

Criteria Notes:

Typical 2017 NESC C2-2017 Criteria File for PLS-CADD Created September 5, 2017 Version 15.00

Assumed NESC Medium Combined Ice and Wind District Loading (Rule 250B)
Assumed 90 MPH Extreme Wind Loading (Rule 250C); To be verified by the Engineer of Record
Assumed 3/4" Extreme Ice with 30 MPH Concurrent Wind Loading (Rule 250D); To be verified by the Engineer of Record
Assumed Maximum Operating Temperature of 212 F; To be verified by the Engineer of Record
Assumed 1/2" Extreme Ice (Non-NESC); To be verified by the Engineer of Record
Assumed Grade B Construction by default. Grade C and Grade C Crossing can be assigned to structures manually using the Structure Groups as discussed in section 7.3.12.9 of the PLS-CADD manual; To be verified by the Engineer of Record

<<Illustration of NESC provisions include>>

- > Combined Ice and Wind District Loading NESC Medium per Rule 250B, Page 203
- > Extreme Wind Loading per Rule 250C, Page 203, Coefficients and Gust Response Factors per Equations in Tables 250-2 and 250-3
- > Assumed 90 MPH Basic Wind Speed, 3 second Gust Wind Speed, Figure 250-2 Beginning on Page 207
- > Grade B Construction "Method A" per Table 253-1, Page 225 and Table 261-1, Page 235
- > Extreme Ice with Concurrent Wind Loading per Rule 250D, Page 205
- > Assumed 3/4" Basic Ice Diameter with Concurrent 30 MPH Basic Wind Speed, Figure 250-3 Beginning on Page 212
- > Cable Tension and Automatic Sagging Limits per Rule 261H1, Page 232
- **** NESC Rule 261H1c, Note 2 states that the 'Final' tension limit be applied under the creep condition only. Although this is a new note in the 2017 NESC, this is the interpretation that PLS has applied to all previous NESC criteria files so there is no change from previous editions in PLS. ****
- **** PLEASE NOTE - Many experts consider these maximum limits to be high and could lead to severe aeolian vibration. As stated in NESC Rule 261H1b, PLS recommends checking with your cable manufacturer, damper manufacturer, and/or other standards for recommended values based on the actual vibration mitigation methods used ****
- > Insulator Mechanical Strengths per Rule 277, Page 242 - Important Note for Strength Check:
 - **** NESC Rule 277 specifically excludes Rule 253 Load Factors for checking the mechanical strength of insulators. This criteria checks insulators for all weather conditions, including load factors. This may be considered conservative by some and can be modified if desired. ****
 - **** When specifying the insulator strength properties in Components/Insulators in TOWER and PLS-POLE, the manufacturer's recommended load capacities shall be used per NESC Table 277-1. This is normally the RTL and RCL values published by the non-ceramic insulator manufacturers. See IEEE Std 1572-2004 IEEE Guide for Application of Composite Line Post Insulators for further clarification. ****
 - **** User may prefer to add other specific load cases utilizing alternative Strength Factors ****
 - **** Coordination of Load Factors, Strength Factors, and Component strength properties is the responsibility of the Engineer of Record ****
 - **** See Tech Note at http://www.powline.com/products/nesc_insulators.html for additional discussion ****
- > Structure Loads criteria includes typical Full Structure DE cases
- > Structure Loads criteria includes longitudinal extreme wind check per Rule 261A1c (Page 227), Rule 261A2e (Page 228), and Rule 261A3d (Page 228)

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***** THE CRITERIA FILE USED FOR GUC DESIGNS USES 120 MPH WINDS FOR THE EXTREME WIND LOADING CASE (10 MPH GREATER THAN REQUIRED PER NESC 2017), AND 1 INCH OF ICE FOR THE CONCURRENT WIND AND ICE LOAD CASE (.5 INCHES GREATER THAN REQUIRED PER NESC 2017). IF STRUCTURES ARE SLIGHTLY OVERUSED WITH THIS LOAD CASE, THE ENGINEER MAY STILL FIND THE STRUCTURE CLASS ACCEPTABLE.

Structure #3 'N:\Jacob S\PLS\pls_pole\Projects\Wint SS FeedThru\11.2.POL'
Station 333.76 (ft), Line angle -86.4896 (deg), Orientation angle 0 (deg)

Weather Cases

WC Description #	Air Density Factor (psf/mph^2)	Wind Vel. (mph)	Wind Pres. (psf)	Wire Ice Thick (in)	Wire Ice Density (lbs/ft^3)	Wire Ice Load (lbs/ft)	Wire Temp (deg F)	Ambient Temp (deg F)	Weather Load Factor	NESC Constant (lbs/ft)	Wire Wind Height Adjust Model	Wire Gust Response Factor
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1	NESC Medium District Loading (250B)	0.00256	40	4.0	0.25	57.000	0.00	15	15	1.00	0.20	None		1
2	NESC Extreme Wind (250C)	0.00256	120	36.9	0.00	0.000	0.00	60	60	1.00	0.00	NESC 2017	NESC 2017	
3	NESC Concurrent Ice and Wind (250D)	0.00256	40	4.1	1.00	57.000	0.00	15	15	1.00	0.00	None		1
4	Extreme Ice	0.00256	0	0.0	0.50	57.000	0.00	30	30	1.00	0.00	None		1
5	Cold Uplift	0.00256	0	0.0	0.00	0.000	0.00	-5	-5	1.00	0.00	None		1
6	Maximum Operating	0.00256	0	0.0	0.00	0.000	0.00	212	90	1.00	0.00	None		1
7	NESC Tension Limit (261H1c)	0.00256	0	0.0	0.00	0.000	0.00	15	15	1.00	0.00	None		1
8	NESC Blowout 6PSF	0.00256	48	6.0	0.00	0.000	0.00	60	60	1.00	0.00	None		1
9	No Wind (SWING 1)	0.00256	0	0.0	0.00	0.000	0.00	60	60	1.00	0.00	None		1
10	Moderate Wind (SWING 2)	0.00256	48	6.0	0.00	0.000	0.00	32	32	1.00	0.00	None		1
11	Moderate Wind (SWING 3)	0.00256	48	6.0	0.00	0.000	0.00	60	60	1.00	0.00	None		1
12	High Wind (SWING 4)	0.00256	90	20.7	0.00	0.000	0.00	60	60	1.00	0.00	None		1
13	GALLOPING (SWING)	0.00256	28	2.0	0.50	57.000	0.00	32	32	1.00	0.00	None		1
14	GALLOPING (SAG)	0.00256	0	0.0	0.50	57.000	0.00	32	32	1.00	0.00	None		1
15	-20 Deg F	0.00256	0	0.0	0.00	0.000	0.00	-20	-20	1.00	0.00	None		1
16	0 Deg F	0.00256	0	0.0	0.00	0.000	0.00	0	0	1.00	0.00	None		1
17	30 Deg F	0.00256	0	0.0	0.00	0.000	0.00	30	30	1.00	0.00	None		1
18	32 Deg F 1/2 Inch Ice	0.00256	0	0.0	0.50	57.000	0.00	32	32	1.00	0.00	None		1
19	60 Deg F	0.00256	0	0.0	0.00	0.000	0.00	60	60	1.00	0.00	None		1
20	90 Deg F	0.00256	0	0.0	0.00	0.000	0.00	90	90	1.00	0.00	None		1
21	120 Deg F	0.00256	0	0.0	0.00	0.000	0.00	120	90	1.00	0.00	None		1
22	167 Deg F	0.00256	0	0.0	0.00	0.000	0.00	167	90	1.00	0.00	None		1
23	212 Deg F	0.00256	0	0.0	0.00	0.000	0.00	212	90	1.00	0.00	None		1

