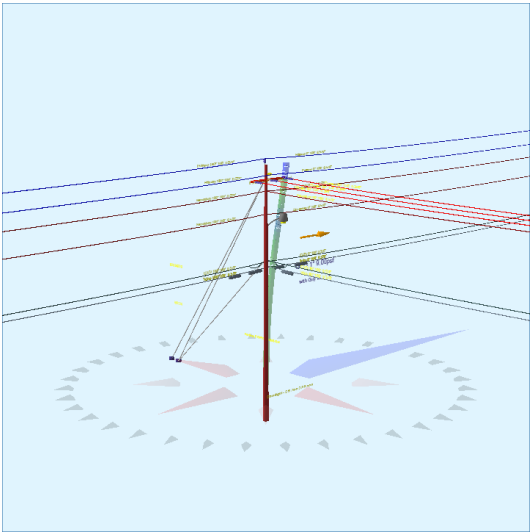


Pole Num:	P.OPP926_116854845	Pole Length / Class:	45 / 4	Code:	NESC	Structure Type:	Guyed Tangent
Aux Data 1	Unset	Species:	SOUTHERN PINE	NESC Rule:	Rule 250B	Status	Guy Wires Adequate
Aux Data 2	Unset	Setting Depth (ft):	6.50	Construction Grade:	C	Pole Strength Factor:	0.85
Aux Data 3	Unset	G/L Circumference (in):	34.82	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	37.3	0.0	1.3
Groundline	37.3	0.0	1.3
Vertical	44.0	32.8	90.0

Pole Moments (ft-lb)		Load Angle (deg)	Wind Angle (deg)
Max Cap Util	19,795	6.8	1.3
Groundline	19,795	6.8	1.3
GL Allowable	75,750		

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	270.0		49.6	1.3	51.9	87.2
EHS 3/8 (Down)			36.0	71.6	1.3	82.3	87.2
Single Helix Anchor	23.0	270.0		77.4	1.3	83.2	90.0
EHS 3/8 (Down)			36.0	70.7	1.3	80.6	90.0
EHS 3/8 (Down)			22.0	41.8	1.3	52.3	92.8
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 6.8°										
	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	1,559	189.6	55,663	281.2	73.5	4,997	575	6	5,003	73.6
Comms	467	56.8	10,092	51.0	13.3	906	456	5	911	13.4
GuyBraces	-1,754	-213.3	-57,066	-288.3	-75.3	-5,123	30,769	319	-4,804	-70.6
Pole	447	54.3	7,891	39.9	10.4	708	1,928	20	728	10.7
Crossarms	3	0.4	110	0.6	0.2	10	95	1	11	0.2
Streetlights	44	5.4	1,272	6.4	1.7	114	86	1	115	1.7
Insulators	56	6.8	1,833	9.3	2.4	165	108	1	166	2.4
Pole Load	822	100.0	19,795	100.0	26.1	1,777	34,017	353	2,130	31.3
Pole Reserve Capacity			55,955		73.9	5,023			4,670	68.7

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 6.8°										
	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	670	81.5	15,488	78.2	20.5	1,390	2,441	25	1,416	20.8
<Undefined>	-315	-38.3	-5,785	-29.2	-7.6	-519	31,120	323	-197	-2.9
CATV	224	27.2	4,958	25.1	6.6	445	171	2	447	6.6
AT&T	243	29.5	5,134	25.9	6.8	461	285	3	464	6.8
Totals:	822	100.0	19,795	100.0	26.1	1,777	34,017	353	2,130	31.3

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	39.53	3.34	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	61,231	-2	4	61,233
Primary	FPL	FPL	39.53	3.34	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-61,231	-2	4	-61,229
Primary	FPL	FPL	36.97	16.18	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	57,262	2	4	57,267
Primary	FPL	FPL	36.97	16.18	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-57,262	2	4	-57,256
Primary	ACSR 1/0 AWG 6/1 RAVEN		36.00	35.24	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	14,621	1	1,400	16,022
Primary	ACSR 1/0 AWG 6/1 RAVEN		36.00	56.37	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	14,621	-4	1,400	16,017
Primary	ACSR 1/0 AWG 6/1 RAVEN		36.00	56.37	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	14,621	5	1,400	16,027

