

Stringing Chart Report - Shieldwire : 7#9 Alumoweld

Circuit 'SW' Structure #4 to Structure #5

Ruling span (ft) 111.531

Sagging data: Catenary (ft) 6847.78, Horiz. Tension (lbs) 1421.6 Condition I
Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 26.9 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 7.2 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span	Mid Span	Mid Span	Mid Span	Mid Span	Mid Span	Mid Span	Mid Span	Mid Span	Left Struct	Span Vertical Projection
	Sag	Sag	Sag	Sag	Sag	Sag	Sag	Sag	Sag		
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F			
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
111-9	0-2	0-2	0-3	0-3	0-3	0-3	0-4	0-4		4	-6-10

Span Length	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Left Struct	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F			
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
111-9	1.29	1.33	1.38	1.43	1.49	1.55	1.62	1.70		4	-6-10

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
1747	1638	1527	1419	1312	1206	1102	1000

Circuit 'SW' Structure #5 to Structure #8

Ruling span (ft) 273.361

Sagging data: Catenary (ft) 5333.33, Horiz. Tension (lbs) 1107.2 Condition I

Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 23.7 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 15.6 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
276-1	1-5	1-7	1-8	1-9	1-11	2-1	2-3	2-5	5	-3-6
271-11	1-5	1-6	1-7	1-9	1-10	2-0	2-2	2-4	6	-2-1
272-0	1-5	1-6	1-7	1-9	1-11	2-0	2-2	2-4	7	-4-5

Span Length	Wave Time 30 F	Wave Time 40 F	Wave Time 50 F	Wave Time 60 F	Wave Time 70 F	Wave Time 80 F	Wave Time 90 F	Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
276-1	3.58	3.72	3.85	4.00	4.16	4.32	4.49	4.66	5	-3-6
271-11	3.53	3.66	3.79	3.94	4.09	4.25	4.42	4.59	6	-2-1
272-0	3.53	3.66	3.79	3.94	4.10	4.26	4.43	4.60	7	-4-5

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
1377	1282	1193	1106	1024	948	877	813

Circuit 'SW' Structure #37 to Structure #52

Ruling span (ft) 210.312

Sagging data: Catenary (ft) 6002.89, Horiz. Tension (lbs) 1246.2 Condition I
 Temperature (deg F) 60, Weather case for final after creep 60 Deg F, Equivalent to
 25.1 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 12.1 (deg F)
 temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
158-9	0-5	0-5	0-6	0-6	0-7	0-7	0-8	0-9	37	2-11
154-10	0-5	0-5	0-6	0-6	0-7	0-7	0-8	0-8	38	0-1
183-10	0-7	0-7	0-8	0-8	0-9	0-10	0-11	1-0	39	1-6
245-6	1-0	1-1	1-2	1-3	1-4	1-6	1-7	1-9	40	-0-6
244-2	1-0	1-1	1-2	1-3	1-4	1-6	1-7	1-9	41	-0-1
175-6	0-6	0-7	0-7	0-8	0-8	0-9	0-10	0-11	42	0-0
204-8	0-8	0-9	0-10	0-10	0-11	1-0	1-1	1-3	43	-0-0
187-3	0-7	0-8	0-8	0-9	0-10	0-10	0-11	1-0	44	-0-3
136-6	0-4	0-4	0-4	0-5	0-5	0-5	0-6	0-7	45	-0-1
138-11	0-4	0-4	0-4	0-5	0-5	0-6	0-6	0-7	46	-0-4
156-11	0-5	0-5	0-6	0-6	0-7	0-7	0-8	0-9	47	-0-6
218-8	0-10	0-10	0-11	1-0	1-1	1-2	1-3	1-5	48	0-10
218-5	0-10	0-10	0-11	1-0	1-1	1-2	1-3	1-5	49	2-6
262-8	1-2	1-3	1-4	1-5	1-7	1-8	1-10	2-0	50	0-9
265-4	1-2	1-3	1-4	1-6	1-7	1-9	1-11	2-1	51	4-0

Span Length	3 Wave Time 30 F	3 Wave Time 40 F	3 Wave Time 50 F	3 Wave Time 60 F	3 Wave Time 70 F	3 Wave Time 80 F	3 Wave Time 90 F	3 Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
158-9	1.94	2.01	2.09	2.17	2.26	2.35	2.46	2.57	37	2-11
154-10	1.90	1.96	2.03	2.12	2.20	2.30	2.40	2.51	38	0-1
183-10	2.25	2.33	2.42	2.51	2.61	2.73	2.85	2.98	39	1-6
245-6	3.01	3.11	3.23	3.35	3.49	3.64	3.80	3.97	40	-0-6
244-2	2.99	3.09	3.21	3.34	3.47	3.62	3.78	3.95	41	-0-1
175-6	2.15	2.22	2.31	2.40	2.49	2.60	2.72	2.84	42	0-0
204-8	2.51	2.59	2.69	2.80	2.91	3.03	3.17	3.31	43	-0-0
187-3	2.29	2.37	2.46	2.56	2.66	2.78	2.90	3.03	44	-0-3
136-6	1.67	1.73	1.79	1.86	1.94	2.02	2.11	2.21	45	-0-1
138-11	1.70	1.76	1.83	1.90	1.98	2.06	2.15	2.25	46	-0-4
156-11	1.92	1.99	2.06	2.14	2.23	2.33	2.43	2.54	47	-0-6
218-8	2.68	2.77	2.87	2.99	3.11	3.24	3.39	3.54	48	0-10
218-5	2.67	2.77	2.87	2.98	3.11	3.24	3.38	3.54	49	2-6
262-8	3.22	3.33	3.45	3.59	3.73	3.89	4.07	4.25	50	0-9
265-4	3.25	3.36	3.49	3.62	3.77	3.93	4.11	4.30	51	4-0

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
1549	1445	1344	1244	1149	1056	968	886

Circuit 'SW' Structure #52 to Structure #53

Ruling span (ft) 187.16

Sagging data: Catenary (ft) 6219.65, Horiz. Tension (lbs) 1291.2 Condition I
 Temperature (deg F) 60, Weather case for final after creep 60 Deg F, Equivalent to
 25.8 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 11.1 (deg F)
 temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
187-5	0-7	0-7	0-8	0-8	0-9	0-10	0-11	1-0	52	-9-11

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
187-5	2.26	2.34	2.42	2.51	2.62	2.73	2.86	2.99	52	-9-11

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F (lbs)	40 F (lbs)	50 F (lbs)	60 F (lbs)	70 F (lbs)	80 F (lbs)	90 F (lbs)	100 F (lbs)
1601	1495	1392	1291	1191	1093	1001	911

Circuit 'SW' Structure #53 to Structure #69A

Ruling span (ft) 220.549

Sagging data: Catenary (ft) 5889.69, Horiz. Tension (lbs) 1222.7 Condition I
 Temperature (deg F) 60, Weather case for final after creep 60 Deg F, Equivalent to
 24.8 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)', NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 12.8 (deg F)
 temperature increase, 'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
187-5	0-7	0-8	0-8	0-9	0-10	0-11	0-11	1-1	53	4-9
183-6	0-7	0-7	0-8	0-9	0-9	0-10	0-11	1-0	54	6-9
266-8	1-3	1-4	1-5	1-6	1-8	1-9	1-11	2-1	55	1-4
281-3	1-4	1-5	1-7	1-8	1-10	2-0	2-2	2-4	56	-2-0
177-1	0-6	0-7	0-7	0-8	0-9	0-9	0-10	0-11	57	0-5
135-6	0-4	0-4	0-4	0-5	0-5	0-6	0-6	0-7	58	-0-1
285-3	1-5	1-6	1-7	1-9	1-10	2-0	2-3	2-5	59	-5-4
230-5	0-11	1-0	1-1	1-2	1-3	1-4	1-5	1-7	60	1-10
204-7	0-9	0-9	0-10	0-11	1-0	1-1	1-2	1-3	61	1-11
199-4	0-8	0-9	0-9	0-10	0-11	1-0	1-1	1-2	62	0-9
211-11	0-9	0-10	0-11	0-11	1-0	1-1	1-3	1-4	63	-0-8
191-7	0-8	0-8	0-9	0-9	0-10	0-11	1-0	1-1	64	-1-2
202-10	0-8	0-9	0-10	0-10	0-11	1-0	1-1	1-3	65	-0-10
209-3	0-9	0-10	0-10	0-11	1-0	1-1	1-2	1-4	66	0-11
215-6	0-10	0-10	0-11	1-0	1-1	1-2	1-3	1-5	67	0-6
174-1	0-6	0-7	0-7	0-8	0-8	0-9	0-10	0-11	68	-3-3

Span Length	Wave Time 30 F	Wave Time 40 F	Wave Time 50 F	Wave Time 60 F	Wave Time 70 F	Wave Time 80 F	Wave Time 90 F	Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
187-5	2.32	2.40	2.49	2.58	2.69	2.80	2.93	3.06	53	4-9
183-6	2.27	2.35	2.44	2.53	2.63	2.75	2.87	2.99	54	6-9
266-8	3.30	3.41	3.54	3.67	3.83	3.99	4.16	4.35	55	1-4
281-3	3.48	3.60	3.73	3.88	4.04	4.21	4.39	4.59	56	-2-0
177-1	2.19	2.26	2.35	2.44	2.54	2.65	2.76	2.89	57	0-5
135-6	1.67	1.73	1.80	1.87	1.94	2.03	2.12	2.21	58	-0-1
285-3	3.53	3.65	3.79	3.93	4.09	4.27	4.45	4.66	59	-5-4
230-5	2.85	2.95	3.06	3.18	3.31	3.45	3.60	3.76	60	1-10
204-7	2.53	2.62	2.71	2.82	2.94	3.06	3.19	3.34	61	1-11
199-4	2.46	2.55	2.65	2.75	2.86	2.98	3.11	3.25	62	0-9
211-11	2.62	2.71	2.81	2.92	3.04	3.17	3.31	3.46	63	-0-8
191-7	2.37	2.45	2.54	2.64	2.75	2.87	2.99	3.13	64	-1-2
202-10	2.51	2.59	2.69	2.79	2.91	3.03	3.17	3.31	65	-0-10
209-3	2.59	2.68	2.78	2.88	3.00	3.13	3.27	3.41	66	0-11
215-6	2.66	2.76	2.86	2.97	3.09	3.22	3.37	3.52	67	0-6
174-1	2.15	2.23	2.31	2.40	2.50	2.60	2.72	2.84	68	-3-3

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
1520	1419	1318	1223	1127	1037	952	872

Circuit 'SW' Structure #69A to Structure #69B

Ruling span (ft) 80.6947

Sagging data: Catenary (ft) 7030.83, Horiz. Tension (lbs) 1459.6 Condition I
 Temperature (deg F) 60, Weather case for final after creep 60 Deg F, Equivalent to
 27.2 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 5.8 (deg F)
 temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
80-8	0-1	0-1	0-1	0-1	0-2	0-2	0-2	0-2	69A	-0-9

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
80-8	0.92	0.95	0.98	1.02	1.06	1.10	1.15	1.21	69A	-0-9

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F (lbs)	40 F (lbs)	50 F (lbs)	60 F (lbs)	70 F (lbs)	80 F (lbs)	90 F (lbs)	100 F (lbs)
1787	1676	1568	1457	1349	1242	1135	1028

Circuit 'SW' Structure #69B to Structure #72

Ruling span (ft) 172.187

Sagging data: Catenary (ft) 6379.58, Horiz. Tension (lbs) 1324.4 Condition I
 Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 25.8 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 10.0 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F (ft-in)	Mid Span Sag 40 F (ft-in)	Mid Span Sag 50 F (ft-in)	Mid Span Sag 60 F (ft-in)	Mid Span Sag 70 F (ft-in)	Mid Span Sag 80 F (ft-in)	Mid Span Sag 90 F (ft-in)	Mid Span Sag 100 F (ft-in)	Left Struct Number	Span Vertical Projection (ft-in)
174-10	0-6	0-6	0-7	0-7	0-8	0-8	0-9	0-10	69B	-0-4
147-1	0-4	0-4	0-5	0-5	0-6	0-6	0-7	0-7	70	1-4
187-4	0-7	0-7	0-8	0-8	0-9	0-10	0-11	1-0	71	0-10

