

Forth Road Bridge
Cable Band Factors of Safety (APPROX)

$\mu = 0.3$

Panel Point	Slope	No bolts	Bolt tension kN	Dead Load (nom, kN)	Live Load (nom, kN)	Total Load (nom, kN)	FOS
2	0.0865	4	800	1540	380	1920	5.79
4	0.1061	4	800	1540	380	1920	4.72
6	0.1236	4	800	1540	380	1920	4.06
8	0.1411	4	800	1540	380	1920	3.55
10	0.1587	4	800	1540	380	1920	3.16
12	0.1762	4	800	1540	380	1920	2.85
14	0.1938	4	800	1540	380	1920	2.60
16	0.2113	4	800	1540	380	1920	2.38
18	0.2289	6	800	1540	380	1920	3.31
20	0.2465	6	800	1540	380	1920	3.07
22	0.2641	6	800	1540	380	1920	2.87
24	0.2817	6	800	1540	380	1920	2.70
26	0.2994	6	800	1540	380	1920	2.54
28	0.3170	6	800	1540	380	1920	2.41
30	0.3347	6	800	1540	380	1920	2.28
32	0.3524	8	800	1540	380	1920	2.90
34	0.3701	8	800	1540	380	1920	2.76
36	0.3878	8	800	1540	380	1920	2.64
38	0.4056	8	800	1540	380	1920	2.53
40	0.4233	8	800	1540	380	1920	2.43
42	0.4432	8	800	1540	380	1920	2.33
48	0.3473	6	800	1050	380	1430	2.96
50	0.3326	6	800	1050	380	1430	3.08
52	0.3194	6	800	1050	380	1430	3.21
54	0.3063	4	800	1050	380	1430	2.23
56	0.2932	4	800	1050	380	1430	2.32
58	0.2800	4	800	1050	380	1430	2.43
60	0.2669	4	800	1050	380	1430	2.55
62	0.2538	4	800	1050	380	1430	2.67
64	0.2408	4	800	1050	380	1430	2.82
66	0.2277	4	800	1050	380	1430	2.97
68	0.2146	4	800	1050	380	1430	3.15
70	0.2016	4	800	1050	380	1430	3.35
72	0.1885	4	800	1050	380	1430	3.58
74	0.1755	4	800	1050	380	1430	3.85
76	0.1625	4	800	1050	380	1430	4.15
78	0.1494	4	800	1050	380	1430	4.51
80	0.1364	4	800	1050	380	1430	4.94
82	0.1234	4	800	1050	380	1430	5.45
84	0.1104	4	800	1050	380	1430	6.09
86	0.0974	4	800	1050	380	1430	6.90
88	0.0844	4	800	1050	380	1430	7.96
90	0.0714	4	800	1050	380	1430	9.41
92	0.0584	4	800	1050	380	1430	11.50
94	0.0454	4	800	1050	380	1430	14.78
96	0.0325	4	800	1050	380	1430	20.69
98	0.0195	4	800	1050	380	1430	34.48
100	0.0065	4	800	1050	380	1430	103.42

Notes: 1. Hanger tension calculated for PP32 and extrapolated to others.
2. BSALL (175m), KEL, ftwy: 5kN/m² 2bays, BSFLL (175m)