Structure Loads Criteria

LC #	WC #	Load Case Description	Cable Condition	Wind Dir.	Bisect Wind Angle	Wire Vert. Load Factor	Wire + Struct. Wind Load Factor	Wire Tension Load Factor	Struct Weight Load Factor	Struct Wind Area Factor	Struct. Wind Load Model	Struct. Ice Thick (in)	Struct. Ice Density (lbs/ft^3)	Pole Tip Deflection Check	Pole Tip Deflect Limit % or (ft)
1	1	RULE 250B GRADE	Initial RS	NA+		1.50	2.50	1.65	1.50	1.00	Wind on Face	0.00	0.000	No Limit	0.00
2	1	RULE 250B GRADE	Initial RS	NA-		1.50	2.50	1.65	1.50	1.00	Wind on Face	0.00	0.000	No Limit	0.00
3	1	RULE 250B GRADE	Initial RS	NA+		1.00	2.50	1.65	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
4	1	RULE 250B GRADE	Initial RS	NA-		1.00	2.50	1.65	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
5	2	RULE 250C GRADE	Initial RS	NA+		1.00	1.00	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
6	2	RULE 250C GRADE	Initial RS	NA-		1.00	1.00	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
7	3	RULE 250D GRADE	Initial RS	NA+		1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
8	3	RULE 250D GRADE	Initial RS	NA-		1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
9	1	RULE 250B GRADE	Initial RS	NA+		1.90	1.75	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
10	1	RULE 250B GRADE	Initial RS	NA-		1.90	1.75	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
11	1	RULE 250B GRADE	Initial RS	NA+		1.00	1.75	1.30	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
12	1	RULE 250B GRADE	Initial RS	NA-		1.00	1.75	1.30	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
13	2	RULE 250C GRADE	Initial RS	NA+		1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
14	2	RULE 250C GRADE	Initial RS	NA-		1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
15	3	RULE 250D GRADE	Initial RS	NA+		1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
16	3	RULE 250D GRADE	Initial RS	NA-		1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
17	1	RULE 250B GRADE	Initial RS	NA+		1.90	2.20	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
18	1	RULE 250B GRADE	Initial RS	NA-		1.90	2.20	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
19	1	RULE 250B GRADE	Initial RS	NA+		1.00	2.20	1.30	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
20	1	RULE 250B GRADE	Initial RS	NA-		1.00	2.20	1.30	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
21	2	RULE 250C GRADE	Initial RS	NA+		1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
22	2	RULE 250C GRADE	Initial RS	NA-		1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
23	3	RULE 250D GRADE	Initial RS	NA+		1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
24	3	RULE 250D GRADE	Initial RS	NA-		1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
25	1	RULE 277 Insulat	Initial RS	NA+		1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
26	1	RULE 277 Insulat	Initial RS	NA-		1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
27	4	Extreme Ice NA+	Initial RS	NA+		1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
28	4	Extreme Ice NA-	Initial RS	NA-		1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
29	5	Uplift	Initial RS	NA+		1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
30	2	RULE 261A	Initial RS	Max		1.00	1.00	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
31	1	RULE 250B GRADE	Initial RS	NA+		1.50	2.50	1.65	1.50	1.00	Wind on Face	0.00	0.000	No Limit	0.00

32	1	RULE 250B GRADE	Initial RS	NA-	1.50	2.50	1.65	1.50	1.00	Wind on Face	0.00	0.000	No Limit	0.00
33	1	RULE 250B GRADE	Initial RS	NA+	1.50	2.50	1.65	1.50	1.00	Wind on Face	0.00	0.000	No Limit	0.00
34	1	RULE 250B GRADE	Initial RS	NA-	1.50	2.50	1.65	1.50	1.00	Wind on Face	0.00	0.000	No Limit	0.00
35	2	RULE 250C GRADE	Initial RS	NA+	1.00	1.00	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
36	2	RULE 250C GRADE	Initial RS	NA-	1.00	1.00	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
37	2	RULE 250C GRADE	Initial RS	NA+	1.00	1.00	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
38	2	RULE 250C GRADE	Initial RS	NA-	1.00	1.00	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
39	3	RULE 250D GRADE	Initial RS	NA+	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
40	3	RULE 250D GRADE	Initial RS	NA-	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
41	3	RULE 250D GRADE	Initial RS	NA+	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
42	3	RULE 250D GRADE	Initial RS	NA-	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
43	1	RULE 250B GRADE	Initial RS	NA+	1.90	1.75	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
44	1	RULE 250B GRADE	Initial RS	NA-	1.90	1.75	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
45	1	RULE 250B GRADE	Initial RS	NA+	1.90	1.75	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
46	1	RULE 250B GRADE	Initial RS	NA-	1.90	1.75	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
47	2	RULE 250C GRADE	Initial RS	NA+	1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
48	2	RULE 250C GRADE	Initial RS	NA-	1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
49	2	RULE 250C GRADE	Initial RS	NA+	1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
50	2	RULE 250C GRADE	Initial RS	NA-	1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
51	3	RULE 250D GRADE	Initial RS	NA+	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
52	3	RULE 250D GRADE	Initial RS	NA-	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
53	3	RULE 250D GRADE	Initial RS	NA+	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
54	3	RULE 250D GRADE	Initial RS	NA-	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
55	1	RULE 250B GRADE	Initial RS	NA+	1.90	2.20	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
56	1	RULE 250B GRADE	Initial RS	NA-	1.90	2.20	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
57	1	RULE 250B GRADE	Initial RS	NA+	1.90	2.20	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
58	1	RULE 250B GRADE	Initial RS	NA-	1.90	2.20	1.30	1.90	1.00	Wind on Face	0.00	0.000	No Limit	0.00
59	2	RULE 250C GRADE	Initial RS	NA+	1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
60	2	RULE 250C GRADE	Initial RS	NA-	1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
61	2	RULE 250C GRADE	Initial RS	NA+	1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
62	2	RULE 250C GRADE	Initial RS	NA-	1.00	0.87	1.00	1.00	1.00	NESC 2017	0.00	0.000	No Limit	0.00
63	3	RULE 250D GRADE	Initial RS	NA+	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
64	3	RULE 250D GRADE	Initial RS	NA-	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
65	3	RULE 250D GRADE	Initial RS	NA+	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
66	3	RULE 250D GRADE	Initial RS	NA-	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
67	4	Extreme Ice	Initial RS	NA+	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
68	4	Extreme Ice	Initial RS	NA-	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
69	4	Extreme Ice	Initial RS	NA+	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	0.00
70	4	Extreme Ice	Initial RS	NA-	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	No Limit	1.50
71	19	CAMBER	Initial RS	NA+	1.00	1.00	1.00	1.00	1.00	Wind on Face	0.00	0.000	% Pole Height	1.50

