

CALCULATION BASIS

OPGW: SFPOC/SFSJ-J12522 w/24fibres

From	To	Ruling Span (m)	Temp (°C)	Wind (Pa)	ICE (mm)	Tension (N)	Temperature Shift (°C)
LG	T1	157.7	20	-	-	927	5
T1	T4	213.8	20	-	-	1974	10
T4	T5	406.0	20	-	-	2242	12.5
T5	T7	257.9	20	-	-	2150	12
T7	T9	416.8	20	-	-	2631	14.5
T9	T11	249.8	20	-	-	2159	12
T11	T12	186.3	20	-	-	2326	10
T12	T15	224.3	20	-	-	2344	10
T15	T16	142.7	20	-	-	2650	10
T16	T19	195.6	20	-	-	2650	10
T19	T23	316.1	20	-	-	2627	14
T23	T24	167.8	20	-	-	2418	10
T24	T25	262.9	20	-	-	2298	12.5
T25	T26	317.6	20	-	-	2307	12.5
T26	T27	385.6	20	-	-	2372	12.5
T27	T28	238.7	20	-	-	2372	12.5
T28	T29	267.2	20	-	-	2372	12.5
T29	T31	272.5	20	-	-	2177	12.5
T31	T32	45.0	20	-	-	5652	-
T32	T33	525.9	20	-	-	3604	19
T33	T36	216.9	20	-	-	2641	14
T36	T39	139.5	20	-	-	2641	10
T39	T40	87.7	20	-	-	2270	7.5
T40	T41	165.5	20	-	-	2270	10
T41	T42	216.6	20	-	-	2270	10
T42	T43	21.9	20	-	-	1899	7.5

Revision 0

Revision description	Initial issue		
Prepared by	Adonis Dingo		
Reviewed by	Satya Gill		
Approved by	Geoff McDougall		
	(name)	(signature)	(date)

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NOTES

1. All stringing works shall be carried out in accordance with the requirements of the PPR.
2. No Allowance has been made for the initial embedment process as the OPGW is assumed to be in roller for 24 hrs prior to sagging
3. Unless noted otherwise, tensions shown are horizontal tensions to be used with sight boards or other compatible techniques
4. Stringing schedule is based on information shown in the tower schedule. The Contractor shall verify the location of each structure and submit a discrepancy report to SP. The Tower Schedule and Stringing Schedule may need to be updated with the actual site data prior to construction.

STRINGING RESTRICTIONS:

On suspension towers: No OPGW or OHEW longitudinal out of balance permitted. Stringing through and straining off on the OPGW riser must be achieved without applying any longitudinal out of balance to the riser.

On strain towers: Only one OPGW or OHEW being worked on at a time is permitted.

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OPGW IN SHEAVES

Section: LG-T1 RS = 157.70 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0076%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: LG-T1	157.8m							
Sag	5.08m	5.15m	5.22m	5.28m	5.35m	5.41m	5.48m	5.54m
Tension	987N	974N	962N	950N	938N	927N	916N	906N
Offset LG	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T1-T4 RS = 213.82 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T1-T2	123.3m							
Sag	1.30m	1.34m	1.38m	1.43m	1.47m	1.51m	1.55m	1.59m
Tension	2361N	2284N	2214N	2147N	2086N	2030N	1977N	1928N
Offset T1	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T2-T3 109.6m

Sag	1.02m	1.06m	1.09m	1.12m	1.16m	1.19m	1.22m	1.25m
Tension	2365N	2287N	2217N	2150N	2090N	2034N	1981N	1932N
Offset T2	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T3-T4 270.7m

Sag	6.25m	6.46m	6.67m	6.88m	7.08m	7.28m	7.47m	7.66m
Tension	2359N	2281N	2211N	2144N	2083N	2027N	1973N	1924N
Offset T3	0mm	0mm	0mm	0mm	0mm	1mm	1mm	1mm

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OPGW IN SHEAVES

Section: T4-T5 RS = 406.05 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.019%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T4-T5	406.1m							
Sag	13.81m	13.96m	14.12m	14.28m	14.43m	14.58m	14.74m	14.89m
Tension	2405N	2378N	2352N	2326N	2301N	2277N	2254N	2231N
Offset T4	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T5-T7 RS = 257.93 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.01824%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T5-T6	297.3m							
Sag	7.09m	7.28m	7.47m	7.66m	7.85m	8.03m	8.21m	8.39m
Tension	2509N	2443N	2380N	2322N	2267N	2215N	2167N	2121N
Offset T5	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T6-T7 164.1m

