

RE: 22030208  
 DRB GROUP - 117 FARM AT NEILLS CREEK

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: 22030208  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.5  
 Wind Code: ASCE 7-16 Wind Speed: 130 mph  
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 33 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I50445636	A01	2/26/2022	21	I50445656	J03	2/26/2022
2	I50445637	A02	2/26/2022	22	I50445657	PB1	2/26/2022
3	I50445638	B01	2/26/2022	23	I50445658	PB2	2/26/2022
4	I50445639	B02	2/26/2022	24	I50445659	PB3	2/26/2022
5	I50445640	B03	2/26/2022	25	I50445660	PB4	2/26/2022
6	I50445641	C01	2/26/2022	26	I50445661	PB5	2/26/2022
7	I50445642	C02	2/26/2022	27	I50445662	PB6	2/26/2022
8	I50445643	D01	2/26/2022	28	I50445663	V1	2/26/2022
9	I50445644	D02	2/26/2022	29	I50445664	V2	2/26/2022
10	I50445645	E01	2/26/2022	30	I50445665	V3	2/26/2022
11	I50445646	E02	2/26/2022	31	I50445666	V4	2/26/2022
12	I50445647	G01	2/26/2022	32	I50445667	V5	2/26/2022
13	I50445648	G02	2/26/2022	33	I50445668	V6	2/26/2022
14	I50445649	G03	2/26/2022				
15	I50445650	H01	2/26/2022				
16	I50445651	H02	2/26/2022				
17	I50445652	H03	2/26/2022				
18	I50445653	H04	2/26/2022				
19	I50445654	J01	2/26/2022				
20	I50445655	J02	2/26/2022				

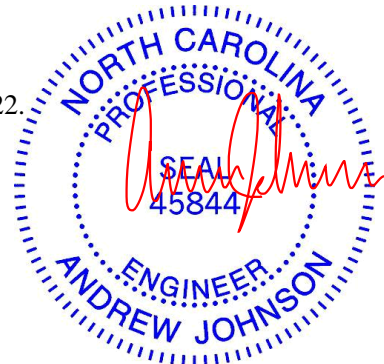
The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC)).

Truss Design Engineer's Name: Johnson, Andrew

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

North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.



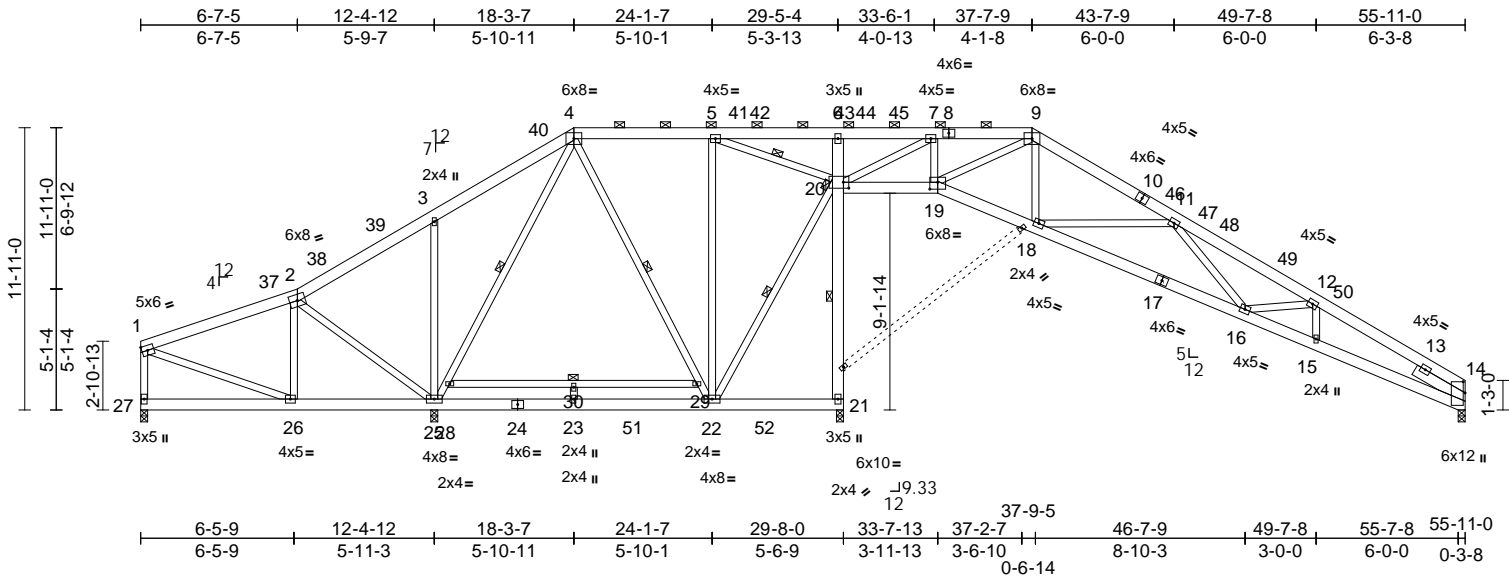
February 26, 2022

Job 22030208	Truss A01	Truss Type Piggyback Base	Qty 7	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK Job Reference (optional)	I50445636
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:97.3  
Plate Offsets (X, Y): [14:0-5-11,0-0-15], [19:0-4-0,0-3-8], [20:0-2-12,0-3-0]

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	0.62	Vert(LL)	-0.19	16-18	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.34	16-18	>945	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.09	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 502 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\* 17-14:2x6 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\* 25-4,22-5,22-4,28-29,20-22:2x4 SP No.2  
SLIDER Right 2x6 SP No.2 -- 2-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-2-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-9.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:  
4-10-0 oc bracing: 20-21  
WEBS 1 Row at midpt 4-25, 4-22, 28-29, 20-22, 5-20

**JOINTS**  
1 Brace at Jt(s): 20

**REACTIONS** (lb/size)  
14=929/0-3-8, 21=2018/0-3-8, 25=1398/0-3-8, 27=317/0-3-8  
Max Horiz 27=272 (LC 11)  
Max Uplift 14=194 (LC 15), 25=80 (LC 14), 27=103 (LC 10)  
Max Grav 14=1150 (LC 52), 21=2265 (LC 47), 25=1651 (LC 34), 27=453 (LC 43)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=261/121, 2-3=74/390, 3-4=26/403, 4-5=174/289, 5-6=69/1607, 6-7=75/1585, 7-9=515/180, 9-11=1538/358, 11-12=3161/683, 12-14=2984/710, 1-27=381/143

**BOT CHORD** 26-27=-247/192, 25-26=-164/195, 23-25=-115/203, 22-23=-115/203, 21-22=-14/0, 20-21=-2229/126, 6-20=-389/110, 19-20=-86/613, 18-19=0/1273, 16-18=-394/2711, 15-16=-535/2751, 14-15=-529/2598

**WEBS** 1-26=-78/138, 2-26=-11/150, 2-25=-426/205, 3-25=-669/259, 7-20=-2139/290, 7-19=-35/1033, 9-19=-1005/208, 9-18=-120/922, 11-18=-1311/420, 25-28=-539/59, 4-28=-517/72, 5-22=-29/629, 4-29=-87/132, 22-29=-109/105, 28-30=-20/0, 29-30=20/0, 23-30=0/46, 20-22=-165/409, 5-20=-1704/391, 11-16=-19/559, 12-16=0/296, 12-15=-351/72

**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) 5-7-0 to 11-2-2, Interior (1) 11-2-2 to 17-10-0, Exterior(2R) 17-10-0 to 29-6-11, Interior (1) 29-6-11 to 37-5-12, Exterior(2R) 37-5-12 to 48-7-15, Interior (1) 48-7-15 to 55-9-2, Exterior(2E) 55-9-2 to 61-4-4 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) 200.0lb AC unit load placed on the bottom chord, 18-3-8 from left end, supported at two points, 5-0-0 apart.

- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- 10) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 27, 25, and 14. This connection is for uplift only and does not consider lateral forces.
- 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.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 26, 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



Job 22030208	Truss A01	Truss Type Piggyback Base	Qty 7	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK I50445636 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 2

**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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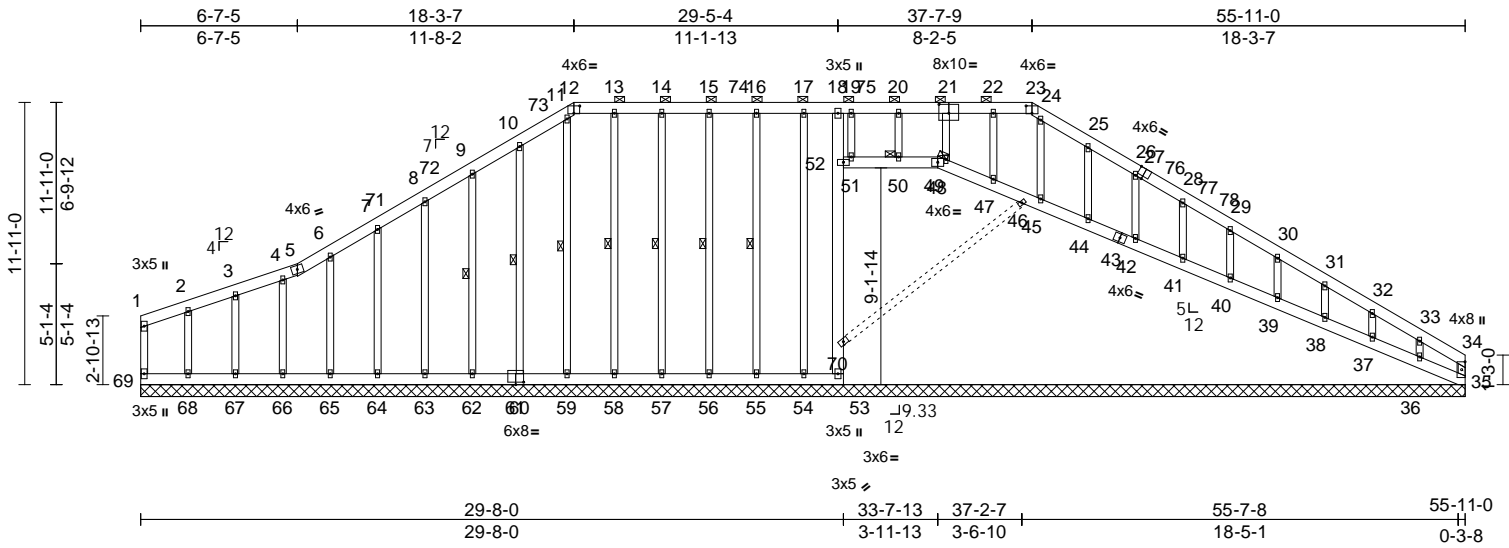
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss A02	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK Job Reference (optional)	150445637
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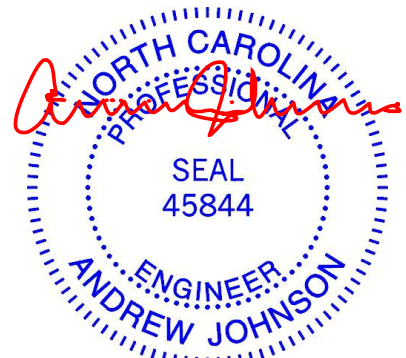


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Plate Offsets (X, Y): [12:0-3-0,0-3-12], [21:0-5-0,0-4-8], [23:0-3-0,0-3-12], [27:0-3-0,Edge], [61:0-4-0,0-1-4]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.43	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horiz(TL)	-0.04	35	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 532 lb	FT = 20%

LUMBER		Max Uplift	35=-68 (LC 11), 36=-136 (LC 15), 37=-31 (LC 15), 38=-53 (LC 15), 39=-48 (LC 15), 40=-49 (LC 15), 41=-48 (LC 15), 42=-50 (LC 15), 44=-59 (LC 15), 45=-594 (LC 39), 46=-421 (LC 11), 52=-109 (LC 11), 53=-147 (LC 13), 54=-140 (LC 10), 55=-50 (LC 11), 56=-33 (LC 10), 57=-31 (LC 11), 58=-12 (LC 10), 60=-42 (LC 14), 62=-55 (LC 14), 63=-49 (LC 14), 64=-48 (LC 14), 65=-51 (LC 14), 66=-46 (LC 14), 67=-48 (LC 10), 68=-107 (LC 11), 69=-70 (LC 10), 70=-133 (LC 10)	TOP CHORD	1-69=-70/48, 1-2=-58/61, 2-3=-51/69, 3-4=-60/92, 4-5=-74/118, 5-6=-72/129, 6-7=-100/178, 7-8=-118/221, 8-9=-136/274, 9-10=-158/352, 10-11=-177/424, 11-12=-156/379, 12-13=-161/406, 13-14=-161/406, 14-15=-161/406, 15-16=-161/406, 16-17=-161/406, 17-18=-161/406, 18-19=-162/393, 19-20=-162/393, 20-22=-162/395, 22-23=-162/395, 23-24=-156/369, 24-25=-174/408, 25-26=-158/334, 26-28=-137/257, 28-29=-119/207, 29-30=-101/163, 30-31=-82/127, 31-32=-90/129, 32-33=-98/129, 33-34=-147/158, 34-35=-100/90
TOP CHORD	2x6 SP No.2				
BOT CHORD	2x6 SP No.2				
WEBS	2x4 SP No.3				
OTHERS	2x4 SP No.3 *Except* 59-11,58-13,57-14,56-15,55-16,54-17:2x4 SP No.2				
BRACING		Max Grav	35=107 (LC 30), 36=235 (LC 52), 37=157 (LC 1), 38=165 (LC 52), 39=194 (LC 46), 40=236 (LC 46), 41=233 (LC 46), 42=232 (LC 46), 44=233 (LC 46), 45=196 (LC 10), 46=1101 (LC 39), 52=607 (LC 39), 53=125 (LC 10), 54=227 (LC 13), 55=164 (LC 39), 56=224 (LC 39), 57=219 (LC 39), 58=211 (LC 39), 59=178 (LC 42), 60=236 (LC 42), 62=235 (LC 42), 63=233 (LC 42), 64=235 (LC 42), 65=193 (LC 42), 66=186 (LC 43), 67=219 (LC 43), 68=221 (LC 43), 69=118 (LC 24), 70=186 (LC 13)		
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 12-23.				
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.				
WEBS	1 Row at midpt 9-62, 10-60, 11-59, 13-58, 14-57, 15-56, 16-55				
JOINTS	1 Brace at Jt(s): 49, 50				
REACTIONS	(lb/size)	35=68/55-11-0, 36=148/55-11-0, 37=157/55-11-0, 38=155/55-11-0, 39=155/55-11-0, 40=154/55-11-0, 41=156/55-11-0, 42=154/55-11-0, 44=143/55-11-0, 45=-352/55-11-0, 46=753/55-11-0, 52=460/55-11-0, 53=-9/55-11-0, 54=34/55-11-0, 55=143/55-11-0, 56=162/55-11-0, 57=155/55-11-0, 58=155/55-11-0, 59=152/55-11-0, 60=155/55-11-0, 62=155/55-11-0, 63=155/55-11-0, 64=155/55-11-0, 65=155/55-11-0, 66=157/55-11-0, 67=155/55-11-0, 68=156/55-11-0, 69=66/55-11-0, 70=-14/55-11-0 Max Horiz 69=277 (LC 13)			
		FORCES	(lb) - Maximum Compression/Maximum Tension		



