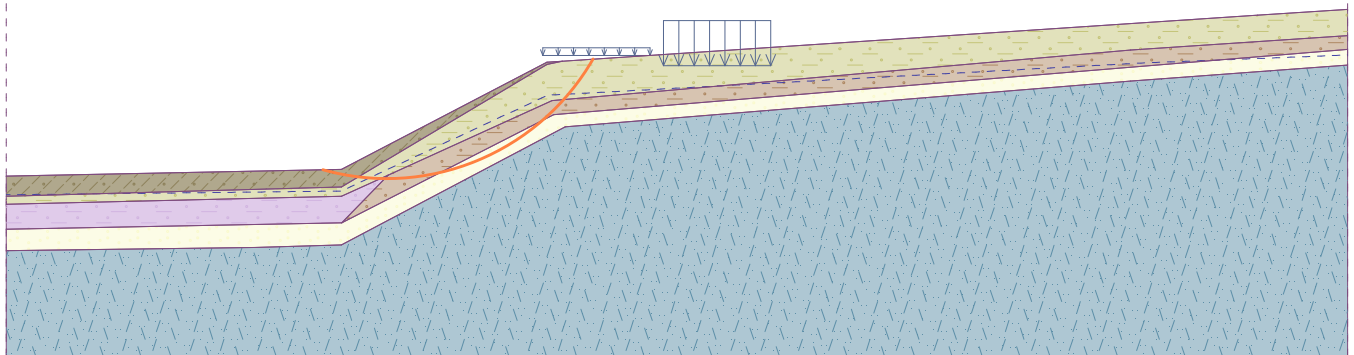


Name :

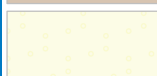
Stage - analysis : 1 - 1



Sandy Clayey Silt



Firm to Stiff Sandy Clay



Medium Dense to Dense Sand



Firm Sandy Clay w/gravel



Soft very Sandy Clay



Sandstone Bedrock

The slip surface after optimization.

Slope stability verification (Bishop)**Combination 1**Sum of active forces : $F_a = 650.79 \text{ kN/m}$ Sum of passive forces : $F_p = 714.88 \text{ kN/m}$ Sliding moment : $M_a = 10490.78 \text{ kNm/m}$ Resisting moment : $M_p = 11523.94 \text{ kNm/m}$

Utilization : 91.0 %

Slope stability ACCEPTABLE**Combination 2**Sum of active forces : $F_a = 477.23 \text{ kN/m}$ Sum of passive forces : $F_p = 496.96 \text{ kN/m}$ Sliding moment : $M_a = 8475.52 \text{ kNm/m}$ Resisting moment : $M_p = 8826.01 \text{ kNm/m}$

Utilization : 96.0 %

Slope stability ACCEPTABLE

Optimized slip surface for : Combination 2

Appendix B

Partial Factors and EC7

Partial Factors in line with Eurocode 7 and National Annex NA+A1:2014.

Action		Symbol	Set	
			A1	A2
Permanent	Unfavourable	γ_G	1.35	1.00
	Favourable		1.00	1.00
Variable	Unfavourable	γ_Q	1.50	1.30
	Favourable		0.00	0.00

Table 1-1: Partial Factors for Actions (γ_F) as per BS EN 1997-1:2004+A1:2013.

Soil Parameter	Symbol	Set	
		M1	M2
Tan Angle of shearing resistance	γ_ϕ	1.00	1.25
Effective Cohesion	$\gamma_{c'}$	1.00	1.25
Undrained Shear Strength	γ_{cu}	1.00	1.40
Unconfined Strength	γ_{qu}	1.00	1.40
Weight/Density	γ_f	1.00	1.00

Table 1-2: Partial Factors for Parameters (γ_M) as per BS EN 1997-1:2004+A1:2013.

Resistance	Symbol	Set		
		R1	R2	R3
Bearing	$\gamma_{R,v}$	1.00	1.40	1.00
Sliding	$\gamma_{R,h}$	1.00	1.10	1.00

Table 1-3: Partial Factors for Resistance (γ_R) as per BS EN 1997-1:2004+A1:2013.

As Design Approach 1 is to be used in the UK, R2 and R3 will not be used as per National Annex NA+A1:2014.

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