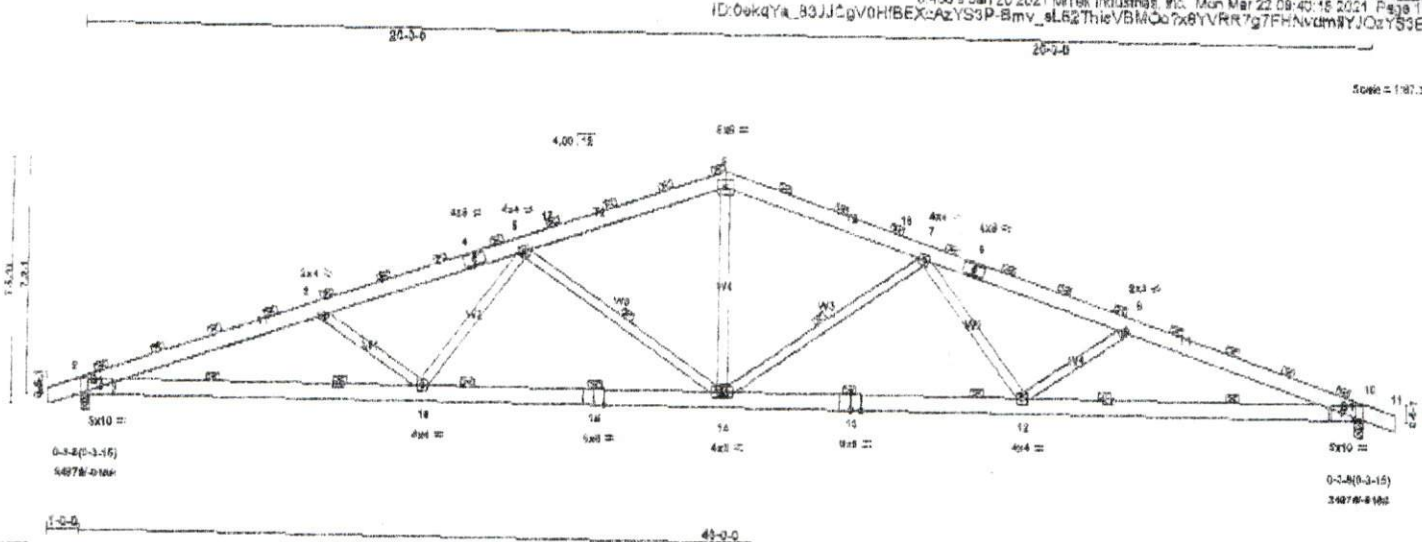


TRUSS 4' @ C.C.  
POST 8' @ C.C.



40 X 40 OPEN SHELF

Job: Var. 22. 2021 11:41 AM  
 Truss Type: MOD QUEEN  
 City: 11  
 Ply: 1  
 Val: SON  
 Job Reference (optional):  
 8:430 e Jan 20 2021 MTek Industries, Inc. Mon Mar 22 09:40:15 2021 Page 1  
 ID:0okqYa\_83JJcgv0HfBEX:AZYS3P-Bmv\_sl62ThieVBM0o7x8YVRR7g7FHvnm8YJQzYSS6



LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 4-0-0	TC 0.80	in (loc) /defi L/d	MT20	244/190
TCDL 5.0	Lumber DOL 1.15	BC 0.96	Vert(LL) -0.40 14-16 >999 240		
BCLL 0.0	Rep Stress Incr NO	WB 0.74	Vert(CT) -0.61 14-16 >783 180		
BCDL 5.0	Code IBC2018/TP:2014	Matrix-S	Horz(CT) 0.19 10 n/a n/a		
				Weight 260 lb	FT = 20%

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

**BRACING:**  
 TOP CHORD 2-0-0 oc purlins (2-5-13 max.)  
 (Switched from sheeted: Spacing > 2-0-0)  
 BOT CHORD 4-0-0 oc bracing  
 WEBS 1 Row at midpt 5-14, 7-14