February 26, 2022

Continued on page 2

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818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss A02	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK I50445637 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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BOT CHORD 68-69=-216/158, 67-68=-216/158,  
66-67=-216/158, 65-66=-216/158,  
64-65=-216/158, 63-64=-216/158,  
62-63=-216/158, 60-62=-216/158,  
59-60=-216/158, 58-59=-216/158,  
57-58=-216/158, 56-57=-216/158,  
55-56=-216/158, 54-55=-216/158,  
53-54=-216/158, 53-70=0/0, 52-70=0/0,  
18-52=-481/160, 51-52=-63/104,  
50-51=-63/104, 49-50=-63/104,  
48-49=-69/101, 47-48=-67/111,  
46-47=-135/129, 45-46=-178/314,  
44-45=-159/127, 42-44=-157/125,  
41-42=-158/125, 40-41=-157/125,  
39-40=-157/125, 38-39=-158/125,  
37-38=-156/124, 36-37=-161/128,  
35-36=-139/112

WEBS 2-68=-181/81, 3-67=-181/62, 4-66=-147/75,  
6-65=-154/75, 7-64=-197/72, 8-63=-194/82,  
9-62=-197/132, 10-60=-197/119,  
11-59=-139/11, 13-58=-172/34,  
14-57=-181/98, 15-56=-184/72,  
16-55=-131/48, 17-54=-25/71, 19-51=-15/38,  
20-50=-93/54, 21-48=0/33, 22-47=-302/79,  
24-45=-162/4, 25-44=-178/125,  
26-42=-197/128, 28-41=-193/77,  
29-40=-198/72, 30-39=-156/72,  
31-38=-124/73, 32-37=-117/65,  
33-36=-158/114, 46-70=-302/217

16) N/A

17) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 45, 44, 42, 41, 40, 39, 38, 37, 36, 46.

18) 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.

19) 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

#### 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) 5-7-0 to 11-5-4, Exterior(2N) 11-5-4 to 18-1-9, Corner(3R) 18-1-9 to 29-5-4, Exterior (2N) 29-5-4 to 37-5-4, Corner(3R) 37-5-4 to 48-7-15, Exterior(2N) 48-7-15 to 55-5-4, Corner(3E) 55-5-4 to 61-2-8 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.
- 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) 52, 70 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 147 lb uplift at joint 53, 109 lb uplift at joint 52 and 421 lb uplift at joint 46.
- N/A

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

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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

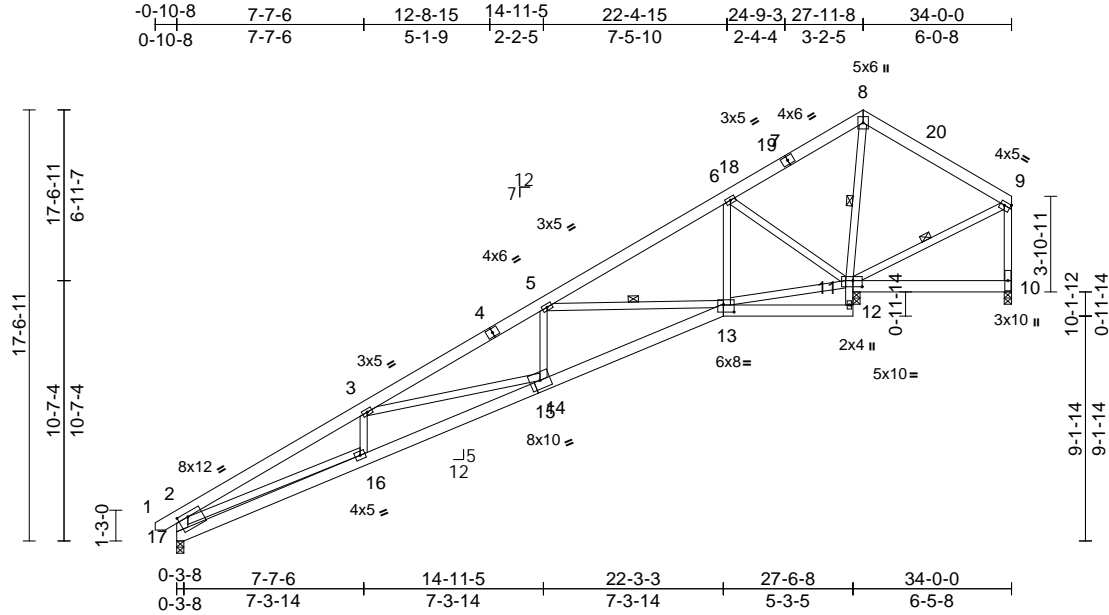


Job 22030208	Truss B01	Truss Type Roof Special	Qty 4	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445638 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1

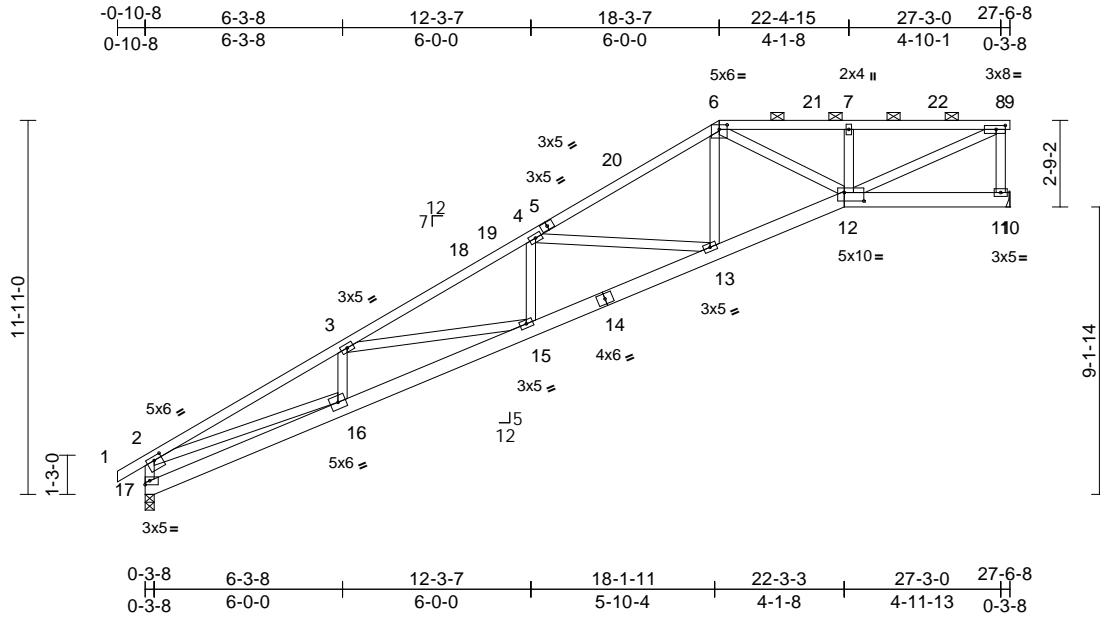


Job 22030208	Truss B02	Truss Type Piggyback Base	Qty 3	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445639 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 24 21:23:41  
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Page: 1



Scale = 1:73.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.22	15-16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.42	15-16	>784	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.15	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 175 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 16-2:2x4 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-7 max.): 6-9.  
BOT CHORD Rigid ceiling directly applied or 7-8-2 oc bracing.

**REACTIONS** (lb/size) 11=1106/ Mechanical, 17=1146/0-3-8  
Max Horiz 17=395 (LC 14)  
Max Uplift 11=141 (LC 14), 17=78 (LC 14)  
Max Grav 11=1175 (LC 35), 17=1220 (LC 36)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/31, 2-3=-3351/621, 3-4=-3311/591, 4-6=-2198/366, 6-7=-1862/318, 7-8=-1883/323, 8-9=0/0, 2-17=-1259/306  
BOT CHORD 16-17=-538/538, 15-16=-920/3045, 13-15=-761/3046, 12-13=-393/1888, 11-12=0/0, 10-11=0/0  
WEBS 4-13=-1053/332, 6-13=-115/674, 6-12=-115/458, 7-12=-476/144, 8-12=-358/2087, 2-16=-365/2543, 8-11=-1110/185, 3-16=-320/145, 3-15=-169/146, 4-15=0/275

- 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 15-3-7, Exterior(2R) 15-3-7 to 21-3-7, Interior (1) 21-3-7 to 24-6-8, Exterior(2E) 24-6-8 to 27-6-8 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
- 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.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 17 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 141 lb uplift at joint 11.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. 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



February 26, 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



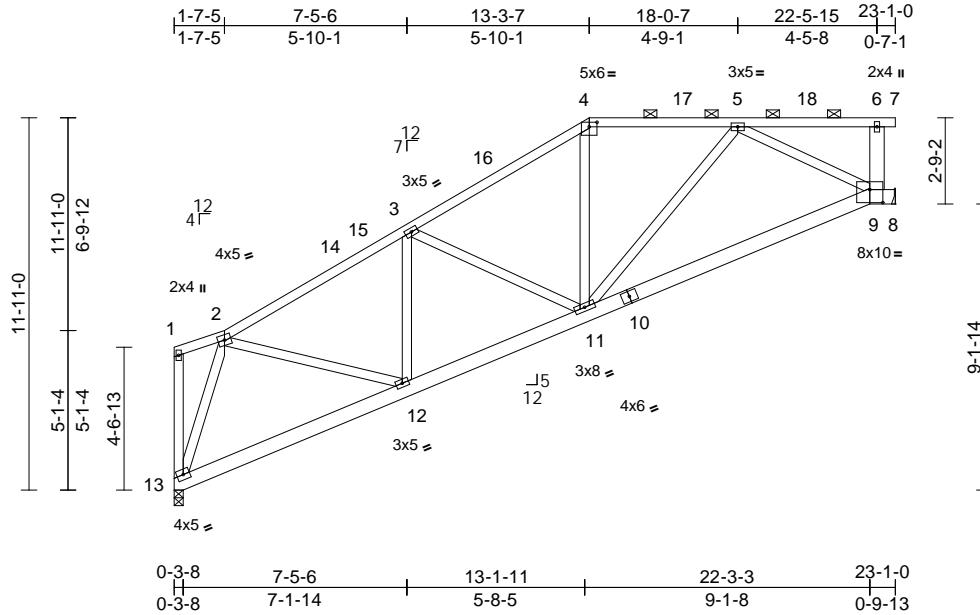
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss B03	Truss Type Piggyback Base	Qty 3	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445640 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:73.7

Plate Offsets (X, Y): [4:0-3-0,0-1-12], [9:0-5-0,0-5-0]

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	0.65	Vert(LL)	-0.16	9-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.35	9-11	>778	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.08	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 165 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\* 10-9:2x6 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\* 6-9:2x6 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-3-4 oc purlins, except end verticals, and 2-0-0 oc purlins (5-9-12 max.): 4-7.  
BOT CHORD Rigid ceiling directly applied or 9-6-6 oc bracing.

**REACTIONS** (lb/size) 8=919/ Mechanical, 13=915/0-3-8  
Max Horiz 13=237 (LC 11)  
Max Uplift 8=-155 (LC 11), 13=-24 (LC 14)  
Max Grav 8=1050 (LC 38), 13=966 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-13=-44/45, 1-2=-78/81, 2-3=-1297/316, 3-4=-1229/344, 4-5=-923/347, 5-6=-9/20, 6-7=0/0  
BOT CHORD 12-13=-460/449, 11-12=-515/1185, 9-11=-347/920, 8-9=0/0  
WEBS 3-11=-213/156, 4-11=-15/315, 5-11=-66/387, 5-9=-1011/367, 6-9=-211/97, 2-13=-1076/235, 2-12=-52/765, 3-12=-436/125

- 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) 0-1-12 to 1-7-5, Interior (1) 1-7-5 to 10-3-7, Exterior(2R) 10-3-7 to 16-3-7, Interior (1) 16-3-7 to 20-1-0, Exterior(2E) 20-1-0 to 23-1-0 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
- 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.
- 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.
- Refer to girder(s) for truss to truss connections.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 155 lb uplift at joint 8.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. 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



February 26, 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

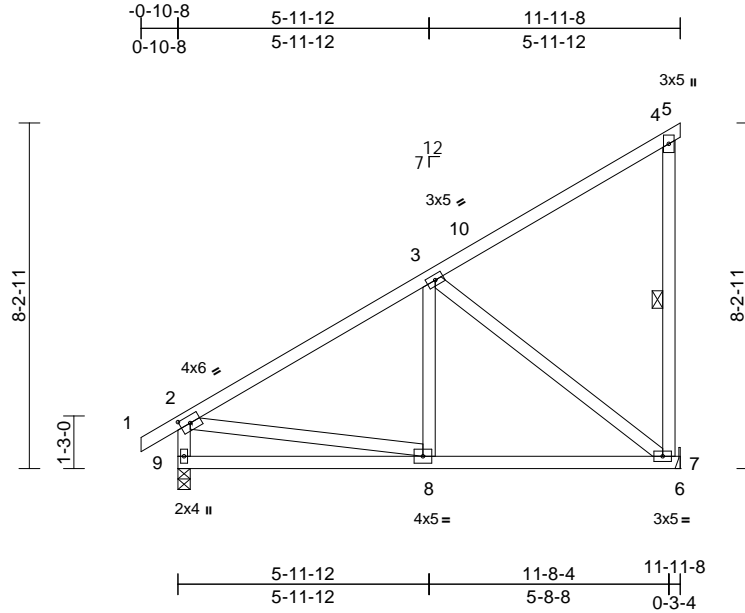


Job 22030208	Truss C01	Truss Type Monopitch	Qty 6	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK I50445641 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:54.9

Plate Offsets (X, Y): [2:0-2-14,0-2-0]

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	0.61	Vert(LL)	-0.03	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.05	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 77 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

WEBS 1 Row at midpt 4-7

**REACTIONS** (lb/size) 7=481/ Mechanical, 9=525/0-3-8  
Max Horiz 9=288 (LC 11)  
Max Uplift 7=-126 (LC 14), 9=-43 (LC 14)  
Max Grav 7=634 (LC 21), 9=561 (LC 21)