Span Length	3 Wave Time 30 F (ft-in) Sec.	3 Wave Time 40 F (ft-in) Sec.	3 Wave Time 50 F (ft-in) Sec.	3 Wave Time 60 F (ft-in) Sec.	3 Wave Time 70 F (ft-in) Sec.	3 Wave Time 80 F (ft-in) Sec.	3 Wave Time 90 F (ft-in) Sec.	3 Wave Time 100 F (ft-in) Sec.	Left Struct Number	Span Vertical Projection (ft-in)
174-10	2.08	2.15	2.23	2.31	2.41	2.51	2.63	2.75	69B	-0-4
147-1	1.75	1.81	1.88	1.95	2.03	2.11	2.21	2.32	70	1-4
187-4	2.23	2.31	2.39	2.48	2.58	2.69	2.82	2.95	71	0-10

Horiz Tension 30 F (lbs)	Horiz Tension 40 F (lbs)	Horiz Tension 50 F (lbs)	Horiz Tension 60 F (lbs)	Horiz Tension 70 F (lbs)	Horiz Tension 80 F (lbs)	Horiz Tension 90 F (lbs)	Horiz Tension 100 F (lbs)
1639	1533	1427	1324	1222	1124	1027	934

Circuit 'SW' Structure #72 to Structure #74

Ruling span (ft) 197.417

Sagging data: Catenary (ft) 6140.17, Horiz. Tension (lbs) 1274.7 Condition I
 Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 25.1 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 11.4 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Struct Number	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F			
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)			(ft-in)
195-4	0-8	0-8	0-9	0-9	0-10	0-11	1-0	1-1	72		-0-4
199-6	0-8	0-8	0-9	0-10	0-11	0-11	1-1	1-2	73		-0-6

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Struct Number	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F			
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.			(ft-in)
195-4	2.37	2.45	2.54	2.64	2.74	2.86	2.99	3.13	72		-0-4
199-6	2.42	2.50	2.59	2.69	2.80	2.92	3.06	3.20	73		-0-6

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
1582	1478	1375	1275	1177	1082	989	902

Circuit 'SW' Structure #74 to Structure #85

Ruling span (ft) 207.014

Sagging data: Catenary (ft) 6048.65, Horiz. Tension (lbs) 1255.7 Condition I
 Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 25.5 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 12.1 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
181-3	0-7	0-7	0-8	0-8	0-9	0-10	0-10	0-11	74	-0-1
159-7	0-5	0-5	0-6	0-6	0-7	0-7	0-8	0-9	75	0-1
117-11	0-3	0-3	0-3	0-3	0-4	0-4	0-4	0-5	76	-0-8
198-2	0-8	0-8	0-9	0-10	0-11	0-11	1-1	1-2	77	0-4
196-5	0-8	0-8	0-9	0-10	0-10	0-11	1-0	1-1	78	1-0
225-11	0-10	0-11	1-0	1-1	1-2	1-3	1-4	1-6	79	5-5
248-11	1-0	1-1	1-2	1-3	1-5	1-6	1-8	1-10	81	3-10
201-4	0-8	0-9	0-9	0-10	0-11	1-0	1-1	1-2	82	0-0
259-10	1-1	1-2	1-4	1-5	1-6	1-8	1-10	2-0	83	0-10
152-8	0-5	0-5	0-5	0-6	0-6	0-7	0-7	0-8	84	-1-9

Span Length	3 Wave Time 30 F	3 Wave Time 40 F	3 Wave Time 50 F	3 Wave Time 60 F	3 Wave Time 70 F	3 Wave Time 80 F	3 Wave Time 90 F	3 Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
181-3	2.21	2.29	2.37	2.46	2.57	2.68	2.80	2.93	74	-0-1
159-7	1.95	2.02	2.09	2.17	2.26	2.36	2.46	2.58	75	0-1
117-11	1.44	1.49	1.54	1.60	1.67	1.74	1.82	1.90	76	-0-8
198-2	2.42	2.50	2.60	2.69	2.81	2.93	3.06	3.20	77	0-4
196-5	2.40	2.48	2.57	2.67	2.78	2.90	3.03	3.17	78	1-0
225-11	2.76	2.85	2.96	3.07	3.20	3.34	3.49	3.65	79	5-5
248-11	3.04	3.14	3.26	3.38	3.52	3.67	3.84	4.02	81	3-10
201-4	2.46	2.54	2.64	2.74	2.85	2.97	3.11	3.25	82	0-0
259-10	3.17	3.28	3.40	3.53	3.68	3.84	4.01	4.20	83	0-10
152-8	1.86	1.93	2.00	2.08	2.16	2.25	2.36	2.47	84	-1-9

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
1558	1455	1354	1256	1158	1065	975	890

Stringing Chart Report - Transmission Conductor : 1272kcmil
"Narcissus" AAC

Transmission Circuit Structure #4 to Structure #5

Ruling span (ft) 110.957

Sagging data: Catenary (ft) 2301.84, Horiz. Tension (lbs) 2748.4 Condition I

Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 14.2 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 16.7 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span	Mid Span	Mid Span	Mid Span	Mid Span	Mid Span	Mid Span	Mid Span	Mid Span	Left Struct	Span Vertical Projection
	Sag	Sag	Sag	Sag	Sag	Sag	Sag	Sag	Sag	Number	
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F			
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)			(ft-in)
111-2	0-5	0-6	0-7	0-8	0-10	1-0	1-2	1-4		4	-7-4

Span Length	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Left Struct	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F		Number	
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.			(ft-in)
111-2	1.87	2.03	2.22	2.46	2.72	3.00	3.26	3.50		4	-7-4

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
4718	4026	3352	2743	2233	1842	1556	1353

Transmission Circuit Structure #5 to Structure #37

Ruling span (ft) 246.003

Sagging data: Catenary (ft) 2672.86, Horiz. Tension (lbs) 3191.39 Condition I

Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 23.0 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 24.1 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
275-9	2-6	2-10	3-2	3-7	3-11	4-4	4-8	5-1	5	-0-3
271-11	2-6	2-9	3-1	3-6	3-10	4-2	4-7	4-11	6	-2-1
271-2	2-5	2-9	3-1	3-5	3-10	4-2	4-7	4-11	7	-6-8
273-10	2-6	2-10	3-2	3-6	3-11	4-3	4-8	5-0	8	-0-1
279-8	2-7	2-11	3-3	3-8	4-1	4-5	4-10	5-3	9	1-0
287-9	2-9	3-1	3-6	3-10	4-3	4-8	5-1	5-6	10	2-8
281-9	2-8	3-0	3-4	3-9	4-1	4-6	4-11	5-4	11	-1-3
271-11	2-6	2-9	3-1	3-6	3-10	4-2	4-7	4-11	12	1-1
302-7	3-1	3-5	3-10	4-3	4-9	5-2	5-8	6-1	13	1-2
246-7	2-0	2-3	2-7	2-10	3-2	3-5	3-9	4-1	14	-0-2
293-6	2-10	3-3	3-7	4-0	4-6	4-11	5-4	5-9	15	0-5
289-8	2-10	3-2	3-6	3-11	4-4	4-9	5-2	5-7	16	0-3
269-10	2-5	2-9	3-1	3-5	3-9	4-2	4-6	4-10	17	0-4
214-7	1-6	1-9	1-11	2-2	2-5	2-7	2-10	3-1	18	1-7
268-4	2-5	2-8	3-0	3-4	3-9	4-1	4-5	4-10	19	0-0
210-9	1-6	1-8	1-10	2-1	2-4	2-6	2-9	3-0	20	1-2
210-6	1-6	1-8	1-10	2-1	2-4	2-6	2-9	2-11	21	0-9
268-6	2-5	2-8	3-0	3-4	3-9	4-1	4-5	4-10	22	-0-3
223-5	1-8	1-10	2-1	2-4	2-7	2-10	3-1	3-4	23	-0-5
239-2	1-11	2-2	2-5	2-8	3-0	3-3	3-6	3-10	23A	-0-2
222-9	1-8	1-10	2-1	2-4	2-7	2-10	3-1	3-4	24	-1-3
209-5	1-6	1-8	1-10	2-1	2-3	2-6	2-9	2-11	25	-0-3
208-1	1-5	1-7	1-10	2-0	2-3	2-6	2-8	2-11	25A	0-1
195-3	1-3	1-5	1-7	1-9	2-0	2-2	2-4	2-7	26	-0-5
192-0	1-3	1-5	1-7	1-9	1-11	2-1	2-3	2-6	27	2-0
183-0	1-1	1-3	1-5	1-7	1-9	1-11	2-1	2-3	28	-0-10
198-0	1-4	1-6	1-8	1-10	2-0	2-3	2-5	2-7	29	-2-5
154-1	0-10	0-11	1-0	1-1	1-3	1-4	1-6	1-7	30	-1-3
249-2	2-1	2-4	2-7	2-11	3-3	3-6	3-10	4-2	31	0-9
250-9	2-1	2-4	2-8	2-11	3-3	3-7	3-11	4-2	32	0-4
209-2	1-6	1-8	1-10	2-1	2-3	2-6	2-8	2-11	33	1-11
167-2	0-11	1-1	1-2	1-4	1-5	1-7	1-9	1-10	34	-0-1
168-4	0-11	1-1	1-2	1-4	1-6	1-7	1-9	1-11	35	-2-5
181-8	1-1	1-3	1-5	1-7	1-9	1-10	2-0	2-2	35A	0-4
197-7	1-4	1-6	1-8	1-10	2-0	2-3	2-5	2-7	36	-8-7

Span Length	3	3	3	3	3	3	3	3	3	Left Struct Number	Span Vertical Projection
(ft-in)	Wave Time 30 F	Wave Time 40 F	Wave Time 50 F	Wave Time 60 F	Wave Time 70 F	Wave Time 80 F	Wave Time 90 F	Wave Time 100 F	Sec.		(ft-in)
275-9	4.76	5.05	5.34	5.64	5.94	6.22	6.48	6.74	5	5	-0-3
271-11	4.70	4.98	5.27	5.56	5.85	6.13	6.39	6.64	6	6	-2-1
271-2	4.68	4.96	5.25	5.55	5.84	6.11	6.38	6.63	7	7	-6-8
273-10	4.73	5.01	5.31	5.60	5.90	6.17	6.44	6.69	8	8	-0-1
279-8	4.83	5.12	5.42	5.72	6.02	6.30	6.58	6.83	9	9	1-0
287-9	4.97	5.27	5.58	5.89	6.20	6.49	6.77	7.03	10	10	2-8
281-9	4.87	5.16	5.46	5.76	6.06	6.35	6.62	6.88	11	11	-1-3
271-11	4.70	4.98	5.27	5.56	5.85	6.13	6.39	6.64	12	12	1-1
302-7	5.23	5.54	5.86	6.19	6.51	6.82	7.11	7.39	13	13	1-2
246-7	4.26	4.51	4.78	5.04	5.31	5.56	5.80	6.02	14	14	-0-2
293-6	5.07	5.37	5.69	6.00	6.32	6.62	6.90	7.17	15	15	0-5
289-8	5.00	5.30	5.61	5.92	6.24	6.53	6.81	7.08	16	16	0-3
269-10	4.66	4.94	5.23	5.52	5.81	6.08	6.35	6.59	17	17	0-4
214-7	3.71	3.93	4.16	4.39	4.62	4.84	5.05	5.24	18	18	1-7
268-4	4.63	4.91	5.20	5.49	5.78	6.05	6.31	6.56	19	19	0-0
210-9	3.64	3.86	4.08	4.31	4.54	4.75	4.96	5.15	20	20	1-2
210-6	3.64	3.85	4.08	4.31	4.53	4.74	4.95	5.14	21	21	0-9
268-6	4.64	4.91	5.20	5.49	5.78	6.05	6.31	6.56	22	22	-0-3
223-5	3.86	4.09	4.33	4.57	4.81	5.04	5.25	5.46	23	23	-0-5
239-2	4.13	4.38	4.63	4.89	5.15	5.39	5.62	5.84	23A	23A	-0-2
222-9	3.85	4.08	4.32	4.56	4.79	5.02	5.24	5.44	24	24	-1-3
209-5	3.62	3.83	4.06	4.28	4.51	4.72	4.92	5.12	25	25	-0-3
208-1	3.59	3.81	4.03	4.26	4.48	4.69	4.89	5.08	25A	25A	0-1
195-3	3.37	3.57	3.78	3.99	4.20	4.40	4.59	4.77	26	26	-0-5
192-0	3.32	3.51	3.72	3.93	4.13	4.33	4.51	4.69	27	27	2-0
183-0	3.16	3.35	3.55	3.74	3.94	4.13	4.30	4.47	28	28	-0-10
198-0	3.42	3.62	3.84	4.05	4.26	4.46	4.65	4.84	29	29	-2-5
154-1	2.66	2.82	2.99	3.15	3.32	3.47	3.62	3.76	30	30	-1-3
249-2	4.30	4.56	4.83	5.10	5.36	5.62	5.86	6.09	31	31	0-9
250-9	4.33	4.59	4.86	5.13	5.40	5.65	5.90	6.13	32	32	0-4
209-2	3.61	3.83	4.05	4.28	4.50	4.71	4.92	5.11	33	33	1-11
167-2	2.89	3.06	3.24	3.42	3.60	3.77	3.93	4.08	34	34	-0-1
168-4	2.91	3.08	3.26	3.44	3.62	3.79	3.96	4.11	35	35	-2-5
181-8	3.14	3.32	3.52	3.72	3.91	4.10	4.27	4.44	35A	35A	0-4
197-7	3.41	3.62	3.83	4.04	4.26	4.46	4.65	4.83	36	36	-8-7

