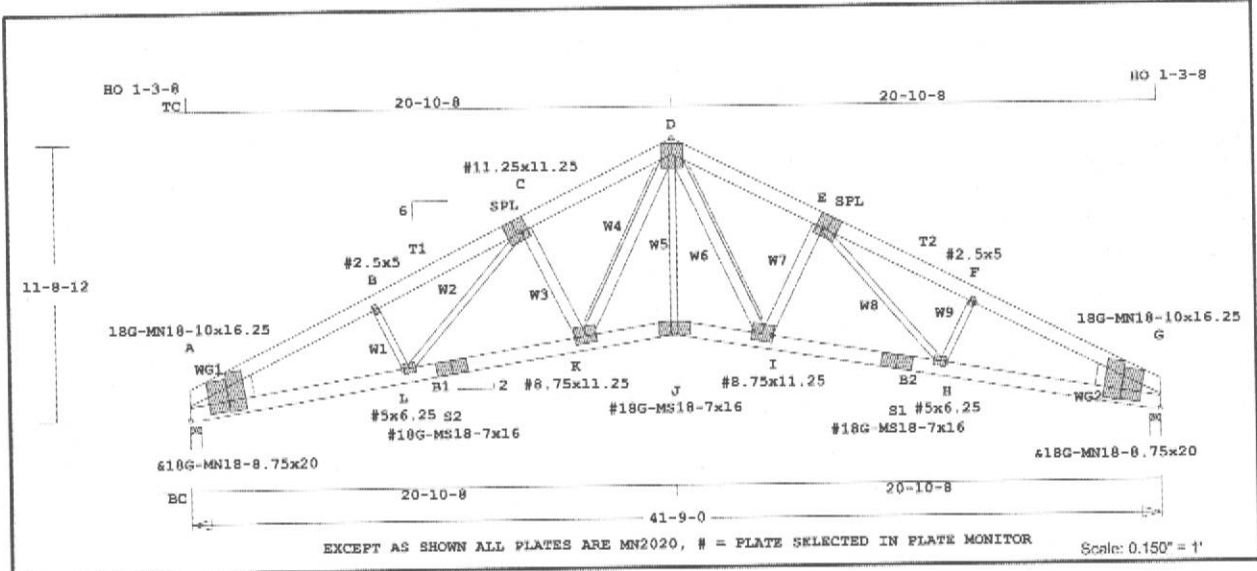


Job	Mark	Quan	Type	Span	P1-H1	Left	OH	Right	OH	Engineering
4075 42 RC MN PLATE 6-1-2013	0395643(2)	1	ZRC66	410900	6	0	0	0	0	



ALLIED DESIGN ARCHITECTURAL AND ENGINEERING GROUP, P.C. (ALLIED) CERTIFIES TRUSS DESIGN, ONLY, AND DOES NOT CERTIFY DESIGN OR OTHER ENGINEERING OF THE BUILDING IN WHICH THE TRUSS WILL BE INCORPORATED. ALLIED EXPRESSLY RELIES THAT THE BUILDING DESIGN AND/OR OTHER ENGINEERING WILL BE PROVIDED BY OTHERS AND ALLIED ASSUMES NO LIABILITY FOR PLANS OR DESIGNS OF OTHERS WHICH INCORPORATE THIS TRUSS DESIGN. IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO REVIEW THIS TRUSS DESIGN AND VERIFY THAT DIMENSIONS AND LOADS CONFORM TO APPLICABLE STANDARDS FOR DESIGN AND ENGINEERING FOR THE USE IN A BUILDING.