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

TOP CHORD 1-2=0/31, 2-3=-559/107, 3-4=-186/106,

4-5=-13/0, 4-7=-264/64, 2-9=-508/151

BOT CHORD 8-9=-277/261, 7-8=-101/419, 6-7=0/0

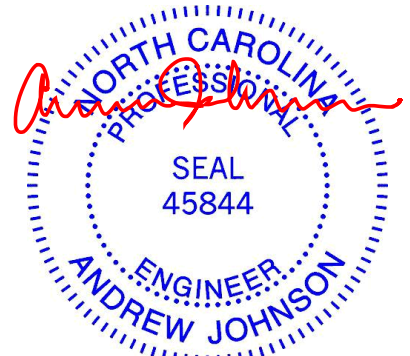
WEBS 3-8=0/233, 3-7=-510/172, 2-8=0/318

**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 8-11-8, Exterior(2E) 8-11-8 to 11-11-8 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) 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 126 lb uplift at joint 7.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
- 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



February 26, 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

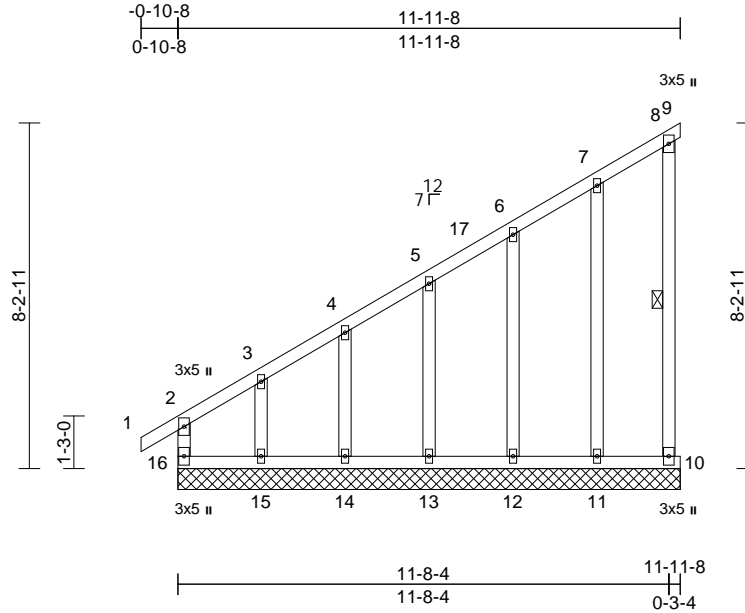
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss C02	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445642 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:54.9

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	-0.04	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0											
										Weight: 84 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 8-10

**REACTIONS** (lb/size)  
9=12/11-11-8, 10=57/11-11-8,  
11=156/11-11-8, 12=156/11-11-8,  
13=154/11-11-8, 14=158/11-11-8,  
15=141/11-11-8, 16=135/11-11-8  
Max Horiz 16=280 (LC 11)  
Max Uplift 9=-82 (LC 14), 10=-146 (LC 13),  
11=-53 (LC 14), 12=-46 (LC 14),  
13=-58 (LC 14), 14=-14 (LC 14),  
15=-199 (LC 14), 16=-96 (LC 10)  
Max Grav 9=93 (LC 13), 10=144 (LC 10),  
11=232 (LC 21), 12=223 (LC 21),  
13=165 (LC 24), 14=158 (LC 1),  
15=237 (LC 24), 16=256 (LC 29)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 2-16=-199/75, 1-2=0/30, 2-3=-259/166,  
3-4=-184/120, 4-5=-170/109, 5-6=-154/98,  
6-7=-145/99, 7-8=-109/117, 8-9=-87/66,  
8-10=-145/105  
BOT CHORD 15-16=-115/144, 14-15=-115/144,  
13-14=-115/144, 12-13=-115/144,  
11-12=-115/144, 10-11=-115/144  
WEBS 5-13=-124/105, 4-14=-119/83,  
3-15=-157/205, 6-12=-185/118, 7-11=-193/57

**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 Corner(3E) -0-10-8 to 1-11-12, Exterior (2N) 1-11-12 to 11-11-8 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 82 lb uplift at joint 9.



February 26, 2022

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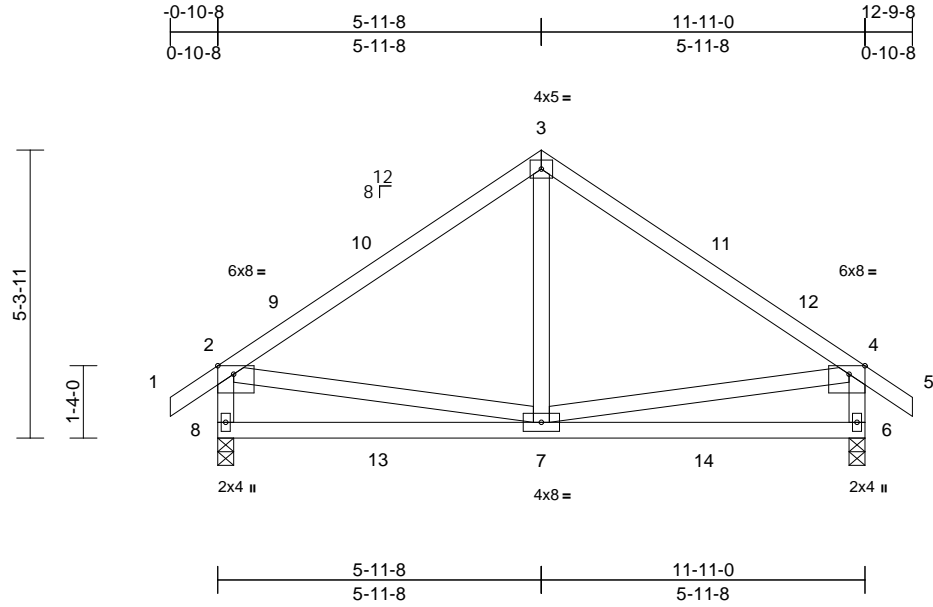
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss D01	Truss Type Common Supported Gable	Qty 5	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK I50445643 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:42.4

Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,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	0.91	Vert(LL)	0.05	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.05	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 69 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(lb/size) 6=526/0-3-8, 8=526/0-3-8  
Max Horiz 8=145 (LC 13)  
Max Uplift 6=-56 (LC 15), 8=-56 (LC 14)  
Max Grav 6=619 (LC 22), 8=619 (LC 21)

**FORCES**

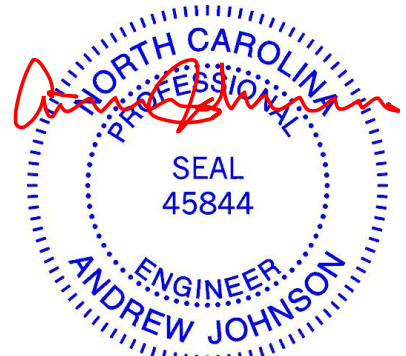
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 2-8=-566/356, 1-2=0/34, 2-3=-539/408, 3-4=-539/408, 4-5=0/34, 4-6=-566/356  
BOT CHORD 7-8=-173/252, 6-7=-115/252  
WEBS 3-7=-284/208, 4-7=-92/249, 2-7=-88/249

**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 2-11-8, Exterior(2R) 2-11-8 to 8-11-8, Interior (1) 8-11-8 to 9-9-8, Exterior(2E) 9-9-8 to 12-9-8 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
- 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.
- 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) 8 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



February 26, 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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



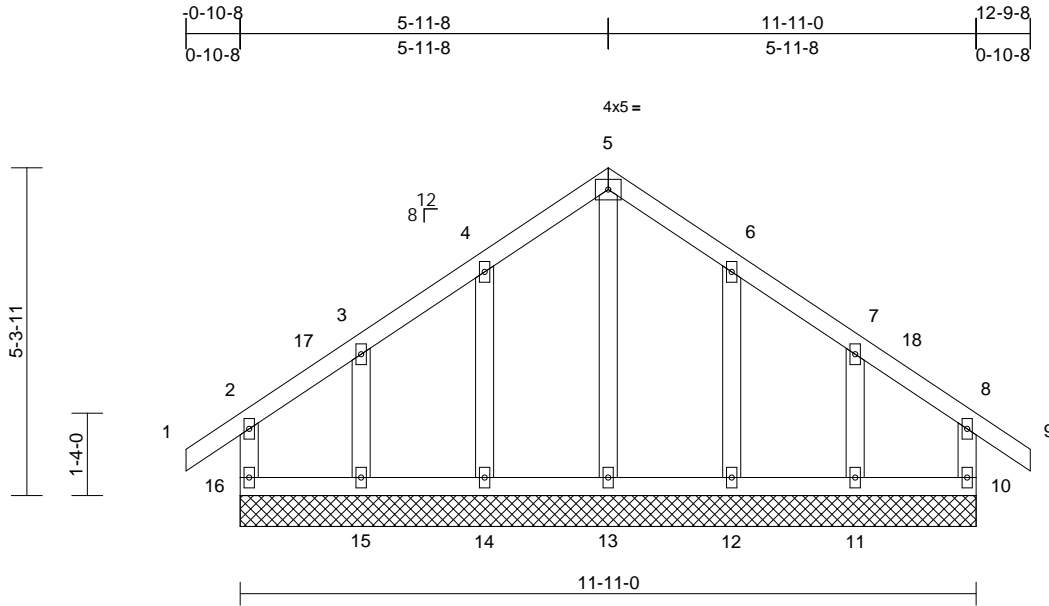
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss D02	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445644 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 24 21:23:44  
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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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 69 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.

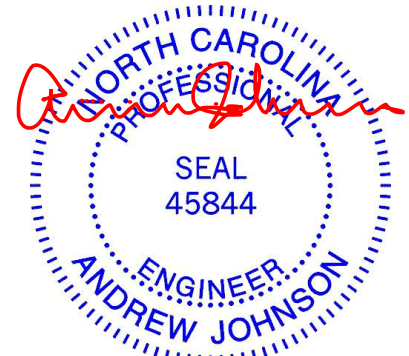
**REACTIONS** (lb/size)  
10=131/11-11-0, 11=141/11-11-0,  
12=165/11-11-0, 13=146/11-11-0,  
14=165/11-11-0, 15=141/11-11-0,  
16=131/11-11-0  
Max Horiz 16=141 (LC 12)  
Max Uplift 10=46 (LC 14), 11=80 (LC 15),  
12=53 (LC 15), 14=52 (LC 14),  
15=82 (LC 14), 16=53 (LC 10)  
Max Grav 10=143 (LC 24), 11=200 (LC 22),  
12=256 (LC 22), 13=161 (LC 27),  
14=256 (LC 21), 15=200 (LC 21),  
16=149 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 2-16=-118/157, 1-2=0/33, 2-3=-77/96,  
3-4=-75/173, 4-5=-113/248, 5-6=-113/248,  
6-7=-75/173, 7-8=-68/96, 8-9=0/33,  
8-10=-117/157  
BOT CHORD 15-16=-71/68, 14-15=-71/68, 13-14=-71/68,  
12-13=-71/68, 11-12=-71/68, 10-11=-71/68  
WEBS 5-13=-197/32, 4-14=-217/112,  
3-15=-162/117, 6-12=-217/112,  
7-11=-162/117

**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 Corner(3E) -0-10-8 to 1-11-8, Exterior(2N) 1-11-8 to 2-11-8, Corner(3R) 2-11-8 to 8-11-8, Exterior (2N) 8-11-8 to 9-9-8, Corner(3E) 9-9-8 to 12-9-8 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.
- 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



February 26, 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



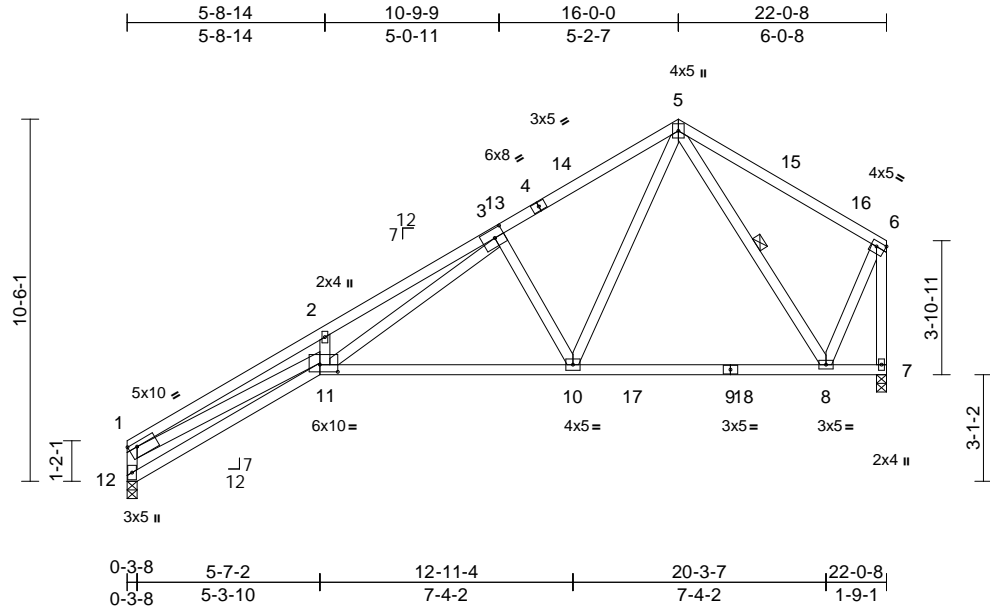
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss E01	Truss Type Roof Special	Qty 6	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445645 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:66.9

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

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	0.83	Vert(LL)	-0.35	10-11	>743	240
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.66	10-11	>398	180
TCDL	10.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.37	7	n/a	n/a
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH						
BCDL	10.0									
									Weight: 133 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 1-4:2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 11-1,11-3:2x4 SP No.2

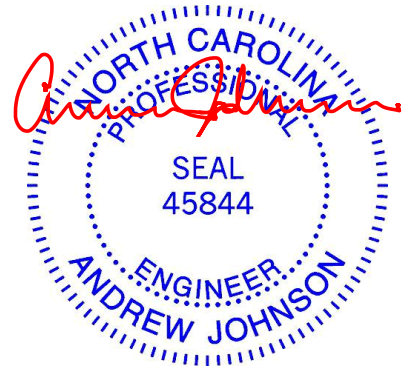
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-2-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-8

**REACTIONS**  
(lb/size) 7=870/0-3-8, 12=870/0-3-8  
Max Horiz 12=276 (LC 11)  
Max Uplift 7=-102 (LC 14), 12=-81 (LC 14)  
Max Grav 7=1018 (LC 23), 12=990 (LC 23)

