/143
TCDL 10.0	Rep Stress Incr YES	WB 0.23	Horz(CT) 0.00 5 n/a n/a		
BCLL 0.0*	Code IRC2018/TPI2014	Matrix-MSH			
BCDL 10.0				Weight: 103 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 6-1:2x4 SP No.2

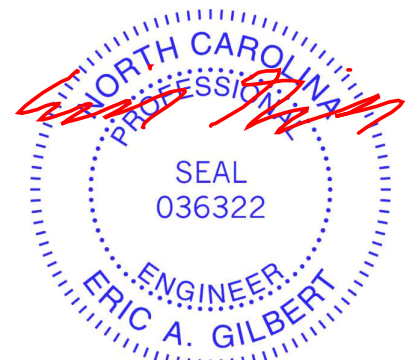
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 2-6, 2-5

REACTIONS (lb/size) 5=528/0-3-8, 6=528/0-3-8
Max Horiz 6=279 (LC 11)
Max Uplift 5=-101 (LC 14), 6=-40 (LC 14)
Max Grav 5=665 (LC 23), 6=604 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-464/96, 2-3=-202/115, 3-4=-181/173, 4-5=-150/128, 1-6=-373/104
BOT CHORD 5-6=-157/397
WEBS 3-5=-181/127, 2-6=-183/186, 2-5=-403/227

- All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 6. This connection is for uplift only and does not consider lateral forces.
 - 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

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - 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) 2-1-7 to 5-1-7, Interior (1) 5-1-7 to 10-8-5, Exterior(2R) 10-8-5 to 13-8-5, Exterior (2E) 13-8-5 to 15-3-15 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
 - 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
 - Unbalanced snow loads have been considered for this design.



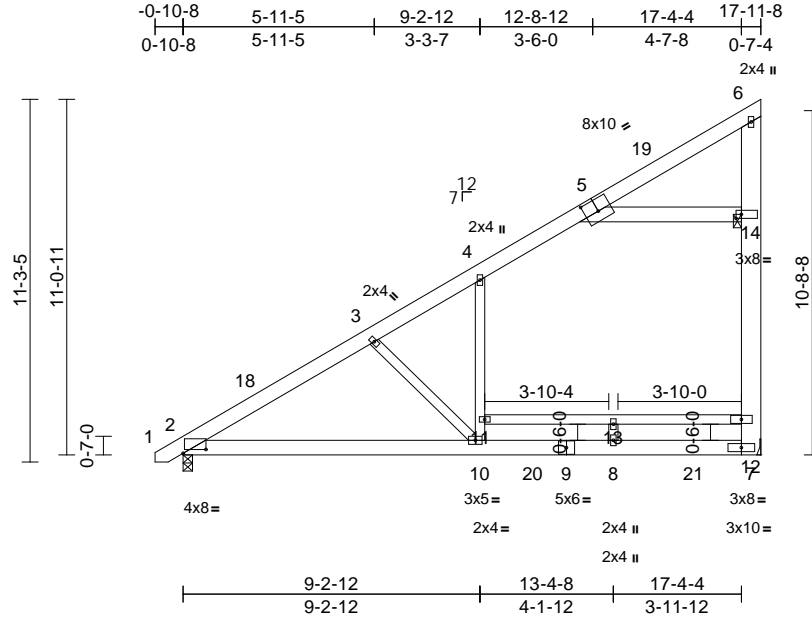
May 30, 2022

Job 22050115	Truss E01	Truss Type Monopitch	Qty 9	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	I52223729
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:25
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Page: 1



Scale = 1:71.6

Plate Offsets (X, Y): [2:0-8-8,0-1-7], [5:0-5-0,0-4-8], [14:0-2-0,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	0.40	10-17	>529	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.84	8-10	>253	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 163 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 1-5:2x6 SP 2400F 2.0E
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 5-14:2x6 SP No.2, 6-7:2x8 SP 2400F 2.0E

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

JOINTS
1 Brace at Jt(s): 14

REACTIONS (lb/size) 2=796/0-3-8, 7=857/ Mechanical
Max Horiz 2=390 (LC 14)
Max Uplift 7=72 (LC 14)
Max Grav 2=821 (LC 21), 7=1018 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-3=-1111/0, 3-4=-748/0, 4-6=-280/1076
BOT CHORD 2-10=-189/960, 8-10=-34/304, 7-8=-34/304
WEBS 3-10=-868/185, 10-11=0/793, 4-11=0/829, 11-13=-29/76, 12-13=-29/76, 8-13=0/70, 5-14=-1241/201, 7-12=-823/184, 12-14=-789/193, 6-14=-713/181

- 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
 - 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 200.0lb AC unit load placed on the bottom chord, 13-4-8 from left end, supported at two points, 5-0-0 apart.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 7.
 - 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

NOTES
1) 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) -0-8-1 to 2-3-15, Interior (1) 2-3-15 to 14-7-14, Exterior(2E) 14-7-14 to 17-7-14 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



May 30, 2022

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

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

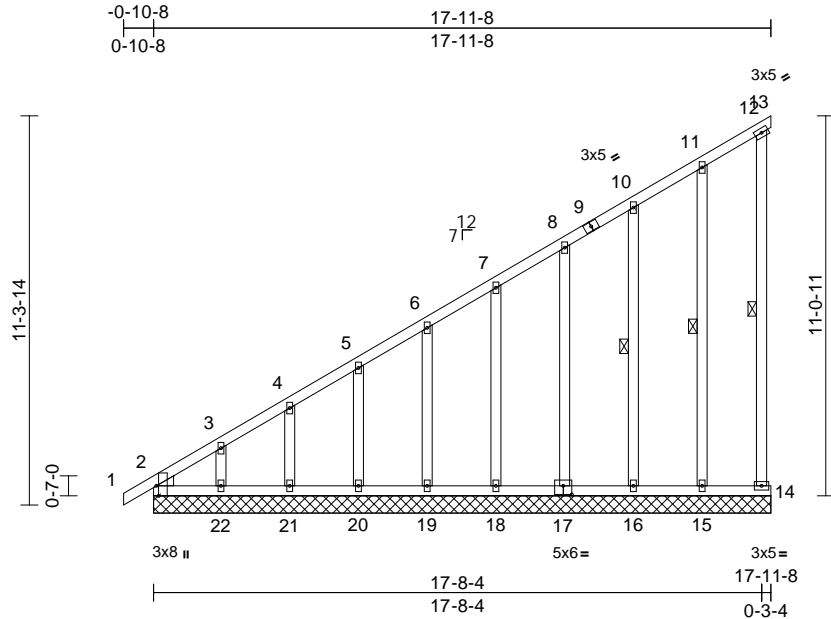
Job 22050115	Truss E02	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	I52223730
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:26

Page: 1

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Scale = 1:67

Plate Offsets (X, Y): [2:0-3-8,Edge], [17:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.01	13	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 138 lb	FT = 20%

LUMBER		
TOP CHORD	2x4 SP No.2	
BOT CHORD	2x4 SP No.2	
WEBS	2x4 SP No.2	
OTHERS	2x4 SP No.3	
WEDGE	Left: 2x4 SP No.3	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	
WEBS	1 Row at midpt 12-14, 11-15, 10-16	

REACTIONS	(lb/size)	
	2=129/17-11-8, 13=14/17-11-8, 14=57/17-11-8, 15=162/17-11-8, 16=162/17-11-8, 17=160/17-11-8, 18=159/17-11-8, 19=160/17-11-8, 20=160/17-11-8, 21=160/17-11-8, 22=161/17-11-8, 23=129/17-11-8	
Max Horiz	2=386 (LC 13), 23=386 (LC 13)	
Max Uplift	2=74 (LC 10), 13=138 (LC 14), 14=269 (LC 13), 15=71 (LC 14), 16=44 (LC 14), 17=54 (LC 14), 18=50 (LC 14), 19=50 (LC 14), 20=54 (LC 14), 21=37 (LC 14), 22=109 (LC 14), 23=74 (LC 10)	
Max Grav	2=226 (LC 25), 13=184 (LC 13), 14=237 (LC 10), 15=240 (LC 21), 16=236 (LC 21), 17=173 (LC 21), 18=167 (LC 24), 19=166 (LC 24), 20=168 (LC 24), 21=160 (LC 21), 22=197 (LC 24), 23=226 (LC 25)	

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	
1-2=0/26, 2-3=-344/223, 3-4=-308/197, 4-5=-282/181, 5-6=-254/163, 6-7=-231/145, 7-8=-217/139, 8-10=-202/134, 10-11=-197/155, 11-12=-137/145, 12-13=-136/111, 12-14=-230/182	
BOT CHORD	
2-22=189/187, 21-22=-153/187, 20-21=-153/187, 19-20=-153/187, 18-19=-153/187, 16-18=-153/187, 15-16=-153/186, 14-15=-153/186	
WEBS	
11-15=-200/85, 10-16=-196/110, 8-17=-133/82, 7-18=-127/86, 6-19=-126/85, 5-20=-127/86, 4-21=-125/82, 3-22=-134/105	

- NOTES**
- 1) 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) -0-10-8 to 1-11-8, Exterior(2N) 1-11-8 to 17-11-8 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
 - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: 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) 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) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 2, 138 lb uplift at joint 13, 269 lb uplift at joint 14, 71 lb uplift at joint 15, 44 lb uplift at joint 16, 54 lb uplift at joint 17, 50 lb uplift at joint 18, 50 lb uplift at joint 19, 54 lb uplift at joint 20, 37 lb uplift at joint 21, 109 lb uplift at joint 22 and 74 lb uplift at joint 2.
 - 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



May 30, 2022

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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



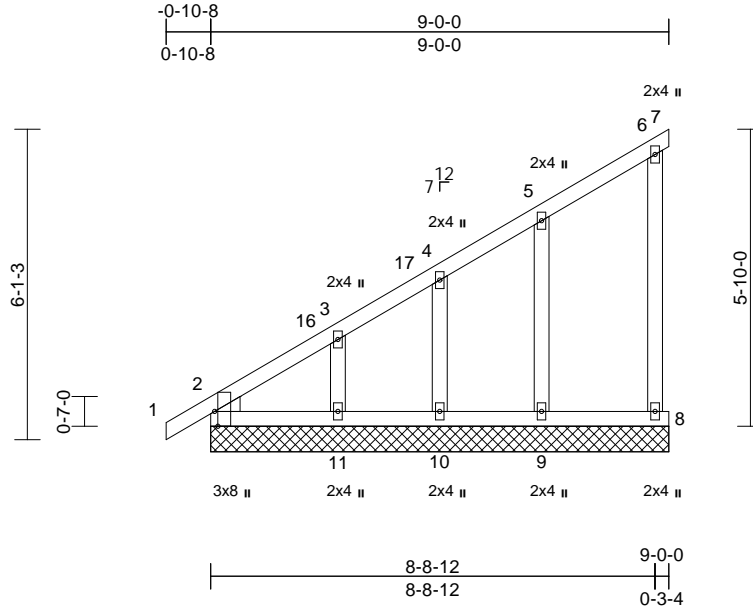
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss E03	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	I52223731
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:26
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Page: 1



