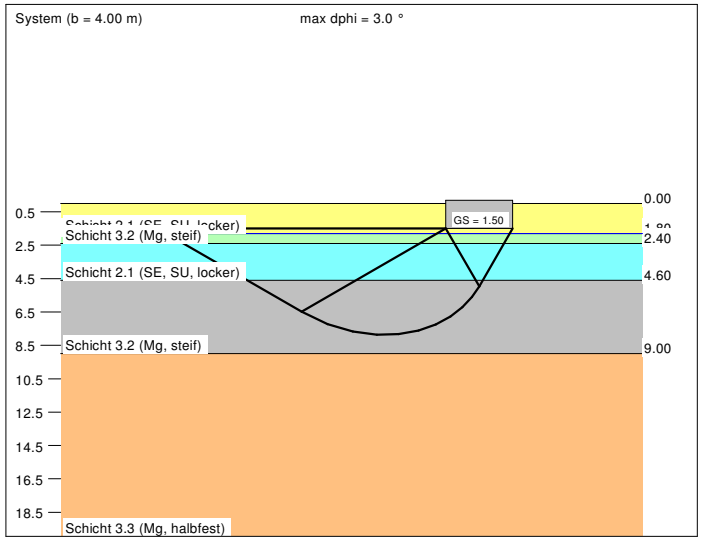
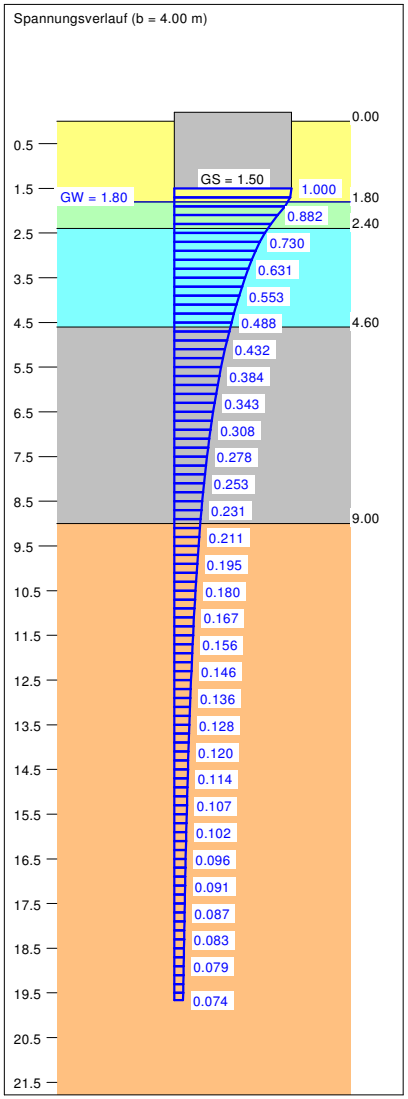
Mobility Networks Logistics

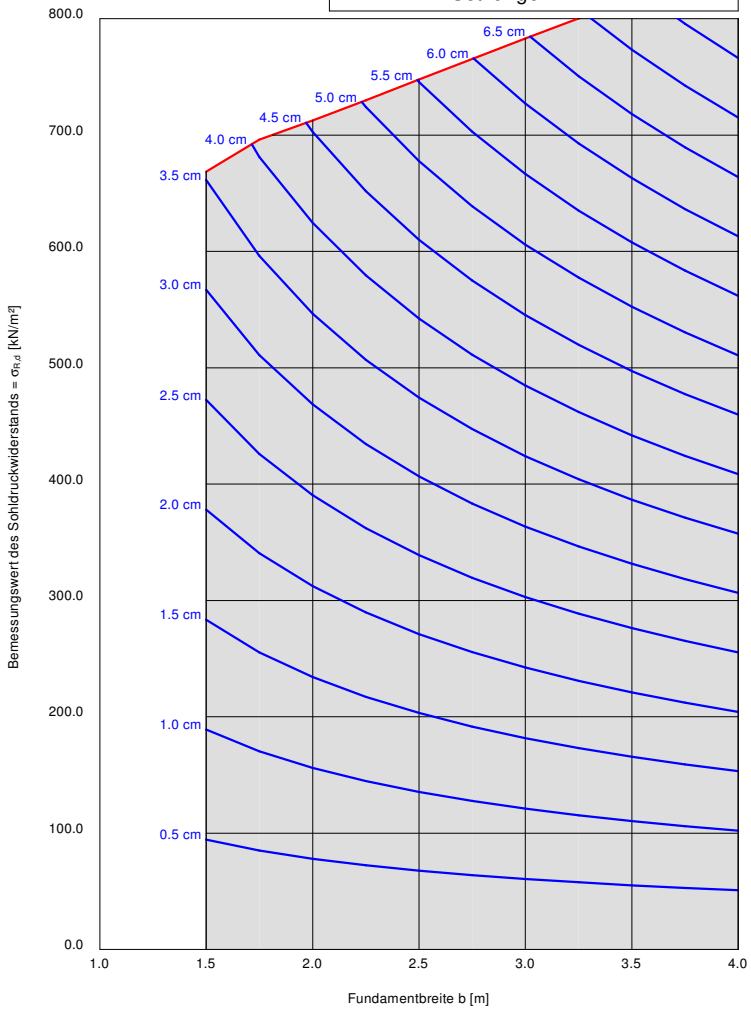
GE S-Bahn S2, Strecke 6002 Karow - Bernau
EÜ Pölnitzweg, km 15,008
Widerlager Karow, l= 20,0 m, Einindetiefe 1,50 m
Berechnungsprofil B 5.3