**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-12=-1131/252, 1-2=-4862/853, 2-3=-4844/1000, 3-5=-1337/241, 5-6=-471/135, 6-7=-1068/87  
BOT CHORD 11-12=-325/549, 10-11=-256/1553, 8-10=-38/673, 7-8=-52/47  
WEBS 1-11=-657/4070, 2-11=-235/193, 3-11=-803/3455, 3-10=-846/300, 5-10=-183/1164, 5-8=-600/107, 6-8=-18/827

- 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) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 13-0-0, Exterior(2R) 13-0-0 to 18-10-12, Exterior(2E) 18-10-12 to 21-10-12 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) 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) 12 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) 12 and 7. 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



February 26, 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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818 Soundside Road  
Edenton, NC 27932

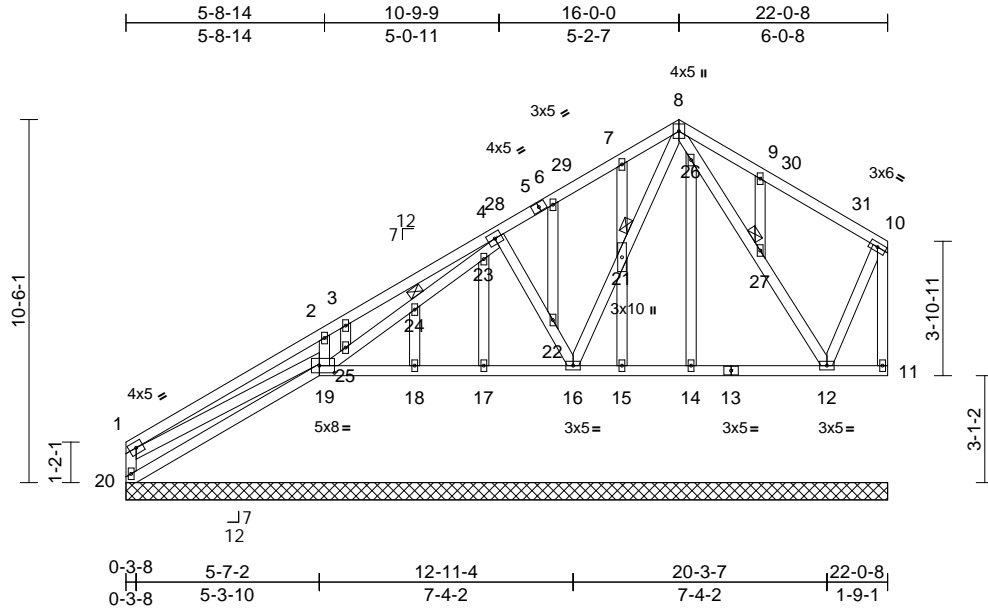


Job 22030208	Truss E02	Truss Type Roof Special	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK Job Reference (optional)	150445646
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 24 21:23:44  
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Page: 1



Scale = 1:66.7

Plate Offsets (X, Y): [19:0-5-4-0-2-8]

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	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.73	Horiz(TL)	-0.01	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 169 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP 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.
JOINTS	1 Brace at Jt(s): 21, 24, 27

REACTIONS	(lb/size)
Max Horiz	11=49/22-0-8, 12=184/22-0-8, 14=337/22-0-8, 15=102/22-0-8, 16=210/22-0-8, 17=99/22-0-8, 18=32/22-0-8, 19=491/22-0-8, 20=181/22-0-8, 20=267 (LC 11)
Max Uplift	11=10 (LC 11), 14=108 (LC 15), 15=54 (LC 14), 16=76 (LC 14), 19=208 (LC 14), 20=38 (LC 10)
Max Grav	11=64 (LC 21), 12=233 (LC 21), 14=495 (LC 21), 15=211 (LC 20), 16=306 (LC 20), 17=106 (LC 7), 18=71 (LC 7), 19=550 (LC 23), 20=244 (LC 24)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-20=-186/70, 1-2=-116/111, 2-3=-148/78, 3-4=-127/104, 4-6=-92/76, 6-7=-79/100, 7-8=-94/133, 8-9=-81/122, 9-10=-72/78, 10-11=-52/7
BOT CHORD	19-20=-305/329, 18-19=-107/129, 17-18=-107/129, 16-17=-107/129, 15-16=-101/113, 14-15=-101/113, 12-14=-101/113, 11-12=-46/51

WEBS	
1-19	=161/150, 2-19=-395/231, 19-25=-71/46, 24-25=-72/47, 23-24=-77/52, 4-23=-111/51, 4-22=-182/148, 16-22=-255/178, 16-21=-74/62, 8-21=-77/65, 8-26=-271/38, 26-27=-92/105, 12-27=-67/24, 10-12=-114/85, 7-21=-199/65, 15-21=-196/63, 6-22=-100/35, 17-23=-58/7, 18-24=-8/9, 3-25=-1/6, 14-26=-426/148, 9-27=-202/77

- 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) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 13-0-0, Exterior(2R) 13-0-0 to 18-10-12, Exterior(2E) 18-10-12 to 21-10-12 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.
  - 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 208 lb uplift at joint 19.
  - N/A
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 19, 16, 12, 11, 15, 17, 18, 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



February 26, 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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818 Soundside Road  
Edenton, NC 27932

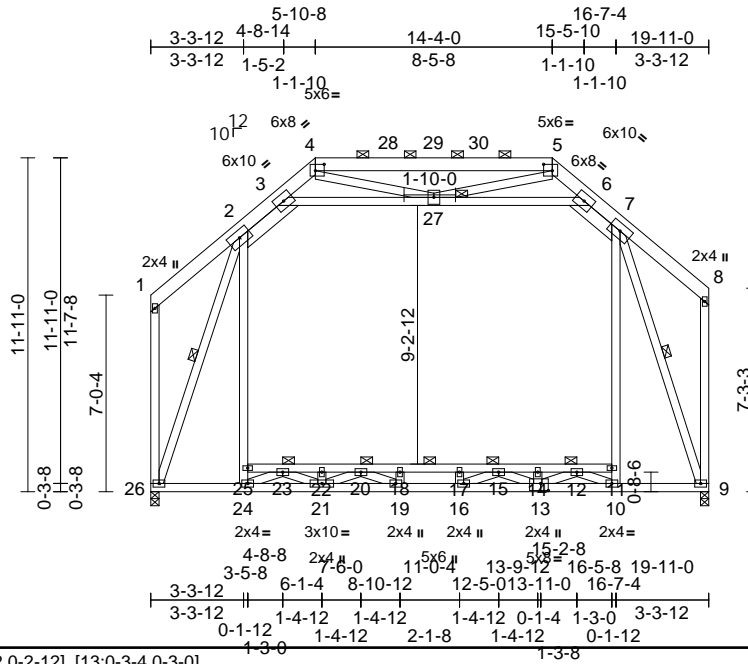


Job 22030208	Truss G02	Truss Type Attic	Qty 6	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445648 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 24 21:23:46  
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Page: 1



Scale = 1:82.3

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

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	0.73	Vert(LL)	-0.23	17-18	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.38	17-18	>623	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.06	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH		Attic	-0.20	11-25	>795	360		
BCDL	10.0											
											Weight: 237 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 26-13:2x4 SP No.1  
WEBS 2x4 SP No.3 \*Except\* 2-24,7-10,3-6:2x4 SP No.2, 2-3,6-7:2x6 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 (4-10-14 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:  
2-10-0 oc bracing: 15-20  
3-9-0 oc bracing: 20-23  
3-11-0 oc bracing: 12-15  
10-0-0 oc bracing: 23-25, 11-12  
WEBS 1 Row at midpt 7-9, 2-26  
JOINTS 1 Brace at Jt(s): 12, 23, 15, 20, 27

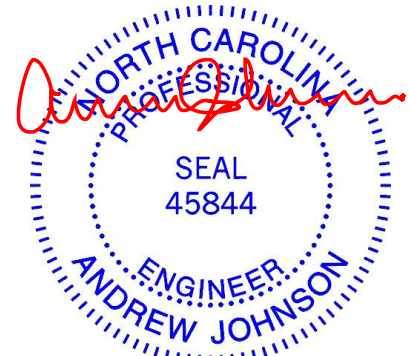
**REACTIONS** (lb/size) 9=1139/0-3-8, 26=1138/0-3-8  
Max Horiz 26=347 (LC 11)  
Max Grav 9=1501 (LC 45), 26=1506 (LC 45)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-301/227, 2-3=-660/144, 3-4=-1003/343, 4-5=-982/118, 5-6=-972/342, 6-7=-662/147, 7-8=-288/234, 1-26=-382/233, 8-9=-352/241  
BOT CHORD 24-26=-88/547, 21-24=0/1655, 19-21=0/3363, 16-19=0/3868, 10-16=0/3346, 9-10=-68/531, 23-25=-98/223, 22-23=-2166/0, 20-22=-2166/0, 18-20=-3446/0, 17-18=-3446/0, 15-17=-3446/0, 14-15=-2114/0, 12-14=-2085/0, 11-12=-101/246

**WEBS** 24-25=0/857, 2-25=0/1024, 10-11=0/854, 7-11=0/1031, 7-9=-1622/71, 3-27=-501/546, 6-27=-542/490, 2-26=-1592/70, 10-12=-1440/0, 23-24=-1459/0, 12-13=0/1093, 21-23=0/1125, 13-14=-192/0, 21-22=-160/0, 13-15=-894/0, 20-21=-867/0, 15-16=-10/618, 19-20=0/586, 16-17=-204/0, 18-19=-197/0, 4-27=-193/399, 5-27=-203/406

- 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) 0-1-12 to 3-3-12, Exterior (2R) 3-3-12 to 16-7-4, Exterior(2E) 16-7-4 to 19-9-4 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
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 3x5 MT20 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.
  - Ceiling dead load (5.0 psf) on member(s) 2-3, 6-7, 3-27, 6-27; Wall dead load (5.0psf) on member(s) 2-25, 7-11

- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 23-25, 22-23, 20-22, 18-20, 17-18, 15-17, 14-15, 12-14, 11-12
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Attic room checked for L/360 deflection.
- LOAD CASE(S)** Standard



February 26, 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

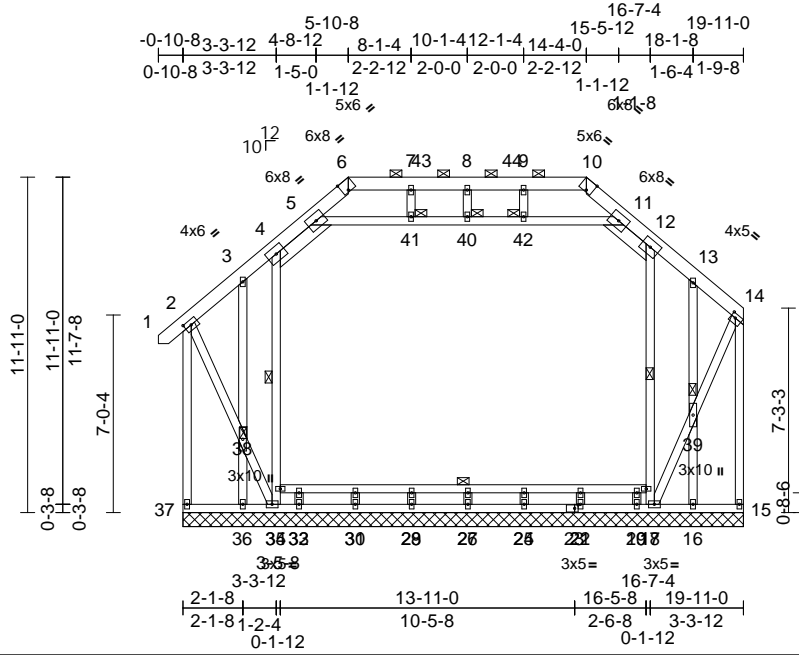
Job 22030208	Truss G03	Truss Type Attic Supported Gable	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK Job Reference (optional)	150445649
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 24 21:23:47

Page: 1

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Scale = 1:81.9

Plate Offsets (X, Y): [2:0-2-14,0-2-0], [6:0-2-8,Edge], [10:0-2-8,Edge], [14:0-2-0,0-1-12], [23:0-1-8,0-1-8]

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	0.49	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.01	15	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 234 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 5-11:2x4 SP No.2, 4-5,11-12:2x6 SP No.2  
OTHERS 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-10.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 18-34  
WEBS 1 Row at midpt 4-35, 12-17  
JOINTS 1 Brace at Jt(s): 38, 39, 40, 41, 42

**REACTIONS** (lb/size)  
15=261/19-11-0, 16=95/19-11-0, 17=206/19-11-0, 20=75/19-11-0, 22=76/19-11-0, 25=78/19-11-0, 27=77/19-11-0, 29=77/19-11-0, 31=78/19-11-0, 33=70/19-11-0, 35=213/19-11-0, 36=112/19-11-0, 37=298/19-11-0  
Max Horiz 37=329 (LC 13)  
Max Uplift 15=-277 (LC 11), 16=-42 (LC 14), 17=-233 (LC 10), 35=-370 (LC 11), 36=-28 (LC 14), 37=-281 (LC 10)  
Max Grav 15=389 (LC 47), 16=212 (LC 50), 17=323 (LC 50), 20=197 (LC 21), 22=239 (LC 21), 25=231 (LC 21), 27=233 (LC 21), 29=231 (LC 21), 31=240 (LC 21), 33=196 (LC 21), 35=429 (LC 48), 36=197 (LC 50), 37=422 (LC 49)

**TOP CHORD** 2-37=-384/270, 1-2=0/50, 2-3=-173/210, 3-4=-168/238, 4-5=-360/246, 5-6=-955/253, 6-7=-893/240, 7-8=-893/240, 8-9=-893/240, 9-10=-893/240, 10-11=-959/253, 11-12=-364/246, 12-13=-176/226, 13-14=-174/188, 14-15=-354/258

**BOT CHORD** 36-37=-300/262, 35-36=-300/262, 33-35=-186/146, 31-33=-186/146, 29-31=-186/146, 27-29=-186/146, 25-27=-186/146, 22-25=-186/146, 20-22=-186/146, 17-20=-186/146, 16-17=-95/115, 15-16=-95/115, 32-34=-6/6, 30-32=-6/6, 28-30=-6/6, 26-28=-6/6, 24-26=-6/6, 21-24=-6/6, 19-21=-6/6, 18-19=-6/6

**WEBS** 3-38=98/79, 32-33=-98/0, 30-31=-120/0, 28-29=-115/0, 26-27=-117/0, 24-25=-115/0, 21-22=-119/0, 19-20=-102/0, 16-39=-118/83, 5-41=-172/790, 40-41=-172/790, 40-42=-172/790, 11-42=-172/790, 34-35=-453/144, 4-34=-455/146, 17-18=-394/118, 12-18=-411/118, 8-40=-127/37, 7-41=-19/57, 9-42=-19/61, 2-38=-290/322, 35-38=-338/378, 17-39=-239/271, 14-39=-283/320, 36-38=-143/78, 13-39=-140/89

- 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) -0-8-5 to 2-1-8, Exterior(2N) 2-1-8 to 2-10-8, Corner(3R) 2-10-8 to 8-10-8, Exterior (2N) 8-10-8 to 11-4-0, Corner(3R) 11-4-0 to 16-7-4, Corner(3E) 16-7-4 to 19-9-4 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
- 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; 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.

