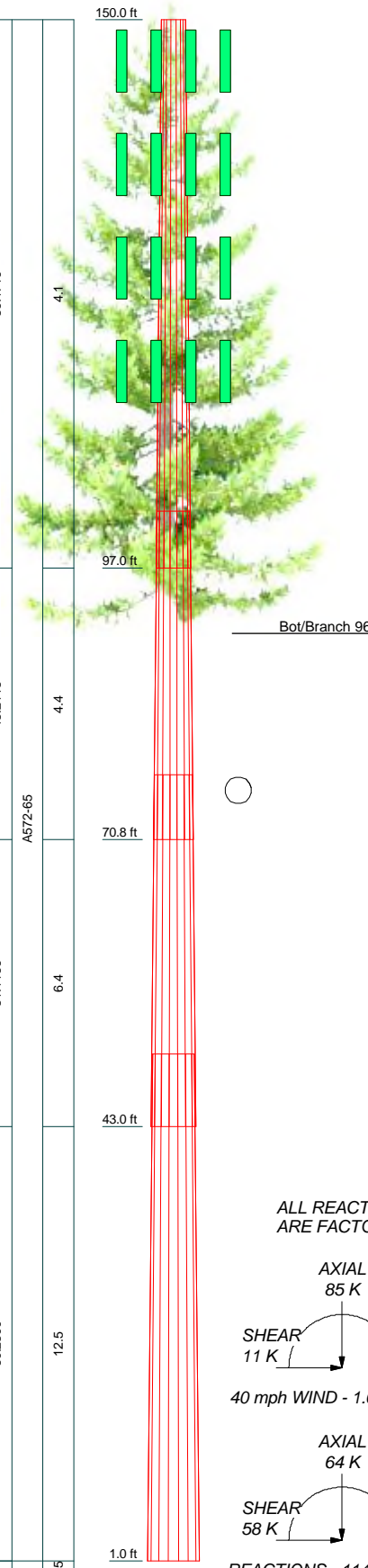
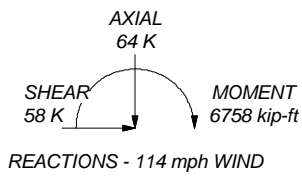
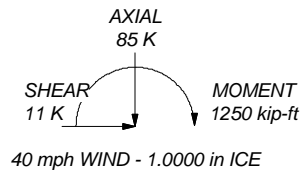


Section	1	2	3	4	
Length (ft)	53.00	31.75	34.00	49.00	
Number of Sides	18	18	18	18	
Thickness (in)	0.2188	0.3125	0.3750	0.4375	
Socket Length (ft)	5.50	6.25	7.00		
Top Dia (in)	27.0000	37.7401	43.1158	48.7194	
Bot Dia (in)	39.4719	45.2115	51.1166	60.2500	
Grade		A572-65			
Weight (K)	4.1	4.4	6.4	12.5	27.5



ALL REACTIONS  
ARE FACTORED



## DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Pine Tree Branches	149.5	Antennas + Mount (EPA 120 ft2 / 3,000 lbs)	126
Antennas + Mount (EPA 120 ft2 / 3,000 lbs)	146	Antennas + Mount (EPA 120 ft2 / 3,000 lbs)	116
Pine Tree Branches	139	Pine Tree Branches	115
Antennas + Mount (EPA 120 ft2 / 3,000 lbs)	136	Pine Tree Branches	103
Pine Tree Branches	127		

## MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

## TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 114 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 40 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 99.8%

## DESIGN MEETS TIA-222-H

**Preliminary Design**  
**Not For Fabrication**

Estimated Total Structure Wt. = 29228 lbs



Design may not be used without written permission from Michael F. Plahovinsak, PE

BASE PLATE:	2.5" x 73.75" ROUND (50 KSI)
ANCHOR BOLTS:	(22) ANCHORS ON 67.75" B.C. 2.25 in. A615 GR. 75 X 7'-0"

**Michael Plahovinsak, P.E.**  
18301 State Route 161  
Plain City, OH 43064  
Phone: 614-398-6250  
FAX: mike@mfpeng.com

Job:	<b>150-ft Pine Tree Monopole - MFP #23522-307 r1</b>		
Project:	<b>NY0248 Chester DPW</b>		
Client:	22-0708 r1	Drawn by:	JC
Code:	TIA-222-H	Date:	09/26/22
Path:	C:\Users\jorge\Dropbox\MFP Engineering Files\Projects\235-TAPP\23522-307\23522-307 r1.dwg		
		App'd:	
		Scale:	NTS
		Dwg No.	E-1