Secondary	FPL	FPL	33.97	3.60	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	6,300	17	1,261	7,578
Secondary	FPL	FPL	33.97	3.60	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	52,615	-2	3	52,616
Secondary	FPL	FPL	33.97	3.60	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-52,615	-2	3	-52,614
Secondary	FPL	FPL	29.97	3.83	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	46,419	-2	3	46,420
Secondary	FPL	FPL	29.97	3.83	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-46,419	-2	3	-46,418
											Totals:	50,164	10	5,489	55,663

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	6.28	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	4,074	30	843	4,946
CATV	CATV	CATV	21.97	6.28	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	34,028	4	2	34,033
CATV	CATV	CATV	21.97	6.28	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-34,028	4	2	-34,022
Telco	AT&T	AT&T	20.97	6.34	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	3,889	30	1,188	5,107
Telco	AT&T	AT&T	20.97	6.34	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	32,479	4	3	32,485
Telco	AT&T	AT&T	20.97	6.34	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-32,479	4	3	-32,472
Telco	AT&T	AT&T	20.97	6.34	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	32,479	4	3	32,485
Telco	AT&T	AT&T	20.97	6.34	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-32,479	4	3	-32,472
											Totals:	7,963	81	2,048	10,092

Crossarm	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Normal	8' x 3.5" x 4.5" SP - 3 Deadend	36.00	5.24	90.0	90.0	50.00	4.50	3.50	96.00	5	106	110
									Totals:	5	106	110

Streetlight	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)
General	Streetlight - 3 ft. Arm	28.00	3.94	90.0	90.0	45.00	24.00	20.00	3.00	36.00	28	1,244	1,272
										Totals:	28	1,244	1,272

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"	38.50	0.00	270.0	270.0	3.00	3.80	12.75	0	203	203
Deadend	Deadend 12.75"	37.00	0.00	90.0	90.0	3.00	3.80	12.75	1	195	196
Deadend	Deadend Insulator	36.00	0.00	90.0	0.0	8.99	3.00	30.00	6	353	359
Deadend	Deadend Insulator	36.00	44.00	173.2	0.0	8.99	3.00	30.00	-56	353	296
Deadend	Deadend Insulator	36.00	-44.00	6.8	0.0	8.99	3.00	30.00	68	353	421
Deadend	Deadend 12.75"	34.00	0.00	0.0	0.0	3.00	3.80	0.00	2	0	2
Deadend	Deadend 12.75"	34.00	0.00	270.0	270.0	3.00	3.80	0.00	0	0	0
Deadend	Deadend 12.75"	30.00	0.00	270.0	270.0	3.00	3.80	0.00	0	0	0
Bolt	Deadend 12.75"	22.00	0.00	0.0	0.0	3.00	2.00	15.00	3	72	75

Bolt	Deadend 12.75"	22.00	0.00	90.0	90.0	3.00	2.00	15.00	0	72	72
Bolt	Deadend 12.75"	21.00	0.00	0.0	0.0	3.00	2.00	15.00	3	69	72
Bolt	Deadend 12.75"	21.00	0.00	90.0	90.0	3.00	2.00	15.00	0	69	69
Bolt	Deadend 12.75"	21.00	0.00	90.0	90.0	3.00	2.00	15.00	0	69	69
Totals:									27	1,806	1,833

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		36.00	0.00	25.00	0.375	75.00	270.0	55.0	0.273	42.16	2.64
EHS 3/8	Down		36.00	0.00	23.00	0.375	75.00	270.0	57.2	0.273	41.06	2.53
EHS 3/8	Down		22.00	0.00	23.00	0.375	75.00	270.0	43.6	0.273	30.07	1.10

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	11,408	10,371	9,921	8,130	5,685	-676	-23,925
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	11,175	10,159	9,797	8,238	5,302	-630	-22,281
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	7,248	6,589	5,789	3,992	4,192	-498	-10,860
Totals:										20,359	15,179	-1,805	-57,066

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	270.0	20,000	1.00	20,000	10,370	9,920	51.9
Single Helix Anchor			18.00	23.00	270.0	20,000	1.00	20,000	16,630	15,475	83.1

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	32.84	35.08	9.77	31.24	6.69	11.09	1.60e+6	60.00	57.00	38.50	77,227	773.12	2.27

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.		

