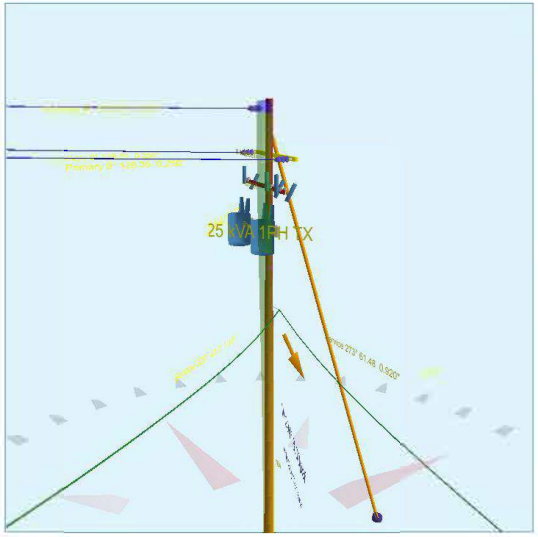
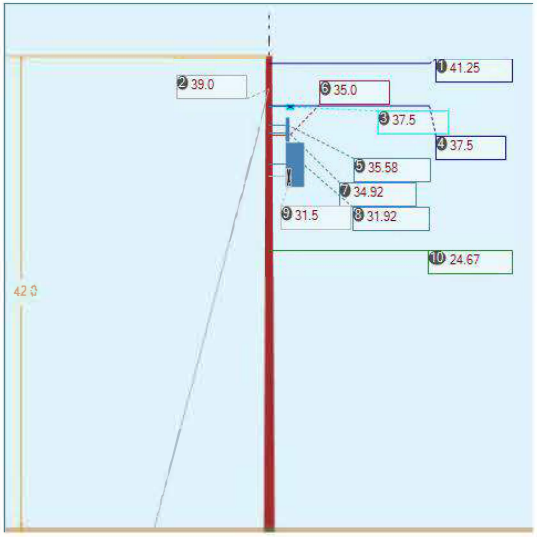
SAP Equip ID:	**TBA**	Pole Length / Class:	**50 / 4**	Code:	**GO 95**	Structure Type:	**Deadend**
PM Order Number	**35412692**	Species:	**DOUGLAS FIR**	GO 95 Rule:	**At Installation (New)**	Pole Strength Factor:	**0.33**
Estimator LAN ID	**B2WJ**	Setting Depth (ft):	**8.0**	Construction Grade:	**B**	Transverse Wind LF:	**1.00**
Sketch Location	**LOC_1**	G/L Circumference (in):	**35.80**	Loading District:	**Light**	Wire Tension LF:	**1.00**
Joint Pole Number	**N/A**	G/L Fiber Stress (psi):	**7,600**	Ice Thickness (in):	**0.00**	Vertical LF:	**1.00**
Notification	**119648377**	Allowable Stress (psi):	**2,434**	Wind Speed (mph):	**55.90**	Pole Factor of Safety:	**4.63**
Aux Data 6	**Unset**	Fiber Stress Ht. Reduc:	**No**	Wind Pressure (psf):	**8.00**	Vertical Factor of Safety:	**14.64**
Latitude:	**39.236506**	Longitude:	**-121.588593**	Elevation:	**75.5'**	Bending Factor of Safety:	**4.89**





Pole Capacity Utilization (%) Crossarm allowance 300 lbs		Height (ft)	Wind Angle (deg)
Maximum	**64.8**	0.0	294.1
Groundline	**64.8**	0.0	293.4
Vertical	**20.5**	35.6	11.0

Pole Moments (ft-lb) Crossarm allowance 300 lbs		Load Angle (deg)	Wind Angle (deg)
Max Cap Util	**18,077**	310.8	294.1
Groundline	**18,077**	310.8	293.4
GL Allowable	**29,455**		
Overturn	**91,000**		

Guy System Component Summary			Load From Worst Wind Angle on Pole		Individual Maximum Load With Overload Applied	
Description	**Lead Angle (deg)**	**Height (ft)**	**Nominal Capacity (%)**	**Wind Angle (deg)**	**Max* Load Capacity (%)**	**Wind Angle (deg)**
Anchor - 15M	12.0	191.0	**41.0**	294.1	**44.5**	10.0
EHS 3/8 (Down)		39.0	**79.8**	294.1	**86.8**	10.0
		System Capacity Summary:	**Adequate**		**Adequate**	