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
4475	3987	3556	3191	2881	2628	2415	2237

Transmission Circuit Structure #37 to Structure #52

Ruling span (ft) 210.037

Sagging data: Catenary (ft) 2216.33, Horiz. Tension (lbs) 2646.3 Condition I
 Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 18.5 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)', 'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 20.6 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
158-5	1-0	1-1	1-3	1-5	1-7	1-9	1-11	2-0	37	6-1
154-9	0-11	1-1	1-2	1-4	1-6	1-8	1-10	1-11	38	-1-11
183-2	1-4	1-6	1-8	1-11	2-1	2-4	2-6	2-8	39	1-6
244-7	2-4	2-8	3-0	3-5	3-9	4-1	4-6	4-10	40	-0-6
243-5	2-4	2-8	3-0	3-4	3-9	4-1	4-5	4-9	41	-0-1
175-4	1-2	1-4	1-7	1-9	1-11	2-1	2-4	2-6	42	2-0
204-8	1-8	1-10	2-1	2-4	2-8	2-11	3-2	3-5	43	-0-0
187-3	1-4	1-7	1-9	2-0	2-2	2-5	2-8	2-10	44	-0-3
136-6	0-9	0-10	0-11	1-1	1-2	1-3	1-5	1-6	45	-0-1
138-11	0-9	0-10	1-0	1-1	1-3	1-4	1-5	1-7	46	-0-4
156-11	1-0	1-1	1-3	1-5	1-7	1-8	1-10	2-0	47	-0-6
218-8	1-10	2-1	2-5	2-8	3-0	3-4	3-7	3-10	48	0-10
218-10	1-10	2-2	2-5	2-8	3-0	3-4	3-7	3-10	49	0-6
262-8	2-8	3-1	3-6	3-11	4-4	4-9	5-2	5-7	50	0-9
264-8	2-9	3-1	3-6	3-11	4-5	4-10	5-3	5-8	51	1-10

Span Length	30 F Wave Time Sec.	40 F Wave Time Sec.	50 F Wave Time Sec.	60 F Wave Time Sec.	70 F Wave Time Sec.	80 F Wave Time Sec.	90 F Wave Time Sec.	100 F Wave Time Sec.	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
158-5	2.96	3.16	3.36	3.56	3.75	3.93	4.10	4.26	37	6-1
154-9	2.89	3.08	3.28	3.48	3.66	3.84	4.00	4.16	38	-1-11
183-2	3.42	3.65	3.88	4.12	4.34	4.54	4.74	4.92	39	1-6
244-7	4.57	4.87	5.19	5.50	5.79	6.07	6.33	6.57	40	-0-6
243-5	4.55	4.85	5.16	5.47	5.77	6.04	6.30	6.54	41	-0-1
175-4	3.27	3.49	3.72	3.94	4.15	4.35	4.54	4.71	42	2-0
204-8	3.82	4.08	4.34	4.60	4.85	5.08	5.30	5.50	43	-0-0
187-3	3.50	3.73	3.97	4.21	4.43	4.65	4.85	5.03	44	-0-3
136-6	2.55	2.72	2.89	3.07	3.23	3.39	3.53	3.67	45	-0-1
138-11	2.59	2.77	2.95	3.12	3.29	3.45	3.60	3.73	46	-0-4
156-11	2.93	3.13	3.33	3.53	3.72	3.89	4.06	4.22	47	-0-6
218-8	4.08	4.36	4.64	4.91	5.18	5.43	5.66	5.88	48	0-10
218-10	4.09	4.36	4.64	4.92	5.18	5.43	5.66	5.88	49	0-6
262-8	4.90	5.23	5.57	5.90	6.22	6.52	6.80	7.06	50	0-9
264-8	4.94	5.27	5.61	5.95	6.27	6.57	6.85	7.11	51	1-10

Horiz Tension 30 F (lbs)	Horiz Tension 40 F (lbs)	Horiz Tension 50 F (lbs)	Horiz Tension 60 F (lbs)	Horiz Tension 70 F (lbs)	Horiz Tension 80 F (lbs)	Horiz Tension 90 F (lbs)	Horiz Tension 100 F (lbs)
3830	3362	2969	2644	2380	2168	1993	1850

Transmission Circuit Structure #52 to Structure #53

Ruling span (ft) 186.403

Sagging data: Catenary (ft) 3087.35, Horiz. Tension (lbs) 3686.3 Condition I
 Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 22.7 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 22.3 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Span Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
186-9	0-11	1-1	1-3	1-5	1-8	1-10	2-1	2-5	52	-10-11

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Span Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
186-9	2.92	3.10	3.32	3.56	3.82	4.09	4.36	4.61	52	-10-11

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F (lbs)	40 F (lbs)	50 F (lbs)	60 F (lbs)	70 F (lbs)	80 F (lbs)	90 F (lbs)	100 F (lbs)
5464	4841	4238	3686	3196	2785	2455	2192

Transmission Circuit Structure #53 to Structure #69A

Ruling span (ft) 220.516

Sagging data: Catenary (ft) 3337.02, Horiz. Tension (lbs) 3984.4 Condition I
 Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 25.5 (deg F) temperature
 increase Weather cases for final after load:

'NESC Medium District Loading (250B)', 'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 24.8 (deg F)
 temperature increase, 'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
187-1	0-11	1-0	1-2	1-4	1-6	1-8	1-11	2-1	53	7-11
183-6	0-11	1-0	1-1	1-3	1-5	1-7	1-10	2-0	54	6-9
266-8	1-10	2-1	2-4	2-8	3-0	3-5	3-10	4-3	55	1-4
281-3	2-1	2-4	2-7	3-0	3-4	3-9	4-3	4-8	56	-2-0
177-1	0-10	0-11	1-0	1-2	1-4	1-6	1-8	1-10	57	0-5
135-6	0-6	0-6	0-7	0-8	0-9	0-11	1-0	1-1	58	-0-1
285-3	2-2	2-5	2-8	3-1	3-5	3-11	4-4	4-10	59	-5-4
230-6	1-5	1-7	1-9	2-0	2-3	2-7	2-10	3-2	60	1-10
204-7	1-1	1-3	1-5	1-7	1-9	2-0	2-3	2-6	61	1-11
199-4	1-0	1-2	1-4	1-6	1-8	1-11	2-2	2-4	62	0-9
211-11	1-2	1-4	1-6	1-8	1-11	2-2	2-5	2-8	63	-0-8
191-7	1-0	1-1	1-3	1-4	1-7	1-9	2-0	2-2	64	-1-2
202-10	1-1	1-2	1-4	1-6	1-9	2-0	2-3	2-5	65	-0-10
209-3	1-2	1-3	1-5	1-8	1-10	2-1	2-4	2-7	66	0-11
215-6	1-3	1-4	1-6	1-9	2-0	2-3	2-6	2-9	67	0-6
173-9	0-10	0-11	1-0	1-2	1-3	1-5	1-7	1-10	68	-7-5

Span Length	3 Wave Time 30 F	3 Wave Time 40 F	3 Wave Time 50 F	3 Wave Time 60 F	3 Wave Time 70 F	3 Wave Time 80 F	3 Wave Time 90 F	3 Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
187-1	2.87	3.03	3.22	3.43	3.65	3.87	4.10	4.32	53	7-11
183-6	2.81	2.97	3.16	3.36	3.58	3.80	4.02	4.23	54	6-9
266-8	4.08	4.32	4.59	4.88	5.20	5.52	5.85	6.15	55	1-4
281-3	4.31	4.56	4.84	5.15	5.48	5.82	6.17	6.49	56	-2-0
177-1	2.71	2.87	3.04	3.24	3.45	3.67	3.88	4.08	57	0-5
135-6	2.07	2.19	2.33	2.48	2.64	2.80	2.97	3.13	58	-0-1
285-3	4.37	4.62	4.91	5.22	5.56	5.91	6.25	6.58	59	-5-4
230-6	3.53	3.73	3.96	4.22	4.49	4.77	5.05	5.32	60	1-10
204-7	3.13	3.31	3.52	3.75	3.99	4.24	4.48	4.72	61	1-11
199-4	3.05	3.23	3.43	3.65	3.89	4.13	4.37	4.60	62	0-9
211-11	3.24	3.43	3.64	3.88	4.13	4.39	4.65	4.89	63	-0-8
191-7	2.93	3.10	3.29	3.51	3.73	3.97	4.20	4.42	64	-1-2
202-10	3.11	3.29	3.49	3.71	3.95	4.20	4.45	4.68	65	-0-10
209-3	3.20	3.39	3.60	3.83	4.08	4.33	4.59	4.83	66	0-11
215-6	3.30	3.49	3.71	3.94	4.20	4.46	4.72	4.97	67	0-6
173-9	2.66	2.82	2.99	3.18	3.39	3.60	3.81	4.01	68	-7-5

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
5695	5088	4515	3984	3515	3115	2779	2509

Transmission Circuit Structure #69A to structure #69B

Ruling span (ft) 79.9895

Sagging data: Catenary (ft) 1952.93, Horiz. Tension (lbs) 2331.8 Condition I
 Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 11.1 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 14.9 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Struct Number	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F			
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)			(ft-in)
80-0	0-3	0-3	0-4	0-5	0-6	0-8	0-10	1-0		69A	-1-9

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Struct Number	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F			
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.			(ft-in)
80-0	1.39	1.52	1.69	1.91	2.18	2.46	2.71	2.93		69A	-1-9

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
4410	3690	2976	2332	1797	1415	1165	995

Transmission Circuit Structure #69B to Structure #85

Ruling span (ft) 199.964

Sagging data: Catenary (ft) 3192.46, Horiz. Tension (lbs) 3811.8 Condition I
 Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 23.7 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)', 'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 23.0 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
174-6	0-10	0-11	1-1	1-2	1-4	1-7	1-9	2-0	69B	2-10
147-1	0-7	0-8	0-9	0-10	1-0	1-1	1-3	1-5	70	1-4
187-9	0-11	1-1	1-3	1-5	1-7	1-10	2-0	2-3	71	0-7
195-9	1-0	1-2	1-4	1-6	1-9	1-11	2-3	2-6	72	-0-1
199-11	1-1	1-2	1-4	1-7	1-10	2-1	2-4	2-7	73	-0-9
181-8	0-11	1-0	1-2	1-4	1-6	1-8	1-11	2-1	74	0-2
159-7	0-8	0-9	0-10	1-0	1-2	1-4	1-6	1-8	75	0-1
117-11	0-4	0-5	0-6	0-7	0-7	0-9	0-10	0-11	76	-0-8
198-2	1-1	1-2	1-4	1-6	1-9	2-0	2-3	2-6	77	0-4
196-6	1-0	1-2	1-4	1-6	1-9	2-0	2-3	2-6	78	1-0
226-0	1-4	1-7	1-9	2-0	2-3	2-7	2-11	3-3	79	5-5
248-11	1-8	1-10	2-2	2-5	2-9	3-2	3-7	4-0	81	3-10
201-4	1-1	1-3	1-5	1-7	1-10	2-1	2-4	2-7	82	0-0
259-10	1-10	2-0	2-4	2-8	3-0	3-5	3-11	4-4	83	0-10
152-4	0-7	0-8	0-10	0-11	1-0	1-2	1-4	1-6	84	-6-0

