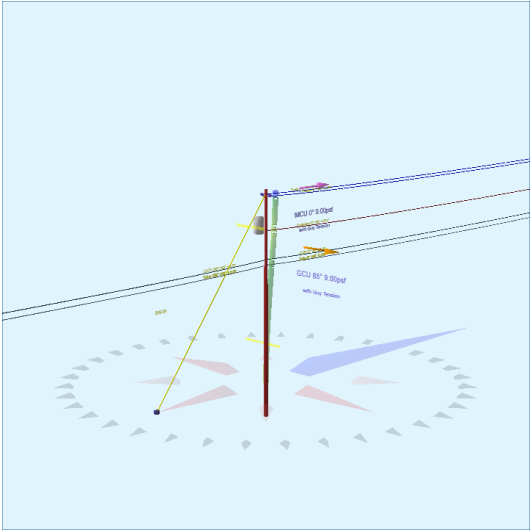


| | | | | | | | |
|------------|-------------------|-------------------------|---------------|----------------------|-----------|-----------------------|--------------------|
| Pole Num: | P.R1104_116854838 | Pole Length / Class: | 40 / 5 | Code: | NESC | Structure Type: | Guyed Tangent |
| Aux Data 1 | Unset | Species: | SOUTHERN PINE | NESC Rule: | Rule 250B | Status | Guy Wires Adequate |
| Aux Data 2 | Unset | Setting Depth (ft): | 6.00 | Construction Grade: | C | Pole Strength Factor: | 0.85 |
| Aux Data 3 | Unset | G/L Circumference (in): | 31.00 | Loading District: | Light | Transverse Wind LF: | 1.75 |
| Aux Data 4 | Unset | G/L Fiber Stress (psi): | 8,000 | Ice Thickness (in): | 0.00 | Wire Tension LF: | 1.30 |
| Aux Data 5 | Unset | Allowable Stress (psi): | 6,800 | Wind Speed (mph): | 59.29 | Vertical LF: | 1.90 |
| Aux Data 6 | Unset | Fiber Stress Ht. Reduc: | No | Wind Pressure (psf): | 9.00 | | |
| Latitude: | 0.000000 Deg | | Longitude: | 0.000000 Deg | | Elevation: | 0 Feet |



| Pole Capacity Utilization (%) | | Height (ft) | Wind Angle (deg) |
|-------------------------------|------|-------------|------------------|
| Maximum | 52.4 | 27.0 | 0.0 |
| Groundline | 39.9 | 0.0 | 85.5 |
| Vertical | 19.2 | 30.5 | 0.0 |

| Pole Moments (ft-lb) | | Load Angle (deg) | Wind Angle (deg) |
|----------------------|--------|------------------|------------------|
| Max Cap Util | 8,634 | 179.8 | 0.0 |
| Groundline | 20,235 | 58.4 | 85.5 |
| GL Allowable | 53,452 | | |

| Guy System Component Summary | | | | Load From Worst Wind Angle on Pole | | Individual Maximum Load | |
|------------------------------|------------------|------------------|-------------|------------------------------------|------------------|-------------------------|------------------|
| Description | Lead Length (ft) | Lead Angle (deg) | Height (ft) | Nominal Capacity (%) | Wind Angle (deg) | Max Load Capacity (%) | Wind Angle (deg) |
| Single Helix Anchor | 25.0 | 180.0 | | 33.5 | 0.0 | 34.8 | 0.0 |
| EHS 3/8 (Down) | | | 33.0 | 48.3 | 0.0 | 55.2 | 0.0 |
| System Capacity Summary: | | | | Adequate | | Adequate | |

