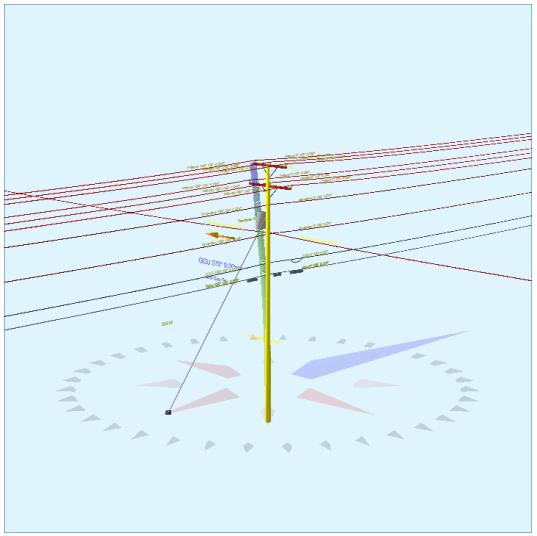
Pole Num:	**64978473_P.F406**	Pole Length / Class:	**45 / 3**	Code:	**NESC**	Structure Type:	**Junction**
Aux Data 1	**Unset**	Species:	**SOUTHERN PINE**	NESC Rule:	**Rule 250B**	Status	**Guy Wires Adequate**
Aux Data 2	**Unset**	Setting Depth (ft):	**6.50**	Construction Grade:	**C**	Pole Strength Factor:	**0.85**
Aux Data 3	**Unset**	G/L Circumference (in):	**37.31**	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	**44.7**	0.0	270.0
Groundline	**44.7**	0.0	270.0
Vertical	**1.9**	23.9	0.0

Pole Moments (ft-lb)		**Load Angle (deg)**	**Wind Angle (deg)**
Max Cap Util	**41,180**	267.9	270.0
Groundline	**41,180**	267.9	270.0
GL Allowable	**93,217**		

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	180.0		**0.5**	270.0	**5.2**	0.0
EHS 3/8 (Down)			30.0	**0.7**	270.0	**8.2**	0.0
			System Capacity Summary:	**Adequate**		**Adequate**	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 267.9°

	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	619	40.7	**21,839**	53.0	**23.4**	**1,593**	590	5	**1,598**	**23.5**
Comms	278	18.3	**5,511**	13.4	**5.9**	**402**	342	3	**405**	**6.0**
GuyBraces	12	0.8	**347**	0.8	**0.4**	**25**	128	1	**26**	**0.4**
PowerEquipments	82	5.4	**3,496**	8.5	**3.8**	**255**	636	6	**261**	**3.8**
Pole	485	31.9	**8,593**	20.9	**9.2**	**627**	2,247	20	**647**	**9.5**
Crossarms	6	0.4	**199**	0.5	**0.2**	**15**	190	2	**16**	**0.2**
Insulators	39	2.6	**1,195**	2.9	**1.3**	**87**	137	1	**88**	**1.3**
Pole Load	1,520	100.0	**41,180**	100.0	**44.2**	**3,004**	4,270	39	**3,043**	**44.7**
Pole Reserve Capacity			**52,037**		**55.8**	**3,796**			**3,757**	**55.3**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 267.9°

	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 (%)
<Undefined>	608	40.0	**22,790**	55.3	**24.5**	**1,663**	1,339	12	**1,675**	**24.6**
FPL	634	41.7	**12,879**	31.3	**13.8**	**940**	2,589	23	**963**	**14.2**
CATV	76	5.0	**1,606**	3.9	**1.7**	**117**	114	1	**118**	**1.7**
AT&T	202	13.3	**3,905**	9.5	**4.2**	**285**	228	2	**287**	**4.2**
Totals:	1,520	100.0	**41,180**	100.0	**44.2**	**3,004**	4,270	39	**3,043**	**44.7**

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	ACSR 1/0 AWG 6/1 RAVEN		39.10	44.33	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	-5,005	-76	1,532	-3,550
Primary	ACSR 1/0 AWG 6/1 RAVEN		39.10	44.33	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	5,005	-76	1,532	6,461
Primary	ACSR 1/0 AWG 6/1 RAVEN		39.10	44.33	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	-5,005	75	1,532	-3,398
Primary	ACSR 1/0 AWG 6/1 RAVEN		39.10	44.33	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	5,005	75	1,532	6,612
Primary	ACSR 1/0 AWG 6/1 RAVEN		39.10	5.41	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	-5,005	0	1,532	-3,474
Primary	ACSR 1/0 AWG 6/1 RAVEN		39.10	5.41	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	5,005	0	1,532	6,536