Span Length	3 Wave Time 30 F	3 Wave Time 40 F	3 Wave Time 50 F	3 Wave Time 60 F	3 Wave Time 70 F	3 Wave Time 80 F	3 Wave Time 90 F	3 Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
174-6	2.70	2.87	3.06	3.27	3.49	3.73	3.96	4.19	69B	2-10
147-1	2.28	2.42	2.58	2.75	2.95	3.14	3.34	3.53	70	1-4
187-9	2.91	3.09	3.29	3.52	3.76	4.01	4.27	4.50	71	0-7
195-9	3.03	3.22	3.43	3.67	3.92	4.18	4.45	4.70	72	-0-1
199-11	3.10	3.29	3.50	3.74	4.00	4.27	4.54	4.80	73	-0-9
181-8	2.81	2.99	3.18	3.40	3.64	3.88	4.13	4.36	74	0-2
159-7	2.47	2.62	2.79	2.99	3.20	3.41	3.62	3.83	75	0-1
117-11	1.83	1.94	2.07	2.21	2.36	2.52	2.68	2.83	76	-0-8
198-2	3.07	3.26	3.47	3.71	3.97	4.24	4.50	4.75	77	0-4
196-6	3.04	3.23	3.44	3.68	3.94	4.20	4.46	4.71	78	1-0
226-0	3.50	3.72	3.96	4.23	4.53	4.83	5.14	5.42	79	5-5
248-11	3.86	4.09	4.36	4.66	4.99	5.32	5.66	5.97	81	3-10
201-4	3.12	3.31	3.53	3.77	4.03	4.30	4.57	4.83	82	0-0
259-10	4.03	4.27	4.55	4.87	5.20	5.56	5.90	6.23	83	0-10
152-4	2.36	2.50	2.67	2.85	3.05	3.26	3.46	3.66	84	-6-0

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
5562	4942	4351	3807	3329	2921	2587	2320

Transmission Circuit Structure #69A to structure #Hudson Sub 2

Ruling span (ft) 152.629

Sagging data: Catenary (ft) 2469.6, Horiz. Tension (lbs) 2948.7 Condition I
 Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 17.4 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 18.8 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Span Sag	Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
153-7	0-9	0-10	1-0	1-2	1-5	1-8	1-10	2-1		69A	-17-1

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Span Wave Time	Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
153-7	2.59	2.79	3.02	3.28	3.55	3.83	4.08	4.32		69A	-17-1

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F (lbs)	40 F (lbs)	50 F (lbs)	60 F (lbs)	70 F (lbs)	80 F (lbs)	90 F (lbs)	100 F (lbs)	
4708	4064	3469	2944	2509	2164	1900	1697	

Transmission Circuit Structure #69B to Structure #Hudson Sub 1

Ruling span (ft) 152.719

Sagging data: Catenary (ft) 2469.6, Horiz. Tension (lbs) 2948.7 Condition I
 Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 17.4 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 18.8 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Span Sag	Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
153-7	0-9	0-10	1-0	1-2	1-5	1-8	1-10	2-1		69B	-16-4

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Span Wave Time	Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
153-7	2.59	2.79	3.02	3.28	3.55	3.83	4.08	4.32		69B	-16-4

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F (lbs)	40 F (lbs)	50 F (lbs)	60 F (lbs)	70 F (lbs)	80 F (lbs)	90 F (lbs)	100 F (lbs)	
4708	4064	3469	2944	2509	2164	1900	1697	

Stringing Chart Report - Distribution and Neutral Circuits:
556.5 kcmil "Osprey" ACSR, 336.4 kcmil "Merlin" ACSR, 795 kcmil
"Arbutus" AAC, 1/0 "Raven" ACSR

Stringing Chart Report - Distribution and Neutral Circuits: 795
kcmil "Arbutus" AAC

'Dist Circuit 2' Structure #4 to Structure #5

Cable ARBUTUS_AAC_GCC - 3000.wir', Ruling span (ft) 111.393

Sagging data: Catenary (ft) 1543.83, Horiz. Tension (lbs) 1151.7 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 17.1 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 15.6 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Span Sag	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
111-5	0-7	0-8	0-10	1-0	1-2	1-4	1-6	1-8		4	-1-8

Span Length	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Left Span Wave Time	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
111-5	2.24	2.47	2.73	3.00	3.26	3.49	3.70	3.89		4	-1-8

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
2069	1699	1388	1152	976	849	755	683

'Dist Circuit 2' Structure #5 to Structure #26
Cable ARBUTUS_AAC_GCC.wir', Ruling span (ft) 261.615

Sagging data: Catenary (ft) 3922.25, Horiz. Tension (lbs) 2926 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 35.3 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 32.5 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Span Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
275-3	1-9	1-11	2-2	2-5	2-8	3-0	3-4	3-8	5	0-10
271-11	1-9	1-11	2-1	2-4	2-8	2-11	3-3	3-7	6	-2-1
271-2	1-9	1-11	2-1	2-4	2-7	2-11	3-3	3-7	7	-7-2
274-7	1-9	1-11	2-2	2-5	2-8	3-0	3-4	3-8	8	-0-1
280-4	1-10	2-0	2-3	2-6	2-10	3-1	3-6	3-10	9	1-0
288-1	1-11	2-2	2-4	2-8	2-11	3-4	3-8	4-0	10	3-2
281-9	1-10	2-1	2-3	2-6	2-10	3-2	3-6	3-10	11	-1-3
271-11	1-9	1-11	2-1	2-4	2-8	2-11	3-3	3-7	12	1-1
302-7	2-2	2-4	2-7	2-11	3-3	3-8	4-0	4-5	13	1-2
246-6	1-5	1-7	1-9	1-11	2-2	2-5	2-8	2-11	14	-0-2
293-5	2-0	2-3	2-6	2-9	3-1	3-5	3-10	4-2	15	0-5
289-8	2-0	2-2	2-5	2-8	3-0	3-4	3-8	4-1	16	0-3
269-11	1-8	1-11	2-1	2-4	2-7	2-11	3-3	3-7	17	0-4
214-5	1-1	1-2	1-4	1-6	1-8	1-10	2-0	2-3	18	1-7
268-5	1-8	1-10	2-1	2-4	2-7	2-10	3-2	3-6	19	0-0
210-10	1-0	1-2	1-3	1-5	1-7	1-9	1-11	2-2	20	1-2
210-8	1-0	1-2	1-3	1-5	1-7	1-9	1-11	2-2	21	0-9
268-8	1-8	1-10	2-1	2-4	2-7	2-10	3-2	3-6	22	-0-3
223-6	1-2	1-3	1-5	1-7	1-9	2-0	2-2	2-5	23	-0-5
239-2	1-4	1-6	1-8	1-10	2-0	2-3	2-6	2-9	23A	-0-2
222-8	1-2	1-3	1-5	1-7	1-9	2-0	2-2	2-5	24	-1-9
209-7	1-0	1-2	1-3	1-5	1-7	1-9	1-11	2-2	25	-0-3
208-5	1-0	1-1	1-3	1-5	1-7	1-9	1-11	2-1	25A	-0-6

Span Length	Wave Time 30 F	Wave Time 40 F	Wave Time 50 F	Wave Time 60 F	Wave Time 70 F	Wave Time 80 F	Wave Time 90 F	Wave Time 100 F	Left Span Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
275-3	3.98	4.18	4.40	4.65	4.91	5.19	5.46	5.74	5	0-10
271-11	3.93	4.13	4.35	4.59	4.85	5.12	5.40	5.67	6	-2-1
271-2	3.92	4.12	4.34	4.58	4.84	5.11	5.38	5.66	7	-7-2
274-7	3.97	4.17	4.39	4.64	4.90	5.17	5.45	5.73	8	-0-1
280-4	4.05	4.26	4.48	4.73	5.00	5.28	5.56	5.85	9	1-0
288-1	4.17	4.37	4.61	4.86	5.14	5.43	5.72	6.01	10	3-2
281-9	4.07	4.28	4.51	4.76	5.03	5.31	5.59	5.88	11	-1-3
271-11	3.93	4.13	4.35	4.59	4.85	5.12	5.40	5.67	12	1-1
302-7	4.38	4.59	4.84	5.11	5.40	5.70	6.01	6.31	13	1-2
246-6	3.56	3.74	3.94	4.16	4.40	4.65	4.89	5.14	14	-0-2
293-5	4.24	4.46	4.69	4.95	5.24	5.53	5.82	6.12	15	0-5
289-8	4.19	4.40	4.63	4.89	5.17	5.46	5.75	6.04	16	0-3
269-11	3.90	4.10	4.32	4.56	4.82	5.09	5.36	5.63	17	0-4
214-5	3.10	3.26	3.43	3.62	3.83	4.04	4.26	4.47	18	1-7
268-5	3.88	4.08	4.29	4.53	4.79	5.06	5.33	5.60	19	0-0
210-10	3.05	3.20	3.37	3.56	3.76	3.97	4.18	4.40	20	1-2
210-8	3.05	3.20	3.37	3.56	3.76	3.97	4.18	4.39	21	0-9
268-8	3.88	4.08	4.30	4.54	4.79	5.06	5.33	5.60	22	-0-3
223-6	3.23	3.39	3.57	3.77	3.99	4.21	4.43	4.66	23	-0-5
239-2	3.46	3.63	3.82	4.04	4.27	4.51	4.75	4.99	23A	-0-2
222-8	3.22	3.38	3.56	3.76	3.97	4.20	4.42	4.64	24	-1-9
209-7	3.03	3.18	3.35	3.54	3.74	3.95	4.16	4.37	25	-0-3

208-5 3.01 3.16 3.33 3.52 3.72 3.93 4.14 4.35 25A -0-6

Horiz Tension 30 F (lbs)	Horiz Tension 40 F (lbs)	Horiz Tension 50 F (lbs)	Horiz Tension 60 F (lbs)	Horiz Tension 70 F (lbs)	Horiz Tension 80 F (lbs)	Horiz Tension 90 F (lbs)	Horiz Tension 100 F (lbs)
3990	3618	3261	2926	2619	2350	2118	1917

**'Dist Circuit 2' Structure #26 to Structure #37
Cable ARBUTUS_AAC_GCC.wir', Ruling span (ft) 201.942**

Sagging data: Catenary (ft) 3461.53, Horiz. Tension (lbs) 2582.3 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 30.4 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 26.5 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
195-3	0-11	1-1	1-3	1-5	1-7	1-10	2-0	2-3	26	0-2
192-2	0-11	1-0	1-2	1-4	1-6	1-9	2-0	2-3	27	2-6
183-0	0-10	0-11	1-1	1-3	1-5	1-7	1-9	2-0	28	-0-10
198-0	1-0	1-1	1-3	1-5	1-7	1-10	2-1	2-4	29	-2-5
154-1	0-7	0-8	0-9	0-10	1-0	1-1	1-3	1-5	30	-1-3
249-3	1-7	1-9	2-0	2-3	2-7	2-11	3-4	3-9	31	0-9
250-11	1-7	1-9	2-0	2-3	2-7	3-0	3-4	3-9	32	0-4
209-5	1-1	1-3	1-5	1-7	1-10	2-1	2-4	2-8	33	1-11
167-3	0-8	0-9	0-11	1-0	1-2	1-4	1-6	1-8	34	-0-1
168-4	0-9	0-10	0-11	1-0	1-2	1-4	1-6	1-8	35	-2-5
181-7	0-10	0-11	1-1	1-2	1-4	1-7	1-9	2-0	35A	0-4
197-11	1-0	1-1	1-3	1-5	1-7	1-10	2-1	2-4	36	-8-9

Span Length	Wave Time 30 F	Wave Time 40 F	Wave Time 50 F	Wave Time 60 F	Wave Time 70 F	Wave Time 80 F	Wave Time 90 F	Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
195-3	2.93	3.10	3.29	3.51	3.75	4.01	4.27	4.52	26	0-2
192-2	2.88	3.05	3.24	3.45	3.69	3.94	4.20	4.45	27	2-6
183-0	2.74	2.90	3.08	3.29	3.52	3.76	4.00	4.23	28	-0-10
198-0	2.97	3.14	3.34	3.56	3.81	4.06	4.33	4.58	29	-2-5
154-1	2.31	2.44	2.60	2.77	2.96	3.16	3.37	3.57	30	-1-3
249-3	3.74	3.95	4.20	4.48	4.79	5.12	5.45	5.77	31	0-9
250-11	3.76	3.98	4.23	4.51	4.82	5.15	5.48	5.81	32	0-4
209-5	3.14	3.32	3.53	3.76	4.02	4.30	4.58	4.85	33	1-11
167-3	2.51	2.65	2.82	3.01	3.21	3.43	3.65	3.87	34	-0-1
168-4	2.52	2.67	2.84	3.03	3.24	3.45	3.68	3.89	35	-2-5
181-7	2.72	2.88	3.06	3.26	3.49	3.73	3.97	4.20	35A	0-4
197-11	2.97	3.14	3.34	3.56	3.81	4.07	4.33	4.58	36	-8-9