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

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



February 26, 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

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



Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 117 FARM AT NEILLS CREEK
22030208	G03	Attic Supported Gable	1	1	I50445649
					Job Reference (optional)

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

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Page: 2

- 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) Provide adequate drainage to prevent water ponding.
  - 8) All plates are 2x4 MT20 unless otherwise indicated.
  - 9) Gable requires continuous bottom chord bearing.
  - 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 11) Gable studs spaced at 2-0-0 oc.
  - 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 13) \* 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.
  - 14) Ceiling dead load (5.0 psf) on member(s). 4-5, 11-12, 5-41, 40-41, 40-42, 11-42; Wall dead load (5.0psf) on member(s).34-35, 4-34, 17-18, 12-18
  - 15) N/A
- 
- 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.
  - 18) Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard

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

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Edenton, NC 27932

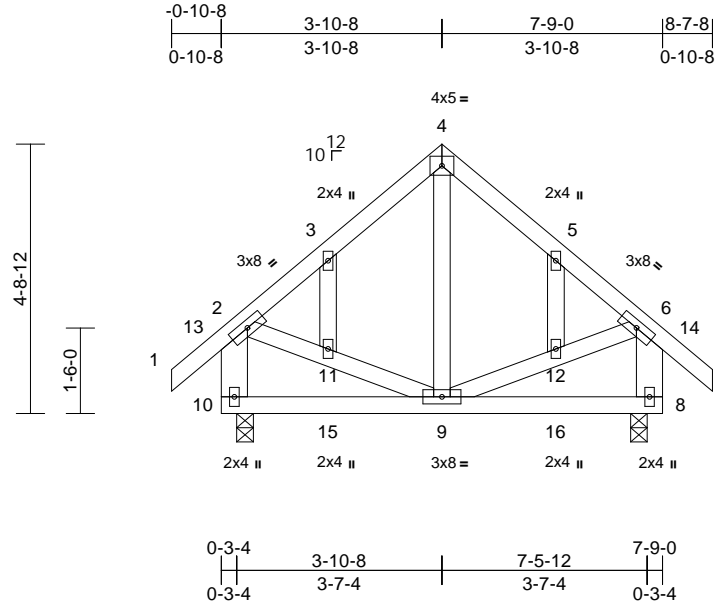


Job 22030208	Truss H01	Truss Type Common	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445650 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Scale = 1:40.5

Loading (psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	TC	0.24	Vert(LL)	0.01	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	BC	0.12	Vert(CT)	-0.01	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	WB	0.28	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	Matrix-MSH								
BCDL	10.0	IRC2018/TPI2014									
									Weight: 58 lb	FT = 20%	

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

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

**REACTIONS** (lb/size) 8=347/0-3-8, 10=347/0-3-8  
Max Horiz 10=135 (LC 12)  
Max Uplift 8=36 (LC 15), 10=36 (LC 14)  
Max Grav 8=462 (LC 22), 10=462 (LC 21)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/53, 2-3=-289/266, 3-4=-204/303, 4-5=-204/303, 5-6=-289/266, 6-7=0/53, 2-10=-428/319, 6-8=-428/319  
BOT CHORD 9-10=-120/133, 8-9=-19/61  
WEBS 4-9=-252/105, 2-11=-44/126, 9-11=-49/126, 9-12=-52/126, 6-12=-46/126, 3-11=-55/34, 5-12=-55/34

**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 1-10-8, Exterior (2R) 1-10-8 to 5-10-8, Exterior(2E) 5-10-8 to 8-7-8 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

- 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.
- 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 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



February 26, 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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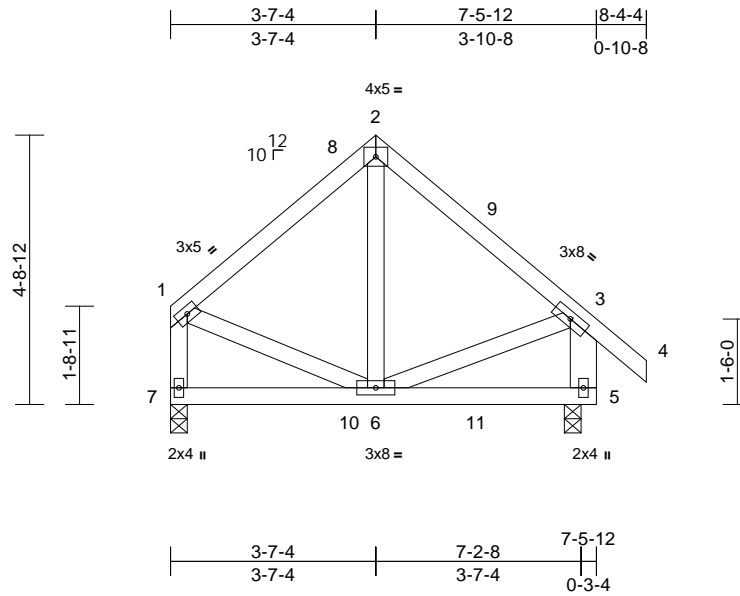
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss H02	Truss Type Common	Qty 3	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445651 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	0.01	5-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 49 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 5-3:2x6 SP No.2

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

**REACTIONS** (lb/size) 5=356/0-3-8, 7=279/0-3-8  
Max Horiz 7=-134 (LC 10)  
Max Uplift 5=-36 (LC 15), 7=-25 (LC 10)  
Max Grav 5=436 (LC 22), 7=373 (LC 21)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-262/274, 2-3=-285/276, 3-4=0/42, 1-7=-347/280, 3-5=-408/324  
BOT CHORD 6-7=-118/123, 5-6=-23/25  
WEBS 2-6=-203/97, 1-6=-112/142, 3-6=-37/139

- 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.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 5. 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) 0-1-12 to 3-1-12, Exterior (2R) 3-1-12 to 5-4-4, Exterior(2E) 5-4-4 to 8-4-4 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
  - 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.

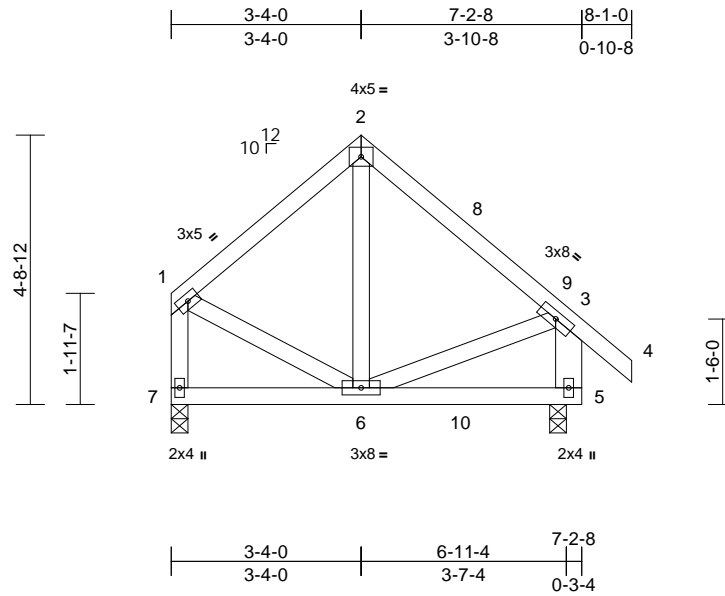


Job 22030208	Truss H03	Truss Type Common	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445652 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:40.5

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	0.37	Vert(LL)	0.01	5-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 48 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

- (lb/size) 5=345/0-3-8, 7=268/0-3-8
- Max Horiz 7=-137 (LC 12)
- Max Uplift 5=-35 (LC 15), 7=-29 (LC 10)
- Max Grav 5=411 (LC 22), 7=353 (LC 21)

**FORCES**

- (lb) - Maximum Compression/Maximum Tension

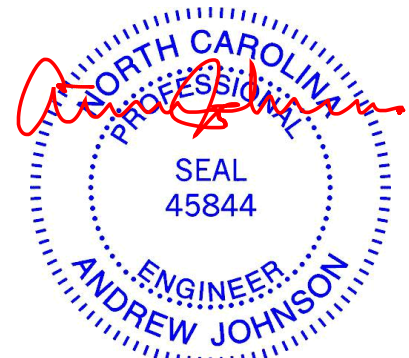
- TOP CHORD 1-2=-239/267, 2-3=-264/259, 3-4=0/42, 1-7=-330/280, 3-5=-382/311
- BOT CHORD 6-7=-117/124, 5-6=-23/25
- WEBS 2-6=-193/87, 1-6=-112/134, 3-6=-37/129

**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) 0-5-0 to 3-7-4, Exterior(2R) 3-7-4 to 5-4-4, Exterior(2E) 5-4-4 to 8-4-4 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
- 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.
- 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) 7 and 5. 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



February 26, 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



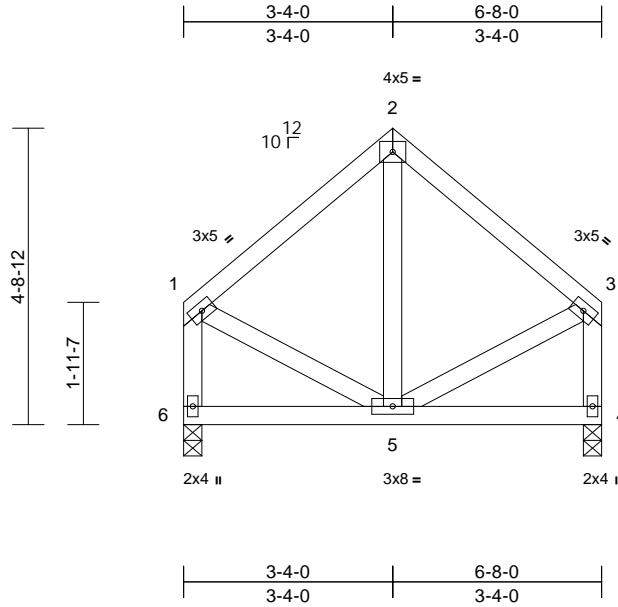
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss H04	Truss Type Common	Qty 2	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445653 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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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	0.31	Vert(LL)	0.01	5-6	>999	240	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01	5-6	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	4	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 44 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(lb/size) 4=255/0-3-8, 6=255/0-3-8  
Max Horiz 6=-122 (LC 10)  
Max Uplift 4=-28 (LC 11), 6=-28 (LC 10)  
Max Grav 4=321 (LC 21), 6=321 (LC 20)

#### FORCES

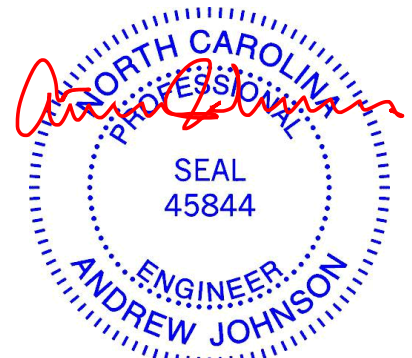
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-213/235, 2-3=-213/235, 1-6=-296/248, 3-4=-296/248  
BOT CHORD 5-6=-114/109, 4-5=-29/32  
WEBS 2-5=-157/70, 1-5=-80/117, 3-5=-80/117

#### 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; 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 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 4. This connection is for uplift only and does not consider lateral forces.
- 8) 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



February 26, 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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**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

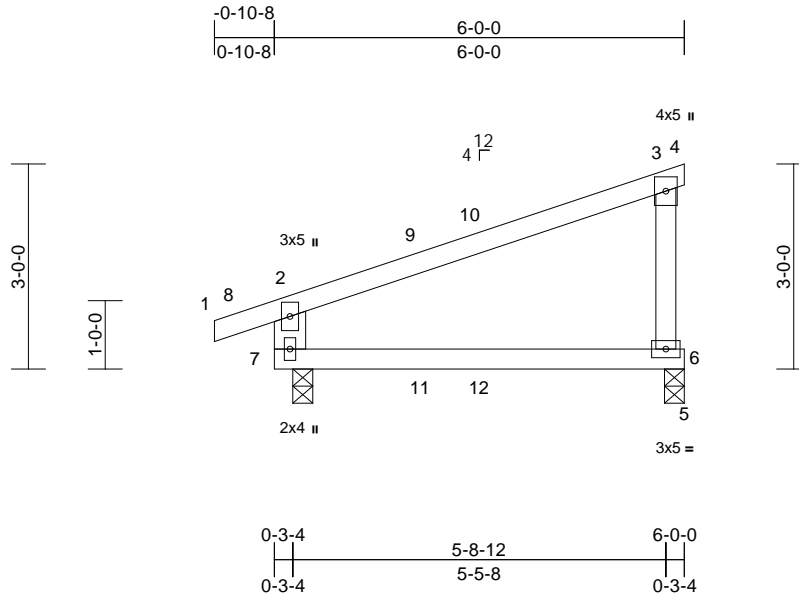
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss J01	Truss Type Monopitch	Qty 6	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445654 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.09	6-7	>714	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	Vert(CT)	0.08	6-7	>879	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR							
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 \*Except\* 7-2:2x6 SP No.2

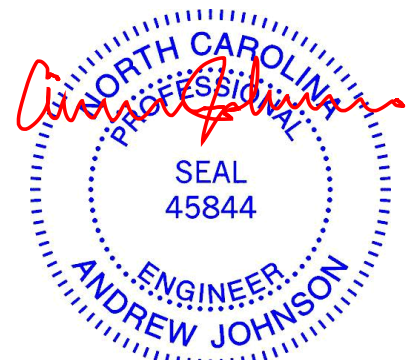
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 6=236/0-3-8, 7=292/0-3-8  
Max Horiz 7=109 (LC 13)  
Max Uplift 6=-92 (LC 10), 7=-116 (LC 10)  
Max Grav 6=322 (LC 21), 7=395 (LC 21)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/28, 2-3=-177/130, 3-4=-8/0,  
3-6=-239/164, 2-7=-362/276  
BOT CHORD 6-7=-96/95, 5-6=0/0

- 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 7. This connection is for uplift only and does not consider lateral forces.
- 8) 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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-0-0, Exterior(2E) 3-0-0 to 6-0-0 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.



