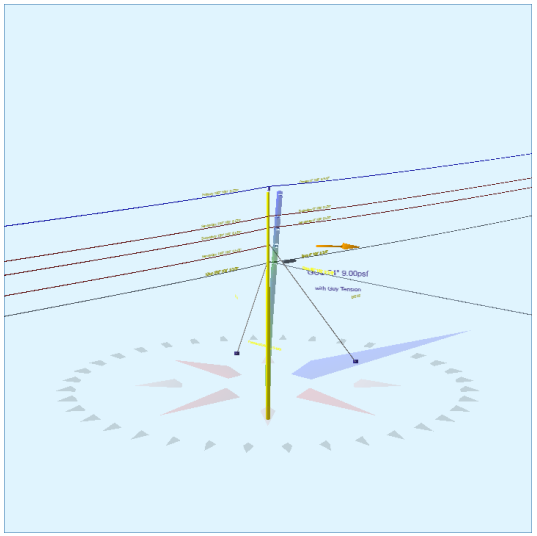
Pole Num:	**93350038_P.F4901**	Pole Length / Class:	**40 / 5**	Code:	**NESC**	Structure Type:	**Guyed Tangent**
Aux Data 1	**Unset**	Species:	**SOUTHERN PINE**	NESC Rule:	**Rule 250B**	Status	**Guy Wires Adequate**
Aux Data 2	**Unset**	Setting Depth (ft):	**6.00**	Construction Grade:	**C**	Pole Strength 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	**24.6**	0.0	54.1
Groundline	**24.6**	0.0	54.1
Vertical	**5.9**	21.4	150.0

Pole Moments (ft-lb)		**Load Angle (deg)**	**Wind Angle (deg)**
Max Cap Util	**12,332**	35.2	54.1
Groundline	**12,332**	35.2	54.1
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	23.0	0.0		**0.0**	54.1	**4.5**	230.0
EHS 3/8 (Down)			25.0	**0.0**	54.1	**7.2**	230.0
Single Helix Anchor	23.0	300.0		**27.6**	54.1	**29.3**	100.0
EHS 3/8 (Down)			22.0	**39.8**	54.1	**46.5**	100.0
			System Capacity Summary:	**Adequate**		**Adequate**	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 35.2°

	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	-1,153	-148.4	**-28,062**	-227.6	**-52.5**	**-3,570**	399	5	**-3,565**	**-52.4**
Comms	1,914	246.4	**42,162**	341.9	**78.9**	**5,364**	342	4	**5,368**	**78.9**
GuyBraces	-347	-44.7	**-7,737**	-62.7	**-14.5**	**-984**	5,774	76	**-909**	**-13.4**
Pole	336	43.2	**5,255**	42.6	**9.8**	**669**	1,364	18	**686**	**10.1**
Insulators	27	3.4	**714**	5.8	**1.3**	**91**	46	1	**91**	**1.3**
Pole Load	777	100.0	**12,332**	100.0	**23.1**	**1,569**	7,925	104	**1,672**	**24.6**
Pole Reserve Capacity			**41,120**		**76.9**	**5,231**			**5,128**	**75.4**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 35.2°

	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	-817	-105.1	**-22,807**	-184.9	**-42.7**	**-2,901**	1,763	23	**-2,878**	**-42.3**
AT&T	1,914	246.4	**42,162**	341.9	**78.9**	**5,364**	342	4	**5,368**	**78.9**
<Undefined>	-321	-41.3	**-7,023**	-57.0	**-13.1**	**-894**	5,819	76	**-817**	**-12.0**
Totals:	777	100.0	**12,332**	100.0	**23.1**	**1,569**	7,925	104	**1,672**	**24.6**

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	35.03	3.02	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	44,662	8	611	45,281
Primary	FPL	FPL	35.03	3.02	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-44,662	8	611	-44,042
Secondary	FPL	FPL	29.97	5.25	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	38,207	14	523	38,745
Secondary	FPL	FPL	29.97	5.25	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-38,207	14	523	-37,670
Secondary	FPL	FPL	27.97	5.36	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	35,658	15	488	36,160
Secondary	FPL	FPL	27.97	5.36	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-35,658	15	488	-35,155
Secondary	FPL	FPL	24.97	5.53	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-31,833	15	436	-31,382
											Totals:	**-31,833**	**89**	**3,681**	**-28,062**

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	21.97	5.70	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	19,749	22	394	20,165
Telco	AT&T	AT&T	21.97	5.70	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	19,749	22	394	20,165

Telco	AT&T	AT&T	21.97	5.70	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	28,008	16	383	28,407
Telco	AT&T	AT&T	21.97	5.70	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-28,008	16	383	-27,609
Telco	AT&T	AT&T	21.97	5.70	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	28,008	16	619	28,642
Telco	AT&T	AT&T	21.97	5.70	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-28,008	16	383	-27,609
											Totals:	**39,498**	**107**	**2,557**	**42,162**

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	12.75	1	170	171
Bolt	Deadend 12.75"		30.00	0.00	90.0	90.0	3.00	2.00	15.00	1	93	95
Bolt	Deadend 12.75"		28.00	0.00	90.0	90.0	3.00	2.00	15.00	1	87	88
Bolt	Deadend 12.75"		25.00	0.00	90.0	90.0	3.00	2.00	15.00	2	78	79
Bolt	Deadend 12.75"		22.00	0.00	0.0	0.0	3.00	2.00	15.00	2	68	71
Bolt	Deadend 12.75"		22.00	0.00	0.0	0.0	3.00	2.00	15.00	2	68	71
Bolt	Deadend 12.75"		22.00	0.00	90.0	90.0	3.00	2.00	15.00	2	68	70
Bolt	Deadend 12.75"		22.00	0.00	90.0	90.0	3.00	2.00	15.00	2	68	70
									Totals:	**13**	**701**	**714**

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		25.00	0.00	23.00	0.375	75.00	0.0	47.2	0.273	32.27	0.00
EHS 3/8	Down		22.00	0.00	23.00	0.375	75.00	300.0	43.6	0.273	30.11	1.05

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	999	908	0	0	0	0	97
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	6,450	5,864	5,519	3,806	3,996	-361	-7,834
									Totals:	**3,806**	**3,996**	**-361**	**-7,737**

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	0.0	20,000	1.00	20,000	908	0	4.5
Single Helix Anchor		18.00	23.00	300.0	20,000	1.00	20,000	5,864	5,518	29.3

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	21.43	33.66	9.06	12.26	6.05	9.87	1.60e+6	60.00	57.00	34.00	134,139	**1343.20**	**16.95**

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.		