Boden	γ [kN/m³]	γ' [kN/m³]	φ [°]	c [kN/m²]	E_s [MN/m²]	ν [-]	Bezeichnung
	18.0	10.0	32.5	0.0	26.0	0.00	Schicht 2.1 (SE, SU, locker)
	20.0	10.0	29.0	10.0	40.0	0.00	Schicht 3.2 (Mg, steif)
	18.0	10.0	32.5	0.0	26.0	0.00	Schicht 2.1 (SE, SU, locker)
	20.0	10.0	29.0	10.0	40.0	0.00	Schicht 3.2 (Mg, steif)
	21.0	11.0	30.0	12.0	50.0	0.00	Schicht 3.3 (Mg, halbfest)

Berechnungsgrundlagen:
Grundbruchformel nach DIN 4017:2006
Teilsicherheitskonzept (EC 7)
Einzelfundament (a = 20.00 m)
γ_{Gr} = 1.40
γ_G = 1.35
γ_Q = 1.50
Anteil Veränderliche Lasten = 0.500
$\gamma_{(G,Q)} = 0.500 \cdot \gamma_Q + (1 - 0.500) \cdot \gamma_G$
$\gamma_{(G,Q)}$ = 1.425
Gründungssohle = 1.50 m
Grundwasser = 1.80 m
Grenztiefe mit p = 20.0 %
Sohldruck
Setzungen







a [m]	b [m]	$\sigma_{R,d}$ [kN/m²]	$R_{n,d}$ [kN]	$\sigma_{E,k}$ [kN/m²]	s [cm]	cal φ [°]	cal c [kN/m²]	γ_2 [kN/m³]	$\sigma_ü$ [kN/m²]	t_g [m]	UK LS [m]
20.00	1.50	668.6	20058.2	469.2	3.54	31.9	1.83	11.43	27.00	12.09	4.04
20.00	1.75	696.0	24358.4	488.4	4.09	32.0	1.56	11.23	27.00	13.08	4.48
20.00	2.00	712.6	28505.1	500.1	4.56	31.3	3.46	11.10	27.00	13.93	4.83
20.00	2.25	729.9	32846.6	512.2	5.04	31.0	4.49	11.00	27.00	14.75	5.19
20.00	2.50	747.6	37382.2	524.7	5.52	30.7	5.13	10.91	27.00	15.53	5.57
20.00	2.75	765.4	42098.4	537.1	5.99	30.6	5.59	10.83	27.00	16.28	5.95
20.00	3.00	783.0	46977.2	549.4	6.46	30.4	5.97	10.77	27.00	17.00	6.33
20.00	3.25	800.4	52024.5	561.7	6.93	30.3	6.27	10.71	27.00	17.70	6.71
20.00	3.50	817.6	57229.0	573.7	7.40	30.2	6.53	10.66	27.00	18.37	7.10
20.00	3.75	834.6	62593.1	585.7	7.87	30.2	6.75	10.62	27.00	19.03	7.48
20.00	4.00	851.4	68113.5	597.5	8.34	30.1	6.95	10.59	27.00	19.66	7.86

$\sigma_{E,k} = \sigma_{0t,k} / (\gamma_{Gr} \cdot \gamma_{(G,Q)}) = \sigma_{0t,k} / (1.40 \cdot 1.43) = \sigma_{0t,k} / 2.00$ (für Setzungen)
Verhältnis Veränderliche(Q)/Gesamtlasten(G+Q) [-] = 0.50