# FOUNDATION NOTES:

1. FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT PROVIDED BY:

GEOTECH: DELTA OAKS GROUP  
REPORT NO.: GEO22-14312-08  
REPORT DATE: 7/1/22

2. FOUNDATION CONCRETE STRENGTH SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI .

3. ESTIMATED CONCRETE VOLUME = 34 CUBIC YARDS.

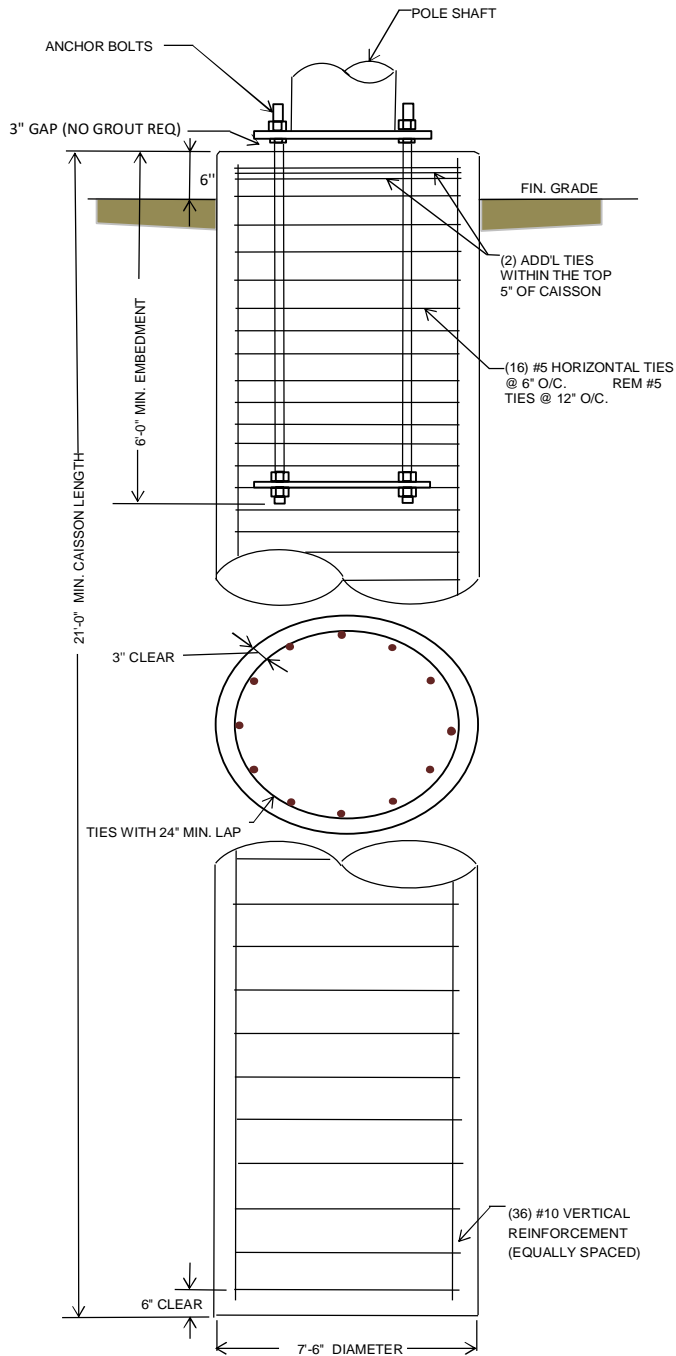
4. ANCHOR RODS: 2 1/4"Ø x 7'-0" LONG, WITH MIN.6'-0" EMBEDMENT INTO CONCRETE.

5. THE FOUNDATION WAS DESIGNED FOR THE FOLLOWING LOADS:

MOMENT: 6758 FT-KIPS  
SHEAR: 58 KIPS  
AXIAL: 64 KIPS

6. GEOTECHNICAL REPORT INDICATES GROUNDWATER MAY BE ENCOUNTERED AT 2 FT BELOW GRADE.

**- PRELIMINARY FOUNDATION DESIGN -  
NOT FOR CONSTRUCTION**



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**150-ft pine tree monopole - MFP #23522-307**

NY0248 Chester DPW

TAPP

Mike

TIA-222-H

9/26/2022

PRELIMINARY FOUNDATION

# SPREAD FOOTING FOUNDATION

## FOUNDATION NOTES

1. THE GEOTECHNICAL ENGINEER (OR THE APPROPRIATE INSPECTOR) SHALL INSPECT THE EXCAVATION PRIOR TO PLACING REINFORCING STEEL OR FORMS.