Sag	2.15m	2.21m	2.26m	2.32m	2.38m	2.43m	2.48m	2.54m
Tension	2520N	2453N	2391N	2333N	2279N	2227N	2179N	2133N
Offset T6	-1mm	-1mm	-1mm	-1mm	-1mm	-1mm	-1mm	-1mm

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OPGW IN SHEAVES

Section: T7-T9 RS = 416.75 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.02204%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T7-T8 286.4m								
Sag	5.67m	5.76m	5.84m	5.92m	6.00m	6.09m	6.17m	6.25m
Tension	2909N	2866N	2825N	2785N	2748N	2711N	2676N	2642N
Offset T7	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T8-T9 478.1m

Sag	15.91m	16.15m	16.39m	16.62m	16.85m	17.09m	17.31m	17.54m
Tension	2894N	2850N	2809N	2769N	2732N	2694N	2659N	2625N
Offset T8	3mm	3mm	4mm	4mm	4mm	4mm	4mm	5mm

Section: T9-T11 RS = 249.80 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.01824%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T9-T10 283.5m								
Sag	6.35m	6.53m	6.72m	6.90m	7.08m	7.25m	7.43m	7.60m
Tension	2547N	2475N	2407N	2344N	2285N	2229N	2177N	2128N
Offset T9	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T10-T11 189.3m

Sag	2.83m	2.91m	2.99m	3.07m	3.15m	3.23m	3.31m	3.38m
Tension	2553N	2481N	2414N	2351N	2292N	2237N	2185N	2137N
Offset T10	-1mm	-1mm	-1mm	-1mm	-1mm	-1mm	-1mm	-1mm

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OPGW IN SHEAVES

Section: T11-T12 RS = 186.28 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T11-T12	186.3m							
Sag	2.26m	2.38m	2.50m	2.63m	2.75m	2.88m	3.00m	3.12m
Tension	3094N	2935N	2790N	2656N	2535N	2426N	2326N	2236N
Offset T11	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T12-T15 RS = 224.33 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T12-T13	240.5m							
Sag	4.00m	4.17m	4.33m	4.49m	4.65m	4.80m	4.96m	5.11m
Tension	2906N	2792N	2688N	2593N	2504N	2422N	2347N	2277N
Offset T12	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T13-T14 219.9m

Sag	3.35m	3.49m	3.62m	3.75m	3.89m	4.02m	4.15m	4.28m
Tension	2903N	2790N	2685N	2590N	2501N	2420N	2344N	2274N
Offset T13	0mm	1mm	1mm	1mm	1mm	1mm	1mm	1mm

Span: T14-T15 209.2m

Sag	3.03m	3.16m	3.28m	3.40m	3.52m	3.64m	3.76m	3.87m
Tension	2902N	2789N	2684N	2589N	2500N	2419N	2343N	2273N
Offset T14	0mm	1mm	1mm	1mm	1mm	1mm	1mm	1mm

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OPGW IN SHEAVES

Section: T15-T16 RS = 142.65 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T15-T16	142.9m							
Sag	1.02m	1.10m	1.18m	1.26m	1.36m	1.45m	1.55m	1.66m
Tension	4027N	3753N	3494N	3256N	3034N	2832N	2650N	2485N
Offset T15	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T16-T19 RS = 195.62 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T16-T17	208.4m							
Sag	2.44m	2.58m	2.72m	2.86m	3.01m	3.15m	3.30m	3.45m
Tension	3587N	3396N	3219N	3057N	2909N	2773N	2650N	2538N
Offset T16	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T17-T18 144.8m

Sag	1.17m	1.24m	1.31m	1.38m	1.45m	1.52m	1.59m	1.66m
Tension	3587N	3395N	3218N	3056N	2908N	2772N	2649N	2537N
Offset T17	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T18-T19 212.4m

Sag	2.53m	2.67m	2.82m	2.97m	3.12m	3.27m	3.42m	3.58m
Tension	3589N	3397N	3220N	3058N	2910N	2774N	2651N	2539N
Offset T18	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