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 58.4°

| | Shear Load* (lbs) | Applied Load (%) | Bending Moment (ft-lb) | Applied Moment (%) | Pole Capacity (%) | Bending Stress (+/- psi) | Vertical Load (lbs) | Vertical Stress (psi) | Total Stress (psi) | Pole Capacity (%) |
|-----------------------|-------------------|------------------|------------------------|--------------------|-------------------|--------------------------|---------------------|-----------------------|--------------------|-------------------|
| Powers | 2,549 | 242.2 | 78,962 | 390.2 | 147.7 | 10,045 | 171 | 2 | 10,048 | 147.8 |
| Comms | 191 | 18.1 | 4,197 | 20.7 | 7.9 | 534 | 342 | 4 | 538 | 7.9 |
| GuyBraces | -2,097 | -199.3 | -69,928 | -345.6 | -130.8 | -8,896 | 8,042 | 105 | -8,791 | -129.3 |
| PowerEquipments | 73 | 6.9 | 1,473 | 7.3 | 2.8 | 187 | 636 | 8 | 196 | 2.9 |
| Pole | 316 | 30.0 | 4,945 | 24.4 | 9.3 | 629 | 1,364 | 18 | 647 | 9.5 |
| Insulators | 21 | 2.0 | 586 | 2.9 | 1.1 | 75 | 34 | 0 | 75 | 1.1 |
| Pole Load | 1,053 | 100.0 | 20,235 | 100.0 | 37.9 | 2,574 | 10,590 | 138 | 2,713 | 39.9 |
| Pole Reserve Capacity | | | 33,217 | | 62.1 | 4,226 | | | 4,087 | 60.1 |

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 58.4°

| | Shear Load* (lbs) | Applied Load (%) | Bending Moment (ft-lb) | Applied Moment (%) | Pole Capacity (%) | Bending Stress (+/- psi) | Vertical Load (lbs) | Vertical Stress (psi) | Total Stress (psi) | Pole Capacity (%) |
|----------------|-------------------|------------------|------------------------|--------------------|-------------------|--------------------------|---------------------|-----------------------|--------------------|-------------------|
| FPL | 2,865 | 272.2 | 83,907 | 414.7 | 157.0 | 10,675 | 1,535 | 20 | 10,695 | 157.3 |
| CATV | 64 | 6.0 | 1,441 | 7.1 | 2.7 | 183 | 114 | 1 | 185 | 2.7 |
| AT&T | 127 | 12.1 | 2,756 | 13.6 | 5.2 | 351 | 228 | 3 | 354 | 5.2 |
| <Undefined> | -2,003 | -190.3 | -67,869 | -335.4 | -127.0 | -8,634 | 8,713 | 114 | -8,520 | -125.3 |
| Totals: | 1,053 | 100.0 | 20,235 | 100.0 | 37.9 | 2,574 | 10,590 | 138 | 2,713 | 39.9 |

Detailed Load Components:

| Power | | Owner | Height (ft) | Horiz. Offset (in) | Cable Diameter (in) | Sag at Max Temp (ft) | Cable Weight (lbs/ft) | Lead/Span Length (ft) | Span Angle (deg) | Wire Length (ft) | Tension (lbs) | Tension Moment* (ft-lb) | Offset Moment* (ft-lb) | Wind Moment* (ft-lb) | Moment at GL* (ft-lb) |
|-----------|-----|-------|-------------|--------------------|---------------------|----------------------|-----------------------|-----------------------|------------------|------------------|---------------|-------------------------|------------------------|----------------------|-----------------------|
| Primary | FPL | FPL | 32.97 | 15.83 | 0.5700 | 1.19 | 0.600 | 100.0 | 0.0 | 100.0 | 1,200 | 26,966 | 12 | 1,047 | 28,026 |
| Primary | FPL | FPL | 32.97 | 15.83 | 0.5700 | 1.19 | 0.600 | 100.0 | 0.0 | 100.0 | 1,200 | 26,966 | -12 | 1,047 | 28,001 |
| Secondary | FPL | FPL | 26.97 | 5.42 | 0.5700 | 1.19 | 0.600 | 100.0 | 0.0 | 100.0 | 1,200 | 22,059 | 22 | 856 | 22,937 |
| | | | | | | | | | | | Totals: | 75,991 | 22 | 2,950 | 78,963 |