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
3711	3316	2936	2582	2258	1980	1747	1558

'Dist Circuit 2' Structure #37 to Structure #40
 Cable ARBUTUS_AAC_GCC.wir', Ruling span (ft) 167.235

Sagging data: Catenary (ft) 3160.19, Horiz. Tension (lbs) 2357.5 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 27.2 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 23.4 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Span Sag	Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
158-10	0-8	0-9	0-10	1-0	1-2	1-4	1-7	1-9		37	7-2
154-9	0-8	0-9	0-10	0-11	1-1	1-3	1-6	1-8		38	-2-5
183-9	0-11	1-0	1-2	1-4	1-7	1-10	2-1	2-4		39	1-0

Span Length	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Left Span Wave Time	Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
158-10	2.44	2.60	2.78	2.99	3.23	3.48	3.73	3.98		37	7-2
154-9	2.38	2.53	2.71	2.91	3.14	3.39	3.63	3.88		38	-2-5
183-9	2.83	3.00	3.21	3.46	3.73	4.02	4.32	4.60		39	1-0

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
3528	3123	2727	2355	2023	1742	1513	1331

**'Dist Circuit 2' Structure #40 to Structure #50
Cable ARBUTUS_AAC_GCC.wir', Ruling span (ft) 203.45**

Sagging data: Catenary (ft) 3477.35, Horiz. Tension (lbs)2594.1 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 30.8 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 26.5 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
244-10	1-6	1-8	1-11	2-2	2-6	2-10	3-2	3-7	40	0-1
244-2	1-6	1-8	1-11	2-2	2-5	2-10	3-2	3-7	41	-0-1
175-6	0-9	0-10	1-0	1-1	1-3	1-5	1-8	1-10	42	2-6
204-8	1-1	1-2	1-4	1-6	1-9	2-0	2-3	2-6	43	-0-0
187-3	0-11	1-0	1-1	1-3	1-5	1-8	1-10	2-1	44	-0-3
136-6	0-6	0-6	0-7	0-8	0-9	0-10	1-0	1-1	45	-0-1
138-11	0-6	0-6	0-7	0-8	0-10	0-11	1-0	1-2	46	-0-4
156-11	0-7	0-8	0-9	0-11	1-0	1-2	1-4	1-6	47	-0-6
218-8	1-2	1-4	1-6	1-9	2-0	2-3	2-6	2-10	48	0-10
218-2	1-2	1-4	1-6	1-9	1-11	2-3	2-6	2-10	49	-0-7

Span Length	3 Wave Time 30 F	3 Wave Time 40 F	3 Wave Time 50 F	3 Wave Time 60 F	3 Wave Time 70 F	3 Wave Time 80 F	3 Wave Time 90 F	3 Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
244-10	3.66	3.88	4.12	4.39	4.69	5.01	5.33	5.64	40	0-1
244-2	3.66	3.87	4.11	4.38	4.68	5.00	5.32	5.63	41	-0-1
175-6	2.63	2.78	2.95	3.15	3.36	3.59	3.82	4.05	42	2-6
204-8	3.06	3.24	3.44	3.67	3.92	4.19	4.46	4.72	43	-0-0
187-3	2.80	2.96	3.15	3.36	3.59	3.83	4.08	4.32	44	-0-3
136-6	2.04	2.16	2.30	2.45	2.62	2.79	2.97	3.15	45	-0-1
138-11	2.08	2.20	2.34	2.49	2.66	2.84	3.03	3.20	46	-0-4
156-11	2.35	2.48	2.64	2.81	3.01	3.21	3.42	3.62	47	-0-6
218-8	3.27	3.46	3.68	3.92	4.19	4.47	4.76	5.04	48	0-10
218-2	3.27	3.45	3.67	3.91	4.18	4.46	4.75	5.03	49	-0-7

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
3722	3328	2947	2594	2270	1992	1759	1570

'Dist Circuit 2' Structure #50 to Structure #51
 Cable ARBUTUS_AAC_GCC.wir', Ruling span (ft) 264.083

Sagging data: Catenary (ft) 3945.31, Horiz. Tension (lbs) 2943.2 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 35.7 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 32.9 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Span Sag	Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
264-1	1-7	1-10	2-0	2-3	2-6	2-9	3-1	3-4		50	0-9

Span Length	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Left Span Wave Time	Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
264-1	3.81	4.00	4.22	4.45	4.70	4.96	5.23	5.49		50	0-9

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
4006	3629	3273	2943	2637	2364	2130	1932

'Dist Circuit' Structure #51 to Structure #52

Cable ARBUTUS_AAC_GCC.wir', Ruling span (ft) 266.424

Sagging data: Catenary (ft) 3960.86, Horiz. Tension (lbs) 2954.8 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 35.7 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 33.2 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Span Sag	Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
266-5	1-8	1-10	2-0	2-3	2-6	2-9	3-1	3-5		51	0-3

Span Length	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Left Span Wave Time	Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
266-5	3.84	4.03	4.25	4.48	4.73	4.99	5.25	5.52		51	0-3

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F (lbs)	40 F (lbs)	50 F (lbs)	60 F (lbs)	70 F (lbs)	80 F (lbs)	90 F (lbs)	100 F (lbs)
4011	3641	3284	2955	2649	2379	2145	1944

'Dist Circuit 2' Structure #52 to Structure #53

Cable ARBUTUS_AAC_GCC - 4500.wir', Ruling span (ft) 188.639

Sagging data: Catenary (ft) 3207.91, Horiz. Tension (lbs) 2393.1 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 28.7 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 25.1 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Span Sag	Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
188-11	0-11	1-1	1-3	1-5	1-7	1-10	2-1	2-4		52	-10-11

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Span Wave Time	Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
188-11	2.91	3.09	3.30	3.53	3.79	4.05	4.32	4.58		52	-10-11

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F (lbs)	40 F (lbs)	50 F (lbs)	60 F (lbs)	70 F (lbs)	80 F (lbs)	90 F (lbs)	100 F (lbs)
3516	3123	2744	2390	2078	1815	1596	1423

'Dist Circuit 1' Structure #52-2 to Structure #53

Cable ARBUTUS_AAC_GCC, Ruling span (ft) 235.552

Sagging data: Catenary (ft) 1755.5, Horiz. Tension (lbs) 1309.6 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 23.0 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 22.3 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
263-8	3-11	4-3	4-7	4-11	5-4	5-8	5-11	6-3	6-3	52-2	7-7
190-5	2-0	2-3	2-5	2-7	2-9	2-11	3-1	3-3	3-3	52	-11-5

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
263-8	5.89	6.16	6.42	6.66	6.89	7.10	7.30	7.48	7.48	52-2	7-7
190-5	4.25	4.45	4.64	4.81	4.97	5.13	5.27	5.41	5.41	52	-11-5

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F (lbs)	40 F (lbs)	50 F (lbs)	60 F (lbs)	70 F (lbs)	80 F (lbs)	90 F (lbs)	100 F (lbs)
1675	1528	1409	1310	1225	1153	1091	1037

Dist Circuit 2 Structure #53 to Structure #69A
Cable ARBUTUS_AAC_GCC.wir', Ruling span (ft) 220.552

Sagging data: Catenary (ft) 3610.86, Horiz. Tension (lbs) 2693.7 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 32.2 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 28.3 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
188-9	0-11	1-0	1-1	1-3	1-5	1-7	1-9	2-0	53	11-1
183-5	0-10	0-11	1-0	1-2	1-4	1-6	1-8	1-10	54	6-9
266-7	1-9	1-11	2-2	2-6	2-9	3-2	3-7	3-11	55	1-4
281-3	1-11	2-2	2-5	2-9	3-1	3-6	3-11	4-5	56	-2-0
177-1	0-9	0-10	1-0	1-1	1-3	1-5	1-7	1-9	57	0-5
135-5	0-5	0-6	0-7	0-8	0-9	0-10	0-11	1-0	58	-0-1
285-2	2-0	2-3	2-6	2-10	3-2	3-7	4-1	4-6	59	-5-4
230-6	1-4	1-5	1-8	1-10	2-1	2-4	2-8	2-11	60	1-10
204-7	1-0	1-2	1-3	1-5	1-8	1-10	2-1	2-4	61	1-11
199-4	1-0	1-1	1-3	1-5	1-7	1-9	2-0	2-3	62	0-9
212-0	1-1	1-3	1-5	1-7	1-9	2-0	2-3	2-6	63	-0-8
191-7	0-11	1-0	1-2	1-3	1-5	1-8	1-10	2-1	64	-1-2
202-9	1-0	1-1	1-3	1-5	1-7	1-10	2-1	2-3	65	-0-10
209-4	1-1	1-2	1-4	1-6	1-9	1-11	2-2	2-5	66	0-11
215-2	1-2	1-3	1-5	1-7	1-10	2-1	2-4	2-7	67	0-6
174-4	0-9	0-10	0-11	1-1	1-2	1-4	1-6	1-8	68	-9-7

Span Length	3 Wave Time 30 F	3 Wave Time 40 F	3 Wave Time 50 F	3 Wave Time 60 F	3 Wave Time 70 F	3 Wave Time 80 F	3 Wave Time 90 F	3 Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
188-9	2.80	2.95	3.13	3.32	3.54	3.77	3.99	4.22	53	11-1
183-5	2.72	2.87	3.04	3.23	3.44	3.66	3.88	4.09	54	6-9
266-7	3.95	4.17	4.42	4.69	4.99	5.32	5.64	5.95	55	1-4
281-3	4.17	4.40	4.66	4.95	5.27	5.61	5.95	6.28	56	-2-0
177-1	2.62	2.77	2.93	3.12	3.32	3.53	3.74	3.95	57	0-5
135-5	2.01	2.12	2.24	2.38	2.54	2.70	2.86	3.02	58	-0-1
285-2	4.23	4.46	4.72	5.02	5.34	5.69	6.03	6.36	59	-5-4
230-6	3.42	3.60	3.82	4.06	4.32	4.60	4.87	5.14	60	1-10
204-7	3.03	3.20	3.39	3.60	3.83	4.08	4.33	4.57	61	1-11
199-4	2.95	3.12	3.30	3.51	3.73	3.98	4.21	4.45	62	0-9
212-0	3.14	3.31	3.51	3.73	3.97	4.23	4.48	4.73	63	-0-8
191-7	2.84	3.00	3.17	3.37	3.59	3.82	4.05	4.27	64	-1-2
202-9	3.00	3.17	3.36	3.57	3.80	4.04	4.29	4.52	65	-0-10
209-4	3.10	3.27	3.47	3.68	3.92	4.17	4.43	4.67	66	0-11
215-2	3.19	3.36	3.56	3.79	4.03	4.29	4.55	4.80	67	0-6
174-4	2.59	2.73	2.89	3.07	3.27	3.48	3.69	3.89	68	-9-7

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
3799	3412	3039	2694	2377	2098	1866	1675

**'Dist Circuit 1' Structure #53 to Structure #69A
Cable ARBUTUS_AAC_GCC.wir', Ruling span (ft) 220.553**

Sagging data: Catenary (ft) 3610.86, Horiz. Tension (lbs) 2693.7 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 31.8 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 28.3 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
188-10	0-11	1-0	1-1	1-3	1-5	1-7	1-9	2-0	53	11-1
183-5	0-10	0-11	1-0	1-2	1-4	1-6	1-8	1-10	54	6-9
266-7	1-9	1-11	2-2	2-6	2-9	3-2	3-7	3-11	55	1-4
281-3	1-11	2-2	2-5	2-9	3-1	3-6	3-11	4-5	56	-2-0
177-1	0-9	0-10	1-0	1-1	1-3	1-5	1-7	1-9	57	0-5
135-5	0-5	0-6	0-7	0-8	0-9	0-10	0-11	1-0	58	-0-1
285-2	2-0	2-3	2-6	2-10	3-2	3-7	4-1	4-6	59	-5-4
230-6	1-4	1-5	1-8	1-10	2-1	2-4	2-8	2-11	60	1-10
204-7	1-0	1-2	1-3	1-5	1-8	1-10	2-1	2-4	61	1-11
199-4	1-0	1-1	1-3	1-5	1-7	1-9	2-0	2-3	62	0-9
212-0	1-1	1-3	1-5	1-7	1-9	2-0	2-3	2-6	63	-0-8
191-7	0-11	1-0	1-2	1-3	1-5	1-8	1-10	2-1	64	-1-2
202-9	1-0	1-1	1-3	1-5	1-7	1-10	2-1	2-3	65	-0-10
209-4	1-1	1-2	1-4	1-6	1-9	1-11	2-2	2-5	66	0-11
215-2	1-2	1-3	1-5	1-7	1-10	2-1	2-4	2-7	67	0-6
174-3	0-9	0-10	0-11	1-1	1-2	1-4	1-6	1-8	68	-9-7

