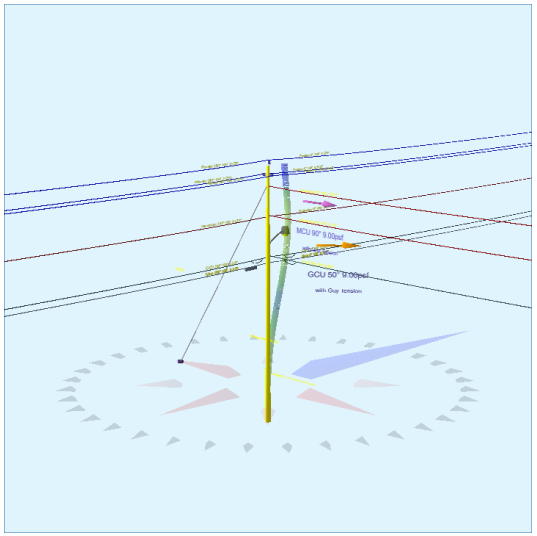
Pole Num:	**116878449_P39**	Pole Length / Class:	**45 / 4**	Code:	**NESC**	Structure Type:	**Guyed Tangent**
Aux Data 1	**Unset**	Species:	**SOUTHERN PINE**	NESC Rule:	**Rule 250B**	Status	**Guy Wires Adequate**
Aux Data 2	**Unset**	Setting Depth (ft):	**6.50**	Construction Grade:	**C**	Pole Strength 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	**47.6**	30.0	90.0
Groundline	**37.5**	0.0	50.0
Vertical	**14.4**	32.2	90.0

Pole Moments (ft-lb)		Load Angle (deg)	Wind Angle (deg)
Max Cap Util	**11,095**	270.3	90.0
Groundline	**27,059**	69.9	50.0
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	23.0	270.0		**34.3**	90.0	**35.6**	90.0
EHS 3/8 (Down)			35.0	**49.5**	90.0	**56.4**	90.0
			System Capacity Summary:	**Adequate**		**Adequate**	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 69.9°

	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	3,163	174.5	**103,514**	382.6	**136.7**	**9,292**	570	6	**9,298**	**136.7**
Comms	1,651	91.1	**37,985**	140.4	**50.1**	**3,410**	399	4	**3,414**	**50.2**
GuyBraces	-3,502	-193.2	**-124,169**	-458.9	**-163.9**	**-11,147**	8,634	89	**-11,057**	**-162.6**
Pole	422	23.3	**7,453**	27.5	**9.8**	**669**	1,928	20	**689**	**10.1**
Streetlights	42	2.3	**1,130**	4.2	**1.5**	**102**	86	1	**102**	**1.5**
Insulators	37	2.0	**1,146**	4.2	**1.5**	**103**	57	1	**103**	**1.5**
Pole Load	1,812	100.0	**27,059**	100.0	**35.7**	**2,429**	11,673	121	**2,550**	**37.5**
Pole Reserve Capacity			**48,691**		**64.3**	**4,371**			**4,250**	**62.5**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 69.9°

	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	3,585	197.8	**110,967**	410.1	**146.5**	**9,962**	2,498	26	**9,987**	**146.9**
CATV	1,530	84.4	**35,196**	130.1	**46.5**	**3,160**	171	2	**3,161**	**46.5**
AT&T	122	6.7	**2,789**	10.3	**3.7**	**250**	228	2	**253**	**3.7**
<Undefined>	-3,424	-188.9	**-121,892**	-450.5	**-160.9**	**-10,942**	8,776	91	**-10,851**	**-159.6**
Totals:	1,812	100.0	**27,059**	100.0	**35.7**	**2,429**	11,673	121	**2,550**	**37.5**

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	21,148	15	1,064	22,227
Primary	FPL	FPL	39.53	3.34	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-21,148	15	1,064	-20,070
Primary	FPL	FPL	36.97	16.18	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	19,778	15	995	20,788
Primary	FPL	FPL	36.97	16.18	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-19,778	15	995	-18,767
Primary	FPL	FPL	36.97	16.18	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	19,778	-15	995	20,757
Primary	FPL	FPL	36.97	16.18	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-19,778	-15	995	-18,798
Secondary	FPL	FPL	34.97	5.54	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	51,242	9	288	51,540
Secondary	FPL	FPL	29.97	5.83	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	43,916	9	247	44,172
Secondary	FPL	FPL	29.97	5.83	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	16,033	26	807	16,865
Secondary	FPL	FPL	29.97	5.83	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-16,033	26	807	-15,200
											Totals:	**95,158**	**100**	**8,257**	**103,515**

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	22.97	6.23	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	33,658	10	196	33,864
CATV	CATV	CATV	22.97	6.23	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	12,288	28	639	12,954
CATV	CATV	CATV	22.97	6.23	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-12,288	28	639	-11,621
Telco	AT&T	AT&T	21.97	6.28	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	11,753	28	591	12,372
Telco	AT&T	AT&T	21.97	6.28	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-11,753	28	903	-10,822
Telco	AT&T	AT&T	21.97	6.28	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	11,753	28	591	12,372
Telco	AT&T	AT&T	21.97	6.28	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-11,753	28	591	-11,133
											Totals:	**33,658**	**178**	**4,150**	**37,985**

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		25.00	4.11	0.0	0.0	45.00	24.00	20.00	3.00	36.00	82	1,049	1,130
											Totals:	**82**	**1,049**	**1,130**

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	90.0	90.0	3.00	3.80	12.75	1	192	193
Deadend	Deadend 12.75"		37.00	0.00	90.0	90.0	3.00	3.80	12.75	7	184	192
Deadend	Deadend 12.75"		37.00	0.00	270.0	270.0	3.00	3.80	12.75	-7	184	177
Bolt	Deadend 12.75"		35.00	0.00	0.0	0.0	3.00	2.00	15.00	1	108	109
Bolt	Deadend 12.75"		30.00	0.00	0.0	0.0	3.00	2.00	15.00	1	93	93
Bolt	Deadend 12.75"		30.00	0.00	90.0	90.0	3.00	2.00	15.00	3	93	95
Bolt	Deadend 12.75"		23.00	0.00	0.0	0.0	3.00	2.00	15.00	1	71	72
Bolt	Deadend 12.75"		23.00	0.00	90.0	90.0	3.00	2.00	15.00	3	71	74
Bolt	Deadend 12.75"		22.00	0.00	90.0	90.0	3.00	2.00	15.00	3	68	71
Bolt	Deadend 12.75"		22.00	0.00	90.0	90.0	3.00	2.00	15.00	3	68	71
									Totals:	**15**	**1,131**	**1,146**

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		35.00	0.00	23.00	0.375	75.00	270.0	56.5	0.273	40.22	1.74

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	7,821	7,110	6,855	5,716	3,784	-3,554	-124,171
									Totals:	**5,716**	**3,784**	**-3,554**	**-124,171**

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	23.00	270.0	20,000	1.00	20,000	7,110	6,855	35.6

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	32.19	34.98	9.80	18.18	6.69	11.09	1.60e+6	60.00	57.00	38.50	81,346	**810.66**	**6.94**

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.		