Scale = 1:45.3

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	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 51 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(lb/size)	2=146/9-0-0, 7=-9/9-0-0, 8=102/9-0-0, 9=188/9-0-0, 10=142/9-0-0, 11=197/9-0-0, 12=146/9-0-0
Max Horiz	2=199 (LC 13), 12=199 (LC 13)
Max Uplift	2=-17 (LC 10), 7=-47 (LC 10), 8=-77 (LC 13), 9=62 (LC 14), 10=-37 (LC 14), 11=-88 (LC 14), 12=-17 (LC 10)
Max Grav	2=169 (LC 25), 7=59 (LC 13), 8=156 (LC 21), 9=279 (LC 21), 10=194 (LC 21), 11=219 (LC 24), 12=169 (LC 25)

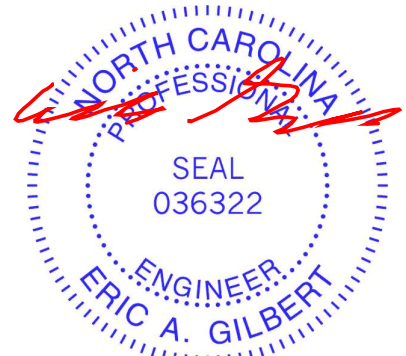
FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/26, 2-3=-162/112, 3-4=-129/83, 4-5=-118/76, 5-6=-96/83, 6-7=-47/34, 6-8=-136/78
BOT CHORD	2-11=-94/109, 10-11=-83/109, 9-10=-83/109, 8-9=-83/109
WEBS	4-10=-162/117, 3-11=-150/154, 5-9=-231/113

NOTES

- 1) 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) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 9-0-0 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; 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) 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 17 lb uplift at joint 2, 47 lb uplift at joint 7, 77 lb uplift at joint 8, 37 lb uplift at joint 10, 88 lb uplift at joint 11, 62 lb uplift at joint 9 and 17 lb uplift at joint 2.
- 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



May 30, 2022

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



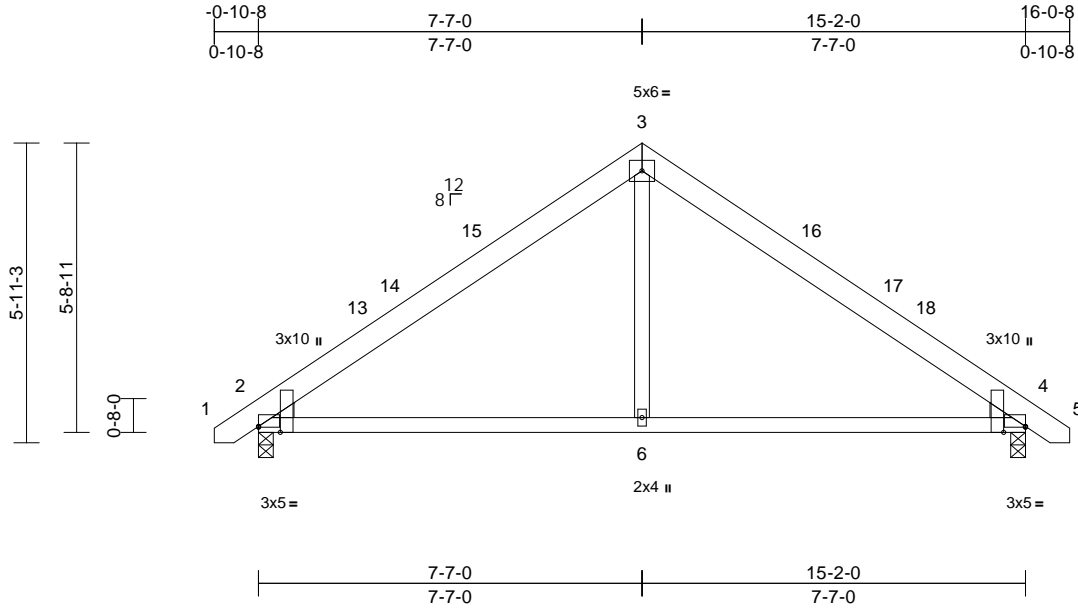
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss F01	Truss Type Common	Qty 8	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223732
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:26
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Page: 1



Scale = 1:45.6

Plate Offsets (X, Y): [2:Edge,0-0-3], [2:0-1-6,Edge], [4:Edge,0-0-3], [4:0-1-6,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	0.53	Vert(LL)	-0.07	6-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.13	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 79 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(lb/size) 2=648/0-3-8, 4=648/0-3-8
 Max Horiz 2=-129 (LC 12)
 Max Uplift 2=-65 (LC 14), 4=-65 (LC 15)
 Max Grav 2=718 (LC 21), 4=718 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension

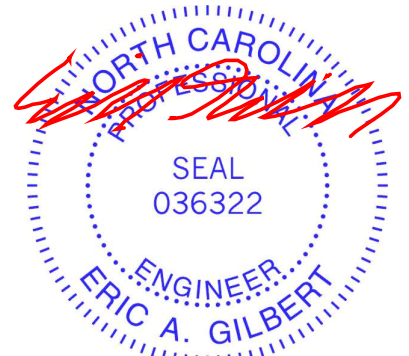
TOP CHORD 1-2=0/23, 2-3=-731/123, 3-4=-731/123, 4-5=0/23
 BOT CHORD 2-6=-73/518, 4-6=-22/518
 WEBS 3-6=0/310

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) -0-8-3 to 2-3-13, Interior (1) 2-3-13 to 4-7-0, Exterior(2R) 4-7-0 to 10-7-0, Interior (1) 10-7-0 to 12-10-3, Exterior(2E) 12-10-3 to 15-10-3 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.
- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
- 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



May 30, 2022

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



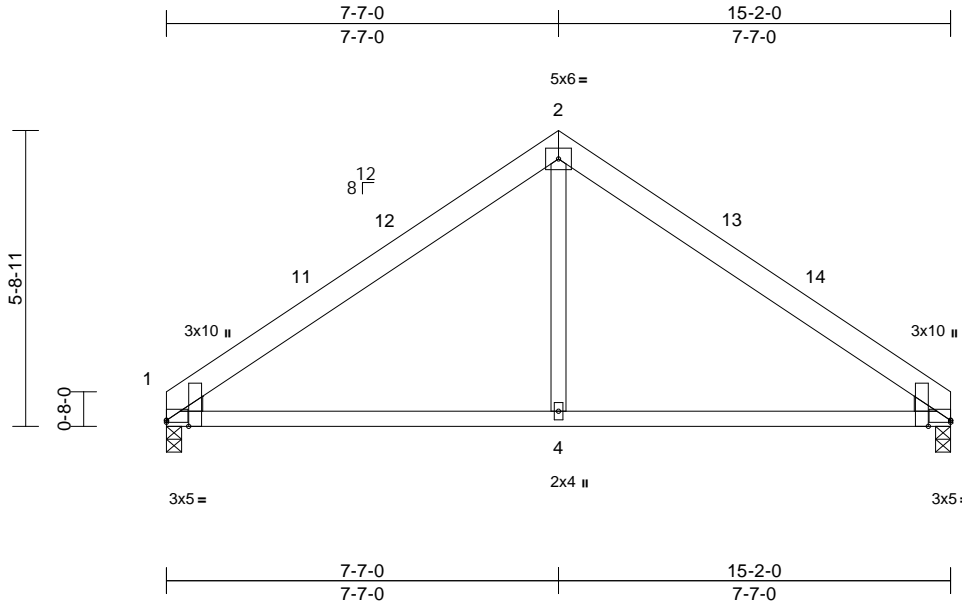
818 Soundside Road
 Edenton, NC 27932

Job 22050115	Truss F02	Truss Type Common	Qty 4	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223733
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:26
ID: _PrrQKofHRJ2aiol2vsYryANRa-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:44.6
Plate Offsets (X, Y): [1:Edge,0-0-7], [1:0-1-6,Edge], [3:Edge,0-0-7], [3:0-1-6,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	0.53	Vert(LL)	-0.07	4-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.13	4-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.02	1	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 75 lb	FT = 20%

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

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

REACTIONS (lb/size) 1=607/0-3-8, 3=607/0-3-8
Max Horiz 1=-119 (LC 10)
Max Uplift 1=-51 (LC 14), 3=-51 (LC 15)
Max Grav 1=677 (LC 20), 3=677 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-733/125, 2-3=-733/125
BOT CHORD 1-4=-92/520, 3-4=-51/520
WEBS 2-4=0/311

- 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
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; 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 4-7-0, Exterior(2R) 4-7-0 to 10-7-0, Interior (1) 10-7-0 to 12-2-0, Exterior(2E) 12-2-0 to 15-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



May 30, 2022

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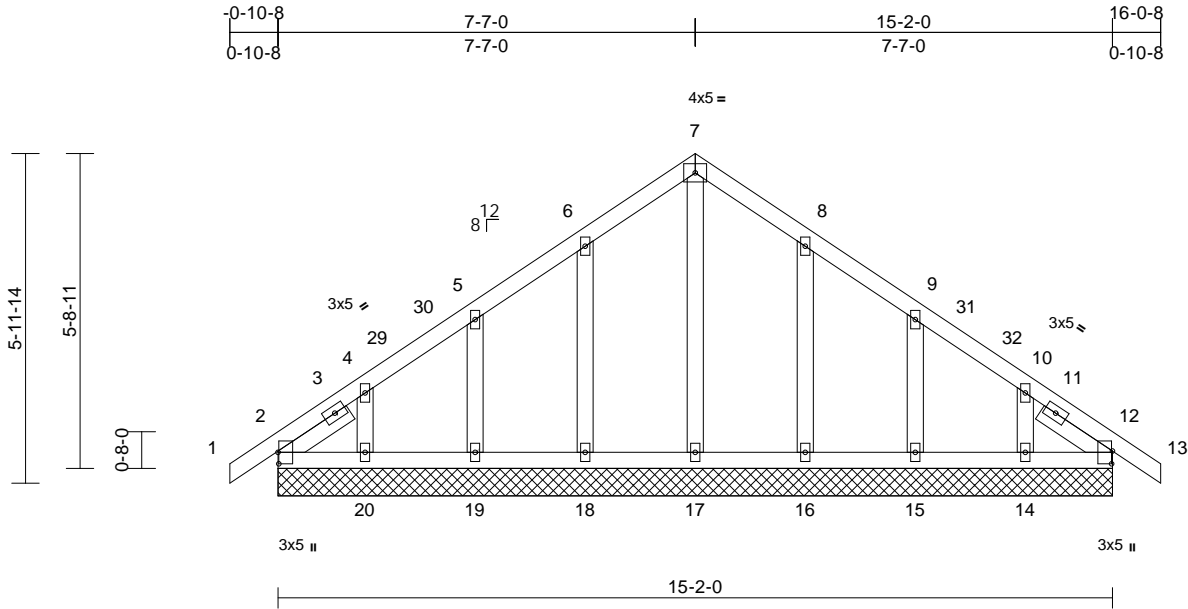
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss F03	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223734
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:27
ID:pZE65TPZE7BTmV9y5J0Hn6yANRU-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:41.9