| Comm | | Owner | Height (ft) | Horiz. Offset (in) | Cable Diameter (in) | Sag at Max Temp (ft) | Cable Weight (lbs/ft) | Lead/Span Length (ft) | Span Angle (deg) | Wire Length (ft) | Tension (lbs) | Tension Moment* (ft-lb) | Offset Moment* (ft-lb) | Wind Moment* (ft-lb) | Moment at GL* (ft-lb) |
|-------|------|-------|-------------|--------------------|---------------------|----------------------|-----------------------|-----------------------|------------------|------------------|---------------|-------------------------|------------------------|----------------------|-----------------------|
| CATV | CATV | CATV | 21.97 | 5.70 | 0.5700 | 1.19 | 0.600 | 100.0 | 0.0 | 100.0 | 1,200 | 17,969 | 23 | 698 | 18,689 |
| CATV | CATV | CATV | 21.97 | 5.70 | 0.5700 | 1.19 | 0.600 | 100.0 | 180.0 | 100.0 | 1,200 | -17,969 | 23 | 698 | -17,248 |
| Telco | AT&T | AT&T | 20.97 | 5.75 | 0.5700 | 1.19 | 0.600 | 100.0 | 0.0 | 100.0 | 1,200 | 17,151 | 23 | 666 | 17,840 |

| | | | | | | | | | | | | | | | |
|---------|------|------|-------|------|--------|------|-------|-------|-------|-------|-------|---------|-----|-------|---------|
| Telco | AT&T | AT&T | 20.97 | 5.75 | 0.5700 | 1.19 | 0.600 | 100.0 | 180.0 | 100.0 | 1,200 | -17,151 | 23 | 666 | -16,462 |
| Telco | AT&T | AT&T | 20.97 | 5.75 | 0.5700 | 1.19 | 0.600 | 100.0 | 0.0 | 100.0 | 1,200 | 17,151 | 23 | 666 | 17,840 |
| Telco | AT&T | AT&T | 20.97 | 5.75 | 0.5700 | 1.19 | 0.600 | 100.0 | 180.0 | 100.0 | 1,200 | -17,151 | 23 | 666 | -16,462 |
| Totals: | | | | | | | | | | | | 0 | 139 | 4,058 | 4,197 |

| PowerEquipment | | Owner | Height (ft) | Horiz. Offset (in) | Offset Angle (deg) | Rotate Angle (deg) | Unit Weight (lbs) | Unit Height (in) | Unit Depth (in) | Unit Diameter (in) | Unit Length (in) | Offset Moment* (ft-lb) | Wind Moment* (ft-lb) | Moment at GL* (ft-lb) |
|----------------|--|-----------|-------------|--------------------|--------------------|--------------------|-------------------|------------------|-----------------|--------------------|------------------|------------------------|----------------------|-----------------------|
| Transformer | | 1PH-15KVA | 28.00 | 20.36 | 180.0 | 180.0 | 335.00 | 34.00 | -- | 22.00 | -- | -566 | 2,039 | 1,473 |
| Totals: | | | | | | | | | | | | -566 | 2,039 | 1,473 |

| Insulator | | Owner | Height (ft) | Horiz. Offset (in) | Offset Angle (deg) | Rotate Angle (deg) | Unit Weight (lbs) | Unit Diameter (in) | Unit Length (in) | Offset Moment* (ft-lb) | Wind Moment* (ft-lb) | Moment at GL* (ft-lb) |
|-----------|----------------|-------|-------------|--------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------------|----------------------|-----------------------|
| Deadend | Deadend 12.75" | | 33.00 | 0.00 | 90.0 | 90.0 | 3.00 | 3.80 | 12.75 | 6 | 156 | 162 |
| Deadend | Deadend 12.75" | | 33.00 | 0.00 | 270.0 | 270.0 | 3.00 | 3.80 | 12.75 | -6 | 156 | 149 |
| Bolt | Deadend 12.75" | | 27.00 | 0.00 | 90.0 | 90.0 | 3.00 | 2.00 | 15.00 | 2 | 79 | 81 |
| Bolt | Deadend 12.75" | | 22.00 | 0.00 | 90.0 | 90.0 | 3.00 | 2.00 | 15.00 | 2 | 64 | 67 |
| Bolt | Deadend 12.75" | | 21.00 | 0.00 | 90.0 | 90.0 | 3.00 | 2.00 | 15.00 | 2 | 61 | 64 |
| Bolt | Deadend 12.75" | | 21.00 | 0.00 | 90.0 | 90.0 | 3.00 | 2.00 | 15.00 | 2 | 61 | 64 |
| | | | | | | | | | Totals: | 9 | 577 | 586 |