Cable Load Adjustments for each Load Case

LC #	WC #	Load Case Description	Struct Groups On Which To Apply	Command Wire(s) Set: Phase: Side:	Command	Command Value (lbs) (deg) (%)
1	1	RULE 250B GRADE	'Grade B'			
2	1	RULE 250B GRADE	'Grade B'			
3	1	RULE 250B GRADE	'Grade B'			
4	1	RULE 250B GRADE	'Grade B'			
5	2	RULE 250C GRADE	'Grade B'			
6	2	RULE 250C GRADE	'Grade B'			
7	3	RULE 250D GRADE	'Grade B'			
8	3	RULE 250D GRADE	'Grade B'			
9	1	RULE 250B GRADE	'Grade C'			
10	1	RULE 250B GRADE	'Grade C'			
11	1	RULE 250B GRADE	'Grade C'			
12	1	RULE 250B GRADE	'Grade C'			
13	2	RULE 250C GRADE	'Grade C'			
14	2	RULE 250C GRADE	'Grade C'			
15	3	RULE 250D GRADE	'Grade C'			

[illegible]

Span and Wire Summary

Span azimuth is measured clockwise from structure transverse axis (0=transverse, 90=back, 270=ahead)
Azimuth of structure transverse axis is 240.9496 (deg) measured clockwise from North.

LC	WC	Load Case	Set	Phase	Attach.	Back span					Ahead span						
#	#	Description	No.	No.	Joint	Cable	Len.	Azi.	Horiz.	Vert.	Horiz.	Cable	Len.	Azi.	Horiz.	Vert.	Horiz.

						Labels	Name	-----Load-----			Tension				Name	-----Load-----			Tension				
								(ft)	(deg)	---	(lbs/ft)	----	(lbs)					(ft)	(deg)	---	(lbs/ft)	----	(lbs)
1	1	RULE 250B GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.70	0.59	6315					0	209	0.00	0.00	0			
1	1		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.70	0.59	6306						
1	1		10	1	T1A	narcissus_aac.wir	261	133	1.50	2.51	12410		0	209	0.00	0.00	0						
1	1		10	2	T2A	narcissus_aac.wir	261	133	1.50	2.51	12410		0	209	0.00	0.00	0						
1	1		10	3	T3A	narcissus_aac.wir	260	133	1.50	2.51	12410		0	209	0.00	0.00	0						
1	1		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	1.50	2.51	12238						
1	1		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	2.51	12238						
1	1		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	2.51	12238						
2	1	RULE 250B GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.70	0.59	6315		0	209	0.00	0.00	0						
2	1		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.70	0.59	6306						
2	1		10	1	T1A	narcissus_aac.wir	261	133	1.50	2.51	12410		0	209	0.00	0.00	0						
2	1		10	2	T2A	narcissus_aac.wir	261	133	1.50	2.51	12410		0	209	0.00	0.00	0						
2	1		10	3	T3A	narcissus_aac.wir	260	133	1.50	2.51	12410		0	209	0.00	0.00	0						
2	1		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	1.50	2.51	12238						
2	1		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	2.51	12238						
2	1		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	2.51	12238						
3	1	RULE 250B GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.70	0.39	6315		0	209	0.00	0.00	0						
3	1		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.70	0.39	6306						
3	1		10	1	T1A	narcissus_aac.wir	261	133	1.50	1.68	12410		0	209	0.00	0.00	0						
3	1		10	2	T2A	narcissus_aac.wir	261	133	1.50	1.68	12410		0	209	0.00	0.00	0						
3	1		10	3	T3A	narcissus_aac.wir	260	133	1.50	1.68	12410		0	209	0.00	0.00	0						
3	1		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	1.50	1.68	12238						
3	1		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	1.68	12238						
3	1		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	1.68	12238						
4	1	RULE 250B GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.70	0.39	6315		0	209	0.00	0.00	0						
4	1		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.70	0.39	6306						
4	1		10	1	T1A	narcissus_aac.wir	261	133	1.50	1.68	12410		0	209	0.00	0.00	0						
4	1		10	2	T2A	narcissus_aac.wir	261	133	1.50	1.68	12410		0	209	0.00	0.00	0						
4	1		10	3	T3A	narcissus_aac.wir	260	133	1.50	1.68	12410		0	209	0.00	0.00	0						
4	1		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	1.50	1.68	12238						
4	1		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	1.68	12238						
4	1		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	1.68	12238						
5	2	RULE 250C GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.96	0.21	3534		0	209	0.00	0.00	0						
5	2		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.99	0.21	3526						
5	2		10	1	T1A	narcissus_aac.wir	261	133	3.58	1.19	7275		0	209	0.00	0.00	0						
5	2		10	2	T2A	narcissus_aac.wir	261	133	3.50	1.19	7275		0	209	0.00	0.00	0						
5	2		10	3	T3A	narcissus_aac.wir	260	133	3.41	1.19	7275		0	209	0.00	0.00	0						
5	2		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	3.68	1.19	7165						
5	2		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	3.61	1.19	7165						
5	2		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	3.53	1.19	7165						
6	2	RULE 250C GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.96	0.21	3534		0	209	0.00	0.00	0						
6	2		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.99	0.21	3526						
6	2		10	1	T1A	narcissus_aac.wir	261	133	3.58	1.19	7275		0	209	0.00	0.00	0						
6	2		10	2	T2A	narcissus_aac.wir	261	133	3.50	1.19	7275		0	209	0.00	0.00	0						
6	2		10	3	T3A	narcissus_aac.wir	260	133	3.41	1.19	7275		0	209	0.00	0.00	0						
6	2		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	3.68	1.19	7165						
6	2		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	3.61	1.19	7165						
6	2		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	3.53	1.19	7165						
7	3	RULE 250D GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.80	1.88	4532		0	209	0.00	0.00	0						
7	3		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.80	1.88	4473						
7	3		10	1	T1A	narcissus_aac.wir	261	133	1.13	4.05	9367		0	209	0.00	0.00	0						
7	3		10	2	T2A	narcissus_aac.wir	261	133	1.13	4.05	9367		0	209	0.00	0.00	0						
7	3		10	3	T3A	narcissus_aac.wir	260	133	1.13	4.05	9367		0	209	0.00	0.00	0						
7	3		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	1.13	4.05	9167						
7	3		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.13	4.05	9167						
7	3		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.13	4.05	9167						
8	3	RULE 250D GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.80	1.88	4532		0	209	0.00	0.00	0						
8	3		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.80	1.88	4473						
8	3		10	1	T1A	narcissus_aac.wir	261	133	1.13	4.05	9367		0	209	0.00	0.00	0						
8	3		10	2	T2A	narcissus_aac.wir	261	133	1.13	4.05	9367		0	209	0.00	0.00	0						
8	3		10	3	T3A	narcissus_aac.wir	260	133	1.13	4.05	9367		0	209	0.00	0.00	0						
8	3		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	1.13	4.05	9167						