2. THE CONTRACTOR SHALL READ THE GEOTECHNICAL REPORT AND SHALL CONSULT THE GEOTECHNICAL ENGINEER AS NECESSARY PRIOR TO CONSTRUCTION.

3. FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT AS PROVIDED BY:

GEOTECH: DELTA OAKS GROUP  
REPORT NO.: GEO22-14312-08  
REPORT DATE: 7/1/22

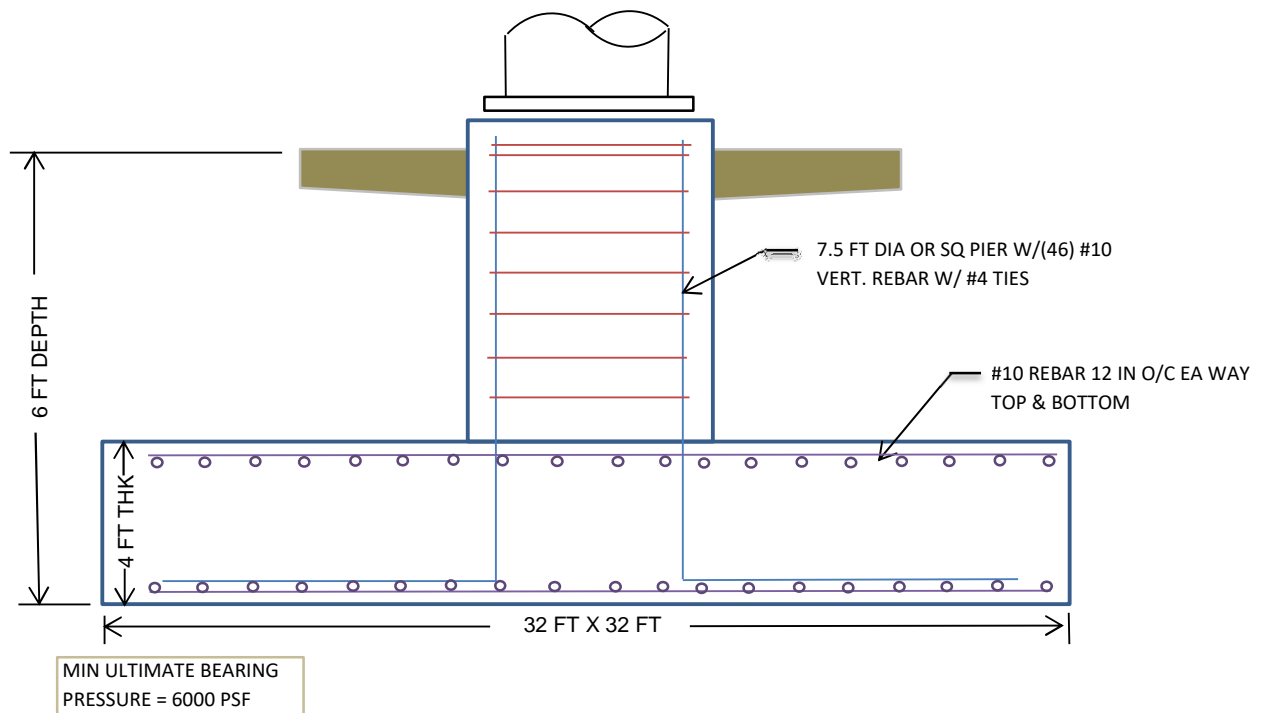
4. CONCRETE SHALL HAVE A MIN. 28-DAY COMPRESSIVE STRENGTH OF 4500 PSI.

5. REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GR. 60

6. ESTIMATED CONCRETE VOLUME = 156.9 CUBIC YARDS.

7. THE FOUNDATION WAS DESIGNED FOR THE FOLLOWING LOADS:

MOMENT: 6758 FT-KIPS  
SHEAR: 58 KIPS  
AXIAL: 64 KIPS



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**150-ft pine tree monopole - MFP #23522-307**

NY0248 Chester DPW

TAPP

Mike

TIA-222-H

9/26/2022

PRELIMINARY FOUNDATION