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OPGW IN SHEAVES

Section: T19-T23 RS = 316.10 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.02128%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T19-T20 382.7m								
Sag	9.59m	9.85m	10.10m	10.34m	10.59m	10.83m	11.07m	11.31m
Tension	3072N	2992N	2918N	2849N	2782N	2720N	2662N	2606N
Offset T19	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm
Span: T20-T21 344.7m								
Sag	7.76m	7.97m	8.17m	8.37m	8.57m	8.76m	8.95m	9.14m
Tension	3080N	3000N	2927N	2858N	2791N	2729N	2671N	2615N
Offset T20	-4mm	-5mm	-6mm	-6mm	-7mm	-7mm	-7mm	-8mm
Span: T21-T22 189.4m								
Sag	2.35m	2.42m	2.48m	2.54m	2.60m	2.65m	2.71m	2.77m
Tension	3087N	3008N	2935N	2867N	2801N	2739N	2682N	2627N
Offset T21	-5mm	-6mm	-6mm	-6mm	-8mm	-8mm	-8mm	-8mm
Span: T22-T23 202.4m								
Sag	2.64m	2.71m	2.77m	2.84m	2.90m	2.97m	3.03m	3.09m
Tension	3131N	3052N	2979N	2910N	2843N	2782N	2724N	2669N
Offset T22	-4mm	-6mm	-6mm	-6mm	-7mm	-7mm	-7mm	-7mm

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OPGW IN SHEAVES

Section: T23-T24 RS = 167.83 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T23-T24	168.9m							
Sag	1.70m	1.81m	1.92m	2.03m	2.15m	2.27m	2.39m	2.51m
Tension	3399N	3195N	3009N	2839N	2685N	2545N	2418N	2305N
Offset T23	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T24-T25 RS = 262.93 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.019%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T24-T25	262.9m							
Sag	5.10m	5.25m	5.40m	5.55m	5.70m	5.84m	5.98m	6.12m
Tension	2726N	2647N	2574N	2506N	2442N	2382N	2325N	2272N
Offset T24	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T25-T26 RS = 317.59 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.019%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T25-T26	317.7m							
Sag	7.81m	7.97m	8.12m	8.28m	8.43m	8.58m	8.73m	8.88m
Tension	2601N	2550N	2501N	2454N	2410N	2367N	2327N	2288N
Offset T25	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

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OPGW IN SHEAVES

Section: T26-T27 RS = 385.61 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.019%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T26-T27	385.8m							
Sag	11.59m	11.75m	11.92m	12.08m	12.24m	12.40m	12.55m	12.71m
Tension	2586N	2550N	2515N	2481N	2449N	2417N	2387N	2358N
Offset T26	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T27-T28 RS = 238.69 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.019%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T27-T28	238.7m							
Sag	3.90m	4.05m	4.19m	4.34m	4.48m	4.62m	4.76m	4.90m
Tension	2938N	2832N	2734N	2642N	2558N	2480N	2407N	2339N
Offset T27	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T28-T29 RS = 267.17 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.019%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T28-T29	267.2m							
Sag	5.08m	5.24m	5.39m	5.54m	5.69m	5.84m	5.98m	6.12m
Tension	2825N	2742N	2664N	2592N	2524N	2460N	2401N	2345N
Offset T28	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

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OPGW IN SHEAVES

Section: T29-T31 RS = 272.53 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.019%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T29-T30	314.8m							
Sag	7.93m	8.13m	8.32m	8.51m	8.71m	8.89m	9.08m	9.26m
Tension	2515N	2454N	2397N	2343N	2291N	2243N	2197N	2154N
Offset T29	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T30-T31 154.7m

Sag	1.91m	1.95m	2.00m	2.05m	2.09m	2.14m	2.18m	2.22m
Tension	2528N	2467N	2410N	2356N	2305N	2257N	2212N	2169N
Offset T30	-1mm	-1mm	-1mm	-1mm	-1mm	-1mm	-1mm	-2mm

Section: T31-T32 RS = 45.02 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T31-T32	45.0m							
Sag	0.06m	0.06m	0.06m	0.07m	0.07m	0.08m	0.08m	0.09m
Tension	7132N	6779N	6404N	6028N	5653N	5278N	4924N	4549N
Offset T31	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

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OPGW IN SHEAVES

Section: T32-T33 RS = 525.94 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.02888%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T32-T33	526.1m							
Sag	13.67m	13.91m	14.14m	14.37m	14.60m	14.83m	15.06m	15.28m
Tension	4074N	4005N	3939N	3876N	3815N	3757N	3701N	3646N
Offset T32	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T33-T36 RS = 216.91 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.02128%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T33-T34	157.4m							
Sag	1.40m	1.47m	1.54m	1.61m	1.68m	1.76m	1.83m	1.90m
Tension	3574N	3401N	3246N	3100N	2966N	2843N	2731N	2627N
Offset T33	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T34-T35 151.1m

