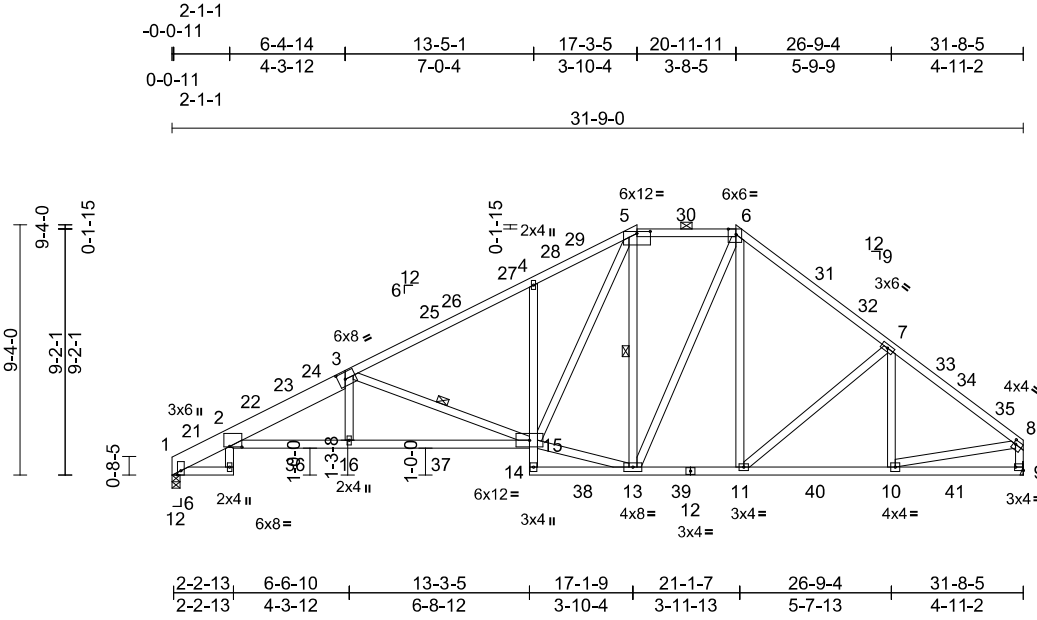


Job	Truss	Truss Type	Qty	Ply	Blake Pond SF Lot 00.0113 Roof	173117748
2504-5261-A	H4T	Hip	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Tue Apr 29 15:16:33  
ID:0uwwvly5UV8da7ak3pdghzun74-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:85.9

Plate Offsets (X, Y): [2:0-5-8,0-0-4], [3:0-3-4,0-3-0], [5:0-6-0,0-0-15], [6:0-3-6,Edge], [8:0-1-0,0-1-12], [9:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.23	15-16	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.41	15-16	>930	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.19	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.07	16-20	>999	240		
BCDL	10.0											
											Weight: 222 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2 \*Except\* 1-3:2x8 SP DSS  
BOT CHORD 2x4 SP No.3 \*Except\* 2-15:2x4 SP SS,  
14-12,12-9:2x4 SP No.2  
WEBS 2x4 SP No.3

#### BRACING

TOP CHORD Structural wood sheathing directly applied,  
except end verticals, and 2-0-0 oc purlins  
(4-7-5 max.): 5-6.

BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-15, 5-13

**REACTIONS** (size) 1=0-3-8, 9= Mechanical  
Max Horiz 1=154 (LC 15)  
Max Grav 1=1468 (LC 51), 9=1598 (LC 59)

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

TOP CHORD 1-2=-732/55, 2-4=-3734/118, 4-5=-2519/189,  
5-6=-1525/152, 6-7=-1865/143,  
7-8=-2058/81, 8-9=-1652/70

BOT CHORD 2-16=-69/3489, 15-16=-65/3505,  
14-15=0/167, 4-15=-451/120,  
13-14=-111/118, 11-13=0/1345,  
10-11=-26/1586, 9-10=-30/163

WEBS 3-15=-1403/65, 13-15=0/1440,  
5-15=-75/1596, 5-13=-529/44, 6-13=-35/354,  
6-11=0/408, 7-11=-324/88, 7-10=-195/195,  
8-10=0/1467, 3-16=0/415

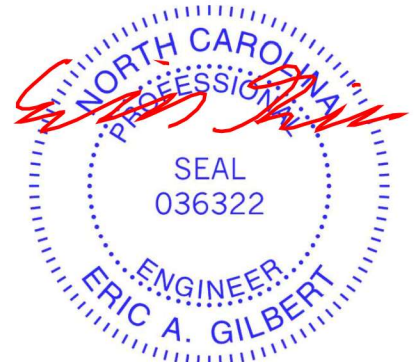
#### NOTES

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

- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust)  
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.  
II; Exp B; Enclosed; MWFRS (envelope) and C-C  
Exterior(2E) 0-1-12 to 3-3-14, Interior (1) 3-3-14 to  
17-4-0, Exterior(2E) 17-4-0 to 21-0-5, Exterior(2R)  
21-0-5 to 25-6-3, Interior (1) 25-6-3 to 31-7-4 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); Pg=20.0 psf; Pf=20.4 psf (Lum DOL =  
1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially  
Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this  
design.
- 5) Provide adequate drainage to prevent water ponding.
- 6) The Fabrication Tolerance at joint 2 = 16%
- 7) Plates checked for a plus or minus 5 degree rotation  
about its center.
- 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) Refer to girder(s) for truss to truss connections.
- 11) Bearing at joint(s) 1 considers parallel to grain value  
using ANSI/TPI 1 angle to grain formula. Building  
designer should verify capacity of bearing surface.
- 12) This truss has been designed for a moving concentrated  
load of 250.0lb live and 3.0lb dead located at all mid  
panels and at all panel points along the Top Chord and  
Bottom Chord, nonconcurrent with any other live loads.
- 13) This truss design requires that a minimum of 7/16"  
structural wood sheathing be applied directly to the top  
chord and 1/2" gypsum sheetrock be applied directly to  
the bottom chord.

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

**LOAD CASE(S)** Standard



May 1, 2025

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

ENGINEERING BY  
**TRENCO**  
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