Span Length	Wave Time 30 F	Wave Time 40 F	Wave Time 50 F	Wave Time 60 F	Wave Time 70 F	Wave Time 80 F	Wave Time 90 F	Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
188-10	2.80	2.96	3.13	3.33	3.54	3.77	4.00	4.22	53	11-1
183-5	2.72	2.87	3.04	3.23	3.44	3.66	3.88	4.09	54	6-9
266-7	3.95	4.17	4.42	4.69	4.99	5.32	5.64	5.95	55	1-4
281-3	4.17	4.40	4.66	4.95	5.27	5.61	5.95	6.28	56	-2-0
177-1	2.62	2.77	2.93	3.12	3.32	3.53	3.74	3.95	57	0-5
135-5	2.01	2.12	2.24	2.38	2.54	2.70	2.86	3.02	58	-0-1
285-2	4.23	4.46	4.72	5.02	5.34	5.69	6.03	6.36	59	-5-4
230-6	3.42	3.60	3.82	4.06	4.32	4.60	4.87	5.14	60	1-10
204-7	3.03	3.20	3.39	3.60	3.83	4.08	4.33	4.57	61	1-11
199-4	2.95	3.12	3.30	3.51	3.73	3.98	4.21	4.45	62	0-9
212-0	3.14	3.31	3.51	3.73	3.97	4.23	4.48	4.73	63	-0-8
191-7	2.84	3.00	3.17	3.37	3.59	3.82	4.05	4.27	64	-1-2
202-9	3.00	3.17	3.36	3.57	3.80	4.04	4.29	4.52	65	-0-10
209-4	3.10	3.27	3.47	3.69	3.92	4.17	4.43	4.67	66	0-11
215-2	3.19	3.36	3.56	3.79	4.03	4.29	4.55	4.80	67	0-6
174-3	2.58	2.73	2.89	3.07	3.27	3.48	3.69	3.89	68	-9-7

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
3799	3412	3039	2691	2377	2098	1866	1675

**'Dist Circuit 2' Structure #69B to Structure #85
Cable ARBUTUS_AAC_GCC.wir', Ruling span (ft) 199.975**

Sagging data: Catenary (ft) 3445.84, Horiz. Tension (lbs) 2570.6 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 30.1 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 26.2 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
175-1	0-9	0-10	1-0	1-1	1-3	1-5	1-8	1-10	69B	6-0
147-2	0-7	0-7	0-8	0-9	0-11	1-0	1-2	1-4	70	1-4
187-9	0-11	1-0	1-1	1-3	1-6	1-8	1-11	2-2	71	0-7
195-9	1-0	1-1	1-3	1-5	1-7	1-10	2-1	2-4	72	-0-1
199-11	1-0	1-2	1-3	1-5	1-8	1-11	2-2	2-5	73	-0-9
181-8	0-10	0-11	1-1	1-2	1-4	1-7	1-9	2-0	74	0-2
159-7	0-8	0-9	0-10	0-11	1-1	1-2	1-4	1-6	75	0-1
117-11	0-4	0-5	0-5	0-6	0-7	0-8	0-9	0-10	76	-0-8
198-2	1-0	1-1	1-3	1-5	1-8	1-10	2-1	2-4	77	0-4
196-4	1-0	1-1	1-3	1-5	1-7	1-10	2-1	2-4	78	1-0
225-10	1-3	1-5	1-8	1-10	2-1	2-5	2-9	3-1	79	5-5
248-11	1-7	1-9	2-0	2-3	2-7	2-11	3-4	3-9	81	3-10
201-4	1-0	1-2	1-4	1-6	1-8	1-11	2-2	2-5	82	0-0
259-10	1-8	1-11	2-2	2-5	2-10	3-2	3-8	4-1	83	0-10
152-8	0-7	0-8	0-9	0-10	1-0	1-1	1-3	1-5	84	-7-1

Span Length	Wave Time 30 F	Wave Time 40 F	Wave Time 50 F	Wave Time 60 F	Wave Time 70 F	Wave Time 80 F	Wave Time 90 F	Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
175-1	2.63	2.78	2.96	3.15	3.37	3.61	3.84	4.07	69B	6-0
147-2	2.21	2.34	2.49	2.65	2.84	3.03	3.23	3.42	70	1-4
187-9	2.82	2.98	3.17	3.38	3.62	3.87	4.12	4.36	71	0-7
195-9	2.94	3.11	3.31	3.53	3.77	4.03	4.29	4.55	72	-0-1
199-11	3.00	3.18	3.38	3.60	3.85	4.12	4.38	4.64	73	-0-9
181-8	2.73	2.89	3.07	3.27	3.50	3.74	3.98	4.22	74	0-2
159-7	2.40	2.53	2.69	2.87	3.07	3.29	3.50	3.71	75	0-1
117-11	1.77	1.87	1.99	2.12	2.27	2.43	2.59	2.74	76	-0-8
198-2	2.98	3.15	3.35	3.57	3.82	4.08	4.34	4.60	77	0-4
196-4	2.95	3.12	3.32	3.54	3.78	4.04	4.31	4.56	78	1-0
225-10	3.39	3.59	3.81	4.07	4.35	4.65	4.95	5.25	79	5-5
248-11	3.74	3.95	4.20	4.48	4.80	5.12	5.46	5.78	81	3-10
201-4	3.02	3.20	3.40	3.63	3.88	4.15	4.42	4.68	82	0-0
259-10	3.90	4.13	4.39	4.68	5.01	5.35	5.70	6.04	83	0-10
152-8	2.29	2.43	2.58	2.75	2.94	3.14	3.35	3.55	84	-7-1

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
3700	3305	2924	2571	2246	1968	1735	1546

'Dist Circuit 1' Structure #70 to Structure #99

Cable ARBUTUS_AAC_GCC - 3000.wir', Ruling span (ft) 247.943

Sagging data: Catenary (ft) 1839.41, Horiz. Tension (lbs) 1372.2 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 24.1 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 23.4 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Span Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
146-6	1-2	1-3	1-4	1-6	1-7	1-8	1-9	1-10	70	1-11
187-9	1-11	2-1	2-3	2-5	2-7	2-9	2-10	3-0	71	0-7
195-9	2-1	2-3	2-5	2-7	2-9	2-11	3-1	3-3	72	-0-1
199-11	2-2	2-4	2-6	2-9	2-11	3-1	3-3	3-5	73	-0-9
181-8	1-9	1-11	2-1	2-3	2-5	2-7	2-8	2-10	74	0-2
159-7	1-4	1-6	1-7	1-9	1-10	2-0	2-1	2-2	75	0-1
117-11	0-9	0-10	0-11	0-11	1-0	1-1	1-2	1-2	76	-0-8
198-2	2-1	2-3	2-6	2-8	2-10	3-0	3-2	3-4	77	0-4
196-4	2-1	2-3	2-5	2-7	2-10	3-0	3-2	3-4	78	1-0
225-10	2-9	3-0	3-3	3-6	3-8	3-11	4-2	4-4	79	5-5
248-11	3-4	3-7	3-11	4-3	4-6	4-9	5-1	5-4	81	3-10
201-4	2-2	2-4	2-7	2-9	2-11	3-1	3-4	3-6	82	0-0
259-10	3-7	3-11	4-3	4-7	4-11	5-2	5-6	5-9	83	0-10
152-7	1-3	1-4	1-6	1-7	1-8	1-10	1-11	2-0	84	-6-6
244-4	3-2	3-6	3-9	4-1	4-4	4-7	4-10	5-1	85	2-0
232-1	2-10	3-2	3-5	3-8	3-11	4-2	4-5	4-7	86	2-4
261-2	3-8	4-0	4-4	4-8	4-11	5-3	5-7	5-10	87	-2-5
149-2	1-2	1-4	1-5	1-6	1-7	1-9	1-10	1-11	88	-2-6
270-3	3-11	4-3	4-7	5-0	5-4	5-8	5-11	6-3	89	-2-10
265-11	3-9	4-1	4-6	4-10	5-2	5-5	5-9	6-1	90	-1-8
171-7	1-7	1-9	1-10	2-0	2-2	2-3	2-5	2-6	91	2-3
296-5	4-8	5-1	5-7	6-0	6-5	6-9	7-2	7-6	92	-1-3
256-2	3-6	3-10	4-2	4-6	4-9	5-1	5-4	5-7	93	-2-3
307-2	5-0	5-6	6-0	6-5	6-10	7-3	7-8	8-1	94	1-2
325-7	5-8	6-2	6-8	7-3	7-8	8-2	8-8	9-1	95	0-3
306-11	5-0	5-6	5-11	6-5	6-10	7-3	7-8	8-1	96	-2-2
301-7	4-10	5-4	5-9	6-2	6-7	7-0	7-5	7-9	97	-3-10
305-0	5-0	5-5	5-11	6-4	6-9	7-2	7-7	8-0	98	-5-8

Span Length	Wave Time 30 F	Wave Time 40 F	Wave Time 50 F	Wave Time 60 F	Wave Time 70 F	Wave Time 80 F	Wave Time 90 F	Wave Time 100 F	Left Span Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
146-6	3.20	3.35	3.48	3.61	3.73	3.85	3.95	4.05	70	1-11
187-9	4.10	4.29	4.46	4.63	4.78	4.93	5.07	5.19	71	0-7
195-9	4.28	4.47	4.65	4.83	4.99	5.14	5.28	5.41	72	-0-1
199-11	4.37	4.57	4.75	4.93	5.09	5.25	5.39	5.53	73	-0-9
181-8	3.97	4.15	4.32	4.48	4.63	4.77	4.90	5.02	74	0-2
159-7	3.49	3.64	3.79	3.93	4.07	4.19	4.30	4.41	75	0-1
117-11	2.58	2.69	2.80	2.91	3.00	3.10	3.18	3.26	76	-0-8
198-2	4.33	4.52	4.71	4.89	5.05	5.20	5.35	5.48	77	0-4
196-4	4.29	4.48	4.67	4.84	5.00	5.15	5.30	5.43	78	1-0
225-10	4.93	5.16	5.37	5.57	5.76	5.93	6.09	6.25	79	5-5
248-11	5.44	5.68	5.92	6.14	6.34	6.53	6.72	6.88	81	3-10
201-4	4.40	4.60	4.79	4.97	5.13	5.29	5.43	5.57	82	0-0
259-10	5.68	5.94	6.18	6.41	6.62	6.82	7.01	7.19	83	0-10
152-7	3.33	3.49	3.63	3.76	3.89	4.01	4.12	4.22	84	-6-6
244-4	5.34	5.58	5.81	6.03	6.23	6.41	6.59	6.76	85	2-0
232-1	5.07	5.30	5.52	5.72	5.91	6.09	6.26	6.42	86	2-4
261-2	5.71	5.96	6.21	6.44	6.66	6.86	7.05	7.22	87	-2-5

149-2	3.26	3.41	3.55	3.68	3.80	3.92	4.03	4.13	88	-2-6
270-3	5.90	6.17	6.43	6.66	6.89	7.09	7.29	7.48	89	-2-10
265-11	5.81	6.07	6.32	6.56	6.78	6.98	7.18	7.36	90	-1-8
171-7	3.75	3.92	4.08	4.23	4.37	4.50	4.63	4.75	91	2-3
296-5	6.48	6.77	7.05	7.31	7.55	7.78	8.00	8.20	92	-1-3
256-2	5.60	5.85	6.09	6.32	6.53	6.72	6.91	7.09	93	-2-3
307-2	6.71	7.02	7.30	7.58	7.83	8.07	8.29	8.50	94	1-2
325-7	7.11	7.44	7.74	8.03	8.30	8.55	8.79	9.01	95	0-3
306-11	6.70	7.01	7.30	7.57	7.82	8.06	8.28	8.49	96	-2-2
301-7	6.59	6.89	7.17	7.44	7.68	7.92	8.14	8.34	97	-3-10
305-0	6.66	6.97	7.25	7.52	7.77	8.01	8.23	8.44	98	-5-8