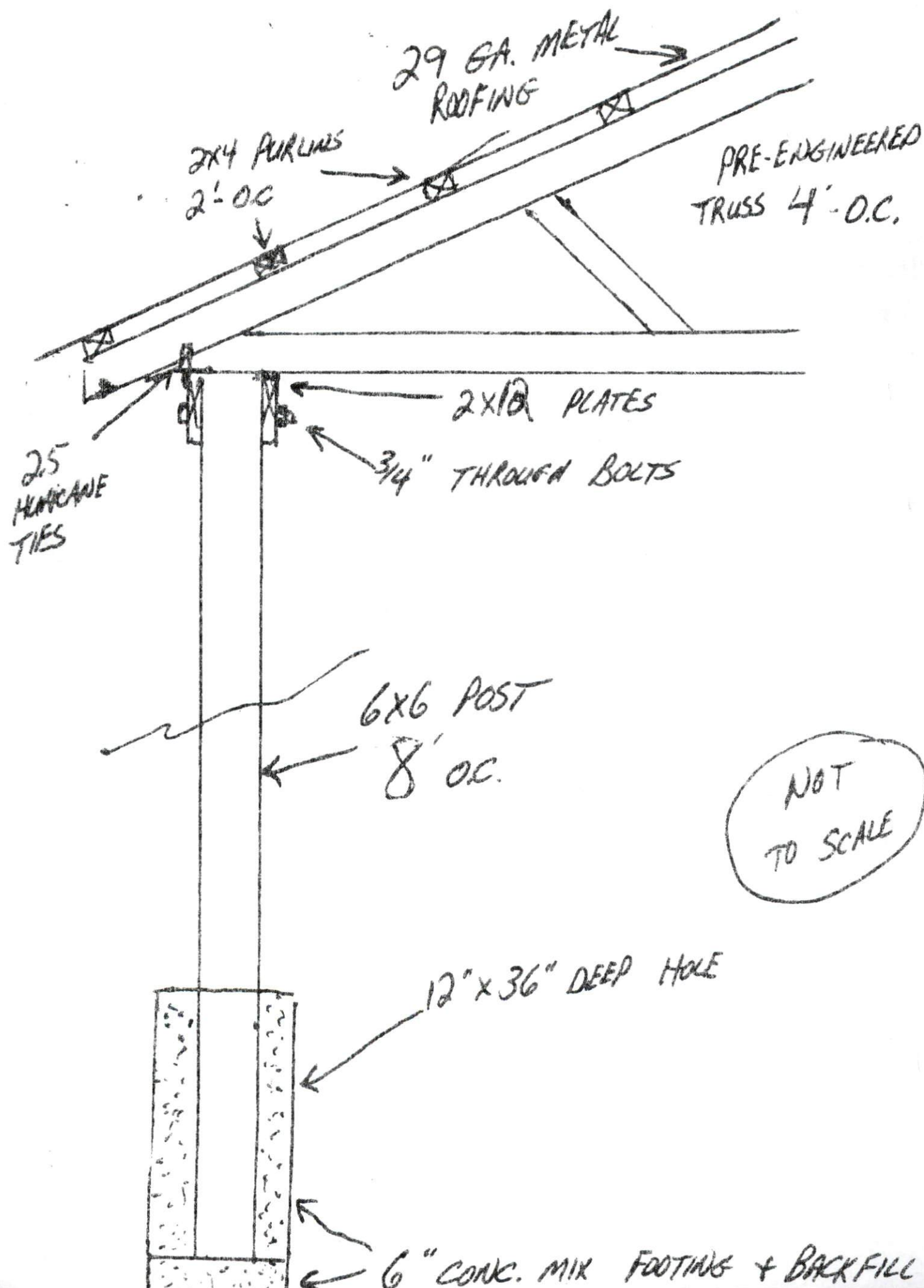
**REACTIONS:** (size) 2=(0-3-8 + bearing block) (req. 0-3-15), 10=(0-3-8 + bearing block) (req. 0-3-15)  
 Max Horz 2=-201(LC 10)  
 Max Uplift 2=-918(LC 12), 10=-918(LC 12)  
 Max Grav 2=2497(LC 2), 10=2497(LC 2)

**FORCES:** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-6114/2215, 3-5=-5456/1989, 5-6=-3869/1505, 6-7=-3869/1504, 7-9=-8456/1989, 9-10=-6114/2215  
 BOT CHORD 2-18=-1978/5677, 14-16=-1498/4843, 12-14=-1498/4843, 10-12=-1978/5677  
 WEBS 3-16=-804/472, 5-16=-179/877, 5-14=-1424/804, 6-14=-626/1787, 7-14=-1425/804, 7-12=-179/877, 9-12=-806/472

**JOINT STRESS INDEX**  
 2 = 0.76, 2 = 0.00, 3 = 0.40, 4 = 0.56, 5 = 0.81, 6 = 0.74, 7 = 0.81, 8 = 0.56, 9 = 0.40, 10 = 0.76, 10 = 0.00, 12 = 0.46, 13 = 0.88, 14 = 0.58, 15 = 0.89 and 16 = 0.48

- NOTES:**
- 2x6 SP No.1 bearing block 12" long at jt. 2 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. User Defined Bearing crushing capacity= 425psi.
  - 2x6 SP No.1 bearing block 12" long at jt. 10 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. User Defined Bearing crushing capacity= 425psi.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=3.0psf; BCDL=3.0psf; h=12ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Pr. Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL); Lum DOL=1.15 Plate DOL=1.15; Pg=15.0 psf; Pf=12.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.20
  - 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 12.6 psf on overhangs non-concurrent with other live loads.
  - Dead loads shown include weight of truss. Top chord dead load of 5.0 psf (or less) is not adequate for a shingle roof. Architect to verify adequacy of top chord dead load.
  - 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 3-8-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

Continued on page 2



29 GA. METAL ROOFING

2x4 PURLINS  
2'-0" OC

PRE-ENGINEERED TRUSS 4'-0" OC.

2x12 PLATES

3/4" THROUGH BOLTS

2.5 HURRICANE TIES

6x6 POST  
8' OC.

NOT TO SCALE

12" x 36" DEEP HOLE

6" CONC. MIX FOOTING & BACKFILL