8	3		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.13	4.05	9167
8	3		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.13	4.05	9167
25	1	RULE 277 Insulat	1	1	SWA	7no_9_alumoweld.wir	261	133	0.28	0.39	3827		0	209	0.00	0.00	0
25	1		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.28	0.39	3822
25	1		10	1	T1A	narcissus_aac.wir	261	133	0.60	1.68	7521		0	209	0.00	0.00	0
25	1		10	2	T2A	narcissus_aac.wir	261	133	0.60	1.68	7521		0	209	0.00	0.00	0
25	1		10	3	T3A	narcissus_aac.wir	260	133	0.60	1.68	7521		0	209	0.00	0.00	0
25	1		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	0.60	1.68	7417
25	1		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.60	1.68	7417
25	1		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.60	1.68	7417
26	1	RULE 277 Insulat	1	1	SWA	7no_9_alumoweld.wir	261	133	0.28	0.39	3827		0	209	0.00	0.00	0
26	1		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.28	0.39	3822
26	1		10	1	T1A	narcissus_aac.wir	261	133	0.60	1.68	7521		0	209	0.00	0.00	0
26	1		10	2	T2A	narcissus_aac.wir	261	133	0.60	1.68	7521		0	209	0.00	0.00	0
26	1		10	3	T3A	narcissus_aac.wir	260	133	0.60	1.68	7521		0	209	0.00	0.00	0
26	1		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	0.60	1.68	7417
26	1		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.60	1.68	7417
26	1		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.60	1.68	7417
27	4	Extreme Ice NA+	1	1	SWA	7no_9_alumoweld.wir	261	133	0.00	0.73	3700		0	209	0.00	0.00	0
27	4		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.00	0.73	3691
27	4		10	1	T1A	narcissus_aac.wir	261	133	0.00	2.31	7074		0	209	0.00	0.00	0
27	4		10	2	T2A	narcissus_aac.wir	261	133	0.00	2.31	7074		0	209	0.00	0.00	0
27	4		10	3	T3A	narcissus_aac.wir	260	133	0.00	2.31	7074		0	209	0.00	0.00	0
27	4		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	0.00	2.31	6933
27	4		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	2.31	6933
27	4		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	2.31	6933
28	4	Extreme Ice NA-	1	1	SWA	7no_9_alumoweld.wir	261	133	0.00	0.73	3700		0	209	0.00	0.00	0
28	4		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.00	0.73	3691
28	4		10	1	T1A	narcissus_aac.wir	261	133	0.00	2.31	7074		0	209	0.00	0.00	0
28	4		10	2	T2A	narcissus_aac.wir	261	133	0.00	2.31	7074		0	209	0.00	0.00	0
28	4		10	3	T3A	narcissus_aac.wir	260	133	0.00	2.31	7074		0	209	0.00	0.00	0
28	4		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	0.00	2.31	6933
28	4		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	2.31	6933
28	4		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	2.31	6933
29	5	Uplift	1	1	SWA	7no_9_alumoweld.wir	261	133	0.00	0.21	3924		0	209	0.00	0.00	0
29	5		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.00	0.21	3928
29	5		10	1	T1A	narcissus_aac.wir	261	133	0.00	1.19	8143		0	209	0.00	0.00	0
29	5		10	2	T2A	narcissus_aac.wir	261	133	0.00	1.19	8143		0	209	0.00	0.00	0
29	5		10	3	T3A	narcissus_aac.wir	260	133	0.00	1.19	8143		0	209	0.00	0.00	0
29	5		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	0.00	1.19	8088
29	5		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	1.19	8088
29	5		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	1.19	8088
31	1	RULE 250B GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.70	0.59	6315		0	209	0.00	0.00	0
31	1		10	1	T1A	narcissus_aac.wir	261	133	1.50	2.51	12410		0	209	0.00	0.00	0
31	1		10	2	T2A	narcissus_aac.wir	261	133	1.50	2.51	12410		0	209	0.00	0.00	0
31	1		10	3	T3A	narcissus_aac.wir	260	133	1.50	2.51	12410		0	209	0.00	0.00	0
32	1	RULE 250B GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.70	0.59	6315		0	209	0.00	0.00	0
32	1		10	1	T1A	narcissus_aac.wir	261	133	1.50	2.51	12410		0	209	0.00	0.00	0
32	1		10	2	T2A	narcissus_aac.wir	261	133	1.50	2.51	12410		0	209	0.00	0.00	0
32	1		10	3	T3A	narcissus_aac.wir	260	133	1.50	2.51	12410		0	209	0.00	0.00	0
33	1	RULE 250B GRADE	2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.70	0.59	6306
33	1		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	1.50	2.51	12238
33	1		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	2.51	12238
33	1		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	2.51	12238
34	1	RULE 250B GRADE	2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.70	0.59	6306
34	1		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	1.50	2.51	12238
34	1		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	2.51	12238
34	1		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.50	2.51	12238
35	2	RULE 250C GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.96	0.21	3534		0	209	0.00	0.00	0
35	2		10	1	T1A	narcissus_aac.wir	261	133	3.58	1.19	7275		0	209	0.00	0.00	0
35	2		10	2	T2A	narcissus_aac.wir	261	133	3.50	1.19	7275		0	209	0.00	0.00	0
35	2		10	3	T3A	narcissus_aac.wir	260	133	3.41	1.19	7275		0	209	0.00	0.00	0
36	2	RULE 250C GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.96	0.21	3534		0	209	0.00	0.00	0
36	2		10	1	T1A	narcissus_aac.wir	261	133	3.58	1.19	7275		0	209	0.00	0.00	0
36	2		10	2	T2A	narcissus_aac.wir	261	133	3.50	1.19	7275		0	209	0.00	0.00	0