Primary	ACSR 1/0 AWG 6/1 RAVEN		35.60	60.26	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	-4,557	-104	1,395	-3,267
Primary	ACSR 1/0 AWG 6/1 RAVEN		35.60	60.26	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	4,557	-104	1,395	5,848
Primary	ACSR 1/0 AWG 6/1 RAVEN		35.60	60.26	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	-4,557	103	1,395	-3,060
Primary	ACSR 1/0 AWG 6/1 RAVEN		35.60	60.26	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	4,557	103	1,395	6,055
Primary	ACSR 1/0 AWG 6/1 RAVEN		35.60	5.62	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	-4,557	0	1,395	-3,163
Primary	ACSR 1/0 AWG 6/1 RAVEN		35.60	5.62	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	4,557	0	1,395	5,952
Secondary	FPL	FPL	31.97	6.05	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	-1,868	-29	1,195	-701
Secondary	FPL	FPL	31.97	6.05	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	1,868	-29	1,195	3,034
Secondary	FPL	FPL	26.97	6.34	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	-42,041	-1	0	-42,042
Secondary	FPL	FPL	26.97	6.34	0.5700	1.19	0.600	100.0	270.0	100.0	1,200	42,041	-1	0	42,040
Secondary	FPL	FPL	26.97	6.34	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	-1,576	-30	1,008	-598
Secondary	FPL	FPL	26.97	6.34	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	1,576	-30	1,008	2,554
											Totals:	**0**	**-124**	**21,963**	**21,839**

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	6.64	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	-1,283	-32	848	-467
CATV	CATV	CATV	21.97	6.64	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	1,283	-32	821	2,073
Telco	AT&T	AT&T	19.97	6.76	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	-1,167	-32	1,008	-190
Telco	AT&T	AT&T	19.97	6.76	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	1,167	-32	1,074	2,208
Telco	AT&T	AT&T	19.97	6.76	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	-1,167	-32	1,205	6
Telco	AT&T	AT&T	19.97	6.76	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	1,167	-32	746	1,881
											Totals:	**0**	**-191**	**5,703**	**5,511**

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		29.00	21.22	270.0	270.0	335.00	34.00	--	22.00	--	1,125	2,371	3,496
											Totals:	**1,125**	**2,371**	**3,496**

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 Pin		38.50	5.41	0.0	0.0	50.00	4.50	3.50	96.00	-2	106	104
Normal	8' x 3.5" x 4.5" SP - 3 Pin		35.00	5.62	0.0	0.0	50.00	4.50	3.50	120.00	-2	96	95
										Totals:	**-3**	**202**	**199**

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)**
Pin	15kV Pin Insulator		38.69	44.00	83.0	0.0	8.99	6.00	5.00	-63	127	64

Pin	15kV Pin Insulator	38.69	-44.00	277.0	0.0	8.99	6.00	5.00	62	127	189
Pin	15kV Pin Insulator	38.69	0.00	0.0	0.0	8.99	6.00	5.00	0	127	127
Pin	15kV Pin Insulator	35.19	60.00	84.7	0.0	8.99	6.00	5.00	-86	115	30
Pin	15kV Pin Insulator	35.19	-60.00	275.3	0.0	8.99	6.00	5.00	85	115	200
Pin	15kV Pin Insulator	35.19	0.00	0.0	0.0	8.99	6.00	5.00	0	115	115
Bolt	Deadend 12.75"	32.00	0.00	90.0	90.0	3.00	2.00	15.00	-3	105	102
Bolt	Deadend 12.75"	27.00	0.00	0.0	0.0	3.00	2.00	15.00	0	89	88
Bolt	Deadend 12.75"	27.00	0.00	90.0	90.0	3.00	2.00	15.00	-3	89	86
Bolt	Deadend 12.75"	22.00	0.00	90.0	90.0	3.00	2.00	15.00	-3	72	69
Bolt	Deadend 12.75"	20.00	0.00	90.0	90.0	3.00	2.00	15.00	-3	66	62
Bolt	Deadend 12.75"	20.00	0.00	90.0	90.0	3.00	2.00	15.00	-3	66	62
								Totals:	**-17**	**1,212**	**1,195**

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		30.00	0.00	23.00	0.375	75.00	180.0	52.4	0.273	36.09	0.02

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	1,139	1,035	101	80	62	2	347
									Totals:	**80**	**62**	**2**	**347**

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	180.0	20,000	1.00	20,000	1,035	101	5.2

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	23.90	33.57	10.93	9.67	7.32	11.88	1.60e+6	60.00	57.00	38.50	228,500	**2247.52**	**52.63**

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.