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
1748	1600	1476	1372	1285	1211	1146	1091

Stringing Chart Report - Distribution and Neutral Circuits:
336.4 kcmil "Merlin" ACSR

'Neutral' Structure #5 to Structure #37

Cable MERLIN_ACSR_GA2_GCC - 2500.wir', Ruling span (ft) 246.085

Sagging data: Catenary (ft) 2986.26, Horiz. Tension (lbs) 1087 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 25.8 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 26.5 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
275-4	2-2	2-6	2-10	3-2	3-7	3-11	4-4	4-8	5	0-3
271-11	2-2	2-5	2-9	3-1	3-6	3-10	4-2	4-7	6	-2-1
271-4	2-2	2-5	2-9	3-1	3-5	3-10	4-2	4-7	7	-7-2
274-6	2-2	2-6	2-10	3-2	3-6	3-11	4-3	4-8	8	-0-1
280-2	2-3	2-7	2-11	3-4	3-8	4-1	4-6	4-10	9	1-0
287-11	2-5	2-9	3-1	3-6	3-11	4-4	4-9	5-1	10	3-2
281-8	2-4	2-7	2-11	3-4	3-9	4-1	4-6	4-11	11	-1-3
271-11	2-2	2-5	2-9	3-1	3-6	3-10	4-2	4-7	12	1-1
302-7	2-8	3-0	3-5	3-10	4-3	4-9	5-2	5-8	13	1-2
246-7	1-9	2-0	2-3	2-7	2-10	3-2	3-5	3-9	14	-0-2
293-6	2-6	2-10	3-2	3-7	4-0	4-6	4-11	5-4	15	0-5
289-8	2-5	2-9	3-1	3-6	3-11	4-4	4-9	5-2	16	0-3
269-10	2-1	2-5	2-9	3-1	3-5	3-9	4-2	4-6	17	0-4
214-7	1-4	1-6	1-9	1-11	2-2	2-5	2-7	2-10	18	-1-11
268-4	2-1	2-4	2-8	3-0	3-4	3-9	4-1	4-5	19	3-6
210-11	1-3	1-6	1-8	1-10	2-1	2-4	2-6	2-9	20	1-2
210-9	1-3	1-5	1-8	1-10	2-1	2-4	2-6	2-9	21	0-9
268-7	2-1	2-4	2-8	3-0	3-5	3-9	4-1	4-5	22	-0-3
223-5	1-5	1-8	1-10	2-1	2-4	2-7	2-10	3-1	23	-0-5
239-2	1-8	1-11	2-2	2-5	2-8	3-0	3-3	3-6	23A	-0-2
222-8	1-5	1-8	1-10	2-1	2-4	2-7	2-10	3-1	24	-1-9
209-7	1-3	1-5	1-8	1-10	2-1	2-3	2-6	2-9	25	-0-3
208-6	1-3	1-5	1-7	1-10	2-0	2-3	2-6	2-8	25A	0-1
195-8	1-1	1-3	1-5	1-7	1-10	2-0	2-2	2-4	26	-0-5
192-1	1-1	1-3	1-4	1-7	1-9	1-11	2-1	2-3	27	2-6
183-0	1-0	1-1	1-3	1-5	1-7	1-9	1-11	2-1	28	-0-10
198-0	1-2	1-3	1-5	1-8	1-10	2-0	2-3	2-5	29	-2-5
154-2	0-8	0-9	0-11	1-0	1-1	1-3	1-4	1-6	30	-1-3
249-4	1-10	2-0	2-4	2-7	2-11	3-3	3-6	3-10	31	0-9
251-0	1-10	2-1	2-4	2-8	2-11	3-3	3-7	3-11	32	0-4
209-4	1-3	1-5	1-8	1-10	2-1	2-3	2-6	2-8	33	1-11
167-3	0-10	0-11	1-0	1-2	1-4	1-5	1-7	1-9	34	-0-1
168-4	0-10	0-11	1-1	1-2	1-4	1-6	1-7	1-9	35	-2-5
181-8	0-11	1-1	1-3	1-5	1-7	1-9	1-10	2-0	35A	-3-2
197-1	1-2	1-3	1-5	1-8	1-10	2-0	2-2	2-5	36	-4-8

Span Length	3 Wave Time 30 F	3 Wave Time 40 F	3 Wave Time 50 F	3 Wave Time 60 F	3 Wave Time 70 F	3 Wave Time 80 F	3 Wave Time 90 F	3 Wave Time 100 F	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
275-4	4.43	4.72	5.02	5.33	5.63	5.93	6.21	6.47	5	0-3
271-11	4.38	4.66	4.96	5.27	5.56	5.86	6.13	6.39	6	-2-1
271-4	4.37	4.65	4.95	5.26	5.55	5.84	6.12	6.37	7	-7-2
274-6	4.42	4.70	5.01	5.32	5.62	5.91	6.19	6.45	8	-0-1
280-2	4.51	4.80	5.11	5.43	5.73	6.03	6.32	6.58	9	1-0

287-11	4.64	4.93	5.25	5.58	5.89	6.20	6.49	6.76	10	3-2
281-8	4.54	4.83	5.14	5.46	5.76	6.07	6.35	6.62	11	-1-3
271-11	4.38	4.66	4.96	5.27	5.56	5.86	6.13	6.39	12	1-1
302-7	4.87	5.18	5.52	5.86	6.19	6.52	6.82	7.11	13	1-2
246-7	3.97	4.22	4.50	4.78	5.05	5.31	5.56	5.79	14	-0-2
293-6	4.73	5.03	5.35	5.68	6.01	6.32	6.61	6.89	15	0-5
289-8	4.66	4.96	5.28	5.61	5.93	6.24	6.53	6.80	16	0-3
269-10	4.35	4.62	4.92	5.23	5.52	5.81	6.08	6.34	17	0-4
214-7	3.46	3.68	3.91	4.16	4.39	4.62	4.84	5.04	18	-1-11
268-4	4.32	4.60	4.90	5.20	5.49	5.78	6.05	6.30	19	3-6
210-11	3.40	3.61	3.85	4.08	4.32	4.54	4.75	4.95	20	1-2
210-9	3.39	3.61	3.84	4.08	4.31	4.54	4.75	4.95	21	0-9
268-7	4.33	4.60	4.90	5.20	5.50	5.78	6.05	6.31	22	-0-3
223-5	3.60	3.83	4.07	4.33	4.57	4.81	5.04	5.25	23	-0-5
239-2	3.85	4.10	4.36	4.63	4.89	5.15	5.39	5.62	23A	-0-2
222-8	3.59	3.81	4.06	4.31	4.56	4.79	5.02	5.23	24	-1-9
209-7	3.38	3.59	3.82	4.06	4.29	4.51	4.72	4.92	25	-0-3
208-6	3.36	3.57	3.80	4.04	4.27	4.49	4.70	4.90	25A	0-1
195-8	3.15	3.35	3.57	3.79	4.00	4.21	4.41	4.60	26	-0-5
192-1	3.09	3.29	3.50	3.72	3.93	4.14	4.33	4.51	27	2-6
183-0	2.95	3.13	3.34	3.54	3.74	3.94	4.12	4.30	28	-0-10
198-0	3.19	3.39	3.61	3.83	4.05	4.26	4.46	4.65	29	-2-5
154-2	2.48	2.64	2.81	2.99	3.15	3.32	3.47	3.62	30	-1-3
249-4	4.02	4.27	4.55	4.83	5.10	5.37	5.62	5.86	31	0-9
251-0	4.04	4.30	4.58	4.86	5.14	5.40	5.66	5.89	32	0-4
209-4	3.37	3.59	3.82	4.05	4.28	4.51	4.72	4.92	33	1-11
167-3	2.69	2.86	3.05	3.24	3.42	3.60	3.77	3.93	34	-0-1
168-4	2.71	2.88	3.07	3.26	3.44	3.62	3.79	3.95	35	-2-5
181-8	2.93	3.11	3.31	3.52	3.72	3.91	4.09	4.27	35A	-3-2
197-1	3.17	3.38	3.60	3.82	4.03	4.24	4.44	4.63	36	-4-8

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
1569	1387	1223	1085	972	878	801	738

'Neutral' Structure #37 to Structure #51

Cable MERLIN_ACSR_GA2_GCC.wir', Ruling span (ft) 203.886

Sagging data: Catenary (ft) 4518.13, Horiz. Tension (lbs) 1644.6 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 30.4 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 25.5 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Span Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
157-11	0-6	0-6	0-7	0-8	0-10	0-11	1-1	1-3	37	6-8
154-10	0-6	0-6	0-7	0-8	0-9	0-11	1-0	1-2	38	-2-5
183-9	0-8	0-9	0-10	0-11	1-1	1-3	1-5	1-8	39	1-6
245-4	1-2	1-4	1-6	1-8	1-11	2-3	2-7	2-11	40	-0-6
244-1	1-2	1-3	1-5	1-8	1-11	2-2	2-6	2-11	41	-0-1
175-5	0-7	0-8	0-9	0-10	1-0	1-2	1-4	1-6	42	2-6
204-8	0-10	0-11	1-0	1-2	1-4	1-6	1-9	2-0	43	-0-0
187-2	0-8	0-9	0-10	1-0	1-1	1-3	1-6	1-8	44	-0-3
136-6	0-4	0-5	0-5	0-6	0-7	0-8	0-9	0-11	45	-0-1
138-11	0-5	0-5	0-6	0-6	0-7	0-9	0-10	0-11	46	-0-4
156-11	0-6	0-6	0-7	0-8	0-9	0-11	1-1	1-2	47	-0-6
218-8	0-11	1-0	1-2	1-4	1-6	1-9	2-0	2-4	48	0-10
218-6	0-11	1-0	1-2	1-4	1-6	1-9	2-0	2-4	49	-0-0
261-9	1-4	1-6	1-8	1-11	2-2	2-6	2-11	3-4	50	0-9

Span Length	3 Wave Time 30 F	3 Wave Time 40 F	3 Wave Time 50 F	3 Wave Time 60 F	3 Wave Time 70 F	3 Wave Time 80 F	3 Wave Time 90 F	3 Wave Time 100 F	Left Span Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
157-11	2.09	2.20	2.33	2.48	2.66	2.86	3.08	3.29	37	6-8
154-10	2.05	2.16	2.29	2.44	2.61	2.81	3.02	3.23	38	-2-5
183-9	2.43	2.56	2.71	2.89	3.10	3.33	3.58	3.83	39	1-6
245-4	3.24	3.42	3.62	3.86	4.14	4.45	4.78	5.12	40	-0-6
244-1	3.23	3.40	3.60	3.84	4.11	4.42	4.75	5.09	41	-0-1
175-5	2.32	2.44	2.59	2.76	2.96	3.18	3.42	3.66	42	2-6
204-8	2.71	2.85	3.02	3.22	3.45	3.71	3.99	4.27	43	-0-0
187-2	2.47	2.61	2.76	2.94	3.16	3.39	3.65	3.90	44	-0-3
136-6	1.80	1.90	2.02	2.15	2.30	2.47	2.66	2.85	45	-0-1
138-11	1.84	1.93	2.05	2.19	2.34	2.52	2.71	2.90	46	-0-4
156-11	2.07	2.18	2.32	2.47	2.65	2.84	3.06	3.27	47	-0-6
218-8	2.89	3.04	3.23	3.44	3.69	3.96	4.26	4.56	48	0-10
218-6	2.89	3.04	3.23	3.44	3.68	3.96	4.26	4.55	49	-0-0
261-9	3.46	3.64	3.87	4.12	4.41	4.74	5.10	5.46	50	0-9

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
2329	2100	1866	1645	1432	1239	1073	937

Circuit 'Neutral' Structure #51 to Structure #52

Cable- MERLIN_ACSR_GA2_GCC - 1500.wir', Ruling span (ft) 263.315

Sagging data: Catenary (ft) 1467.58, Horiz. Tension (lbs) 534.199 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 16.3 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 16.7 (deg F)

temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Struct Number	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F		
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
263-4	5-2	5-5	5-8	5-11	6-2	6-5	6-7	6-10	51	-4-3

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Struct Number	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F		
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
263-4	6.79	6.96	7.12	7.27	7.42	7.56	7.69	7.81	51	-4-3

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
613	583	557	534	513	495	478	463