| Guy Wire and Brace | | Owner | Attach Height (ft) | End Height (ft) | Lead/Span Length (ft) | Wire Diameter (in) | Percent Solid (%) | Lead Angle (deg) | Incline Angle (deg) | Wire Weight (lbs/ft) | Rest Length (ft) | Stretch Length (in) |
|--------------------|--|-------|--------------------|-----------------|-----------------------|--------------------|-------------------|------------------|---------------------|----------------------|------------------|---------------------|
| EHS 3/8 | | Down | 33.00 | 0.00 | 25.00 | 0.375 | 75.00 | 180.0 | 52.7 | 0.273 | 39.75 | 1.68 |

| Guy Wire and Brace (Loads and Reactions) | | Elastic Modulus (psi) | Rated Tensile Strength (lbs) | Guy Strength Factor | Allowable Tension (lbs) | Initial Tension (lbs) | Loaded Tension*2 (lbs) | Maximum Tension² (lbs) | Applied Tension³ (lbs) | Vertical Load (lbs) | Shear Load In Guy Dir (lbs) | Shear Load At Report Angle (lbs) | Moment at GL³ (ft-lb) |
|---|------|-----------------------------|---------------------------------------|---------------------------|-------------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|---------------------------|-----------------------------------|---|-----------------------------|
| EHS 3/8 | Down | 2.30e+7 | 15,400 | 0.90 | 13,860 | 700 | 7,654 | 6,958 | 6,695 | 5,325 | 4,059 | -2,128 | -69,929 |
| | | | | | | | | | Totals: | 5,325 | 4,059 | -2,128 | -69,929 |

| Anchor/Rod Load Summary | | Owner | Rod Length AGL (in) | Lead Length (ft) | Lead Angle (deg) | Strength of Assembly (lbs) | Anchor/Rod Strength Factor | Allowable Load (lbs) | Max Load² (lbs) | Load at Pole MCU³ (lbs) | Max Required Capacity² (%) |
|-------------------------|--|-------|---------------------|------------------|------------------|----------------------------|----------------------------|----------------------|-----------------|-------------------------|----------------------------|
| Single Helix Anchor | | | 18.00 | 25.00 | 180.0 | 20,000 | 1.00 | 20,000 | 6,958 | 6,695 | 34.8 |

| Pole Buckling | | | | | | | | | | | | | |
|-------------------|------------------------------|--|--------------------------------|--------------------------------------|----------------------|---------------------|-----------------------------|--------------------|-------------------|----------------------|--|---------------------------------------|--------------------------------|
| Buckling Constant | Buckling Column Height* (ft) | Buckling Section Height (% Buckling Col. Hgt.) | Buckling Section Diameter (in) | Minimum Buckling Diameter at GL (in) | Diameter at Tip (in) | Diameter at GL (in) | Modulus of Elasticity (psi) | Pole Density (pcf) | Ice Density (pcf) | Pole Tip Height (ft) | Buckling Load Capacity at Height (lbs) | Buckling Load Applied at Height (lbs) | Buckling Load Factor of Safety |
| 0.71 | 30.55 | 35.22 | 8.66 | 16.84 | 6.05 | 9.87 | 1.60e+6 | 60.00 | 57.00 | 34.00 | 55,133 | 551.58 | 5.21 |

| Notes | | |
|--|--------|-----------------------|
| Date | Author | Description |
| 1/27/2021 | | Power Company Request |
| Power company load data has been requested. Email sent to Elmer Pole | | |
| 1/27/2021 | | General Description |
| General Statement: Non-AT&T facilities may not be accurately identified pending attachment information from attaching party. | | |