Sag	1.28m	1.35m	1.41m	1.48m	1.55m	1.62m	1.68m	1.75m
Tension	3573N	3399N	3245N	3098N	2964N	2841N	2728N	2624N
Offset T34	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T35-T36 271.2m

Sag	4.15m	4.36m	4.57m	4.78m	5.00m	5.22m	5.44m	5.65m
Tension	3568N	3395N	3240N	3093N	2958N	2835N	2722N	2618N
Offset T35	0mm	0mm	1mm	1mm	1mm	1mm	1mm	1mm

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OPGW IN SHEAVES

Section: T36-T39 RS = 139.50 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T36-T37 127.8m								
Sag	0.81m	0.87m	0.94m	1.01m	1.08m	1.16m	1.24m	1.33m
Tension	4045N	3766N	3503N	3258N	3034N	2827N	2641N	2474N
Offset T36	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T37-T38 166.5m

Sag	1.38m	1.48m	1.59m	1.71m	1.84m	1.97m	2.11m	2.25m
Tension	4044N	3765N	3502N	3257N	3032N	2826N	2640N	2472N
Offset T37	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Span: T38-T39 96.8m

Sag	0.47m	0.50m	0.54m	0.58m	0.62m	0.67m	0.71m	0.76m
Tension	4045N	3767N	3504N	3259N	3034N	2828N	2642N	2475N
Offset T38	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T39-T40 RS = 87.75 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0114%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T39-T40 87.7m								
Sag	0.40m	0.44m	0.48m	0.53m	0.59m	0.65m	0.72m	0.79m
Tension	3822N	3494N	3193N	2900N	2634N	2386N	2164N	1969N
Offset T39	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

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OPGW IN SHEAVES

Section: T40-T41 RS = 165.50 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T40-T41	165.5m							
Sag	1.74m	1.85m	1.97m	2.08m	2.19m	2.31m	2.43m	2.54m
Tension	3157N	2971N	2803N	2647N	2510N	2383N	2270N	2168N
Offset T40	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T41-T42 RS = 216.56 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T41-T42	216.7m							
Sag	3.35m	3.49m	3.63m	3.76m	3.90m	4.03m	4.16m	4.29m
Tension	2820N	2708N	2605N	2511N	2424N	2345N	2270N	2202N
Offset T41	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

Section: T42-T43 RS = 21.89 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0114%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Span: T42-T43	21.9m							
Sag	0.02m	0.03m	0.03m	0.03m	0.04m	0.05m	0.06m	0.07m
Tension	3917N	3532N	3146N	2790N	2434N	2077N	1721N	1395N
Offset T42	0mm	0mm	0mm	0mm	0mm	0mm	0mm	0mm

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OPGW IN CLAMPS

Section: LG-T1 RS = 157.70 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0076%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	987N	974N	962N	950N	938N	927N	916N	906N
Span	Length	Sag						
LG-T1	157.8m	5.08m	5.15m	5.22m	5.28m	5.35m	5.41m	5.48m

Section: T1-T4 RS = 213.82 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	2359N	2282N	2211N	2145N	2084N	2027N	1974N	1925N
Span	Length	Sag						
T1-T2	123.3m	1.30m	1.34m	1.38m	1.43m	1.47m	1.51m	1.55m
T2-T3	109.6m	1.02m	1.06m	1.09m	1.13m	1.16m	1.19m	1.22m
T3-T4	270.7m	6.25m	6.46m	6.67m	6.87m	7.07m	7.27m	7.47m

Section: T4-T5 RS = 406.05 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.019%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	2405N	2378N	2350N	2326N	2301N	2277N	2254N	2231N
Span	Length	Sag						
T4-T5	406.1m	13.81m	13.96m	14.12m	14.28m	14.43m	14.58m	14.74m

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OPGW IN CLAMPS

Section: T5-T7 RS = 257.93 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.01824%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	2512N	2445N	2382N	2324N	2270N	2218N	2169N	2123N
Span	Length	Sag						
T5-T6	297.3m	7.08m	7.27m	7.47m	7.65m	7.84m	8.02m	8.38m
T6-T7	164.1m	2.16m	2.21m	2.27m	2.33m	2.39m	2.44m	2.55m