36	2		10	3	T3A	narcissus_aac.wir	260	133	3.41	1.19	7275		0	209	0.00	0.00	0
37	2	RULE 250C GRADE	2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.99	0.21	3526
37	2		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	3.68	1.19	7165
37	2		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	3.61	1.19	7165
37	2		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	3.53	1.19	7165
38	2	RULE 250C GRADE	2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.99	0.21	3526
38	2		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	3.68	1.19	7165
38	2		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	3.61	1.19	7165
38	2		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	3.53	1.19	7165
39	3	RULE 250D GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.80	1.88	4532		0	209	0.00	0.00	0
39	3		10	1	T1A	narcissus_aac.wir	261	133	1.13	4.05	9367		0	209	0.00	0.00	0
39	3		10	2	T2A	narcissus_aac.wir	261	133	1.13	4.05	9367		0	209	0.00	0.00	0
39	3		10	3	T3A	narcissus_aac.wir	260	133	1.13	4.05	9367		0	209	0.00	0.00	0
40	3	RULE 250D GRADE	1	1	SWA	7no_9_alumoweld.wir	261	133	0.80	1.88	4532		0	209	0.00	0.00	0
40	3		10	1	T1A	narcissus_aac.wir	261	133	1.13	4.05	9367		0	209	0.00	0.00	0
40	3		10	2	T2A	narcissus_aac.wir	261	133	1.13	4.05	9367		0	209	0.00	0.00	0
40	3		10	3	T3A	narcissus_aac.wir	260	133	1.13	4.05	9367		0	209	0.00	0.00	0
41	3	RULE 250D GRADE	2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.80	1.88	4473
41	3		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	1.13	4.05	9167
41	3		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.13	4.05	9167
41	3		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.13	4.05	9167
42	3	RULE 250D GRADE	2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.80	1.88	4473
42	3		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	1.13	4.05	9167
42	3		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.13	4.05	9167
42	3		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	1.13	4.05	9167
67	4	Extreme Ice NA+	1	1	SWA	7no_9_alumoweld.wir	261	133	0.00	0.73	3700		0	209	0.00	0.00	0
67	4		10	1	T1A	narcissus_aac.wir	261	133	0.00	2.31	7074		0	209	0.00	0.00	0
67	4		10	2	T2A	narcissus_aac.wir	261	133	0.00	2.31	7074		0	209	0.00	0.00	0
67	4		10	3	T3A	narcissus_aac.wir	260	133	0.00	2.31	7074		0	209	0.00	0.00	0
68	4	Extreme Ice NA-	1	1	SWA	7no_9_alumoweld.wir	261	133	0.00	0.73	3700		0	209	0.00	0.00	0
68	4		10	1	T1A	narcissus_aac.wir	261	133	0.00	2.31	7074		0	209	0.00	0.00	0
68	4		10	2	T2A	narcissus_aac.wir	261	133	0.00	2.31	7074		0	209	0.00	0.00	0
68	4		10	3	T3A	narcissus_aac.wir	260	133	0.00	2.31	7074		0	209	0.00	0.00	0
69	4	Extreme Ice NA+	2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.00	0.73	3691
69	4		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	0.00	2.31	6933
69	4		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	2.31	6933
69	4		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	2.31	6933
70	4	Extreme Ice NA-	2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.00	0.73	3691
70	4		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	0.00	2.31	6933
70	4		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	2.31	6933
70	4		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	2.31	6933
71	19	CAMBER	1	1	SWA	7no_9_alumoweld.wir	261	133	0.00	0.21	3226		0	209	0.00	0.00	0
71	19		2	1	SWB		0	29	0.00	0.00	0	7no_9_alumoweld.wir	247	227	0.00	0.21	3230
71	19		10	1	T1A	narcissus_aac.wir	261	133	0.00	1.19	4387		0	209	0.00	0.00	0
71	19		10	2	T2A	narcissus_aac.wir	261	133	0.00	1.19	4387		0	209	0.00	0.00	0
71	19		10	3	T3A	narcissus_aac.wir	260	133	0.00	1.19	4387		0	209	0.00	0.00	0
71	19		20	1	T1B		0	29	0.00	0.00	0	narcissus_aac.wir	247	227	0.00	1.19	4283
71	19		20	2	T2B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	1.19	4283
71	19		20	3	T3B		0	29	0.00	0.00	0	narcissus_aac.wir	246	227	0.00	1.19	4283

Wire Loads In Structure Coordinate System

Note: Loads in this report include load from counter weights, insulator weight, insulator wind area and jumpers.

LC #	WC #	Load Case Description	Set No.	Phase No.	Attach. Joint Labels	----Structure Loads----			--Loads from back span--			-Loads from ahead span-			Warnings
						Vert.	Trans.	Long.	Vert.	Trans.	Long.	Vert.	Trans.	Long.	
						----- (lbs) -----			----- (lbs) -----			----- (lbs) -----			
1	1	RULE 250B GRADE	1	1	SWA	315	-4258	4664	315	-4258	4664	0	0	0	
1	1		2	1	SWB	3	-4257	-4653	0	0	0	3	-4257	-4653	
1	1		10	1	T1A	1089	-8340	9176	1089	-8340	9176	0	0	0	
1	1		10	2	T2A	1089	-8340	9176	1089	-8340	9176	0	0	0	
1	1		10	3	T3A	1090	-8340	9176	1090	-8340	9176	0	0	0	
1	1		20	1	T1B	324	-8233	-9040	0	0	0	324	-8233	-9040	