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 88 lb	FT = 20%	

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

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

REACTIONS (lb/size)
2=127/15-2-0, 12=127/15-2-0, 14=131/15-2-0, 15=158/15-2-0, 16=160/15-2-0, 17=125/15-2-0, 18=160/15-2-0, 19=158/15-2-0, 20=131/15-2-0, 21=127/15-2-0, 25=127/15-2-0
Max Horiz 2=-128 (LC 12), 21=-128 (LC 12)
Max Uplift 2=-34 (LC 10), 12=-2 (LC 11), 14=-71 (LC 15), 15=-55 (LC 15), 16=-58 (LC 15), 18=-59 (LC 14), 19=-54 (LC 14), 20=-78 (LC 14), 21=-34 (LC 10), 25=-2 (LC 11)
Max Grav 2=139 (LC 25), 12=129 (LC 22), 14=150 (LC 25), 15=219 (LC 22), 16=251 (LC 22), 17=146 (LC 27), 18=251 (LC 21), 19=219 (LC 21), 20=158 (LC 24), 21=139 (LC 25), 25=129 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/28, 2-4=-105/97, 4-5=-91/72, 5-6=-81/87, 6-7=-82/154, 7-8=-82/154, 8-9=-72/87, 9-10=-58/31, 10-12=-71/49, 12-13=0/28

BOT CHORD 2-20=-41/115, 19-20=-41/115, 18-19=-41/115, 17-18=-41/115, 16-17=-41/115, 15-16=-41/115, 14-15=-41/115, 12-14=-41/115
WEBS 7-17=-108/6, 6-18=-212/99, 5-19=-180/103, 4-20=-117/110, 8-16=-212/99, 9-15=-180/103, 10-14=-111/110

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 4-7-0, Corner(3R) 4-7-0 to 10-7-0, Exterior(2N) 10-7-0 to 13-0-8, Corner(3E) 13-0-8 to 16-0-8 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
- 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 7-16; 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
- 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 2, 2 lb uplift at joint 12, 59 lb uplift at joint 18, 54 lb uplift at joint 19, 78 lb uplift at joint 20, 58 lb uplift at joint 16, 55 lb uplift at joint 15, 71 lb uplift at joint 14, 34 lb uplift at joint 2 and 2 lb uplift at joint 12.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12, 25.
- 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



May 30, 2022

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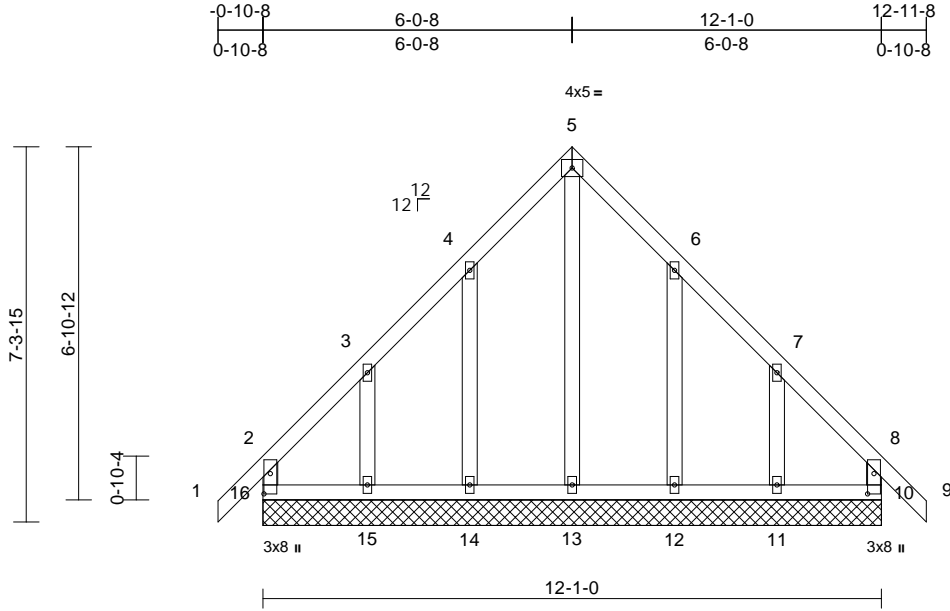
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss H01	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223735
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:27
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Page: 1



Scale = 1:45

Plate Offsets (X, Y): [10:0-4-12,0-1-8], [16:0-4-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 78 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.

REACTIONS

(lb/size)	10=147/12-1-0, 11=146/12-1-0, 12=170/12-1-0, 13=140/12-1-0, 14=170/12-1-0, 15=146/12-1-0, 16=147/12-1-0
Max Horiz	16=-185 (LC 12)
Max Uplift	10=-49 (LC 11), 11=-143 (LC 15), 12=-89 (LC 15), 14=-88 (LC 14), 15=-147 (LC 14), 16=-68 (LC 10)
Max Grav	10=166 (LC 24), 11=198 (LC 25), 12=286 (LC 22), 13=209 (LC 15), 14=286 (LC 21), 15=203 (LC 24), 16=182 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-16=-151/64, 1-2=0/43, 2-3=-125/113, 3-4=-111/122, 4-5=-195/227, 5-6=-195/227, 6-7=-111/122, 7-8=-105/90, 8-9=0/43, 8-10=-137/47
BOT CHORD	15-16=-84/102, 14-15=-84/102, 13-14=-84/102, 12-13=-84/102, 11-12=-84/102, 10-11=-84/102
WEBS	5-13=-253/154, 4-14=-246/125, 3-15=-188/150, 6-12=-246/125, 7-11=-188/150

NOTES

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

- 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) -0-10-8 to 2-0-8, Exterior(2N) 2-0-8 to 3-0-8, Corner(3R) 3-0-8 to 9-0-8, Exterior(2N) 9-0-8 to 9-11-8, Corner(3E) 9-11-8 to 12-11-8 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
- 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 7-16; 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
- 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 16, 49 lb uplift at joint 10, 88 lb uplift at joint 14, 147 lb uplift at joint 15, 89 lb uplift at joint 12 and 143 lb uplift at joint 11.
 - 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



May 30, 2022

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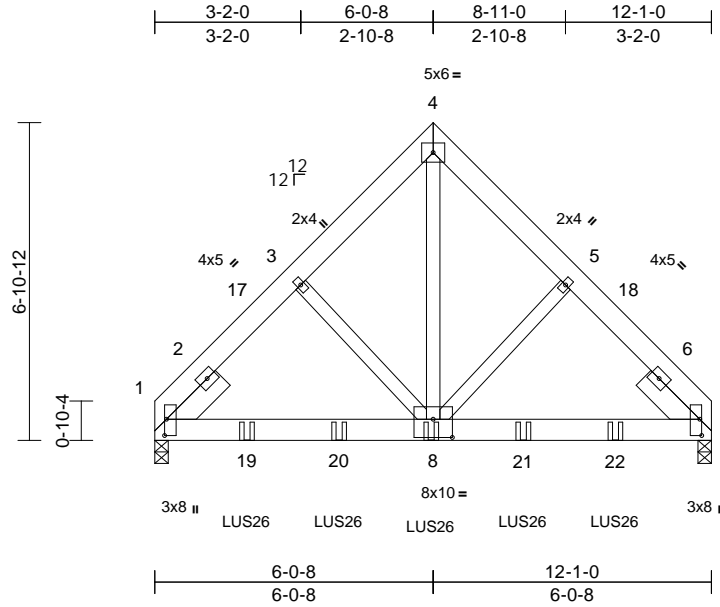
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss H02	Truss Type Common Girder	Qty 1	Ply 2	DRB GROUP - 137 FaNC Job Reference (optional)	152223736
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:27
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Page: 1



Scale = 1:50
Plate Offsets (X, Y): [1:0-4-4,0-0-8], [7:0-4-4,0-0-8], [8:0-5-0,0-4-12]

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	0.25	Vert(LL)	-0.04	8-15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.08	8-15	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.72	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 196 lb	FT = 20%

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

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

REACTIONS (lb/size) 1=2904/0-3-8, 7=2876/0-3-8
Max Horiz 1=-138 (LC 35)
Max Uplift 1=-160 (LC 13), 7=-158 (LC 12)
Max Grav 1=3177 (LC 22), 7=3146 (LC 21)

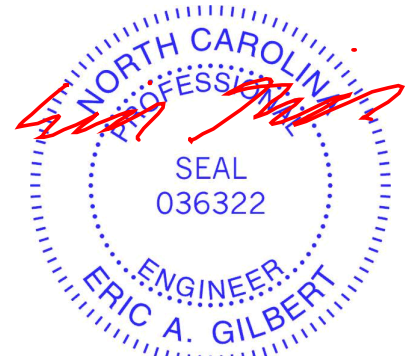
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-3453/196, 3-4=-2791/224, 4-5=-2790/224, 5-7=-3442/195
BOT CHORD 1-8=-155/2179, 7-8=-98/2114
WEBS 4-8=-231/3681, 5-8=-321/141, 3-8=-324/140

- NOTES**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 7. This connection is for uplift only and does not consider lateral forces.
- 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.
- Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 10-0-0 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-60, 4-7=-60, 9-13=-20
Concentrated Loads (lb)

Vert: 8=-967 (B), 19=-967 (B), 20=-967 (B), 21=-967 (B), 22=-967 (B)



May 30, 2022

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ENGINEERING BY
TRENCO
A MiTek Affiliate