February 26, 2022

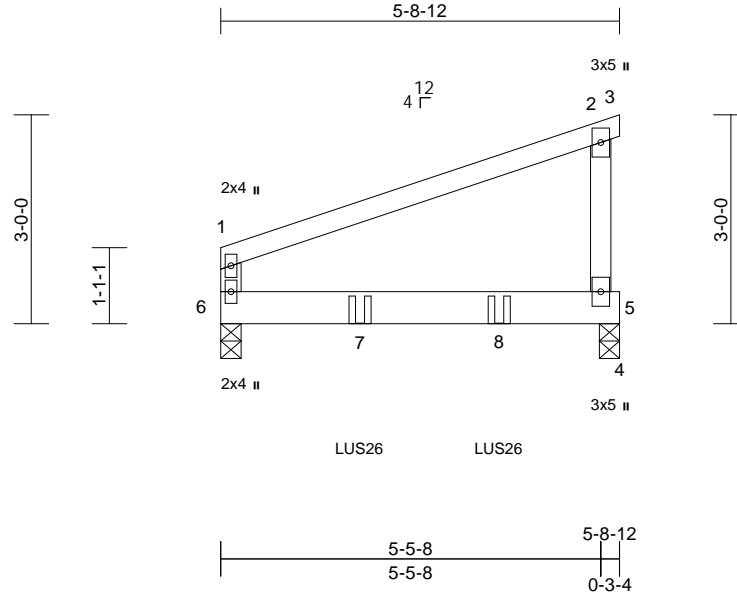


Job 22030208	Truss J02	Truss Type Monopitch Girder	Qty 1	Ply 2	DRB GROUP - 117 FARM AT NEILLS CREEK 150445655 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Scale = 1:33.1

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	0.48	Vert(LL)	-0.03	5-6	>999	240	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.04	5-6	>999	180	
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	5	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR							
BCDL	10.0										
										Weight: 53 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 5-8-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 5=607/0-3-8, 6=533/0-3-8  
Max Horiz 6=96 (LC 32)  
Max Uplift 5=-109 (LC 8), 6=-87 (LC 8)  
Max Grav 5=690 (LC 18), 6=607 (LC 18)

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

TOP CHORD 1-2=-231/32, 2-3=-7/0, 2-5=-225/73,  
1-6=-256/64

BOT CHORD 5-6=-47/159, 4-5=0/0

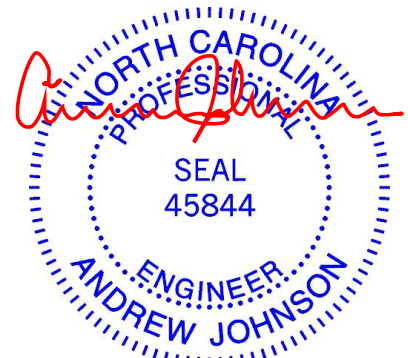
#### NOTES

- 2-ply truss to be connected together as follows:  
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected with 10d (0.131"x3") nails as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; 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; porch 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) 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.
- Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 4-0-0 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

#### LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-58, 2-3=-58, 4-6=-19  
Concentrated Loads (lb)  
Vert: 7=-354 (F), 8=-354 (F)



February 26, 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

ENGINEERING BY  
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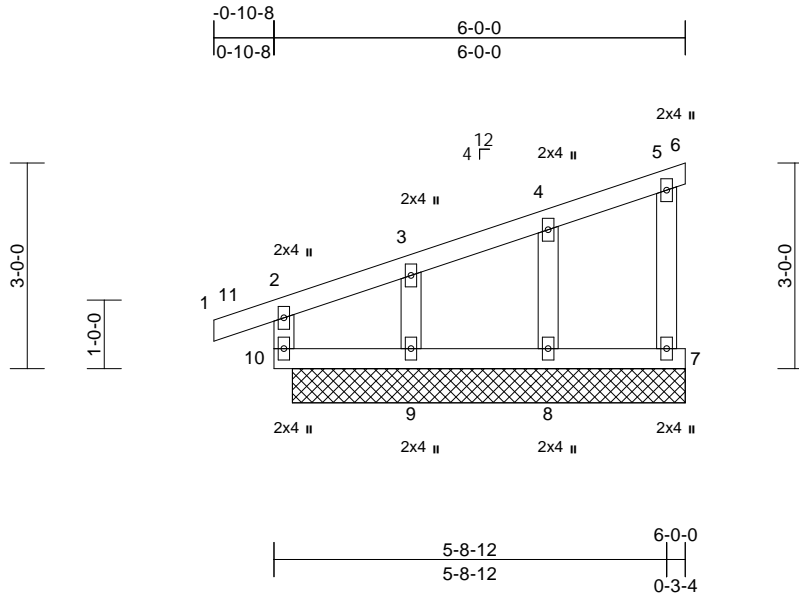
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss J03	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445656 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 28 lb	FT = 20%

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

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

**REACTIONS** (lb/size)  
 6=3/5-8-12, 7=69/5-8-12, 8=157/5-8-12, 9=142/5-8-12, 10=138/5-8-12  
 Max Horiz 10=106 (LC 11)  
 Max Uplift 6=-28 (LC 10), 7=-22 (LC 11), 8=-24 (LC 10), 9=-56 (LC 14), 10=-23 (LC 10)  
 Max Grav 6=14 (LC 19), 7=96 (LC 21), 8=212 (LC 21), 9=197 (LC 21), 10=182 (LC 21)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 2-10=-164/127, 1-2=0/25, 2-3=-84/20, 3-4=-51/24, 4-5=-48/44, 5-6=-24/13, 5-7=-81/20  
 BOT CHORD 9-10=-36/43, 8-9=-36/43, 7-8=-36/43  
 WEBS 4-8=-174/149, 3-9=-160/194

**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 2-0-0, Exterior(2N) 2-0-0 to 6-0-0 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

- 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.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2'-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 28 lb uplift at joint 6.



February 26, 2022

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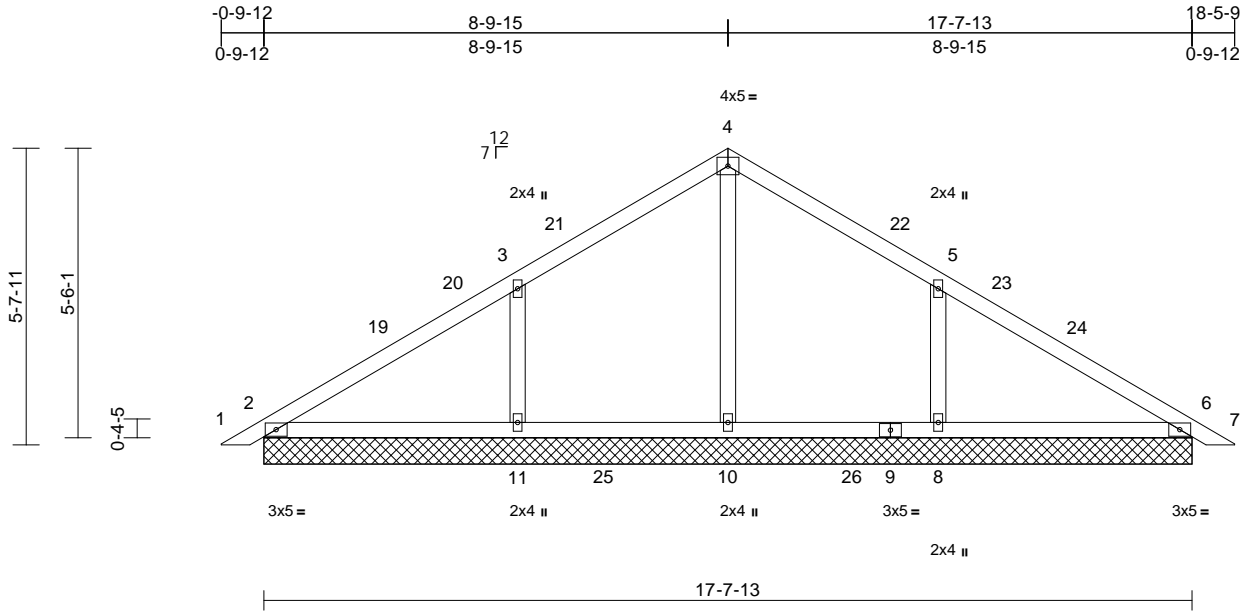
818 Soundside Road  
 Edenton, NC 27932

Job 22030208	Truss PB1	Truss Type Piggyback	Qty 7	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445657 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 24 21:23:50  
ID:9YYG15fUx\_FujjxnIXZqfzhvJZ-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDcoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	1-4-0	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	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 75 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)  
 2=145/17-7-13, 6=145/17-7-13, 8=284/17-7-13, 10=126/17-7-13, 11=284/17-7-13, 12=145/17-7-13, 16=145/17-7-13  
 Max Horiz 2=-86 (LC 12), 12=-86 (LC 12)  
 Max Uplift 2=-11 (LC 15), 6=-12 (LC 15), 8=-93 (LC 15), 11=-93 (LC 14), 12=-11 (LC 15), 16=-12 (LC 15)  
 Max Grav 2=153 (LC 25), 6=154 (LC 25), 8=367 (LC 6), 10=198 (LC 6), 11=367 (LC 5), 12=153 (LC 25), 16=154 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/11, 2-3=-95/55, 3-4=-114/82, 4-5=-114/72, 5-6=-70/29, 6-7=0/11  
 BOT CHORD 2-11=-17/59, 10-11=-15/59, 8-10=-15/59, 6-8=-15/59  
 WEBS 4-10=-111/0, 3-11=-286/119, 5-8=-286/118

**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) 0-3-11 to 3-3-11, Interior (1) 3-3-11 to 6-8-1, Exterior(2R) 6-8-1 to 12-8-1, Interior (1) 12-8-1 to 16-0-7, Exterior(2E) 16-0-7 to 19-0-7 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, with BCDL = 10.0psf.
- N/A

13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.  
**LOAD CASE(S)** Standard

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.



February 26, 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



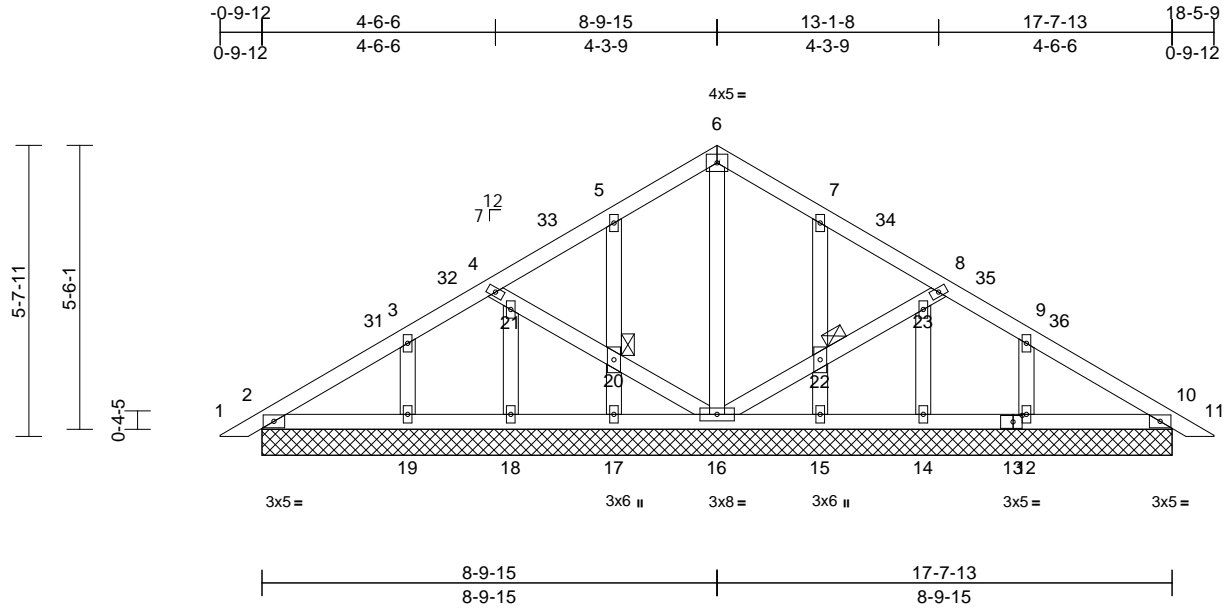
818 Soundside Road  
 Edenton, NC 27932

Job 22030208	Truss PB2	Truss Type Piggyback	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445658 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 24 21:23:50  
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Page: 1



Scale = 1:44.7

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

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	0.13	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	0.10	Horz(CT)	0.00	10	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	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 20, 22

REACTIONS	(lb/size)
Max Horiz	2=150/17-7-13, 10=150/17-7-13, 12=209/17-7-13, 14=66/17-7-13, 15=177/17-7-13, 16=228/17-7-13, 17=177/17-7-13, 18=66/17-7-13, 19=209/17-7-13, 24=150/17-7-13, 27=150/17-7-13
Max Uplift	2=-124 (LC 12), 24=-124 (LC 12), 12=-57 (LC 15), 15=-60 (LC 15), 16=-7 (LC 14), 17=-60 (LC 14), 19=-60 (LC 14), 24=-13 (LC 15), 27=-15 (LC 15)
Max Grav	2=169 (LC 21), 10=169 (LC 22), 12=216 (LC 25), 14=95 (LC 22), 15=265 (LC 22), 16=245 (LC 21), 17=265 (LC 21), 18=95 (LC 21), 19=219 (LC 24), 24=169 (LC 21), 27=169 (LC 22)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/16, 2-3=-105/60, 3-4=-111/64, 4-5=-51/89, 5-6=-44/84, 6-7=-44/76, 7-8=-28/89, 8-9=-111/41, 9-10=-105/8, 10-11=0/16

BOT CHORD	
	2-19=-45/80, 18-19=-45/80, 17-18=-45/80, 16-17=-45/80, 15-16=-6/73, 14-15=-6/73, 12-14=-6/73, 10-12=-6/73
WEBS	
	6-16=-125/0, 16-22=-112/71, 22-23=-102/70, 8-23=-135/71, 4-21=-135/65, 20-21=-102/61, 16-20=-112/63, 5-20=-244/87, 17-20=-223/83, 18-21=-67/9, 3-19=-147/75, 7-22=-244/85, 15-22=-223/83, 14-23=-67/2, 9-12=-144/73

**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 Exterior(2E) 0-3-11 to 3-3-11, Interior (1) 3-3-11 to 6-8-1, Exterior(2R) 6-8-1 to 12-8-1, Interior (1) 12-8-1 to 16-0-7, Exterior(2E) 16-0-7 to 19-0-7 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