1	1	20	2	T2B	323	-8233	-9040	0	0	0	323	-8233	-9040
1	1	20	3	T3B	322	-8233	-9039	0	0	0	322	-8233	-9039
2	1	1	1	SWA	315	-4394	4538	315	-4394	4538	0	0	0
2	1	2	1	SWB	3	-4385	-4534	0	0	0	3	-4385	-4534
2	1	10	1	T1A	1089	-8662	8907	1089	-8662	8907	0	0	0
2	1	10	2	T2A	1089	-8662	8908	1089	-8662	8908	0	0	0
2	1	10	3	T3A	1090	-8661	8908	1090	-8661	8908	0	0	0
2	1	20	1	T1B	324	-8538	-8787	0	0	0	324	-8538	-8787
2	1	20	2	T2B	323	-8538	-8787	0	0	0	323	-8538	-8787
2	1	20	3	T3B	322	-8538	-8787	0	0	0	322	-8538	-8787
3	1	1	1	SWA	210	-4258	4664	210	-4258	4664	0	0	0
3	1	2	1	SWB	2	-4257	-4653	0	0	0	2	-4257	-4653
3	1	10	1	T1A	726	-8340	9176	726	-8340	9176	0	0	0
3	1	10	2	T2A	726	-8340	9176	726	-8340	9176	0	0	0
3	1	10	3	T3A	726	-8340	9176	726	-8340	9176	0	0	0
3	1	20	1	T1B	216	-8233	-9040	0	0	0	216	-8233	-9040
3	1	20	2	T2B	215	-8233	-9040	0	0	0	215	-8233	-9040
3	1	20	3	T3B	215	-8233	-9039	0	0	0	215	-8233	-9039
4	1	1	1	SWA	210	-4394	4538	210	-4394	4538	0	0	0
4	1	2	1	SWB	2	-4385	-4534	0	0	0	2	-4385	-4534
4	1	10	1	T1A	726	-8662	8907	726	-8662	8907	0	0	0
4	1	10	2	T2A	726	-8662	8908	726	-8662	8908	0	0	0
4	1	10	3	T3A	726	-8661	8908	726	-8661	8908	0	0	0
4	1	20	1	T1B	216	-8538	-8787	0	0	0	216	-8538	-8787
4	1	20	2	T2B	215	-8538	-8787	0	0	0	215	-8538	-8787
4	1	20	3	T3B	215	-8538	-8787	0	0	0	215	-8538	-8787
5	2	1	1	SWA	232	-2324	2661	232	-2324	2661	0	0	0
5	2	2	1	SWB	-37	-2323	-2652	0	0	0	-37	-2323	-2652
5	2	10	1	T1A	692	-4567	5621	692	-4567	5621	0	0	0
5	2	10	2	T2A	692	-4575	5614	692	-4575	5614	0	0	0
5	2	10	3	T3A	692	-4584	5606	692	-4584	5606	0	0	0
5	2	20	1	T1B	147	-4504	-5529	0	0	0	147	-4504	-5529
5	2	20	2	T2B	147	-4511	-5523	0	0	0	147	-4511	-5523
5	2	20	3	T3B	147	-4518	-5516	0	0	0	147	-4518	-5516
6	2	1	1	SWA	232	-2517	2488	232	-2517	2488	0	0	0
6	2	2	1	SWB	-37	-2510	-2485	0	0	0	-37	-2510	-2485
6	2	10	1	T1A	692	-5400	4980	692	-5400	4980	0	0	0
6	2	10	2	T2A	692	-5392	4987	692	-5392	4987	0	0	0
6	2	10	3	T3A	692	-5383	4996	692	-5383	4996	0	0	0
6	2	20	1	T1B	147	-5315	-4908	0	0	0	147	-5315	-4908
6	2	20	2	T2B	147	-5308	-4914	0	0	0	147	-5308	-4914
6	2	20	3	T3B	147	-5301	-4921	0	0	0	147	-5301	-4921
7	3	1	1	SWA	506	-3028	3373	506	-3028	3373	0	0	0
7	3	2	1	SWB	149	-2993	-3326	0	0	0	149	-2993	-3326
7	3	10	1	T1A	1182	-6301	6925	1182	-6301	6925	0	0	0
7	3	10	2	T2A	1182	-6301	6925	1182	-6301	6925	0	0	0
7	3	10	3	T3A	1182	-6301	6925	1182	-6301	6925	0	0	0
7	3	20	1	T1B	463	-6173	-6772	0	0	0	463	-6173	-6772
7	3	20	2	T2B	462	-6173	-6772	0	0	0	462	-6173	-6772
7	3	20	3	T3B	461	-6173	-6771	0	0	0	461	-6173	-6771
8	3	1	1	SWA	506	-3181	3230	506	-3181	3230	0	0	0
8	3	2	1	SWB	149	-3137	-3190	0	0	0	149	-3137	-3190
8	3	10	1	T1A	1182	-6531	6723	1182	-6531	6723	0	0	0
8	3	10	2	T2A	1182	-6531	6724	1182	-6531	6724	0	0	0
8	3	10	3	T3A	1182	-6530	6724	1182	-6530	6724	0	0	0
8	3	20	1	T1B	463	-6390	-6581	0	0	0	463	-6390	-6581
8	3	20	2	T2B	462	-6390	-6581	0	0	0	462	-6390	-6581
8	3	20	3	T3B	461	-6390	-6582	0	0	0	461	-6390	-6582
25	1	1	1	SWA	210	-2594	2813	210	-2594	2813	0	0	0
25	1	2	1	SWB	2	-2593	-2808	0	0	0	2	-2593	-2808
25	1	10	1	T1A	726	-5088	5533	726	-5088	5533	0	0	0
25	1	10	2	T2A	726	-5088	5534	726	-5088	5534	0	0	0
25	1	10	3	T3A	726	-5088	5534	726	-5088	5534	0	0	0
25	1	20	1	T1B	216	-5021	-5453	0	0	0	216	-5021	-5453
25	1	20	2	T2B	215	-5021	-5453	0	0	0	215	-5021	-5453