Section: T7-T9 RS = 416.75 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.02204%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	2896N	2853N	2812N	2772N	2735N	2698N	2662N	2628N
Span	Length	Sag						
T7-T8	286.4m	5.70m	5.78m	5.87m	5.95m	6.03m	6.12m	6.28m
T8-T9	478.1m	15.89m	16.13m	16.37m	16.60m	16.83m	17.07m	17.52m

Section: T9-T11 RS = 249.80 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.01824%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	2550N	2477N	2409N	2347N	2287N	2232N	2179N	2130N
Span	Length	Sag						
T9-T10	283.5m	6.34m	6.53m	6.71m	6.89m	7.07m	7.25m	7.59m
T10-T11	189.3m	2.83m	2.92m	3.00m	3.08m	3.16m	3.24m	3.39m

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OPGW IN CLAMPS

Section: T11-T12 RS = 186.28 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	3094N	2935N	2790N	2656N	2535N	2426N	2326N	2236N
Span Length Sag								
T11-T12 186.3m	2.26m	2.38m	2.50m	2.63m	2.75m	2.88m	3.00m	3.12m

Section: T12-T15 RS = 224.33 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	2903N	2790N	2686N	2591N	2501N	2420N	2344N	2275N
Span Length Sag								
T12-T13 240.5m	4.01m	4.17m	4.33m	4.49m	4.65m	4.81m	4.96m	5.12m
T13-T14 219.9m	3.35m	3.49m	3.62m	3.75m	3.89m	4.02m	4.15m	4.28m
T14-T15 209.2m	3.03m	3.16m	3.28m	3.40m	3.52m	3.64m	3.75m	3.87m

Section: T15-T16 RS = 142.65 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	4027N	3753N	3494N	3256N	3034N	2832N	2650N	2485N
Span Length Sag								
T15-T16 142.9m	1.02m	1.10m	1.18m	1.26m	1.36m	1.45m	1.55m	1.66m

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OPGW IN CLAMPS

Section: T16-T19 RS = 195.62 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature		0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension		3587N	3396N	3219N	3057N	2909N	2773N	2650N	2538N
Span	Length	Sag							
T16-T17	208.4m	2.44m	2.58m	2.72m	2.86m	3.01m	3.15m	3.30m	3.45m
T17-T18	144.8m	1.17m	1.24m	1.31m	1.38m	1.45m	1.52m	1.59m	1.66m
T18-T19	212.4m	2.53m	2.67m	2.82m	2.97m	3.12m	3.27m	3.43m	3.58m

Section: T19-T23 RS = 316.10 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.02128%

Temperature		0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension		3081N	3002N	2928N	2859N	2793N	2731N	2672N	2617N
Span	Length	Sag							
T19-T20	382.7m	9.56m	9.81m	10.06m	10.31m	10.55m	10.79m	11.03m	11.26m
T20-T21	344.7m	7.76m	7.96m	8.16m	8.36m	8.56m	8.76m	8.95m	9.14m
T21-T22	189.4m	2.36m	2.42m	2.48m	2.54m	2.60m	2.66m	2.72m	2.78m
T22-T23	202.4m	2.68m	2.75m	2.82m	2.89m	2.96m	3.02m	3.09m	3.16m

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OPGW IN CLAMPS

Section: T23-T24 RS = 167.83 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	3399N	3195N	3009N	2839N	2685N	2545N	2418N	2305N
Span Length	Sag							
T23-T24 168.9m	1.70m	1.81m	1.92m	2.03m	2.15m	2.27m	2.39m	2.51m

Section: T24-T25 RS = 262.93 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.019%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	2726N	2647N	2574N	2506N	2442N	2382N	2325N	2272N
Span Length	Sag							
T24-T25 262.9m	5.10m	5.25m	5.40m	5.55m	5.70m	5.84m	5.98m	6.12m

Section: T25-T26 RS = 317.59 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.019%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	2601N	2550N	2501N	2454N	2410N	2367N	2327N	2288N
Span Length	Sag							
T25-T26 317.7m	7.81m	7.97m	8.12m	8.28m	8.43m	8.58m	8.73m	8.88m

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OPGW IN CLAMPS

Section: T26-T27 **RS = 385.61 m**

OPGW : SPFOC24 **Creep: OPGW Elongation 0.019%**

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	
Section Tension	2586N	2550N	2515N	2481N	2449N	2417N	2387N	2358N	
Span Length	Sag								
T26-T27	385.8m	11.59m	11.75m	11.92m	12.08m	12.24m	12.40m	12.55m	12.71m