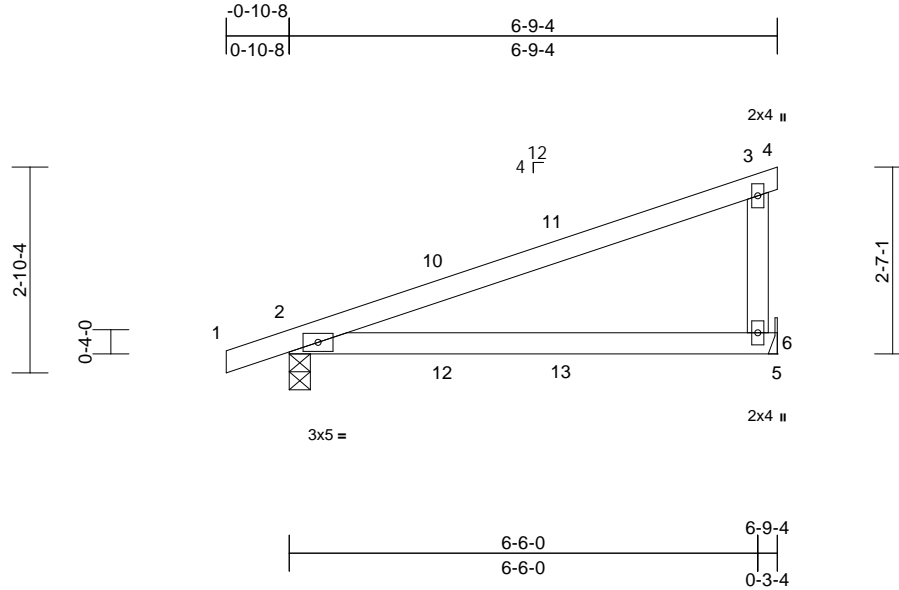
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss M01	Truss Type Monopitch	Qty 4	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223737
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:28
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Page: 1



Scale = 1:32

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)	0.30	6-9	>258	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.25	6-9	>315	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 25 lb	FT = 20%

LUMBER

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

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 (lb/size) 2=316/0-3-8, 6=279/ Mechanical
Max Horiz 2=95 (LC 13)
Max Uplift 2=-125 (LC 10), 6=-105 (LC 10)
Max Grav 2=410 (LC 21), 6=381 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

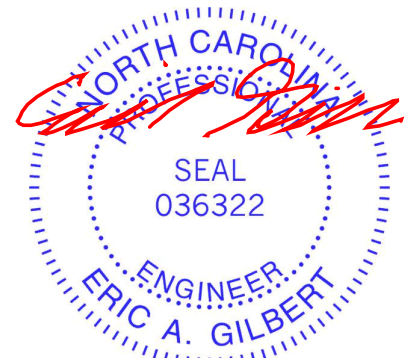
TOP CHORD 1-2=0/17, 2-3=-177/205, 3-4=-8/0,
3-6=-273/208
BOT CHORD 2-6=-210/169, 5-6=0/0

NOTES

- 1) 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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-9-4, Exterior(2E) 3-9-4 to 6-9-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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
- 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 6.
- 9) One H2.5A Simpson Strong-Tie 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.
- 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



May 30, 2022

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

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

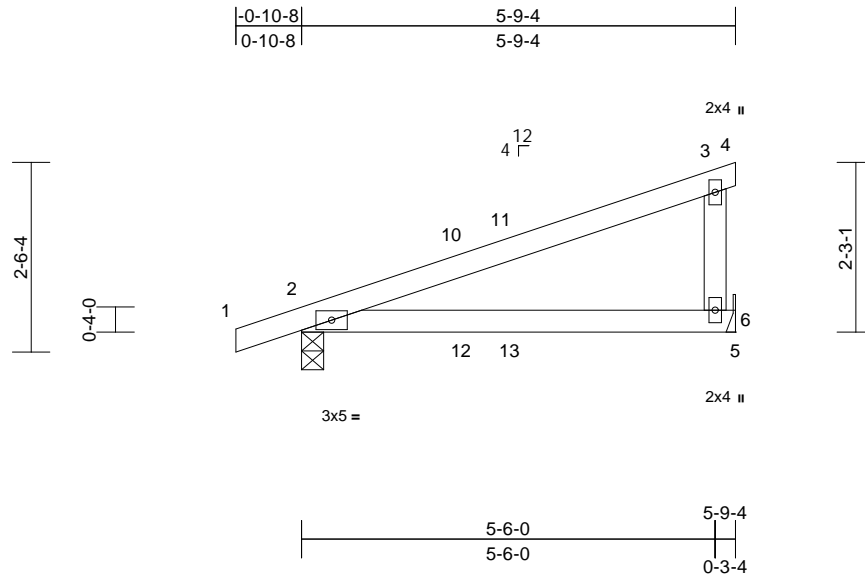
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss M02	Truss Type Monopitch	Qty 5	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	I52223738
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:28
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Page: 1



Scale = 1:30.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	0.16	6-9	>406	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	0.13	6-9	>506	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
												Weight: 22 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 5-9-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 2=276/0-3-8, 6=238/ Mechanical
Max Horiz 2=82 (LC 13)
Max Uplift 2=-111 (LC 10), 6=-89 (LC 10)
Max Grav 2=383 (LC 21), 6=324 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/25, 2-3=-137/176, 3-4=-8/0,
3-6=-232/187
BOT CHORD 2-6=-181/122, 5-6=0/0

NOTES

- 1) 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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 2-9-4, Exterior(2E) 2-9-4 to 5-9-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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
- 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any 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.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 6.
- 9) One H2.5A Simpson Strong-Tie 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.
- 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



May 30, 2022

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



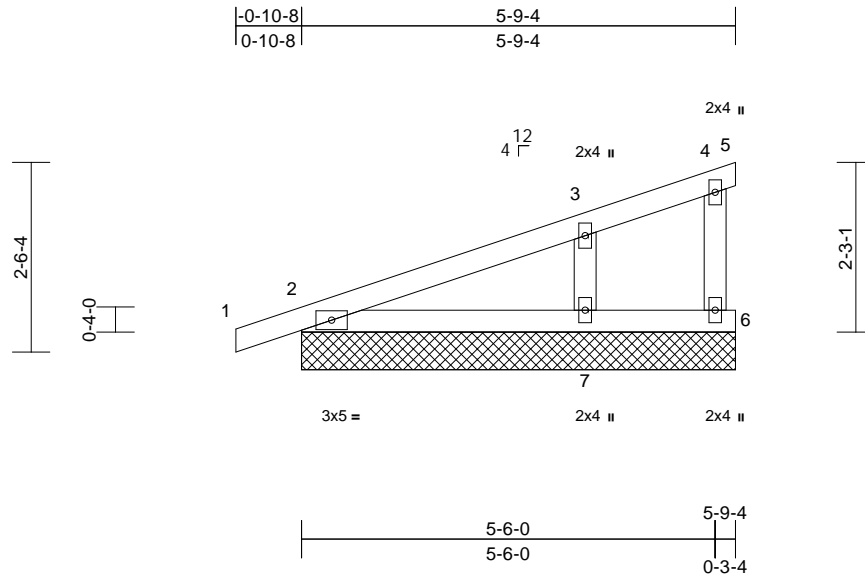
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss M03	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223739
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:28
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Page: 1



Scale = 1:30.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 23 lb	FT = 20%	

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-9-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size)	2=192/5-9-4, 5=46/5-9-4, 6=42/5-9-4, 7=310/5-9-4, 8=192/5-9-4
Max Horiz	2=82 (LC 11), 8=82 (LC 11)
Max Uplift	2=-45 (LC 10), 7=-40 (LC 14), 8=-45 (LC 10)
Max Grav	2=268 (LC 21), 5=58 (LC 21), 6=70 (LC 7), 7=410 (LC 21), 8=268 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/25, 2-3=-78/59, 3-4=-49/25, 4-5=-8/18, 4-6=0/68
BOT CHORD	2-7=-43/50, 6-7=-32/43
WEBS	3-7=-334/271

NOTES

- 1) 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) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 5-9-4 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 3) TCLL: ASCE 7-16; 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) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 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 45 lb uplift at joint 2, 40 lb uplift at joint 7 and 45 lb uplift at joint 2.
- 11) 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



May 30, 2022

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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



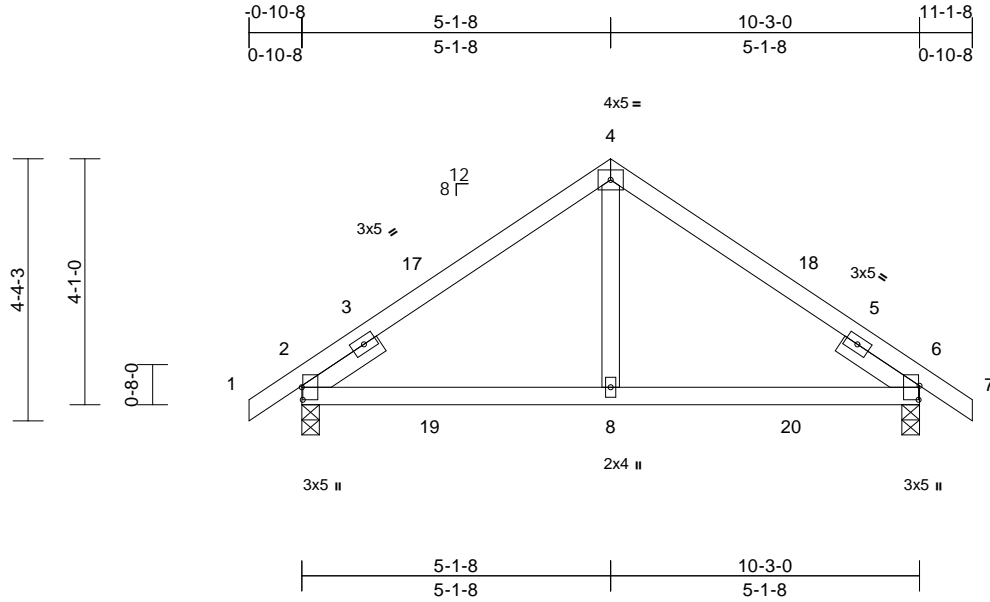
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss N01	Truss Type Common	Qty 5	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223740
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:28
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Page: 1



Scale = 1:38.2
Plate Offsets (X, Y): [2:0-2-8,0-0-3], [6:0-2-13,0-0-3]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.04	8-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.05	8-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/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
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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

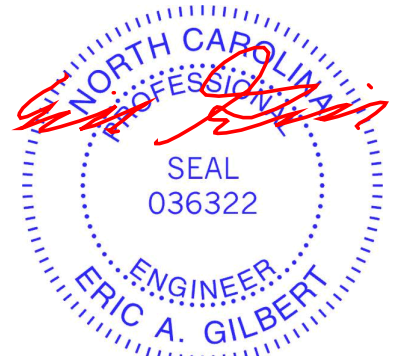
REACTIONS (lb/size) 2=463/0-3-8, 6=463/0-3-8
Max Horiz 2=-94 (LC 12)
Max Uplift 2=-51 (LC 14), 6=-51 (LC 15)
Max Grav 2=566 (LC 21), 6=566 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-4=-453/425, 4-6=-453/425, 6-7=0/29
BOT CHORD 2-8=-230/340, 6-8=-230/340
WEBS 4-8=-302/221