February 26, 2022

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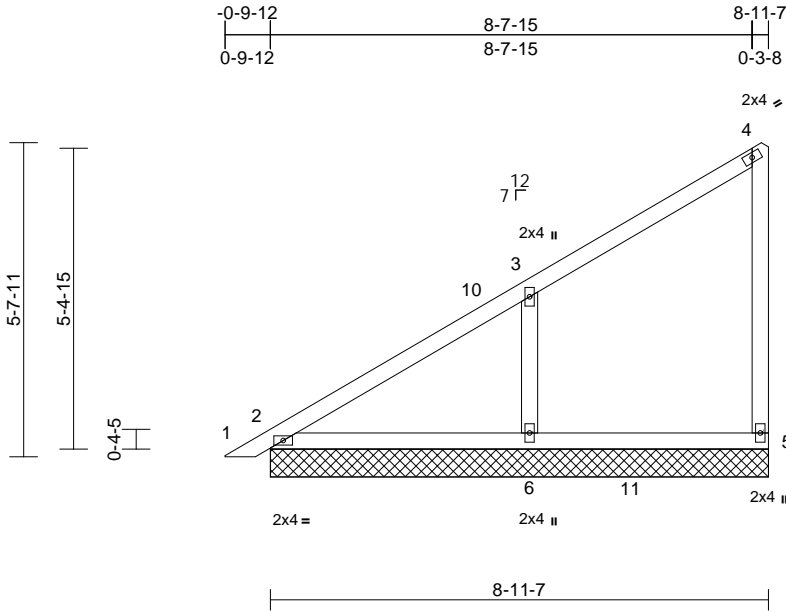
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss PB3	Truss Type Piggyback	Qty 3	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445659 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 41 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
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=179/8-11-7, 5=119/8-11-7,  
6=438/8-11-7, 7=179/8-11-7  
Max Horiz 2=190 (LC 13), 7=190 (LC 13)  
Max Uplift 5=-28 (LC 11), 6=-139 (LC 14)  
Max Grav 2=208 (LC 25), 5=202 (LC 5),  
6=575 (LC 5), 7=208 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/16, 2-3=-147/132, 3-4=-132/67,  
4-5=-161/48  
BOT CHORD 2-6=-84/92, 5-6=-84/92  
WEBS 3-6=-444/246

**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 3-3-11, Interior (1) 3-3-11 to 6-7-13, Exterior(2E) 6-7-13 to 9-7-13 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.

- 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, with BCDL = 10.0psf.
- 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



February 26, 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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

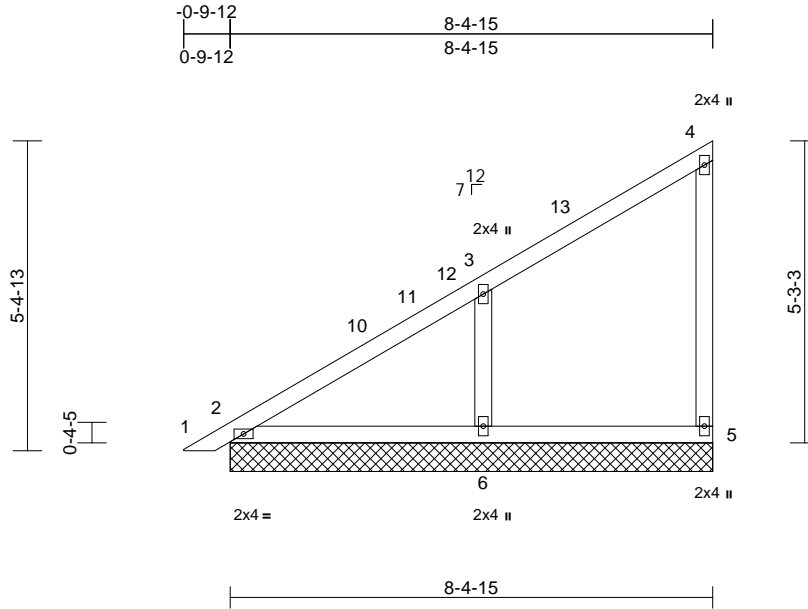


Job 22030208	Truss PB4	Truss Type Piggyback	Qty 3	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445660 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:40.2

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	0.38	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: 39 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=172/8-4-15, 5=110/8-4-15,  
6=411/8-4-15, 7=172/8-4-15  
Max Horiz 2=179 (LC 13), 7=179 (LC 13)  
Max Uplift 5=-26 (LC 11), 6=-117 (LC 14)  
Max Grav 2=174 (LC 25), 5=173 (LC 21),  
6=542 (LC 21), 7=174 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/16, 2-3=-138/122, 3-4=-123/65,  
4-5=-148/45  
BOT CHORD 2-6=-80/87, 5-6=-80/87  
WEBS 3-6=-426/193

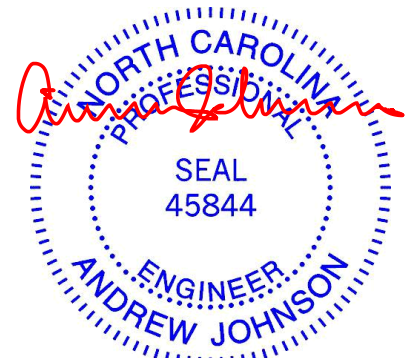
**NOTES**  
1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior (1) 3-3-11 to 4-10-7, Exterior(2R) 4-10-7 to 9-1-5 zone; cantilever left and right exposed; 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

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.

- 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



February 26, 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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

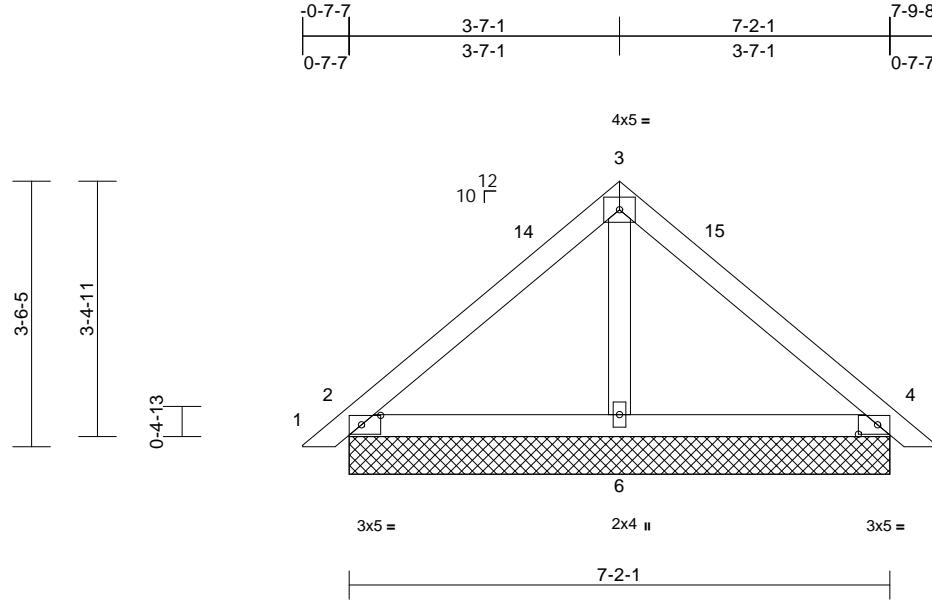
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss PB5	Truss Type Piggyback	Qty 9	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK I50445661 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:30.6  
Plate Offsets (X, Y): [2:0-3-1,0-1-8], [4:0-3-1,0-1-8]

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	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 31 lb	FT = 20%	

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

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

**REACTIONS** (lb/size) 2=205/7-2-1, 4=205/7-2-1, 6=212/7-2-1, 7=205/7-2-1, 11=205/7-2-1  
Max Horiz 2=-78 (LC 12), 7=-78 (LC 12)  
Max Uplift 2=-37 (LC 14), 4=-46 (LC 15), 7=-37 (LC 14), 11=-46 (LC 15)  
Max Grav 2=300 (LC 21), 4=300 (LC 22), 6=228 (LC 21), 7=300 (LC 21), 11=300 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/26, 2-3=-206/113, 3-4=-206/113, 4-5=0/26  
BOT CHORD 2-6=-34/82, 4-6=-24/82  
WEBS 3-6=-80/0

**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) 0-2-14 to 3-2-14, Exterior (2R) 3-2-14 to 5-2-10, Exterior(2E) 5-2-10 to 8-2-10 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



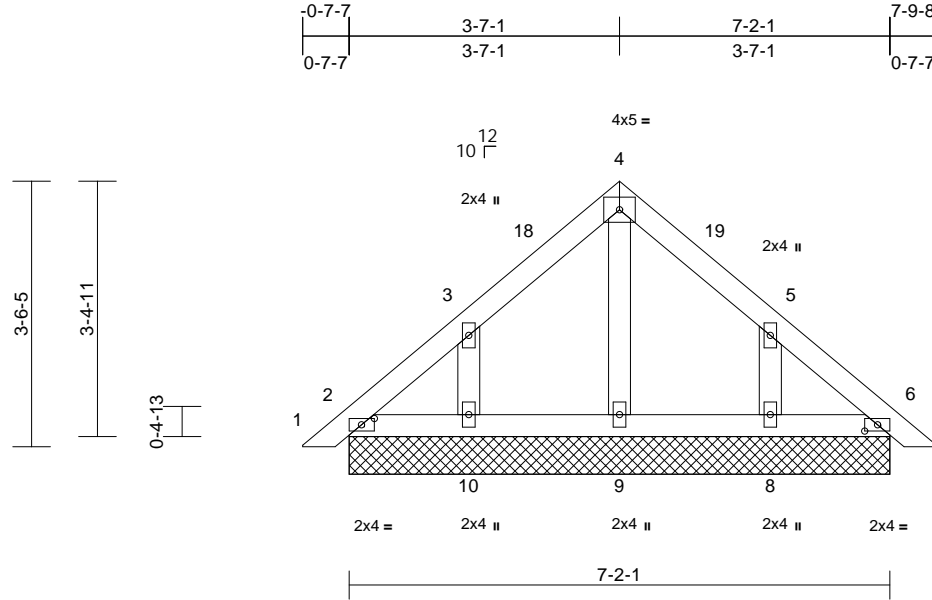
February 26, 2022

Job 22030208	Truss PB6	Truss Type Piggyback	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445662 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.53 S Dec 6 2021 Print: 8.530 S Dec 6 2021 MiTek Industries, Inc. Thu Feb 24 21:23:52  
ID:yJrm4RdFA?Afxfl8EdwakXzhpVm-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?F

Page: 1



Scale = 1:30.6

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	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	0.05	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 35 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)

2=85/7-2-1, 6=85/7-2-1,  
8=165/7-2-1, 9=104/7-2-1,  
10=165/7-2-1, 11=85/7-2-1,  
15=85/7-2-1  
Max Horiz 2=-76 (LC 12), 11=-76 (LC 12)  
Max Uplift 2=-9 (LC 10), 8=-87 (LC 15),  
10=-87 (LC 14), 11=-9 (LC 10)  
Max Grav 2=127 (LC 21), 6=127 (LC 22),  
8=252 (LC 22), 9=111 (LC 21),  
10=252 (LC 21), 11=127 (LC 21),  
15=127 (LC 22)

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

TOP CHORD 1-2=0/25, 2-3=-59/53, 3-4=-100/84,  
4-5=-100/84, 5-6=-46/34, 6-7=0/25  
BOT CHORD 2-10=-24/77, 9-10=-24/77, 8-9=-24/77,  
6-8=-24/77  
WEBS 4-9=-73/0, 3-10=-209/155, 5-8=-209/155

**NOTES**

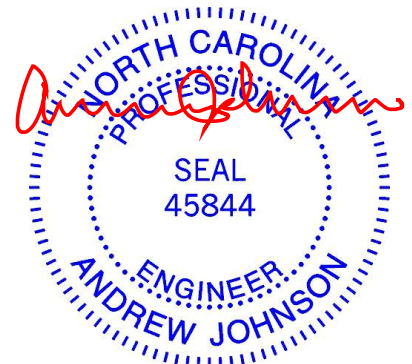
1) Unbalanced roof live loads have been considered for this design.

- 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) 0-2-14 to 3-2-14, Exterior (2R) 3-2-14 to 5-2-10, Exterior(2E) 5-2-10 to 8-2-10 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) 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) N/A

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

**LOAD CASE(S)** Standard

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.



February 26, 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



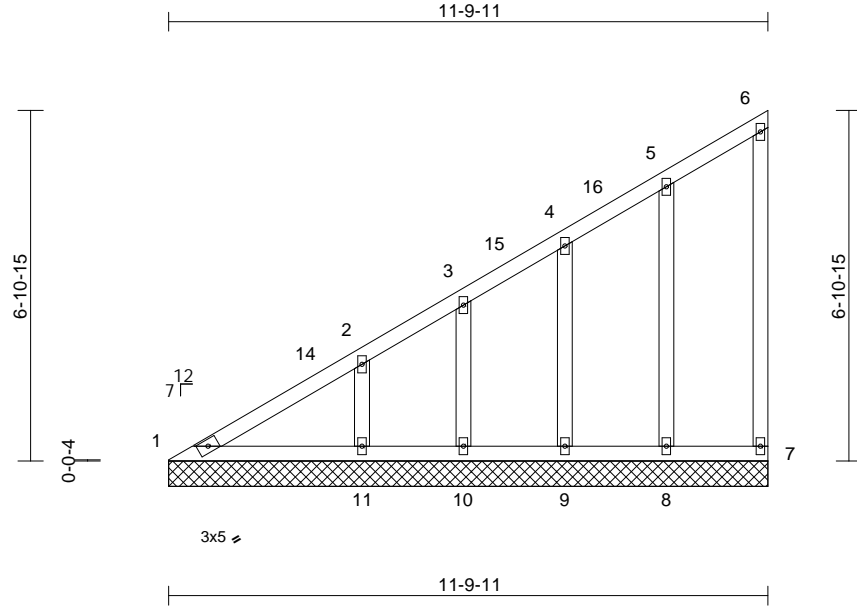
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss V1	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK I50445663 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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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	0.49	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 67 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.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)  
1=121/11-9-11, 7=59/11-9-11,  
8=160/11-9-11, 9=169/11-9-11,  
10=96/11-9-11, 11=299/11-9-11  
Max Horiz 1=229 (LC 11)  
Max Uplift 1=-3 (LC 10), 7=-32 (LC 11), 8=-52 (LC 14), 9=-50 (LC 14), 10=-40 (LC 14), 11=-74 (LC 14)  
Max Grav 1=152 (LC 24), 7=87 (LC 20), 8=239 (LC 20), 9=238 (LC 20), 10=104 (LC 20), 11=306 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-241/135, 2-3=-153/93, 3-4=-132/85, 4-5=-125/83, 5-6=-93/94, 6-7=-72/26  
BOT CHORD 1-11=-98/177, 10-11=-98/124, 9-10=-98/124, 8-9=-98/124, 7-8=-98/124  
WEBS 5-8=-200/74, 4-9=-192/123, 3-10=-95/82, 2-11=-199/157

**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) 0-0-7 to 3-0-7, Exterior(2N) 3-0-7 to 8-8-6, Corner(3E) 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

- 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 3 lb uplift at joint 1.



