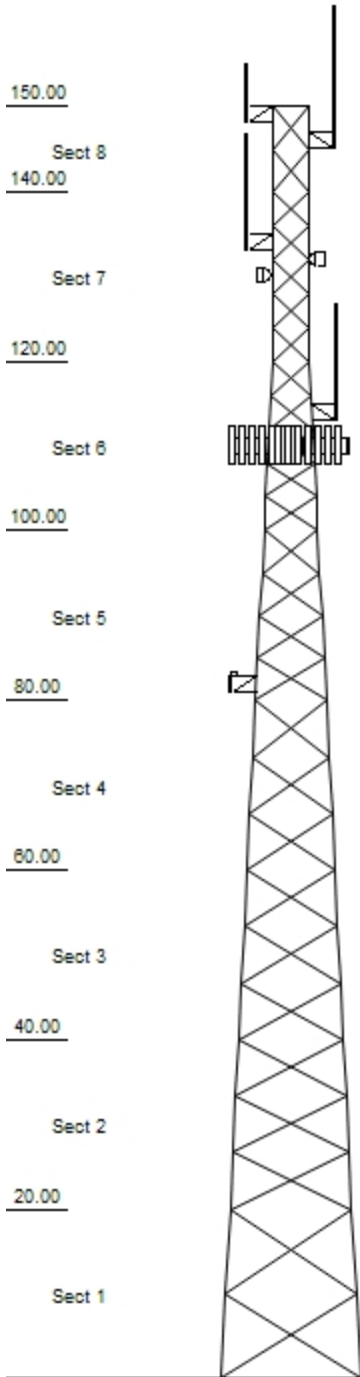


SEMAAN ENGINEERING SOLUTIONS, LLC  
1079 N.205<sup>th</sup> Street  
Elkhorn, NE 68022

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Loads: 90 mph no ice  
40 mph w / 3/4" radial ice  
Site Class: D Ss: 0.16 S1: 0.07  
60 mph Serviceability



Uplift 88.31 k Moment 1,420.11 k Moment Ice 364.38 k-ft  
Vert 102.78 k Tot Down 13.78 k Tot Down Ice 42.78 k  
Horiz 10.98 k Tot Shear 18.18 k Tot Shear Ice 4.55 k

## Job Information

Tower : Lewis University Location : Romeoville, IL  
Code : ANSI/TIA-222-G Shape : Triangle Base Width : 16.70 ft  
Client : Terra Consulting Group Top Width : 4.58 ft

## Sections Properties

| Section | Leg Members |        | Diagonal Members |                             | Horizontal Members       |
|---------|-------------|--------|------------------|-----------------------------|--------------------------|
| 1       | PX          | 50 ksi | 3-1/2" DIA PIPE  | SAE 36 ksi 3X3X0.25         | ksi                      |
| 2       | PX          | 50 ksi | 3" DIA PIPE      | SAE 36 ksi 2.5X2.5X0.25     | ksi                      |
| 3       | PST         | 50 ksi | 3" DIA PIPE      | SAE 36 ksi 2X2X0.1875       |                          |
| 4       | PX          | 50 ksi | 2-1/2" DIA PIPE  | SAE 36 ksi 1.75X1.75X0.1875 | ksi                      |
| 5       | PST         | 50 ksi | 2-1/2" DIA PIPE  | SAE 36 ksi 1.5X1.5X0.125    |                          |
| 6       | PX          | 50 ksi | 2" DIA PIPE      | SAE 36 ksi 1.5X1.5X0.125    | SAE 36 ksi               |
| 7       | PST         | 50 ksi | 2" DIA PIPE      | SAE 36 ksi 1.5X1.5X0.125    | ksi                      |
| 8       | PST         | 50 ksi | 2" DIA PIPE      | SAE 36 ksi 1.5X1.5X0.125    | SAE 36 ksi 1.5X1.5X0.125 |

## Discrete Appurtenance

| Elev (ft) | Type           | Qty | Description      |
|-----------|----------------|-----|------------------|
| 150.00    | Straight Arm   | 1   | Sidarm           |
| 150.00    | Whip           | 1   | Broadcast ring   |
| 150.00    | Lightning Rod  | 1   | Lightning Rod    |
| 147.00    | Straight Arm   | 1   | Sidarm           |
| 147.00    | Whip           | 1   | 15 ft Omni       |
| 135.00    | Straight Arm   | 1   | Sidarm           |
| 135.00    | Whip           | 1   | 12 ft Dipole     |
| 132.00    | Dish           | 1   | HP2 Dish         |
| 130.00    | Dish           | 1   | HP2 Dish         |
| 115.00    | Straight Arm   | 1   | Sidarm           |
| 115.00    | Whip           | 1   | 12 ft Omni       |
| 110.00    | Panel          | 1   | RCMDC-3315-PF-48 |
| 110.00    | Panel          | 6   | RRUS A2          |
| 110.00    | Panel          | 6   | AWC-TTMA-700C-VG |
| 110.00    | Panel          | 6   | RRUS12           |
| 110.00    | Panel          | 6   | SBNH-1D4545A     |
| 110.00    | Mounting Frame | 3   | Sector Mounts    |
| 83.00     | Straight Arm   | 1   | Sidarm           |
| 83.00     | Panel          | 1   | Camera           |

## Linear Appurtenance

| Elev (ft) |        | Qty | Description      |
|-----------|--------|-----|------------------|
| From      | To     |     |                  |
| 0.000     | 150.00 | 1   | 7/8" Coax        |
| 0.000     | 147.00 | 1   | 7/8" Coax        |
| 0.000     | 135.00 | 1   | 7/8" Coax        |
| 0.000     | 132.00 | 1   | 5/8" Coax        |
| 0.000     | 130.00 | 1   | 5/8" Coax        |
| 0.000     | 115.00 | 1   | 1/2" Coax        |
| 0.000     | 110.00 | 1   | HFT1206-24S26    |
| 0.000     | 110.00 | 3   | 3/8" RET Cable   |
| 0.000     | 110.00 | 12  | 1 5/8" Coax      |
| 0.000     | 83.000 | 1   | .28" Black Cable |