- 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) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 8-1-8, Exterior(2E) 8-1-8 to 11-1-8 zone; cantilever left and right exposed; end vertical left and right exposed; porch 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.
- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
- 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



May 30, 2022

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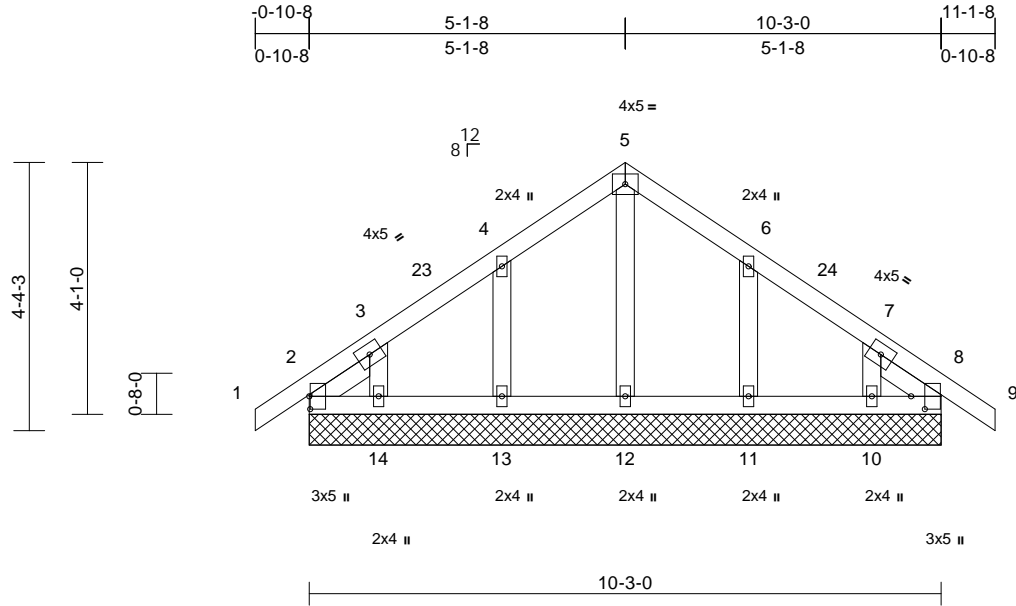
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss N02	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	I52223741
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:29
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Page: 1



Scale = 1:37.4
Plate Offsets (X, Y): [2:0-2-8,0-0-3], [8:0-2-8,0-2-11]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 55 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-2-5, Right 2x4 SP No.3 -- 1-2-5

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

REACTIONS (lb/size) 2=113/10-3-0, 8=113/10-3-0, 10=107/10-3-0, 11=167/10-3-0, 12=122/10-3-0, 13=167/10-3-0, 14=107/10-3-0, 15=113/10-3-0, 19=113/10-3-0
Max Horiz 2=-91 (LC 12), 15=-91 (LC 12)
Max Uplift 2=-27 (LC 10), 8=-3 (LC 11), 10=-58 (LC 15), 11=-61 (LC 15), 13=-62 (LC 14), 14=-63 (LC 14), 15=-27 (LC 10), 19=-3 (LC 11)
Max Grav 2=114 (LC 25), 8=114 (LC 22), 10=169 (LC 22), 11=258 (LC 22), 12=130 (LC 21), 13=258 (LC 21), 14=169 (LC 21), 15=114 (LC 25), 19=114 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/28, 2-3=-45/54, 3-4=-73/51, 4-5=-83/126, 5-6=-83/126, 6-7=-71/40, 7-8=-45/53, 8-9=0/28
BOT CHORD 2-14=-27/101, 13-14=-27/101, 12-13=-27/101, 11-12=-27/101, 10-11=-27/101, 8-10=-27/101
WEBS 5-12=-92/0, 4-13=-218/132, 3-14=-137/122, 6-11=-218/132, 7-10=-137/122

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Corner(3R) 2-1-8 to 8-1-8, Corner(3E) 8-1-8 to 11-1-8 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
- 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 7-16; 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
- 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 2, 3 lb uplift at joint 8, 62 lb uplift at joint 13, 63 lb uplift at joint 14, 61 lb uplift at joint 11, 58 lb uplift at joint 10, 27 lb uplift at joint 2 and 3 lb uplift at joint 8.

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



May 30, 2022

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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



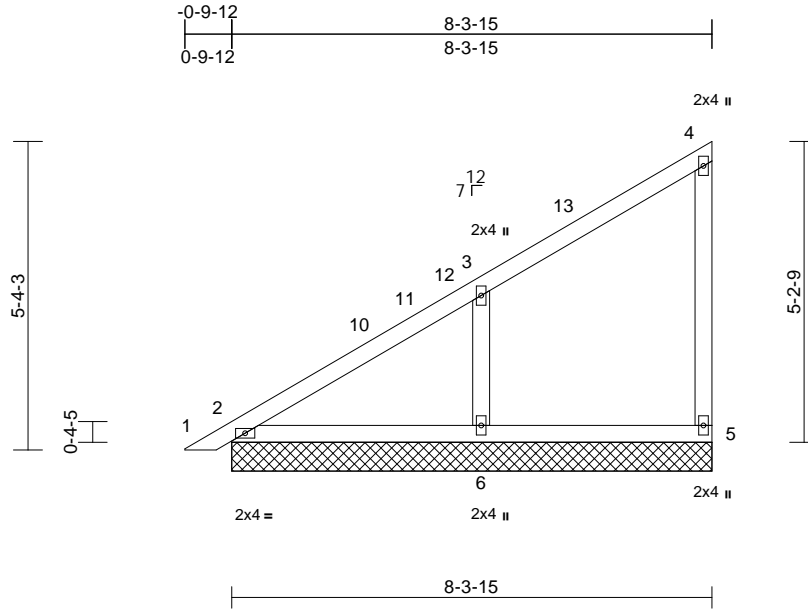
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss PB1	Truss Type Piggyback	Qty 5	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223742
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:29
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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	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 38 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	
(lb/size)	2=169/8-3-15, 5=111/8-3-15, 6=407/8-3-15, 7=169/8-3-15
Max Horiz	2=177 (LC 13), 7=177 (LC 13)
Max Uplift	5=-26 (LC 11), 6=-117 (LC 14)
Max Grav	2=172 (LC 25), 5=174 (LC 21), 6=538 (LC 21), 7=172 (LC 25)

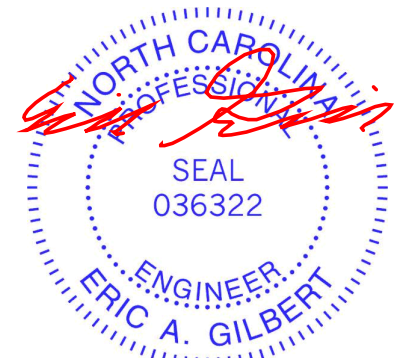
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/16, 2-3=-137/121, 3-4=-122/64, 4-5=-149/45
BOT CHORD	2-6=-79/86, 5-6=-79/86
WEBS	3-6=-423/192

- NOTES**
- 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) 0-3-11 to 3-3-11, Interior (1) 3-3-11 to 4-9-7, Exterior(2R) 4-9-7 to 9-0-5 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
 - 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 7-16; 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
- 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- N/A

- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



May 30, 2022

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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



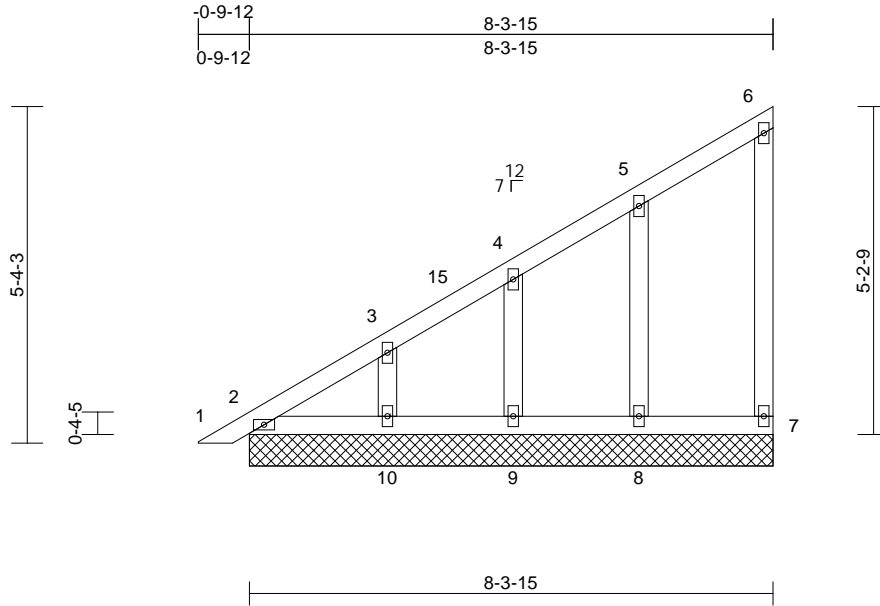
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss PB2	Truss Type Piggyback	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223743
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:29
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Page: 1



Scale = 1:36.6

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 45 lb	FT = 20%

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

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

REACTIONS (lb/size)
2=104/8-3-15, 7=61/8-3-15,
8=175/8-3-15, 9=144/8-3-15,
10=181/8-3-15, 11=104/8-3-15
Max Horiz 2=171 (LC 13), 11=171 (LC 13)
Max Uplift 2=-10 (LC 10), 7=-23 (LC 11),
8=-36 (LC 14), 9=-48 (LC 14),
10=-59 (LC 14), 11=-10 (LC 10)
Max Grav 2=123 (LC 25), 7=90 (LC 21),
8=259 (LC 21), 9=210 (LC 21),
10=191 (LC 24), 11=123 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-140/97, 3-4=-114/76,
4-5=-99/64, 5-6=-89/78, 6-7=-75/32
BOT CHORD 2-10=-76/83, 9-10=-76/83, 8-9=-76/83,
7-8=-76/83
WEBS 3-10=-133/76, 4-9=-177/74, 5-8=-215/95

NOTES
1) 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) 0-3-11 to 3-0-8, Interior (1)
3-0-8 to 4-9-7, Exterior(2R) 4-9-7 to 9-0-5 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

- 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 7-16; 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
- 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- N/A

- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



May 30, 2022

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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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TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

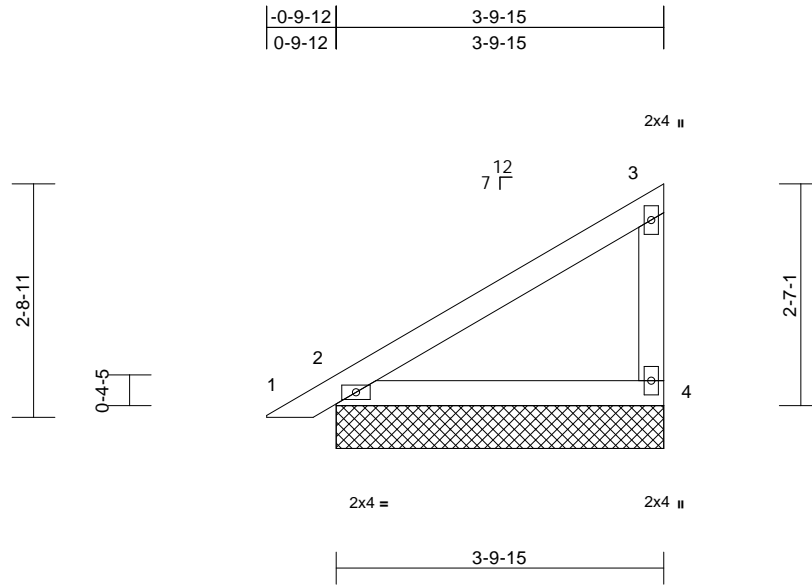
Job 22050115	Truss PB3	Truss Type Piggyback	Qty 7	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223744
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:29

Page: 1

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Scale = 1:26.9

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/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 4-8-1 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 2=182/3-9-15, 4=148/3-9-15, 5=182/3-9-15
 Max Horiz 2=83 (LC 13), 5=83 (LC 13)
 Max Uplift 2=-23 (LC 14), 4=-33 (LC 14), 5=-23 (LC 14)
 Max Grav 2=268 (LC 21), 4=212 (LC 21), 5=268 (LC 21)

FORCES

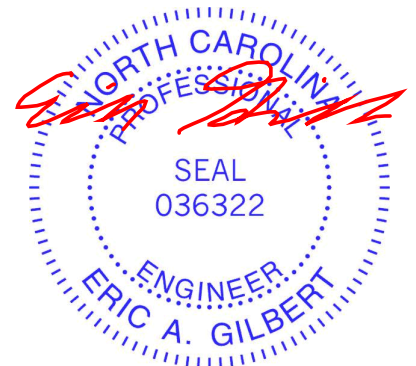
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/26, 2-3=-65/59, 3-4=-148/53
 BOT CHORD 2-4=-41/53

NOTES

- 1) 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) 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; 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) 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) N/A
- 11) 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.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



May 30, 2022

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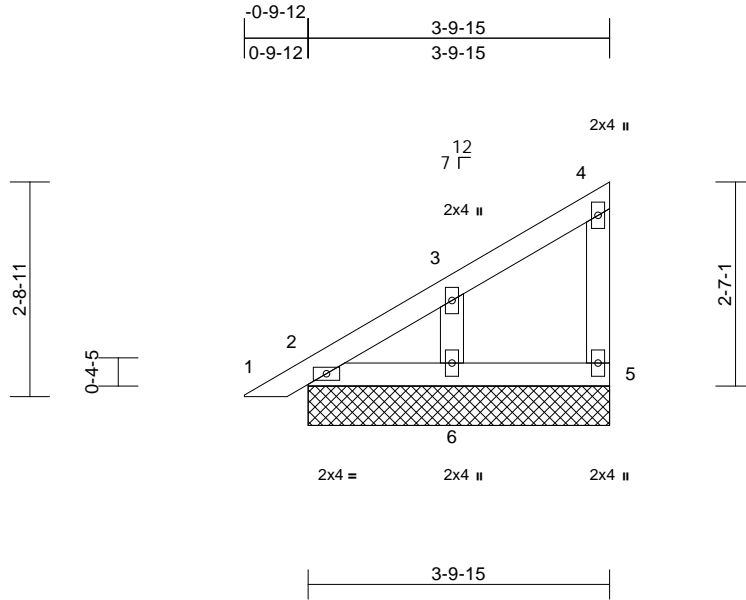
818 Soundside Road
 Edenton, NC 27932

Job 22050115	Truss PB4	Truss Type Piggyback	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223745
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:30
ID:NpSnLzi?5zbyGIX7FcheXAZU9vX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:29.3

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 18 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 4-8-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=93/3-9-15, 5=57/3-9-15, 6=176/3-9-15, 7=93/3-9-15
Max Horiz 2=83 (LC 13), 7=83 (LC 13)
Max Uplift 5=-12 (LC 11), 6=-56 (LC 14)
Max Grav 2=140 (LC 21), 5=83 (LC 21), 6=253 (LC 21), 7=140 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-60/52, 3-4=-56/29, 4-5=-70/21
BOT CHORD 2-6=-38/41, 5-6=-38/41
WEBS 3-6=-198/108

- NOTES**
- 1) 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) 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
 - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 3) TCLL: ASCE 7-16; 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) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 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) N/A
- 11) 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.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



May 30, 2022

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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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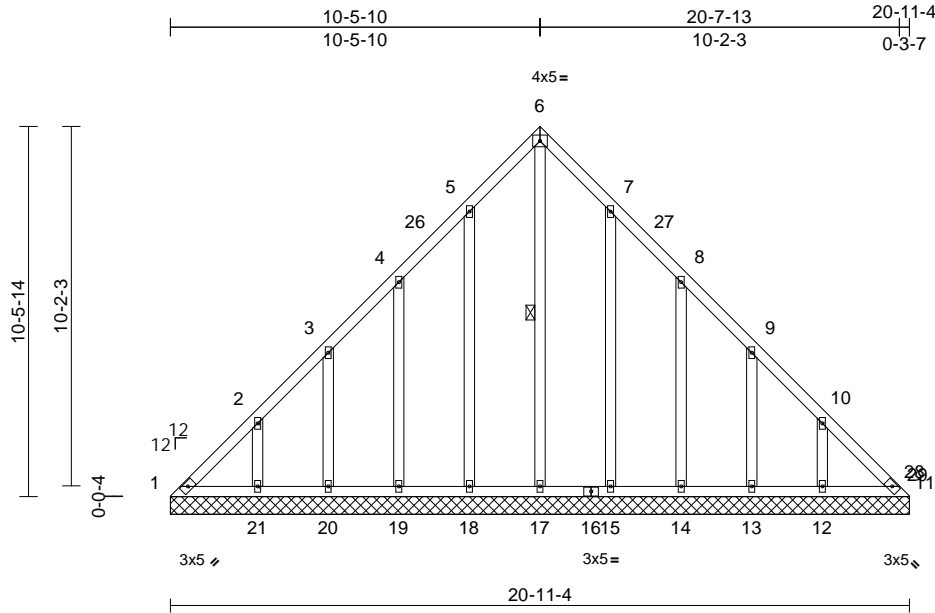
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss V1	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223746
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:30
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Page: 1



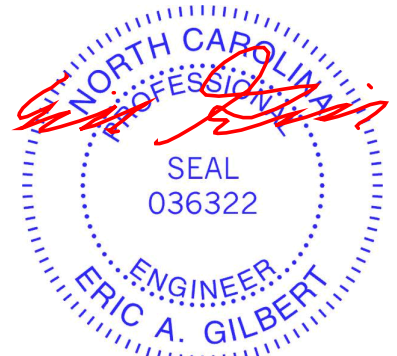
Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horiz(TL)	0.01	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 147 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.
WEBS	1 Row at midpt 6-17
REACTIONS (lb/size)	
	1=84/20-11-4, 11=66/20-11-4, 12=202/20-11-4, 13=141/20-11-4, 14=158/20-11-4, 15=160/20-11-4, 17=131/20-11-4, 18=160/20-11-4, 19=158/20-11-4, 20=140/20-11-4, 21=204/20-11-4
Max Horiz	1=233 (LC 11)
Max Uplift	1=-76 (LC 12), 11=-33 (LC 13), 12=-75 (LC 15), 13=-101 (LC 15), 14=-99 (LC 15), 15=-90 (LC 15), 18=-93 (LC 14), 19=-98 (LC 14), 20=-98 (LC 14), 21=-85 (LC 14)
Max Grav	1=174 (LC 14), 11=145 (LC 15), 12=209 (LC 28), 13=163 (LC 24), 14=206 (LC 21), 15=271 (LC 21), 17=224 (LC 15), 18=271 (LC 20), 19=206 (LC 20), 20=160 (LC 23), 21=221 (LC 27)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-284/201, 2-3=-191/158, 3-4=-125/124, 4-5=-104/137, 5-6=-120/185, 6-7=-120/168, 7-8=-89/95, 8-9=-79/64, 9-10=-151/99, 10-11=-241/138

BOT CHORD	
	1-21=-100/208, 20-21=-100/208, 19-20=-100/208, 18-19=-100/208, 17-18=-100/208, 15-17=-100/208, 14-15=-100/208, 13-14=-100/208, 12-13=-100/208, 11-12=-100/208
WEBS	
	6-17=-201/72, 5-18=-233/116, 4-19=-165/122, 3-20=-131/120, 2-21=-151/111, 7-15=-233/113, 8-14=-165/123, 9-13=-132/121, 10-12=-146/107

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - 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) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 7-5-14, Exterior(2R) 7-5-14 to 13-5-14, Interior (1) 13-5-14 to 17-7-8, Exterior(2E) 17-7-8 to 20-7-8 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
 - 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 7-16; 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
 - Unbalanced snow loads have been considered for this design.
 - 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 1, 33 lb uplift at joint 11, 93 lb uplift at joint 18, 98 lb uplift at joint 19, 98 lb uplift at joint 20, 85 lb uplift at joint 21, 90 lb uplift at joint 15, 99 lb uplift at joint 14, 101 lb uplift at joint 13 and 75 lb uplift at joint 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



May 30, 2022

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/TPI Quality Criteria, DSB-89 and BCSI Building Component