Section: T27-T28 **RS = 238.69 m**

OPGW : SPFOC24 **Creep: OPGW Elongation 0.019%**

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	
Section Tension	2938N	2832N	2734N	2642N	2558N	2480N	2407N	2339N	
Span Length	Sag								
T27-T28	238.7m	3.90m	4.05m	4.19m	4.34m	4.48m	4.62m	4.76m	4.90m

Section: T28-T29 **RS = 267.17 m**

OPGW : SPFOC24 **Creep: OPGW Elongation 0.019%**

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	
Section Tension	2825N	2742N	2664N	2592N	2524N	2460N	2401N	2345N	
Span Length	Sag								
T28-T29	267.2m	5.08m	5.24m	5.39m	5.54m	5.69m	5.84m	5.98m	6.12m

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OPGW IN CLAMPS

Section: T29-T31 RS = 272.53 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.019%

Temperature		0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension		2518N	2456N	2399N	2345N	2293N	2245N	2199N	2156N
Span	Length	Sag							
T29-T30	314.8m	7.92m	8.12m	8.31m	8.51m	8.70m	8.88m	9.07m	9.25m
T30-T31	154.7m	1.91m	1.96m	2.01m	2.06m	2.10m	2.15m	2.19m	2.24m

Section: T31-T32 RS = 45.02 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0%

Temperature		0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension		7132N	6779N	6404N	6028N	5653N	5278N	4924N	4549N
Span	Length	Sag							
T31-T32	45.0m	0.06m	0.06m	0.06m	0.07m	0.07m	0.08m	0.08m	0.09m

Section: T32-T33 RS = 525.94 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.02888%

Temperature		0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension		4074N	4005N	3939N	3876N	3815N	3757N	3701N	3646N
Span	Length	Sag							
T32-T33	526.1m	13.67m	13.91m	14.14m	14.37m	14.60m	14.83m	15.06m	15.28m

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OPGW IN CLAMPS

Section: T33-T36 RS = 216.91 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.02128%

Temperature		0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension		3570N	3397N	3240N	3094N	2960N	2838N	2725N	2621N
Span	Length	Sag							
T33-T34	157.4m	1.40m	1.47m	1.54m	1.61m	1.69m	1.76m	1.83m	1.90m
T34-T35	151.1m	1.29m	1.35m	1.42m	1.48m	1.55m	1.62m	1.68m	1.75m
T35-T36	271.2m	4.14m	4.35m	4.57m	4.78m	5.00m	5.21m	5.43m	5.64m

Section: T36-T39 RS = 139.50 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature		0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension		4045N	3766N	3503N	3258N	3034N	2827N	2641N	2474N
Span	Length	Sag							
T36-T37	127.8m	0.81m	0.87m	0.94m	1.01m	1.08m	1.16m	1.24m	1.33m
T37-T38	166.5m	1.38m	1.48m	1.59m	1.71m	1.84m	1.97m	2.11m	2.25m
T38-T39	96.8m	0.47m	0.50m	0.54m	0.58m	0.62m	0.67m	0.71m	0.76m

Section: T39-T40 RS = 87.75 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0114%

Temperature		0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension		3822N	3494N	3193N	2900N	2634N	2386N	2164N	1969N
Span	Length	Sag							
T39-T40	87.7m	0.40m	0.44m	0.48m	0.53m	0.59m	0.65m	0.72m	0.79m

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OPGW IN CLAMPS

Section: T40-T41 RS = 165.50 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	3157N	2971N	2803N	2647N	2510N	2383N	2270N	2168N
Span	Length	Sag						
T40-T41	165.5m	1.74m	1.85m	1.97m	2.08m	2.19m	2.31m	2.43m
								2.54m

Section: T41-T42 RS = 216.56 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0152%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	2820N	2708N	2605N	2511N	2424N	2345N	2270N	2202N
Span	Length	Sag						
T41-T42	216.7m	3.35m	3.49m	3.63m	3.76m	3.90m	4.03m	4.16m
								4.29m

Section: T42-T43 RS = 21.89 m

OPGW : SPFOC24 Creep: OPGW Elongation 0.0114%

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
Section Tension	3917N	3532N	3146N	2790N	2434N	2077N	1721N	1395N
Span	Length	Sag						
T42-T43	21.9m	0.02m	0.03m	0.03m	0.03m	0.04m	0.05m	0.06m
								0.07m

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