- GENERAL SAFETY, DESIGN, AND FABRICATION NOTES:
1. PROVIDE COPIES OF THIS TRUSS DESIGN TO THE BUILDING DESIGNER, ERECTION SUPERVISOR, PROPERTY OWNER AND ALL OTHER INTERESTED PARTIES.
  2. CUT MEMBERS TO BEAR TIGHTLY AGAINST EACH OTHER.
  3. PLACE PLATES ON EACH FACE OF TRUSS AT EACH JOINT AND EMBED FULLY. AVOID KNOTS AND WANE AT JOINT LOCATIONS.
  4. MOISTURE CONTENT OF LUMBER SHALL NOT EXCEED 19% AT THE TIME OF FABRICATION.
  5. THIS DESIGN IS NOT APPLICABLE FOR USE WITH FIRE RETARDING OR PRESERVATIVE TREATED LUMBER.
  6. CAMBER IS A NON-STRUCTURAL CONSIDERATION AND IS THE RESPONSIBILITY OF THE TRUSS FABRICATOR. GENERAL PRACTICE IS TO CAMBER FOR DEAD LOAD DEFLECTION.
  7. PLATE TYPE AND SIZE SHOWN ARE MINIMUM REQUIREMENTS.
  8. LUMBER SHALL BE THE SIZE AND SPECIES SHOWN. THE GRADES SHOWN ARE MINIMUM REQUIREMENTS.
  9. TOP CHORDS MUST BE LATERALLY BRACED NOT TO EXCEED 24' O.C.
  10. BOTTOM CHORDS MUST BE LATERALLY BRACED NOT TO EXCEED 5'-6" O.C.
  11. ANCHORAGE AND/OR LOAD TRANSFERRING CONNECTIONS TO TRUSSES ARE THE RESPONSIBILITY OF THE BUILDING DESIGNER.
  12. DO NOT OVERLOAD TRUSSES WITH STACKS OF CONSTRUCTION MATERIAL.
  13. DO NOT CUT OR ALTER TRUSS MEMBERS OR PLATES WITHOUT WRITTEN APPROVAL OF THE TRUSS DESIGNER.
  14. CARE SHOULD BE EXERCISED WHEN HANDLING, ERECTING, AND INSTALLING THESE TRUSSES TO AVOID DAMAGE.

GROUND SNOW LOAD: 15 PSF  
WIND SPEED (VULT) (EXP. C): 120 MPH

**\*ROOF SNOW LOAD CALCULATIONS**

Pf = 0.7 x Ce x I x Pg x Ct  
Ce = SNOW EXPOSURE FACTOR = 1.0  
I = IMPORTANCE FACTOR = 1.0  
Pg = GROUND SNOW LOAD = 15 PSF  
Ct = THERMAL FACTOR = 1.2  
Pf = 0.7 x 1.0 x 1.0 x 15 x 1.2 = 12.60 PSF  
Cs = ROOF SLOPE FACTOR = 1  
Ps = Pf x Cs = 12.60 x 1 = 12.60 PSF

LIVE LOAD	16	PSF
DEAD LOAD	4	PSF
CEILING LOAD	-	PSF
<b>TOTAL LOAD</b>	<b>20</b>	<b>PSF</b>

REQUIRED TRUSS LOAD = 20 PSF AT 8'-0" O.C. = 160 PLF  
TRUSS DESIGN LOAD (SEE DESIGN OUTPUT) = 192 PLF

Online Plus -- Version 30.0.069  
RUN DATE: 13-JAN-21

Southern Pine lumber design values are those effective 06-01-13 by SPIB//ALSC UON  
CSI -Size- Lumber-----  
TC 0.47 2x 8 SP-2400f-2.0E  
BC 1.01 2x 8 SP-2400f-2.0E  
WB 0.75 2x 4 SP-#1  
-- 0.41 2x 6 SP-#1  
C -K K -D D -I I -E  
WG --- 2x12 SP-#1

Brace truss as follows:  
O.C. From To  
TC 24.0" 0- 0- 0 41- 9- 0  
BC 66.0" 0- 0- 0 41- 9- 0  
One 2x4 T-Brace  
K -D D -I  
Attach to 1-1/2" edge w/10d nails at 6" o.c. T-Brace must cover 90% of web length and have a MOE >= 1.40E6.

psf-Ld	Dead	Live		
TC	4.0	20.0		
BC	0.0	0.0		
TC+BC	4.0	20.0		
Total	24.0	Spacing 96.0"		
Lumber	Duration Factor	1.15		
Plate	Duration Factor	1.15		
	Fb	Fc	Ft	Emin
TC	1.00	1.00	1.00	1.00
BC	1.00	1.00	1.00	1.00

Total Load Reactions (Lbs)  
Jt Down Uplift Horiz-  
A 4008 2182 G 610 R  
G 4008 1742 G  
G = Gravity Uplift

Jt	Brg Size	Required
A	5.5"	3.3"
G	5.5"	3.3"

LC# 2 Dead Load Check  
Dur Fctrs - Lbr 0.90 Plt 0.90  
plf - Dead Live\* From To  
TC V 32 0 0.0' 41.8'  
BC V 0 0 0.0' 41.8'