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



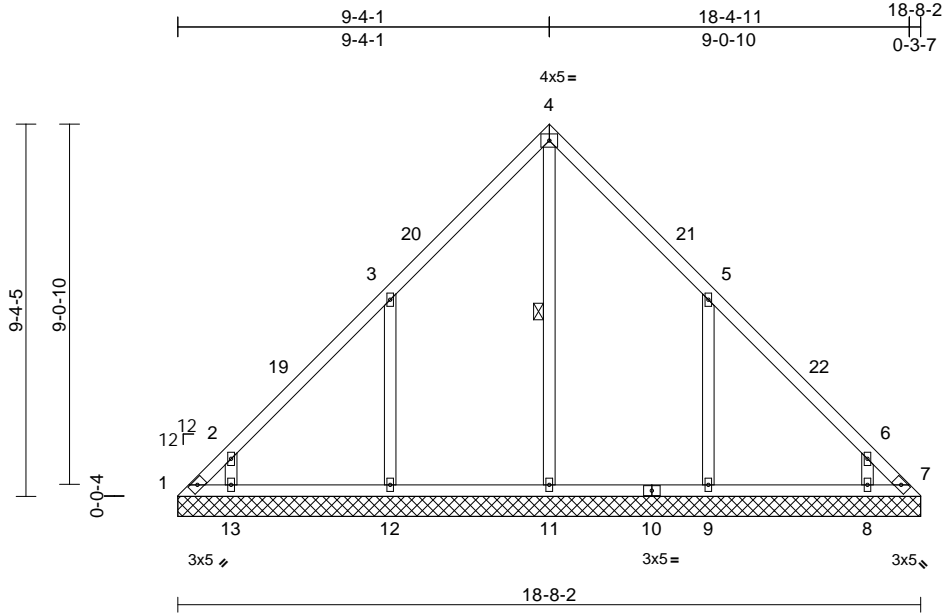
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss V2	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	I52223747
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:30
ID:FCI?pxxn89YJc3TpfArLRQzPyyz-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



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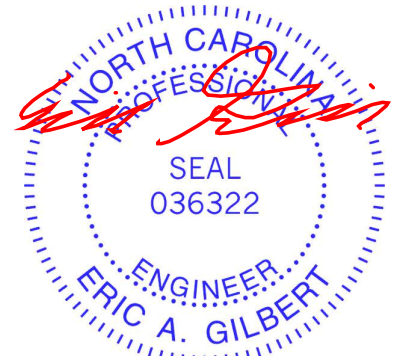
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 95 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.
	WEBS	1 Row at midpt 4-11
REACTIONS	(lb/size)	1=24/18-8-2, 7=0/18-8-2, 8=271/18-8-2, 9=344/18-8-2, 11=211/18-8-2, 12=344/18-8-2, 13=274/18-8-2, 18=0/18-8-2
	Max Horiz	1=215 (LC 11)
	Max Uplift	1=-147 (LC 12), 7=-1 (LC 15), 8=-32 (LC 15), 9=-255 (LC 15), 11=-33 (LC 13), 12=-224 (LC 14), 13=-126 (LC 14), 18=-1 (LC 15)
	Max Grav	1=173 (LC 11), 7=0 (LC 13), 8=289 (LC 24), 9=498 (LC 24), 11=483 (LC 26), 12=487 (LC 5), 13=326 (LC 23), 18=0 (LC 13)
FORCES	(lb) - Maximum Compression/Maximum Tension	
	TOP CHORD	1-2=-284/250, 2-3=-272/219, 3-4=-233/314, 4-5=-222/281, 5-6=-137/64, 6-7=-126/56
	BOT CHORD	1-13=-59/91, 12-13=-24/80, 11-12=-24/80, 9-11=-24/80, 8-9=-24/80, 7-8=-24/80
	WEBS	4-11=-339/122, 3-12=-389/270, 2-13=-240/221, 5-9=-387/282, 6-8=-228/189

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

- 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) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 6-4-5, Exterior(2R) 6-4-5 to 12-4-5, Interior (1) 12-4-5 to 15-8-6, Exterior(2E) 15-8-6 to 18-8-6 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
- 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 7-16; 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
- Unbalanced snow loads have been considered for this design.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 147 lb uplift at joint 1, 1 lb uplift at joint 7, 33 lb uplift at joint 11, 224 lb uplift at joint 12, 126 lb uplift at joint 13, 255 lb uplift at joint 9, 32 lb uplift at joint 8 and 1 lb uplift at joint 7.
- 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



May 30, 2022

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 ANSITPI 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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TRENCO
A MiTek Affiliate

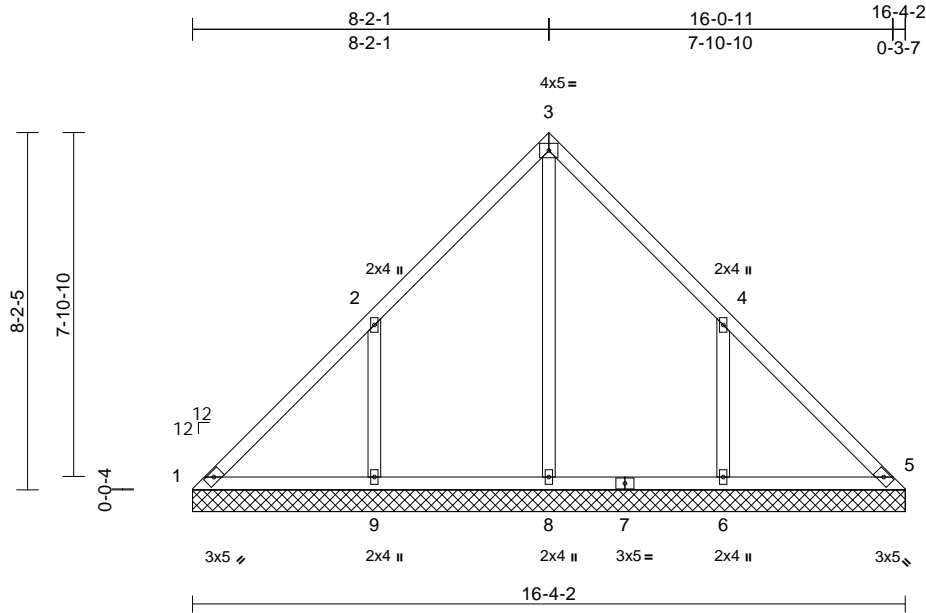
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss V3	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223748
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:30
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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	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 79 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 (lb/size)
1=27/16-4-2, 5=0/16-4-2, 6=377/16-4-2, 8=502/16-4-2, 9=375/16-4-2, 14=0/16-4-2
Max Horiz 1=187 (LC 11)
Max Uplift 1=-102 (LC 10), 5=-1 (LC 15), 6=-226 (LC 15), 9=-233 (LC 14), 14=-1 (LC 15)
Max Grav 1=122 (LC 13), 5=1 (LC 24), 6=517 (LC 24), 8=688 (LC 26), 9=517 (LC 23), 14=1 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-158/381, 2-3=-77/336, 3-4=-76/309, 4-5=-165/262
BOT CHORD 1-9=-148/77, 8-9=-148/77, 6-8=-148/77, 5-6=-148/77
WEBS 3-8=-492/0, 2-9=-397/264, 4-6=-398/261

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

- 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) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 5-2-5, Exterior(2R) 5-2-5 to 11-2-5, Interior (1) 11-2-5 to 13-4-6, Exterior(2E) 13-4-6 to 16-4-6 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
- 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 7-16; 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
- 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 1, 1 lb uplift at joint 5, 233 lb uplift at joint 9, 226 lb uplift at joint 6 and 1 lb uplift at joint 5.
- 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



May 30, 2022

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

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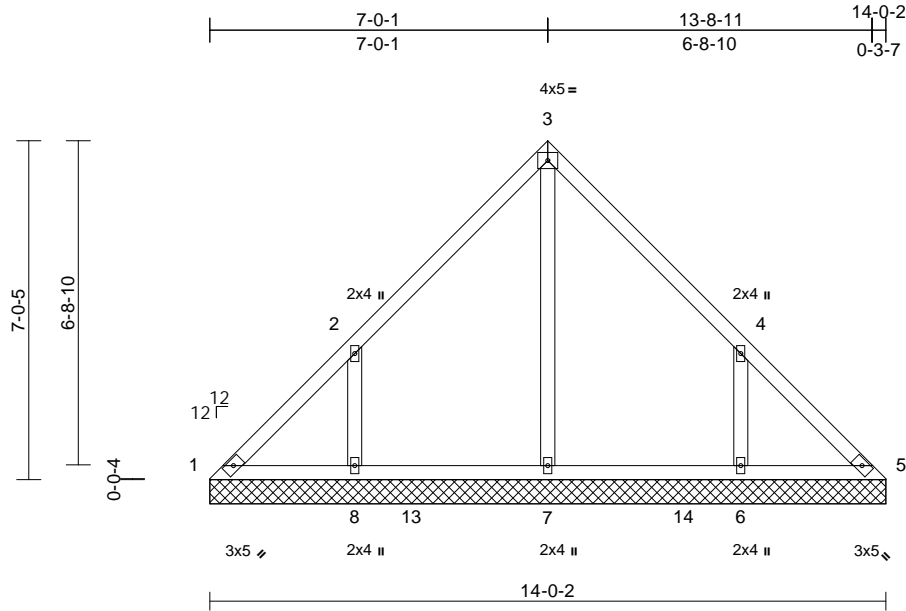
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss V4	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223749
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:31
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Page: 1



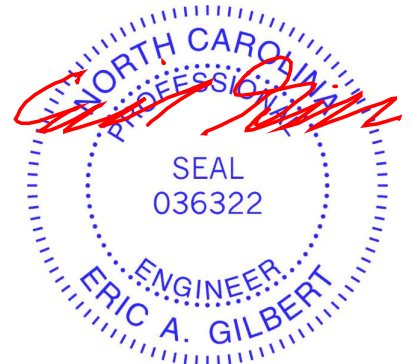
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 66 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 (lb/size)	
	1=99/14-0-2, 5=99/14-0-2, 6=329/14-0-2, 7=264/14-0-2, 8=329/14-0-2
Max Horiz	1=-160 (LC 10)
Max Uplift	1=-40 (LC 10), 5=-3 (LC 11), 6=-191 (LC 15), 8=-196 (LC 14)
Max Grav	1=143 (LC 24), 5=116 (LC 23), 6=460 (LC 21), 7=385 (LC 23), 8=460 (LC 20)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-164/148, 2-3=-221/131, 3-4=-221/112, 4-5=-142/105
BOT CHORD	1-8=-85/128, 7-8=-85/127, 6-7=-85/127, 5-6=-85/127
WEBS	3-7=-198/0, 2-8=-385/237, 4-6=-385/235

- 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 7-16; 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
- 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 1, 3 lb uplift at joint 5, 196 lb uplift at joint 8 and 191 lb uplift at joint 6.
- 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

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - 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) 0-0-4 to 3-0-5, Interior (1) 3-0-5 to 4-0-5, Exterior(2R) 4-0-5 to 10-0-5, Interior (1) 10-0-5 to 11-0-5, Exterior(2E) 11-0-5 to 14-0-6 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