3/9/23

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 310.8°

	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	1,248	172.2	**36,644**	202.7	**124.4**	**3,899**	-53	-1	**3,899**	**160.2**
GuyBraces	-874	-120.7	**-26,470**	-146.4	**-89.9**	**-2,817**	5,896	58	**-2,759**	**-113.3**
GenericEquipments	71	9.8	**2,967**	16.4	**10.1**	**316**	1,340	13	**329**	**13.5**
Pole	242	33.5	**3,893**	21.5	**13.2**	**414**	1,148	11	**426**	**17.5**
Crossarms	25	3.5	**673**	3.7	**2.3**	**72**	190	2	**73**	**3.0**
Insulators	13	1.7	**370**	2.1	**1.3**	**39**	62	1	**40**	**1.6**
Pole Load	724	100.0	**18,077**	100.0	**61.4**	**1,924**	8,584	84	**2,008**	**82.5**
Pole Reserve Capacity			**11,378**		**38.6**	**510**			**426**	**17.5**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 310.8°

	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 (%)
PG&E	482	66.5	**14,184**	78.5	**48.2**	**1,509**	7,436	73	**1,582**	**65.0**
Pole	242	33.5	**3,893**	21.5	**13.2**	**414**	1,148	11	**426**	**17.5**
Totals:	724	100.0	**18,077**	100.0	**61.4**	**1,924**	8,584	84	**2,008**	**82.5**

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	4 (6/1) ACSR SWAN LT	PG&E	41.25	22.13	0.2500	0.69	0.057	127.6	8.0	127.6	708	4,988	-1	112	5,099
Primary	4 (6/1) ACSR SWAN LT	PG&E	37.50	43.92	0.2500	0.71	0.057	128.5	8.7	128.5	708	4,439	2	103	4,544
Primary	4 (6/1) ACSR SWAN LT	PG&E	37.50	43.92	0.2500	0.70	0.057	128.3	8.6	128.3	708	4,457	-3	103	4,557
Service	1/0 AAC N-SD TPX (SNAIL)	PG&E	24.67	19.31	0.9200	0.91	0.340	61.5	273.0	62.2	45	276	5	32	313
Service	1/0 AAC N-SD QPX	PG&E	24.67	19.31	1.1510	0.58	0.480	40.0	329.0	40.4	45	332	4	21	357
											Totals:	**14,491**	**7**	**372**	**14,870**

GenericEquipment		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)
Cylinder	ARRESTER	PG&E	35.58	41.29	8.0	0.0	20.00	18.00	--	4.00	--	-15	42	28
Cylinder	ARRESTER	PG&E	35.58	20.71	8.0	0.0	20.00	18.00	--	4.00	--	11	42	53

Cylinder	ARRESTER	PG&E	35.58	41.29	8.0	0.0	20.00	18.00	--	4.00	--	21	42	63
Cylinder	Disconnect Switch 1	PG&E	34.92	44.09	188.0	0.0	20.00	18.00	--	4.00	--	-20	42	22
Cylinder	Disconnect Switch 2	PG&E	34.92	44.09	188.0	0.0	20.00	18.00	--	4.00	--	19	42	61
Cylinder	Disconnect Switch 3	PG&E	34.92	18.21	188.0	0.0	20.00	18.00	--	4.00	--	7	42	49
Imported	25 kVA 1PH TX	PG&E	31.92	31.61	0.0	0.0	610.00	--	--	--	--	-52	237	185
Imported	25 kVA 1PH TX	PG&E	31.92	31.61	0.0	0.0	610.00	--	--	--	--	506	237	743
											Totals:	**476**	**728**	**1,204**

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	8L Composite Dead-End Arm	PG&E	37.50	-5.91	7.9	7.9	54.00	3.63	4.63	96.00	-5	69	65
Normal	Cutout Arm- 3 Wire	PG&E	35.00	4.73	8.0	8.0	36.00	4.00	2.00	92.00	2	60	63
Normal	3-Phase Open Delta	PG&E	31.50	5.43	0.0	0.0	100.00	10.00	3.00	50.00	9	136	145
										Totals:	**7**	**266**	**273**

