

DE  
DANSCO ENGINEERING, PA

P.O. Box 3400  
Apollo Beach, FL 33572  
Telephone (813) 645-0166  
Facsimile (813) 645-9698

The truss drawing(s) attached have been prepared by Dansco Engineering, PA under my direct supervision and control based on the parameters provided by **Simpson Strong-Tie Co., Inc.** We have reviewed the requirements of the 2018 North Carolina Building Code/Residential Code and hereby certify that the attached trusses are in compliance with letter and intent of said code.

Job: Q0498

1 truss design(s)

72504-W1



02/19/2020

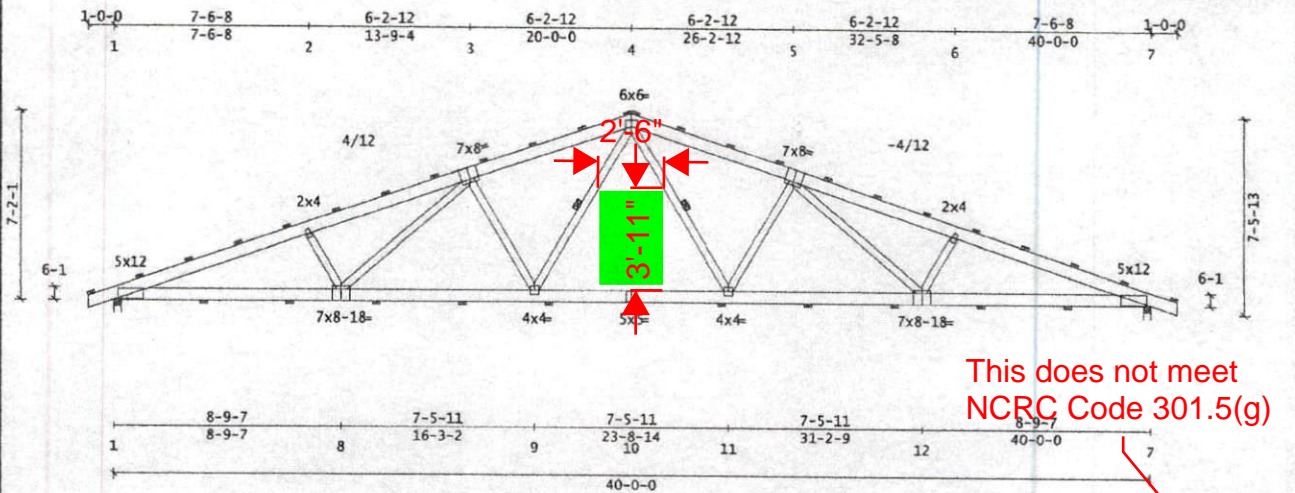
**Samuel A. Greenberg, P.E.**  
N.C. Reg. #16977  
License Number C-3462

**Note:** Gable end frames with stud lengths exceeding 4' require permanent bracing. On structural gables, where studs may be made from two or more boards as they cross diagonals, the 4' length is the distance from the top chord to bottom chord.

The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI 1-2014 Chapter 2.

**Warning 1—Verify design parameters and read notes before use.**

These designs are based only upon parameters shown, and are for individual building components to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 563 D'Onofrio Drive, Madison, WI 53719



Code/Design: IBC-2015/TPI-2014 PFF Live Dead Dur Factors TC 19.8 5.0 Live Wind Snow BC 0.0 5.0 Lum 1.25 1.60 N/A Total 29.8 Plt 1.25 1.60 N/A Spacing: 5'-00"-00" o.c. Plies: 1 Repetitive Member Increase: No Green Lumber: No Wet Service: No Fab Tolerance: 20% Creep (Kcr) = 2.0 OH Soffit Load: 2.0 psf	Snow Load Specs ASCE7-10 Ground Snow(S <sub>g</sub> ): N/A Risk Cat: I Terrain Cat: C Roof Exposure: Partially Exposed Thermal Condition: Unheated(1.2) Unobstructed Slippery Roof: Yes Low-Slope Minimums(P <sub>min</sub> ): No Unbalanced Snow Loads: No Rain Surcharge: No Ice Dam Chk: Yes	Wind Load Specs ASCE7-10 Wind Speed(V) = 120 mph Risk Cat: I Exposure Cat: C Bldg Dims: L = 0.0 ft B = 0.0 ft M.R.H(h) = 15.0 ft Kat = 1.0 Bldg Enclosure: Enclosed Wind DL(psf): TC = 4.0 BC = 1.0 End Vertical Exposed: L = Yes R = Yes Wind Uplift Reporting: HybridMW	Additional Design Checks 10 psf Non-Concurrent RCLL: No 50 psf RC Limited Storage: No 500 lb BC Accessible Ceiling: No 300 lb TC Maintenance Load: No 2000 lb TC Safe Load: No Unbalanced TCLL: Yes
---	---	---	---

**Material Summary**

TC	2x6	SP (ALSC6-2013)	#1
BC	2x6	SP (ALSC6-2013)	#1
Webs	2x4	SP (ALSC6-2013)	#3/Stud

**Reaction Summary**

Jnt	--X-Loc	React	-Up-	--Width-	-Reqd	-Mat	PSI
1	01-12	3113	1056	03-08	04-07**	SPP	470
7	39-10-04	3114	1056	03-08	04-07**	SPP	470

Max Horiz = -262 / +262 at Joint 1  
 (\*\*) Indicates Req'd Width > actual Width; enhancement may be required.  
 See bearing block detail TD-BRG-0001A.