February 26, 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



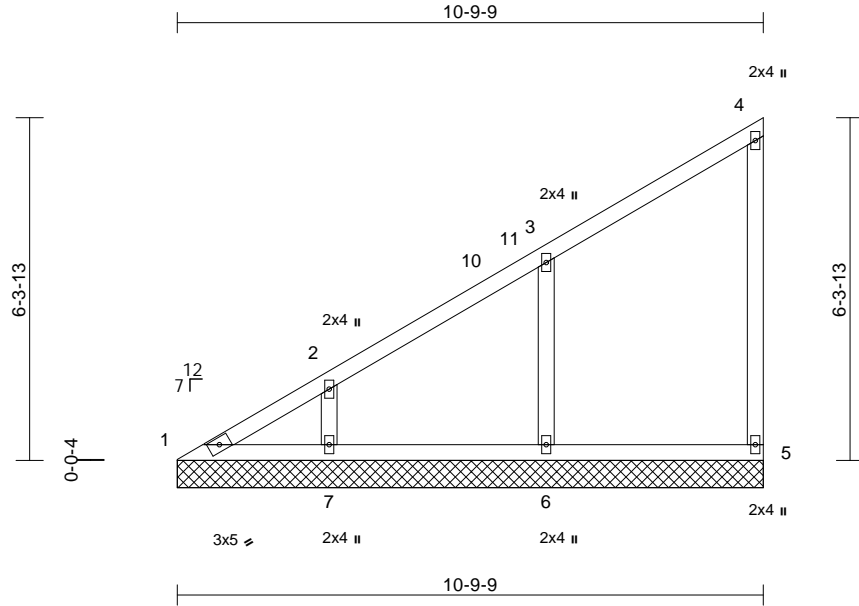
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss V2	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445664 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:42.5

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	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 49 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)

1=80/10-9-9, 5=122/10-9-9, 6=339/10-9-9, 7=286/10-9-9
Max Horiz 1=208 (LC 11)
Max Uplift 1=-13 (LC 10), 5=-31 (LC 11), 6=-60 (LC 14), 7=-79 (LC 14)
Max Grav 1=120 (LC 28), 5=202 (LC 5), 6=488 (LC 5), 7=337 (LC 23)

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

TOP CHORD	1-2=-184/123, 2-3=-146/106, 3-4=-127/77, 4-5=-153/43
BOT CHORD	1-7=-88/116, 6-7=-88/98, 5-6=-88/98
WEBS	3-6=-381/139, 2-7=-215/123

- 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) 0-0-7 to 2-10-0, Interior (1) 2-10-0 to 6-5-5, Exterior(2R) 6-5-5 to 10-8-4 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) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1.



February 26, 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

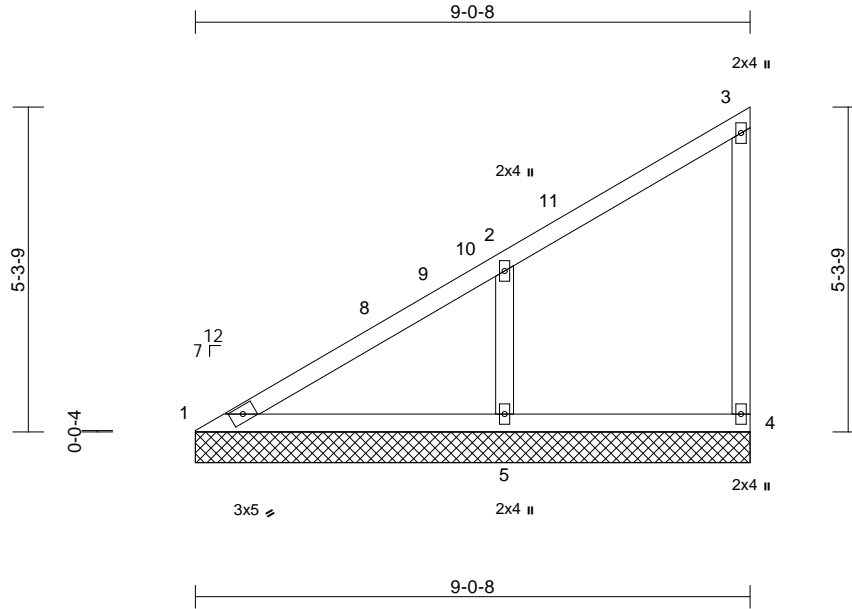


Job 22030208	Truss V3	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445665 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 39 lb	FT = 20%

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

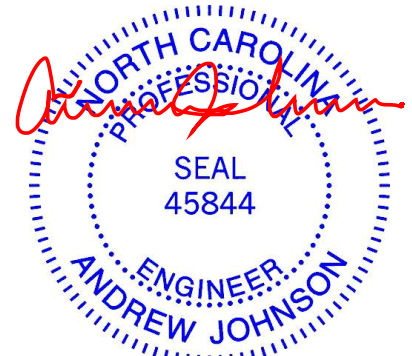
**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size)  
 1=162/9-0-8, 4=103/9-0-8,  
 5=446/9-0-8  
 Max Horiz 1=178 (LC 11)  
 Max Uplift 4=-28 (LC 11), 5=-113 (LC 14)  
 Max Grav 1=170 (LC 28), 4=169 (LC 20),  
 5=570 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-270/126, 2-3=-123/63, 3-4=-148/42  
 BOT CHORD 1-5=-77/235, 4-5=-77/85  
 WEBS 2-5=-435/173

- 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) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 4-8-4, Exterior(2R) 4-8-4 to 8-11-3 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
  - 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) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



February 26, 2022

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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate

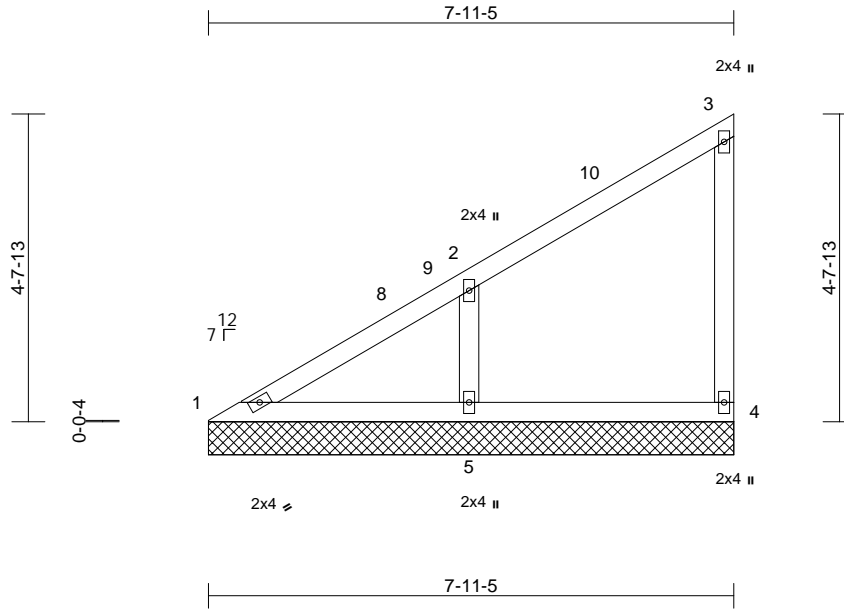
818 Soundside Road  
 Edenton, NC 27932

Job 22030208	Truss V4	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445666 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 33 lb	FT = 20%

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

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

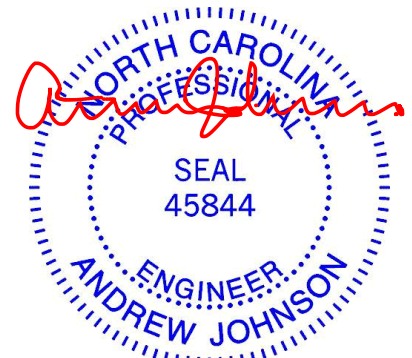
**REACTIONS** (lb/size)  
1=120/7-11-5, 4=115/7-11-5,  
5=389/7-11-5  
Max Horiz 1=155 (LC 11)  
Max Uplift 4=-25 (LC 11), 5=-105 (LC 14)  
Max Grav 1=132 (LC 24), 4=178 (LC 20),  
5=521 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-203/112, 2-3=-115/57, 3-4=-151/44  
BOT CHORD 1-5=-70/163, 4-5=-70/76  
WEBS 2-5=-412/184

**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) 0-0-7 to 3-0-7, Interior (1) 3-0-7 to 3-7-1, Exterior(2R) 3-7-1 to 7-9-15 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
- 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) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



February 26, 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



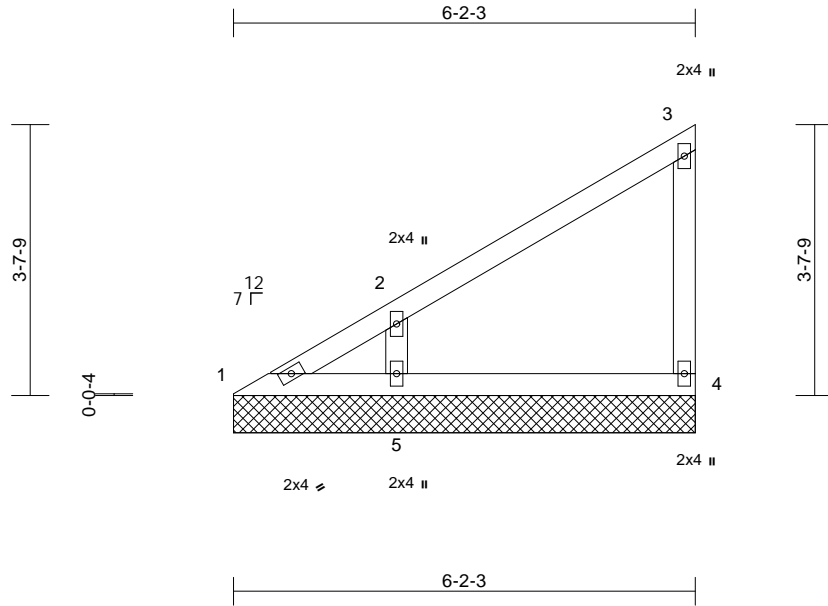
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss V5	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK 150445667 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:30.9

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	0.31	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	0.08	Horiz(TL)	0.00	4	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
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.

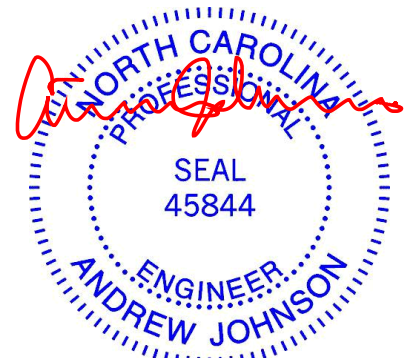
REACTIONS	
(lb/size)	1=36/6-2-3, 4=125/6-2-3, 5=321/6-2-3
Max Horiz	1=119 (LC 11)
Max Uplift	1=-10 (LC 10), 4=-27 (LC 14), 5=-90 (LC 14)
Max Grav	1=59 (LC 28), 4=186 (LC 20), 5=464 (LC 20)

FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-113/98, 2-3=-114/58, 3-4=-153/45
BOT CHORD	1-5=-55/60, 4-5=-55/60
WEBS	2-5=-412/207

**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) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1.



February 26, 2022

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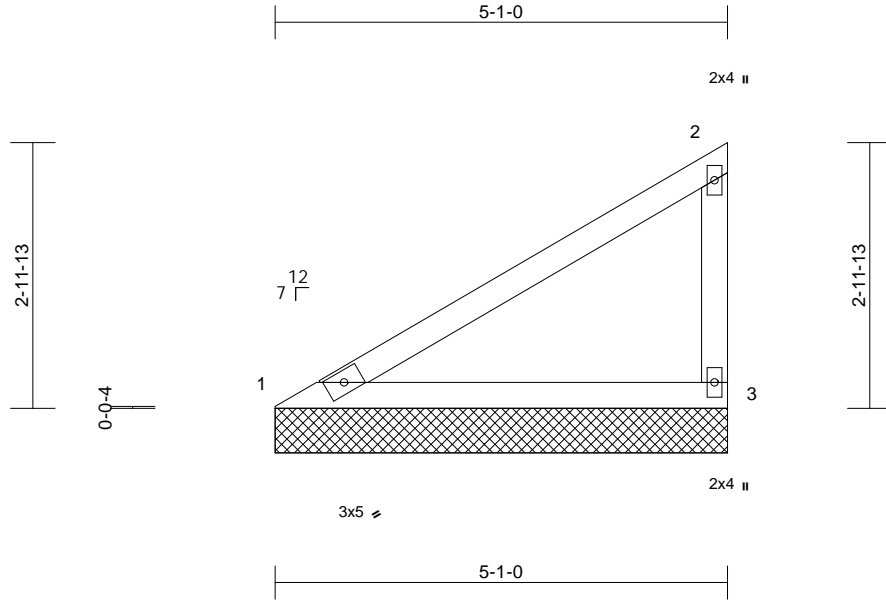
818 Soundside Road  
Edenton, NC 27932

Job 22030208	Truss V6	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 117 FARM AT NEILLS CREEK I50445668 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:25.9

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	0.52	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.53	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 19 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 5-1-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(lb/size) 1=198/5-1-0, 3=198/5-1-0  
Max Horiz 1=96 (LC 11)  
Max Uplift 1=-17 (LC 14), 3=-46 (LC 14)  
Max Grav 1=292 (LC 20), 3=292 (LC 20)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-452/82, 2-3=-200/64  
BOT CHORD 1-3=-81/383

#### 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); ls=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) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1.



February 26, 2022

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

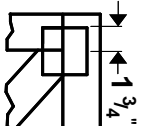
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

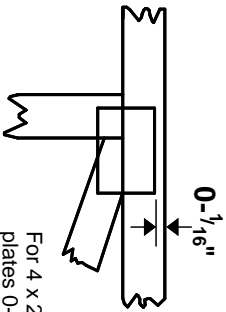
818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

**4 X 4**

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

## LATERAL BRACING LOCATION



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

## BEARING



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

### Industry Standards:

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

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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MITek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



# General Safety Notes

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

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