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	Dead-End Insulator	PG&E	41.25	0.00	7.9	7.9	4.00	3.90	18.75	0	51	51
Deadend	Dead-End Insulator	PG&E	37.50	42.00	105.9	0.0	4.00	3.90	18.75	0	46	46
Deadend	Dead-End Insulator	PG&E	37.50	-42.00	269.9	0.0	4.00	3.90	18.75	0	46	46
Bolt	ARRESTER	PG&E	35.17	40.00	91.2	0.0	5.00	3.00	0.10	0	0	0
Bolt	ARRESTER	PG&E	35.17	-18.00	292.7	0.0	5.00	3.00	0.10	0	0	0
Bolt	ARRESTER	PG&E	35.17	-40.00	284.8	0.0	5.00	3.00	0.10	0	0	0
Bolt	Cutout	PG&E	35.17	44.00	91.9	180.0	5.00	3.00	0.10	0	0	0
Bolt	Cutout	PG&E	35.17	-44.00	284.1	180.0	5.00	3.00	0.10	0	0	0
Bolt	Cutout	PG&E	35.17	-18.00	292.7	180.0	5.00	3.00	0.10	0	0	0
Bolt	1PH TX	PG&E	31.92	23.00	76.7	0.0	5.00	3.00	0.10	0	0	0
Bolt	1PH TX	PG&E	31.92	-23.00	283.3	0.0	5.00	3.00	0.10	0	0	0
Extension	14" Spool Bracket	PG&E	24.67	0.00	269.1	269.1	10.00	1.00	15.00	0	6	6
									Totals:	**0**	**150**	**150**

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	PG&E	39.00	0.00	12.00	0.375	75.00	191.0	72.7	0.273	45.94	1.78

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	0.50	7,700	700	6,681	6,681	6,147	5,868	1,833	-911	-34,086
									Totals:	**5,868**	**1,833**	**-911**	**-34,086**

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] (%)
Anchor - 15M	PG&E	30.00	12.00	191.0	30,000	0.50	15,000	6,681	6,147	44.5

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	35.59	35.25	9.99	7.68	6.69	11.40	2.38e+6	60.00	57.00	42.00	41,537	**418.73**	**4.88**

Notes

Date	Author	Description
8/3/2015	ben1	Install C/O Arm min 2.5 ft below Primary Conductor
Install C/O Arm min 2.5 ft below Primary Conductor		
10/4/2015	BEN1	Set Height to Minimum of 3.25 ft Below Primary Conductor
9/30/2015		Scott Transformer Bracket dimensions
Scott Transformer Bracket - Material Code 180133 Center of transformers are 23 inches from center of bracket Transformers tilted back at 37 degrees Top and bottom mounts are 17.5 inches apart		
12/13/2017	PG&E Pole Generator	WAG
12/13/2017	PG&E Pole Generator	WAG

Estimator: B2WJ
PM 35412692 LOC_1
v3.5.6
PGE Master Catalog - APR-28-2022

PLDBID: 7700359626
50'-4 wood 8' deep.
Load Case: GO 95 Light Grade B At Installation (W:8psf)
Analyzed Wind Speed: 55.9 mph
Configured Snow Loading: Light w/ 0 in. ice
Construction Grade/Type: Grade B At Installation.
Required Pole Safety Factor = 3

Confirm correct number of PG&E Primary, Secondary, Neutral spans on Construction Drawing include and align with (+/-10'):
Primary: 3-4 (6/1) ACSR SWAN LT 8 Deg. 128 Ft.
Service: 1-1/0 AAC N-SD TPX (SNAIL) 273 Deg. 61 Ft.
Service: 1-1/0 AAC N-SD QPX 329 Deg. 40 Ft.

Confirm correct detailing of equipment on Construction Drawing (Cutouts are not shown on ConDwg):
Disconnect Switch 1
Disconnect Switch 2
Disconnect Switch 3
25 kVA 1PH TX
25 kVA 1PH TX

Done. No audit item issues detected