**Deflection Summary**

TrussSpan	Limit	Actual (in)	Location
Vert LL	L/240	L/931(-0.51)	9-11
Vert DL	L/120	L/999(-0.27)	9-11
Vert CR	L/180	L/605(-0.78)	9-11
Horz LL	0.75in	(0.15)	8Jt 7
Horz CR	1.25in	(0.23)	8Jt 7
Ohng CR	2L/90	L/999(0.00)	1- 7
Ohng CR	2L/90	L/999(0.00)	7- 7

Vert CR and Horz CR are the vertical and horizontal deflections due to live load plus the creep component of deflection due to dead load, computed as Defl\_LL + (Rcr - 1) x Defl\_DL in accordance with ANSI/TPI 1.

**Member Forces Summary**

Mem.	Forces	Ten	Comp	.CSI.
TC	OH-1	47	0	0.06
	1- 2	4804	7504	0.92
	2- 3	4729	7133	0.73
	3- 4	3884	5557	0.67
	4- 5	3884	5557	0.67
	5- 6	4729	7133	0.73
	6- 7	4804	7504	0.92
	7-OH	47	0	0.06
BC	1- 8	7009	4290	0.98
	7-12	7009	4282	0.98
	8- 9	5788	3480	0.78
	9-10	4353	2451	0.57
	10-11	4353	2451	0.57
	11-12	5788	3505	0.78
Web	2- 8	648	757	0.19
	3- 8	1253	774	0.68
	3- 9	1074	1343	0.70
	4- 9	1579	1058	0.60
	4-11	1579	1058	0.60
	5-11	1074	1343	0.70
	5-12	1253	774	0.66
	6-12	648	757	0.19

**Loads Summary**

This truss has been designed for the effects of an unbalanced top chord live load occurring at [20'-00"-00] using a 1.00 Full and 0.00 Reduced load factor.

See Loadcase Report for loading combinations and additional details.  
 Dead Loads may be slope adjusted: > 12.0/12

**Notes**

Plates designed for C<sub>q</sub> at 0.80 and Rotational Tolerance of 10.0 degrees  
 Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints. Designed with hybrid plate values. See TD-SUB-0001 for info.  
 Continuous Lateral Restraint (CLR) rows require diagonal bracing per D-WEBCLRBRACE. Alternatively, see D-WEBREINFORCE.  
 Roof live load has been reduced in accordance Section 1607 of the IBC.  
 Reduced live load has been computed based on an Unreduced live load of 20 psf.

**Bracing Data Summary**

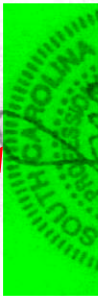
Chords: Sheathing required or bracing indicated:

-----Purlins-----	From	To	#Bays
TC	2-00-00	-1-00-00	41-00-00 23
BC	3-04-00	0	40-00-00 12

Web Bracing -- CLR -----  
 Single: 9- 4 4-11  
 Continuous Restraint Bracing Req'd  
 See BCSI-B3 3.0

**Plate offsets (X, Y):**  
 (None unless indicated below)  
 Jnt3(-00-10,01-14), Jnt5(00-10,01-14),  
 Jnt8(0,-02-00), Jnt12(0,-02-00)

Must have N.C. seal



**DANSOCO ENGINEERING, LLC**  
 P.O. Box 3400  
 Apollo Beach, FL 33572  
 COA License Number 3449  
 Date: 02/19/2020  
 DE Job# 72504-W1

NOTICE A copy of this design shall be furnished to the erection contractor. The design of this individual truss is based on design criteria and requirements supplied by the Truss Manufacturer and relies upon the accuracy and completeness of the information set forth by the Building Designer. A seal on this drawing indicates acceptance of professional engineering responsibility solely for the truss component design shown. See the cover page and the "Important Information & General Notes" page for additional information. All connector plates shall be manufactured by Simpson Strong-Tie Company, Inc. in accordance with ESR-2762. All connector plates are 20 gauge, unless the specified plate size is followed by a "-18" which indicates an 18 gauge plate, or "S18", which indicates a high tension 18 gauge plate.

**SIMPSON Strong-Tie**  
 Component Solutions  
 Truss Studio V  
 2019.3.0.218  
 Helpdesk: 1-866-252-8606  
 CSHelp@strongtie.com