25	1		20	3	T3B	215	-5021	-5452	0	0	0	215	-5021	-5452
26	1	RULE 277 Insulat	1	1	SWA	210	-2649	2763	210	-2649	2763	0	0	0
26	1		2	1	SWB	2	-2644	-2760	0	0	0	2	-2644	-2760
26	1		10	1	T1A	726	-5216	5426	726	-5216	5426	0	0	0
26	1		10	2	T2A	726	-5216	5426	726	-5216	5426	0	0	0
26	1		10	3	T3A	726	-5216	5426	726	-5216	5426	0	0	0
26	1		20	1	T1B	216	-5143	-5351	0	0	0	216	-5143	-5351
26	1		20	2	T2B	215	-5143	-5351	0	0	0	215	-5143	-5351
26	1		20	3	T3B	215	-5143	-5351	0	0	0	215	-5143	-5351
27	4	Extreme Ice NA+	1	1	SWA	310	-2535	2696	310	-2535	2696	0	0	0
27	4		2	1	SWB	24	-2529	-2689	0	0	0	24	-2529	-2689
27	4		10	1	T1A	827	-4846	5154	827	-4846	5154	0	0	0
27	4		10	2	T2A	827	-4846	5154	827	-4846	5154	0	0	0
27	4		10	3	T3A	827	-4845	5154	827	-4845	5154	0	0	0
27	4		20	1	T1B	290	-4750	-5049	0	0	0	290	-4750	-5049
27	4		20	2	T2B	289	-4750	-5049	0	0	0	289	-4750	-5049
27	4		20	3	T3B	288	-4750	-5049	0	0	0	288	-4750	-5049
28	4	Extreme Ice NA-	1	1	SWA	310	-2535	2696	310	-2535	2696	0	0	0
28	4		2	1	SWB	24	-2529	-2689	0	0	0	24	-2529	-2689
28	4		10	1	T1A	827	-4846	5154	827	-4846	5154	0	0	0
28	4		10	2	T2A	827	-4846	5154	827	-4846	5154	0	0	0
28	4		10	3	T3A	827	-4845	5154	827	-4845	5154	0	0	0
28	4		20	1	T1B	290	-4750	-5049	0	0	0	290	-4750	-5049
28	4		20	2	T2B	289	-4750	-5049	0	0	0	289	-4750	-5049
28	4		20	3	T3B	288	-4750	-5049	0	0	0	288	-4750	-5049
29	5	Uplift	1	1	SWA	253	-2688	2858	253	-2688	2858	0	0	0
29	5		2	1	SWB	-46	-2692	-2861	0	0	0	-46	-2692	-2861
29	5		10	1	T1A	740	-5578	5933	740	-5578	5933	0	0	0
29	5		10	2	T2A	740	-5578	5933	740	-5578	5933	0	0	0
29	5		10	3	T3A	740	-5578	5933	740	-5578	5933	0	0	0
29	5		20	1	T1B	130	-5542	-5891	0	0	0	130	-5542	-5891
29	5		20	2	T2B	130	-5542	-5891	0	0	0	130	-5542	-5891
29	5		20	3	T3B	129	-5542	-5891	0	0	0	129	-5542	-5891
31	1	RULE 250B GRADE	1	1	SWA	315	-4258	4664	315	-4258	4664	0	0	0
31	1		10	1	T1A	1089	-8340	9176	1089	-8340	9176	0	0	0
31	1		10	2	T2A	1089	-8340	9176	1089	-8340	9176	0	0	0
31	1		10	3	T3A	1090	-8340	9176	1090	-8340	9176	0	0	0
32	1	RULE 250B GRADE	1	1	SWA	315	-4394	4538	315	-4394	4538	0	0	0
32	1		10	1	T1A	1089	-8662	8907	1089	-8662	8907	0	0	0
32	1		10	2	T2A	1089	-8662	8908	1089	-8662	8908	0	0	0
32	1		10	3	T3A	1090	-8661	8908	1090	-8661	8908	0	0	0
33	1	RULE 250B GRADE	2	1	SWB	3	-4257	-4653	0	0	0	3	-4257	-4653
33	1		20	1	T1B	324	-8233	-9040	0	0	0	324	-8233	-9040
33	1		20	2	T2B	323	-8233	-9040	0	0	0	323	-8233	-9040
33	1		20	3	T3B	322	-8233	-9039	0	0	0	322	-8233	-9039
34	1	RULE 250B GRADE	2	1	SWB	3	-4385	-4534	0	0	0	3	-4385	-4534
34	1		20	1	T1B	324	-8538	-8787	0	0	0	324	-8538	-8787
34	1		20	2	T2B	323	-8538	-8787	0	0	0	323	-8538	-8787
34	1		20	3	T3B	322	-8538	-8787	0	0	0	322	-8538	-8787
35	2	RULE 250C GRADE	1	1	SWA	232	-2324	2661	232	-2324	2661	0	0	0
35	2		10	1	T1A	692	-4567	5621	692	-4567	5621	0	0	0
35	2		10	2	T2A	692	-4575	5614	692	-4575	5614	0	0	0
35	2		10	3	T3A	692	-4584	5606	692	-4584	5606	0	0	0
36	2	RULE 250C GRADE	1	1	SWA	232	-2517	2488	232	-2517	2488	0	0	0
36	2		10	1	T1A	692	-5400	4980	692	-5400	4980	0	0	0
36	2		10	2	T2A	692	-5392	4987	692	-5392	4987	0	0	0
36	2		10	3	T3A	692	-5383	4996	692	-5383	4996	0	0	0
37	2	RULE 250C GRADE	2	1	SWB	-37	-2323	-2652	0	0	0	-37	-2323	-2652
37	2		20	1	T1B	147	-4504	-5529	0	0	0	147	-4504	-5529
37	2		20	2	T2B	147	-4511	-5523	0	0	0	147	-4511	-5523
37	2		20	3	T3B	147	-4518	-5516	0	0	0	147	-4518	-5516
38	2	RULE 250C GRADE	2	1	SWB	-37	-2510	-2485	0	0	0	-37	-2510	-2485
38	2		20	1	T1B	147	-5315	-4908	0	0	0	147	-5315	-4908
38	2		20	2	T2B	147	-5308	-4914	0	0	0	147	-5308	-4914
38	2		20	3	T3B	147	-5301	-4921	0	0	0	147	-5301	-4921

39	3	RULE 250D GRADE	1	1	SWA	506	-3028	3373	506	-3028	3373	0	0	0
39	3		10	1	T1A	1182	-6301	6925	1182	-6301	6925	0	0	0
39	3		10	2	T2A	1182	-6301	6925	1182	-6301	6925	0	0	0
39	3		10	3	T3A	1182	-6301	6925	1182	-6301	6925	0	0	0
40	3	RULE 250D GRADE	1	1	SWA	506	-3181	3230	506	-3181	3230	0	0	0
40	3		10	1	T1A	1182	-6531	6723	1182	-6531	6723	0	0	0
40	3		10	2	T2A	1182	-6531	6724	1182	-6531	6724	0	0	0
40	3		10	3	T3A	1182	-6530	6724	1182	-6530	6724	0	0	0
41	3	RULE 250D GRADE	2	1	SWB	149	-2993	-3326	0	0	0	149	-2993	-3326
41	3		20	1	T1B	463	-6173	-6772	0	0	0	463	-6173	-6772
41	3		20	2	T2B	462	-6173	-6772	0	0	0	462	-6173	-6772
41	3		20	3	T3B	461	-6173	-6771	0	0	0	461	-6173	-6771
42	3	RULE 250D GRADE	2	1	SWB	149	-3137	-3190	0	0	0	149	-3137	-3190
42	3		20	1	T1B	463	-6390	-6581	0	0	0	463	-6390	-6581
42	3		20	2	T2B	462	-6390	-6581	0	0	0	462	-6390	-6581
42	3		20	3	T3B	461	-6390	-6582	0	0	0	461	-6390	-6582
67	4	Extreme Ice NA+	1	1	SWA	310	-2535	2696	310	-2535	2696	0	0	0
67	4		10	1	T1A	827	-4846	5154	827	-4846	5154	0	0	0
67	4		10	2	T2A	827	-4846	5154	827	-4846	5154	0	0	0
67	4		10	3	T3A	827	-4845	5154	827	-4845	5154	0	0	0
68	4	Extreme Ice NA-	1	1	SWA	310	-2535	2696	310	-2535	2696	0	0	0
68	4		10	1	T1A	827	-4846	5154	827	-4846	5154	0	0	0
68	4		10	2	T2A	827	-4846	5154	827	-4846	5154	0	0	0
68	4		10	3	T3A	827	-4845	5154	827	-4845	5154	0	0	0
69	4	Extreme Ice NA+	2	1	SWB	24	-2529	-2689	0	0	0	24	-2529	-2689
69	4		20	1	T1B	290	-4750	-5049	0	0	0	290	-4750	-5049
69	4		20	2	T2B	289	-4750	-5049	0	0	0	289	-4750	-5049
69	4		20	3	T3B	288	-4750	-5049	0	0	0	288	-4750	-5049
70	4	Extreme Ice NA-	2	1	SWB	24	-2529	-2689	0	0	0	24	-2529	-2689
70	4		20	1	T1B	290	-4750	-5049	0	0	0	290	-4750	-5049
70	4		20	2	T2B	289	-4750	-5049	0	0	0	289	-4750	-5049
70	4		20	3	T3B	288	-4750	-5049	0	0	0	288	-4750	-5049
71	19	CAMBER	1	1	SWA	215	-2210	2350	215	-2210	2350	0	0	0
71	19		2	1	SWB	-31	-2213	-2353	0	0	0	-31	-2213	-2353
71	19		10	1	T1A	532	-3005	3196	532	-3005	3196	0	0	0
71	19		10	2	T2A	532	-3005	3196	532	-3005	3196	0	0	0
71	19		10	3	T3A	532	-3005	3196	532	-3005	3196	0	0	0
71	19		20	1	T1B	201	-2935	-3120	0	0	0	201	-2935	-3120
71	19		20	2	T2B	200	-2935	-3120	0	0	0	200	-2935	-3120
71	19		20	3	T3B	200	-2935	-3120	0	0	0	200	-2935	-3120

Wire Load Induced Ground Line Moments For Single Pole Centered At Structure Origin

Warning: Results below are not intended for foundation design ??