MITek Online Plus™ APPROX. TRUSS WEIGHT: 500.7 LBS  
LC# 3 NonStandard Loading  
Dur Fctrs - Lbr 1.60 Plt 1.60  
plf - Dead Live\* From To  
TC V 19 0 0.0' 41.8'  
BC V 0 0 0.0' 41.8'  
TC N 0 142 0.0' 20.9'  
TC N 0 84 20.9' 41.8'

Membr CSI P Lbs Axl-CSI-Bnd  
-----Top Chords-----  
A -B 0.47 8265 C 0.11 0.36  
B -C 0.45 7772 C 0.16 0.29  
C -D 0.27 6971 C 0.08 0.19  
D -E 0.27 6971 C 0.08 0.19  
E -F 0.45 7772 C 0.16 0.29  
F -G 0.47 8265 C 0.11 0.36  
-----Bottom Chords-----  
A -L 1.01 7322 T 0.92 0.09  
L -S2 0.72 6919 T 0.62 0.10  
S2 -K 0.72 6919 T 0.62 0.10  
K -J 0.27 5493 T 0.26 0.01  
J -I 0.27 5493 T 0.26 0.01  
I -S1 0.50 6919 T 0.40 0.10  
S1 -H 0.50 6919 T 0.40 0.10  
H -G 0.57 7322 T 0.47 0.10  
-----Webs-----  
B -L 0.10 704 T  
L -C 0.75 799 C  
C -K 0.41 1405 C  
K -D 0.22 1881 T 1T-Br  
J -D 0.72 1665 T  
D -I 0.22 1881 T 1T-Br  
I -E 0.41 1405 C  
E -H 0.16 326 T  
H -F 0.10 615 C

TL Defl -0.59" in K -J L/829  
LL Defl -0.46" in L -K L/999  
Hz Disp LL DL TL  
Jt G 0.28" 0.08" 0.36"  
Shear // Grain in A -B 0.47

Plates for each ply each face.  
Plate - MN18 18 Ga, Gross Area  
Plate - MN20 20 Ga, Gross Area  
Plate - MS18 18 Ga, Gross Area  
Jt Type Plt Size X Y JSI  
B MN20 2.5x 5.0 Ctr Ctr 0.73  
C# MN20 11.2x11.2 Ctr Ctr 0.60  
D# MN18 11.2x12.5 Ctr Ctr 0.55  
E MN20 11.2x11.2 Ctr Ctr 0.60

F MN20 2.5x 5.0 Ctr Ctr 0.73  
L# MN20 5.0x 6.2 Ctr Ctr 0.39  
S2 MS18 7.0x16.0 Ctr Ctr 0.43  
K# MN20 8.8x11.2 Ctr Ctr 0.40  
J# MS18 7.0x16.0 Ctr Ctr 0.34  
I# MN20 8.8x11.2 Ctr Ctr 0.41  
S1#MS18 7.0x16.0 Ctr Ctr 0.43  
H# MN20 5.0x 6.2 Ctr Ctr 0.34  
# = Plate Monitor used  
Placement Tolerance Used 0.12 in.

REFER TO ONLINE PLUS GENERAL NOTES AND SYMBOLS SHEET FOR ADDITIONAL SPECIFICATIONS.

NOTES:  
Trusses Manufactured by: Morton Buildings, Inc.  
Analysis Conforms To: TPI 2007  
Run vertical thru bottom chord Joint J

NOTE: USER MODIFIED PLATES  
This design may have plates selected through a plate monitor.  
Max comp. force 8265 Lbs  
Max tens. force 7322 Lbs  
Connector Plate Fabrication Tolerance = 10%

This truss is designed for a creep factor of 1.5 which is used to calculate total load deflection.

I HEREBY CERTIFY THAT THE STRUCTURAL DESIGN FOR THIS TRUSS WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED/REGISTERED PROFESSIONAL ENGINEER.

MICHAEL L. McCORMICK, P.E.  
mimccormick@alieddesignaes.com  
DATE: 1-18-21 REG.#



OFFICE: WILSON, NC  
JOB NO. 137-103569

RICHARD PRESCOTT  
FUGUAY VARINA, NC  
ALLIED DESIGN ARCHITECTURAL & ENGINEERING GROUP, P.C.  
100 S. PERSHING P.O. BOX 110 MORTON, IL 61550  
PHONE NUMBER: 309-263-4105

DRAWN BY:	KNO
DATE:	1/18/2021
CHECKED BY:	
DATE:	
REVISED DATE:	---
REVISED DATE:	---

SCALE: AS NOTED  
SHEET NO. S1 OF S1