May 30, 2022

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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



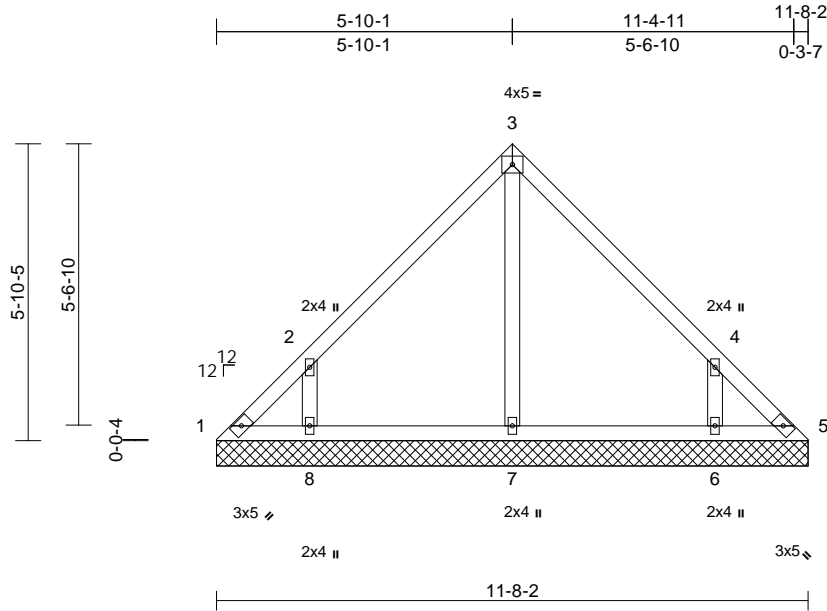
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss V5	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223750
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:45.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 52 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

(lb/size) 1=59/11-8-2, 5=59/11-8-2,
6=298/11-8-2, 7=220/11-8-2,
8=298/11-8-2
Max Horiz 1=-133 (LC 10)
Max Uplift 1=-50 (LC 12), 5=-18 (LC 13),
6=-170 (LC 15), 8=-175 (LC 14)
Max Grav 1=105 (LC 28), 5=85 (LC 26),
6=450 (LC 21), 7=240 (LC 20),
8=450 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-159/124, 2-3=-254/117, 3-4=-254/103,
4-5=-134/87
BOT CHORD 1-8=-45/94, 7-8=-41/94, 6-7=-41/94,
5-6=-41/94
WEBS 3-7=-152/0, 2-8=-424/244, 4-6=-424/242

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) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 8-8-6, Exterior(2E) 8-8-6 to 11-8-6 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 50 lb uplift at joint 1, 18 lb uplift at joint 5, 175 lb uplift at joint 8 and 170 lb uplift at joint 6.
- 11) 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



May 30, 2022

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



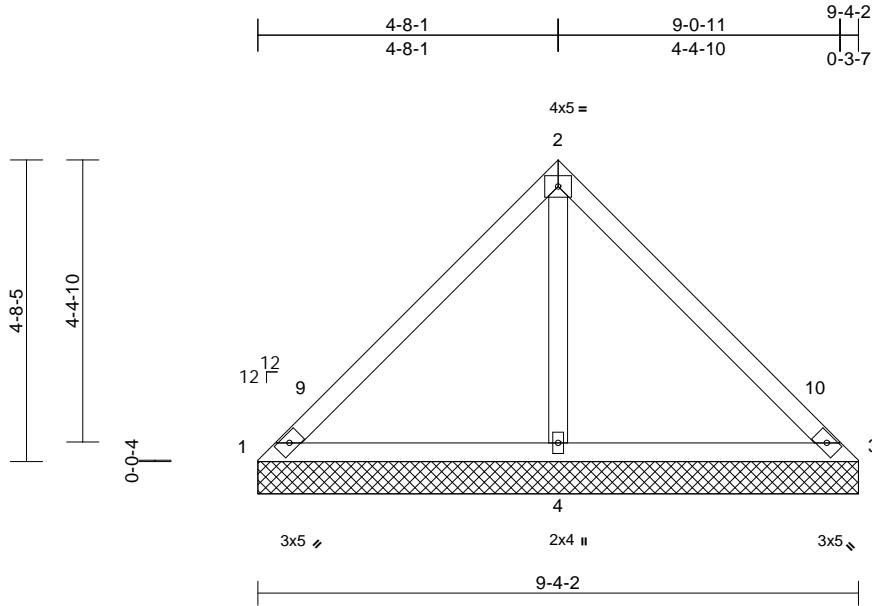
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss V6	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223751
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:31
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Page: 1



Scale = 1:35.8

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	0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.42	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	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 9-4-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(lb/size) 1=39/9-4-2, 3=39/9-4-2, 4=669/9-4-2
Max Horiz 1=-105 (LC 12)
Max Uplift 1=-36 (LC 21), 3=-36 (LC 20), 4=-135 (LC 14)
Max Grav 1=100 (LC 20), 3=100 (LC 21), 4=733 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

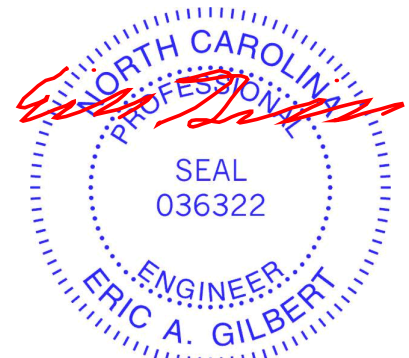
TOP CHORD 1-2=-104/339, 2-3=-102/339
BOT CHORD 1-4=-225/139, 3-4=-225/139
WEBS 2-4=-557/192

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) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 6-4-6, Exterior(2E) 6-4-6 to 9-4-6 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 36 lb uplift at joint 1, 36 lb uplift at joint 3 and 135 lb uplift at joint 4.
- 11) 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



May 30, 2022

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

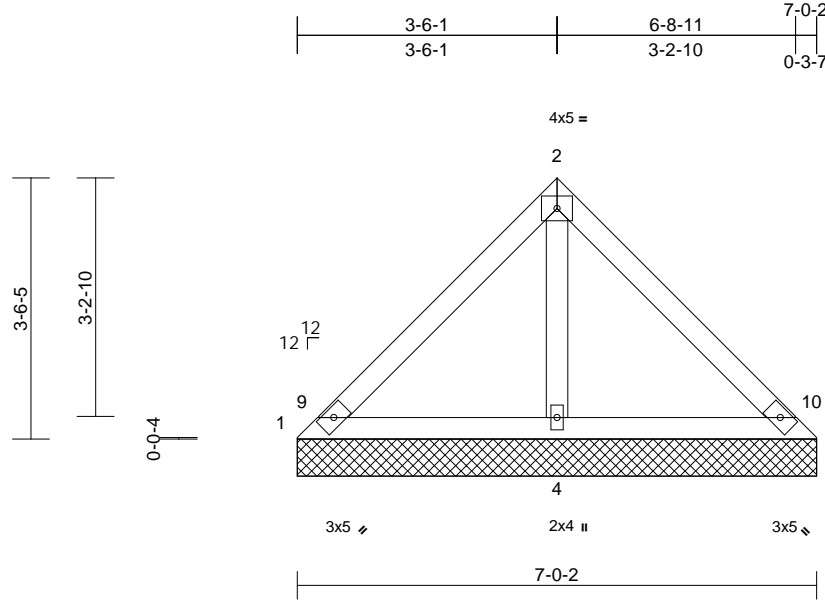
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss V7	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223752
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Carter Components (Sanford), Sanford, NC - 27332,

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Scale = 1:31.1

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	0.25	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	0.09	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 28 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 7-0-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 1=45/7-0-2, 3=45/7-0-2, 4=471/7-0-2
Max Horiz 1=78 (LC 11)
Max Uplift 1=-12 (LC 21), 3=-12 (LC 20), 4=-92 (LC 14)
Max Grav 1=98 (LC 20), 3=98 (LC 21), 4=511 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-72/206, 2-3=-72/206
BOT CHORD 1-4=-166/109, 3-4=-166/109
WEBS 2-4=-359/124

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) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 4-0-6, Exterior(2E) 4-0-6 to 7-0-6 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 12 lb uplift at joint 1, 12 lb uplift at joint 3 and 92 lb uplift at joint 4.
- 11) 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



May 30, 2022

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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



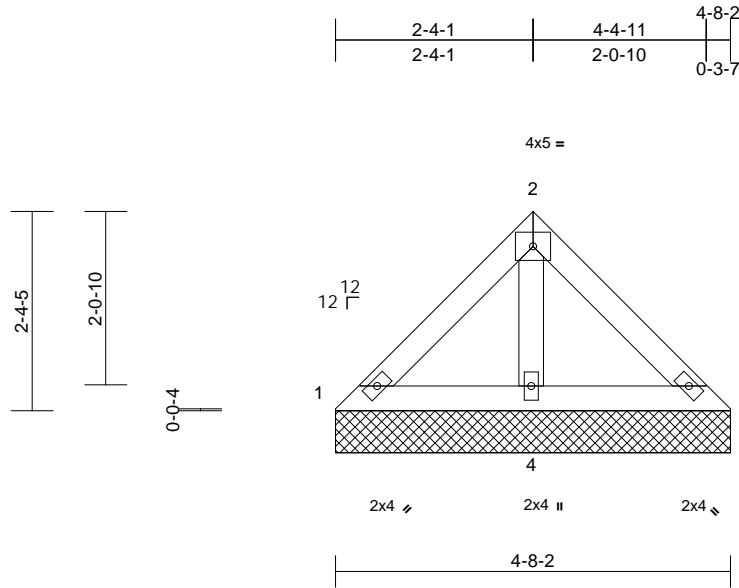
818 Soundside Road
Edenton, NC 27932

Job 22050115	Truss V8	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 137 FaNC Job Reference (optional)	152223753
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Fri May 27 11:41:32
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Page: 1



Scale = 1:27.3

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	0.08	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	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 18 lb	FT = 20%	

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(lb/size) 1=50/4-8-2, 3=53/4-8-2, 4=271/4-8-2
Max Horiz 1=51 (LC 13)
Max Uplift 3=-1 (LC 15), 4=-41 (LC 14)
Max Grav 1=89 (LC 20), 3=92 (LC 21), 4=282 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-76/94, 2-3=-80/92
BOT CHORD 1-4=-82/59, 3-4=-80/58
WEBS 2-4=-171/48

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) 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 1 lb uplift at joint 3 and 41 lb uplift at joint 4.
- 11) 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



May 30, 2022

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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

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/TFP1: 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: Mill-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.