'Neutral' Structure #52 to Structure #53

Cable MERLIN_ACSR_GA2_GCC - 2000.wir', Ruling span (ft) 185.1

Sagging data: Catenary (ft) 2057.14, Horiz. Tension (lbs) 748.799 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 19.5 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 17.4 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
185-5	1-4	1-7	1-10	2-1	2-4	2-7	2-10	3-1		52	-10-5

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
185-5	3.51	3.78	4.06	4.33	4.58	4.81	5.03	5.22		52	-10-5

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F (lbs)	40 F (lbs)	50 F (lbs)	60 F (lbs)	70 F (lbs)	80 F (lbs)	90 F (lbs)	100 F (lbs)	
1140	980	851	749	668	604	555	514	

'Neutral' Structure #53 to Structure #69A

Cable MERLIN_ACSR_GA2_GCC.wir', Ruling span (ft) 220.45

Sagging data: Catenary (ft) 4709.34, Horiz. Tension (lbs) 1714.2 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 31.5 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 27.9 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Span Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
186-5	0-8	0-9	0-10	0-11	1-1	1-2	1-5	1-7	53	10-6
183-5	0-8	0-9	0-10	0-11	1-0	1-2	1-4	1-6	54	6-9
266-8	1-4	1-6	1-8	1-11	2-2	2-6	2-10	3-3	55	1-4
281-3	1-6	1-8	1-10	2-1	2-5	2-9	3-2	3-7	56	-2-0
177-0	0-7	0-8	0-9	0-10	0-11	1-1	1-3	1-5	57	0-5
135-5	0-4	0-5	0-5	0-6	0-7	0-8	0-9	0-10	58	-0-1
285-3	1-7	1-9	1-11	2-2	2-6	2-10	3-3	3-8	59	-5-4
230-5	1-0	1-1	1-3	1-5	1-7	1-10	2-1	2-5	60	1-10
204-7	0-10	0-11	1-0	1-1	1-3	1-5	1-8	1-11	61	-1-7
199-5	0-9	0-10	0-11	1-1	1-2	1-5	1-7	1-10	62	4-3
211-11	0-10	0-11	1-1	1-2	1-4	1-7	1-9	2-0	63	-0-8
191-7	0-8	0-9	0-10	1-0	1-1	1-3	1-6	1-8	64	-1-2
202-10	0-9	0-10	1-0	1-1	1-3	1-5	1-8	1-10	65	-0-10
209-3	0-10	0-11	1-0	1-2	1-4	1-6	1-9	2-0	66	0-11
215-6	0-11	1-0	1-1	1-3	1-5	1-7	1-10	2-1	67	0-6
173-1	0-7	0-8	0-8	0-10	0-11	1-0	1-2	1-4	68	-9-0

Span Length	Wave Time 30 F	Wave Time 40 F	Wave Time 50 F	Wave Time 60 F	Wave Time 70 F	Wave Time 80 F	Wave Time 90 F	Wave Time 100 F	Left Span Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
186-5	2.43	2.56	2.71	2.88	3.07	3.29	3.52	3.75	53	10-6
183-5	2.39	2.52	2.66	2.83	3.02	3.23	3.46	3.69	54	6-9
266-8	3.48	3.66	3.87	4.11	4.39	4.70	5.03	5.37	55	1-4
281-3	3.67	3.86	4.08	4.34	4.63	4.95	5.30	5.66	56	-2-0
177-0	2.31	2.43	2.57	2.73	2.91	3.12	3.34	3.56	57	0-5
135-5	1.77	1.86	1.96	2.09	2.23	2.39	2.55	2.73	58	-0-1
285-3	3.72	3.91	4.14	4.40	4.69	5.03	5.38	5.74	59	-5-4
230-5	3.01	3.16	3.34	3.55	3.79	4.06	4.35	4.64	60	1-10
204-7	2.67	2.81	2.97	3.16	3.37	3.60	3.86	4.12	61	-1-7
199-5	2.60	2.74	2.89	3.08	3.28	3.51	3.76	4.01	62	4-3
211-11	2.77	2.91	3.07	3.27	3.49	3.73	4.00	4.26	63	-0-8
191-7	2.50	2.63	2.78	2.96	3.15	3.37	3.61	3.85	64	-1-2
202-10	2.65	2.78	2.94	3.13	3.34	3.57	3.83	4.08	65	-0-10
209-3	2.73	2.87	3.04	3.23	3.44	3.69	3.95	4.21	66	0-11
215-6	2.81	2.96	3.13	3.32	3.55	3.80	4.06	4.34	67	0-6
173-1	2.26	2.38	2.51	2.67	2.85	3.05	3.27	3.48	68	-9-0

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
2390	2162	1934	1711	1503	1311	1144	1005

'Neutral' Structure #69B to Structure #85

Cable MERLIN_ACSR_GA2_GCC.wir', Ruling span (ft) 199.892

Sagging data: Catenary (ft) 4477.75, Horiz. Tension (lbs) 1629.9 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 30.1 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 25.1 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag 30 F	Mid Span Sag 40 F	Mid Span Sag 50 F	Mid Span Sag 60 F	Mid Span Sag 70 F	Mid Span Sag 80 F	Mid Span Sag 90 F	Mid Span Sag 100 F	Left Span Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
173-10	0-7	0-8	0-9	0-10	1-0	1-1	1-4	1-6	69B	5-5
147-1	0-5	0-6	0-6	0-7	0-8	0-10	0-11	1-1	70	1-4
187-9	0-8	0-9	0-10	1-0	1-2	1-4	1-6	1-9	71	0-7
195-9	0-9	0-10	0-11	1-1	1-3	1-5	1-8	1-11	72	-0-1
199-11	0-9	0-10	1-0	1-1	1-3	1-6	1-9	2-0	73	-0-9
181-8	0-8	0-9	0-10	0-11	1-1	1-3	1-5	1-8	74	0-2
159-7	0-6	0-7	0-8	0-9	0-10	0-11	1-1	1-3	75	0-1
117-11	0-3	0-4	0-4	0-5	0-5	0-6	0-7	0-8	76	-0-8
198-2	0-9	0-10	1-0	1-1	1-3	1-6	1-8	1-11	77	0-4
196-4	0-9	0-10	0-11	1-1	1-3	1-5	1-8	1-11	78	1-0
225-10	1-0	1-1	1-3	1-5	1-8	1-11	2-2	2-6	79	5-5
248-11	1-3	1-4	1-6	1-9	2-0	2-4	2-8	3-1	81	3-10
201-4	0-10	0-11	1-0	1-2	1-4	1-6	1-9	2-0	82	0-0
259-10	1-4	1-6	1-8	1-11	2-2	2-6	2-11	3-4	83	0-10
151-8	0-5	0-6	0-7	0-8	0-9	0-10	1-0	1-2	84	-6-6

Span Length	Wave Time 30 F	Wave Time 40 F	Wave Time 50 F	Wave Time 60 F	Wave Time 70 F	Wave Time 80 F	Wave Time 90 F	Wave Time 100 F	Left Span Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
173-10	2.30	2.43	2.58	2.75	2.95	3.17	3.41	3.66	69B	5-5
147-1	1.95	2.05	2.18	2.33	2.49	2.68	2.89	3.09	70	1-4
187-9	2.49	2.62	2.78	2.97	3.18	3.42	3.68	3.95	71	0-7
195-9	2.59	2.73	2.90	3.10	3.32	3.57	3.84	4.12	72	-0-1
199-11	2.65	2.79	2.96	3.16	3.39	3.65	3.92	4.20	73	-0-9
181-8	2.41	2.54	2.69	2.87	3.08	3.31	3.56	3.82	74	0-2
159-7	2.11	2.23	2.37	2.52	2.70	2.91	3.13	3.35	75	0-1
117-11	1.56	1.65	1.75	1.87	2.00	2.15	2.31	2.48	76	-0-8
198-2	2.63	2.77	2.94	3.13	3.36	3.61	3.89	4.17	77	0-4
196-4	2.60	2.74	2.91	3.11	3.33	3.58	3.85	4.13	78	1-0
225-10	2.99	3.16	3.35	3.57	3.83	4.12	4.43	4.75	79	5-5
248-11	3.30	3.48	3.69	3.94	4.22	4.54	4.88	5.23	81	3-10
201-4	2.67	2.81	2.98	3.18	3.41	3.67	3.95	4.23	82	0-0
259-10	3.44	3.63	3.85	4.11	4.40	4.74	5.10	5.46	83	0-10
151-8	2.01	2.12	2.25	2.40	2.57	2.77	2.98	3.19	84	-6-6

Horiz Tension 30 F	Horiz Tension 40 F	Horiz Tension 50 F	Horiz Tension 60 F	Horiz Tension 70 F	Horiz Tension 80 F	Horiz Tension 90 F	Horiz Tension 100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
2319	2086	1852	1626	1417	1224	1057	921

Stringing Chart Report - Distribution and Neutral Circuits: 1/0
"Raven" ACSR

'Neutral' Structure #33 to Structure #33-1

Cable raven_acsr_aw - 100.wir', Ruling span (ft) 74.0713

Sagging data: Catenary (ft) 345.876, Horiz. Tension (lbs) 47.8001 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 6.9 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 12.5 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Span Number	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F		
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
75-6	1-11	2-0	2-1	2-1	2-2	2-3	2-3	2-3	33	-14-11

Span Length	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Left Span Number	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F		
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
75-6	4.13	4.21	4.28	4.34	4.40	4.45	4.48	4.51	33	-14-11

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
53	51	49	48	47	45	45	44

'Neutral' Structure #36 to Structure #36-1

Cable raven_acsr_aw - 100.wir', Ruling span (ft) 119.066

Sagging data: Catenary (ft) 361.795, Horiz. Tension (lbs) 50.0001 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 7.6 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 14.2 (deg F)

temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Struct Number	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F			
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
119-4	4-9	4-10	4-11	4-11	5-0	5-1	5-1	5-1		36	-7-11

Span Length	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	3 Wave Time	Left Struct Number	Span Vertical Projection
	30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F			
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
119-4	6.51	6.57	6.61	6.65	6.69	6.72	6.74	6.77		36	-7-11

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
52	51	51	50	49	49	49	48

'Neutral' Structure #52 to Structure #52-1

Cable raven_acsr_aw.wir', Ruling span (ft) 103.514

Sagging data: Catenary (ft) 5901.59, Horiz. Tension (lbs) 815.6 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 23.4 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 33.9 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
103-10	0-2	0-2	0-2	0-3	0-3	0-3	0-4	0-5		52	-8-6

Span Length	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Left Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
103-10	1.26	1.31	1.37	1.43	1.51	1.61	1.72	1.87		52	-8-6

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F	
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	
1058	979	897	816	731	648	563	479	

'Neutral' Structure #68 to Structure #68-3

Cable raven_acsr_aw.wir', Ruling span (ft) 239.126

Sagging data: Catenary (ft) 6276.41, Horiz. Tension (lbs) 867.4 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 26.2 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 77.2 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Span Sag	Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
239-3	0-11	1-0	1-1	1-2	1-3	1-5	1-6	1-8		68	-7-2

Span Length	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Left Span Wave Time	Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
239-3	2.85	2.95	3.06	3.19	3.34	3.51	3.70	3.91		68	-7-2

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
1093	1018	943	867	791	718	647	580

'Neutral' Structure #85 to Structure #85-2

Cable raven_acsr_aw.wir', Ruling span (ft) 95.9344

Sagging data: Catenary (ft) 5892.19, Horiz. Tension (lbs) 814.301 Condition I Temperature (deg F) 60

Weather case for final after creep 60 Deg F, Equivalent to 23.0 (deg F) temperature increase

Weather cases for final after load:

'NESC Medium District Loading (250B)'

'NESC Extreme Wind (250C)'

'NESC Concurrent Ice and Wind (250D)' (controlling case), Equivalent to 31.8 (deg F) temperature increase

'Extreme Ice'

Results below for condition 'Initial RS'

Calculations done using actual span lengths and vertical projections

Span Length	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Mid Span Sag	Left Span Sag	Struct Number	Span Vertical Projection
(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)	(ft-in)		(ft-in)
96-4	0-2	0-2	0-2	0-2	0-3	0-3	0-3	0-3	0-4	85	-8-8

Span Length	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Wave Time	Left Span Wave Time	Struct Number	Span Vertical Projection
(ft-in)	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.	Sec.		(ft-in)
96-4	1.17	1.21	1.27	1.33	1.40	1.49	1.61	1.74		85	-8-8

Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension	Horiz Tension
30 F	40 F	50 F	60 F	70 F	80 F	90 F	100 F
(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)
1056	977	896	813	729	645	559	475