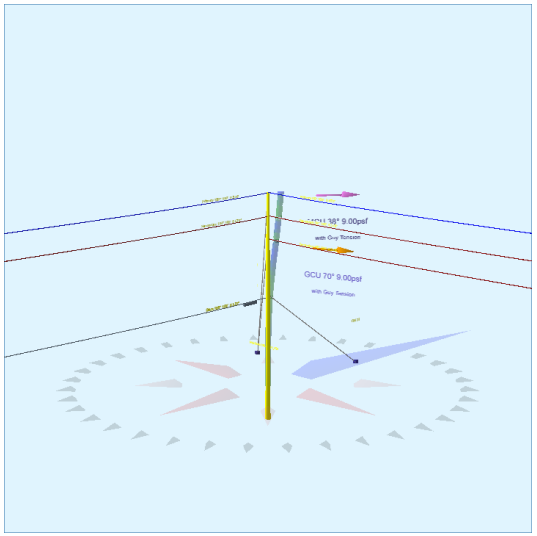
Pole Num:	**116874224_P28**	Pole Length / Class:	**40 / 4**	Code:	**NESC**	Structure Type:	**Angle**
Aux Data 1	**Unset**	Species:	**SOUTHERN PINE**	NESC Rule:	**Rule 250B**	Status	**Guy Wires Adequate**
Aux Data 2	**Unset**	Setting Depth (ft):	**6.00**	Construction Grade:	**C**	Pole Strength Factor:	**0.85**
Aux Data 3	**Unset**	G/L Circumference (in):	**33.50**	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	**25.8**	16.0	38.4
Groundline	**15.9**	0.0	70.0
Vertical	**16.2**	28.0	146.2

Pole Moments (ft-lb)		**Load Angle (deg)**	**Wind Angle (deg)**
Max Cap Util	**8,461**	14.0	38.4
Groundline	**9,014**	128.1	70.0
GL Allowable	**67,455**		

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	23.0	310.0		**51.4**	38.4	**52.2**	170.0
EHS 3/8 (Down)			34.0	**35.7**	38.4	**40.4**	170.0
EHS 3/8 (Down)			26.0	**38.6**	38.4	**42.6**	80.0
Single Helix Anchor	23.0	0.0		**7.5**	38.4	**15.4**	220.0
EHS 3/8 (Down)			16.0	**10.8**	38.4	**24.4**	220.0
			System Capacity Summary:	**Adequate**		**Adequate**	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 128.1°

	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	5,640	673.7	**173,057**	1919.9	**256.6**	**17,446**	285	3	**17,449**	**256.6**
Comms	1,997	238.5	**31,931**	354.2	**47.3**	**3,219**	114	1	**3,220**	**47.4**
GuyBraces	-7,011	-837.5	**-199,351**	-2211.6	**-295.5**	**-20,097**	13,532	152	**-19,945**	**-293.3**
Pole	205	24.4	**3,213**	35.6	**4.8**	**324**	1,618	18	**342**	**5.0**
Insulators	7	0.8	**163**	1.8	**0.2**	**16**	28	0	**17**	**0.2**
Pole Load	837	100.0	**9,014**	100.0	**13.4**	**909**	15,577	174	**1,083**	**15.9**
Pole Reserve Capacity			**58,441**		**86.6**	**5,891**			**5,717**	**84.1**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 128.1°

	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	5,844	698.2	**176,270**	1955.5	**261.3**	**17,770**	1,903	21	**17,791**	**261.6**
AT&T	1,997	238.5	**31,931**	354.2	**47.3**	**3,219**	114	1	**3,220**	**47.4**
<Undefined>	-7,004	-836.7	**-199,188**	-2209.8	**-295.3**	**-20,081**	13,560	152	**-19,929**	**-293.1**
Totals:	837	100.0	**9,014**	100.0	**13.4**	**909**	15,577	174	**1,083**	**15.9**

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	33.97	3.34	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	41,710	13	-268	41,454
Primary	FPL	FPL	33.97	3.34	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	32,685	13	940	33,637
Secondary	FPL	FPL	29.97	5.58	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	36,798	21	-236	36,583
Secondary	FPL	FPL	29.97	5.58	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	28,836	21	829	29,686
Secondary	FPL	FPL	25.97	5.81	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	31,887	22	-205	31,703
											Totals:	**171,915**	**88**	**1,060**	**173,063**

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)
Telco	AT&T	AT&T	15.97	6.40	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	15,365	24	713	16,102
Telco	AT&T	AT&T	15.97	6.40	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	15,365	24	442	15,831
											Totals:	**30,730**	**48**	**1,155**	**31,933**

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"		34.00	0.00	90.0	90.0	3.00	3.80	0.00	1	0	1
Bolt	Deadend 12.75"		30.00	0.00	90.0	90.0	3.00	2.00	15.00	2	52	54
Bolt	Deadend 12.75"		26.00	0.00	90.0	90.0	3.00	2.00	15.00	2	45	47
Bolt	Deadend 12.75"		16.00	0.00	90.0	90.0	3.00	2.00	15.00	2	28	30
Bolt	Deadend 12.75"		16.00	0.00	90.0	90.0	3.00	2.00	15.00	2	28	30
									Totals:	**10**	**153**	**163**

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		34.00	0.00	23.00	0.375	75.00	310.0	55.7	0.273	39.39	1.23
EHS 3/8	Down		26.00	0.00	23.00	0.375	75.00	310.0	48.4	0.273	33.00	1.11
EHS 3/8	Down		16.00	0.00	23.00	0.375	75.00	0.0	34.7	0.273	26.22	0.25

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 Tension[2] (lbs)	Applied Tension[3] (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL[3] (ft-lb)
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	5,599	5,090	4,944	4,086	2,784	-2,782	-94,481
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	5,904	5,367	5,350	3,997	3,556	-3,554	-92,666
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	3,385	3,077	1,501	855	1,234	-761	-12,211
									Totals:	**8,938**	**7,573**	**-7,097**	**-199,357**

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 Load[2] (lbs)	Load at Pole MCU[3] (lbs)	Max Required Capacity[2] (%)
Single Helix Anchor		18.00	23.00	310.0	20,000	1.00	20,000	10,435	10,273	52.2
Single Helix Anchor		18.00	23.00	0.0	20,000	1.00	20,000	3,077	1,501	15.4

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	28.01	34.61	9.53	19.55	6.69	10.67	1.60e+6	60.00	57.00	34.00	96,178	**961.57**	**6.17**

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.		