Note: Moments below computed assuming a single self supported pole at structure origin and are incorrect for guyed structures and multi pole structures. ??

Note: Approximate values below do not include nonlinear (P-delta) effects or wind on pole. Moment would be larger if these effects were included. ??

LC #	WC #	Load Case Description	Vert. Load (kips)	Trans. Shear (kips)	Long. Shear (kips)	Resultant Shear (kips)	Trans. Moment (ft-k)	Long. Moment (ft-k)	Resultant Moment (ft-k)

1	1	RULE 250B GRADE	4.556	-58.233	0.420	58.235	-3547.622	-27.392	3547.728
2	1	RULE 250B GRADE	4.556	-60.377	0.366	60.378	-3677.273	-24.161	3677.352
3	1	RULE 250B GRADE	3.037	-58.233	0.420	58.235	-3546.040	-26.500	3546.139
4	1	RULE 250B GRADE	3.037	-60.377	0.366	60.378	-3675.691	-23.269	3675.764
5	2	RULE 250C GRADE	2.711	-31.907	0.281	31.908	-1943.482	-18.538	1943.570
6	2	RULE 250C GRADE	2.711	-37.124	0.223	37.125	-2255.251	-15.029	2255.301
7	3	RULE 250D GRADE	5.586	-43.443	0.509	43.446	-2643.429	-33.059	2643.635
8	3	RULE 250D GRADE	5.586	-45.079	0.466	45.081	-2743.939	-30.396	2744.108
25	1	RULE 277 Insulat	3.037	-35.514	0.249	35.515	-2163.720	-16.431	2163.782
26	1	RULE 277 Insulat	3.037	-36.371	0.228	36.372	-2215.580	-15.138	2215.631
27	4	Extreme Ice NA+	3.681	-33.852	0.321	33.853	-2065.168	-20.827	2065.273
28	4	Extreme Ice NA-	3.681	-33.852	0.321	33.853	-2065.168	-20.827	2065.273
29	5	Uplift	2.816	-38.740	0.124	38.740	-2355.284	-9.377	2355.302

30	2	RULE 261A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Global wind towards 20 (deg) for max usage.
31	1	RULE 250B GRADE	3.583	-29.278	32.192	43.514	-1784.632	-1961.588	2651.931	
32	1	RULE 250B GRADE	3.583	-30.378	31.260	43.589	-1851.193	-1905.089	2656.366	
33	1	RULE 250B GRADE	0.973	-28.956	-31.772	42.987	-1762.991	1934.196	2617.107	
34	1	RULE 250B GRADE	0.973	-29.999	-30.894	43.062	-1826.079	1880.928	2621.537	
35	2	RULE 250C GRADE	2.307	-16.051	19.501	25.257	-978.431	-1185.938	1537.458	
36	2	RULE 250C GRADE	2.307	-18.691	17.451	25.571	-1136.223	-1062.956	1555.917	
37	2	RULE 250C GRADE	0.403	-15.856	-19.220	24.917	-965.051	1167.400	1514.643	
38	2	RULE 250C GRADE	0.403	-18.433	-17.228	25.230	-1119.028	1047.927	1533.094	
39	3	RULE 250D GRADE	4.051	-21.932	24.149	32.622	-1335.655	-1470.908	1986.843	
40	3	RULE 250D GRADE	4.051	-22.773	23.400	32.653	-1387.341	-1424.805	1988.663	
41	3	RULE 250D GRADE	1.535	-21.511	-23.640	31.962	-1307.774	1437.850	1943.627	
42	3	RULE 250D GRADE	1.535	-22.306	-22.935	31.993	-1356.599	1394.409	1945.440	
67	4	Extreme Ice NA+	2.790	-17.072	18.158	24.923	-1042.161	-1108.283	1521.312	
68	4	Extreme Ice NA-	2.790	-17.072	18.158	24.923	-1042.161	-1108.283	1521.312	
69	4	Extreme Ice NA+	0.891	-16.780	-17.837	24.489	-1023.007	1087.456	1493.018	
70	4	Extreme Ice NA-	0.891	-16.780	-17.837	24.489	-1023.007	1087.456	1493.018	
71	19	CAMBER	2.380	-22.243	0.226	22.244	-1374.437	-14.416	1374.513	

Basic factored design wind pressure on structure

LC #	WC #	Load Case Description	Trans. Wind Press. (psf)	Long. Wind Press. (psf)	Notes
1	1	RULE 250B GRADE	10.0	0.0	
2	1	RULE 250B GRADE	-10.0	-0.0	
3	1	RULE 250B GRADE	10.0	0.0	
4	1	RULE 250B GRADE	-10.0	-0.0	
5	2	RULE 250C GRADE	36.9	0.0	
6	2	RULE 250C GRADE	-36.9	-0.0	
7	3	RULE 250D GRADE	4.1	0.0	
8	3	RULE 250D GRADE	-4.1	-0.0	
25	1	RULE 277 Insulat	4.0	0.0	
26	1	RULE 277 Insulat	-4.0	-0.0	
27	4	Extreme Ice NA+	0.0	0.0	
28	4	Extreme Ice NA-	-0.0	-0.0	
29	5	Uplift	0.0	0.0	
30	2	RULE 261A	-27.8	24.2	
31	1	RULE 250B GRADE	10.0	0.0	
32	1	RULE 250B GRADE	-10.0	-0.0	
33	1	RULE 250B GRADE	10.0	0.0	
34	1	RULE 250B GRADE	-10.0	-0.0	
35	2	RULE 250C GRADE	36.9	0.0	
36	2	RULE 250C GRADE	-36.9	-0.0	
37	2	RULE 250C GRADE	36.9	0.0	
38	2	RULE 250C GRADE	-36.9	-0.0	
39	3	RULE 250D GRADE	4.1	0.0	
40	3	RULE 250D GRADE	-4.1	-0.0	
41	3	RULE 250D GRADE	4.1	0.0	
42	3	RULE 250D GRADE	-4.1	-0.0	
67	4	Extreme Ice NA+	0.0	0.0	
68	4	Extreme Ice NA-	-0.0	-0.0	
69	4	Extreme Ice NA+	0.0	0.0	
70	4	Extreme Ice NA-	-0.0	-0.0	
71	19	CAMBER	0.0	0.0	

