

Temporary Shoring 1 at Rear Abutment

Soil Properties Based off of Boring B-002-0-24

Top of Wall Elevation = 943.477 ft
 Bottom of Wall Elevation = 931.28 ft
 Water Table Elevation = 935.2
 H (design) = 12.197 ft
 Su = 0 psf (Conservative)
 Gamma = 125 pcf
 Submerged Gamma = 145 pcf
 Backslope Angle = 0
 Piling Spacing S = 0 ft
 ka1 = 0.42173
 ka2 = 0.42173
 Water Density = 62.4 pcf
 Surcharge Load Equivalent Height = 2

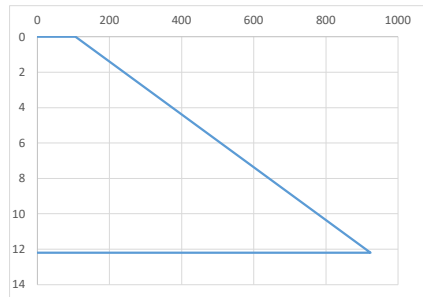
AASHTO LRFD Load Factors

Reference Tbl. 3.4.1-1 & 3.4.1-2

Limit State	EH	LL	WA
Service I	1.00	1.00	1.00
Strength I	1.50	1.75	1.00

Load Pressure Calculations

Limit State	Depth Below Head (ft)	EH	LL	WA	
Top of Wall	0.00	0.00	105.43	0.00	psf
Water Table	8.28	436.33	105.43	0.00	psf
Bottom of Wall	12.20	572.89	105.43	244.61	psf



PYWALL Unifromly Distributed Load (LL Surcharge) Inputs

Location	Service I Min (lbs/in)	Strength I Max (lbs/in)
Top of Wall	250.00	291.67
Bottom of Wall	250.00	291.67

Note: Pywall uses a active earth modification factor, for service case it is 1 but for strength case it is 1.5 and it multiplies surcharge load by 1.5 by default so to get around this in strength case surcharge load needs to be multiplied by 1.75/1.5.

SOIL LAYER SETUP FOR PYWALL

No	Type	Depth at Top of the Layer	Depth at Bottom of Layer	Friction angle Φ	Unit Weight	Cohesive Strength	E50	K (py) (pci)	Pressure coefficient
1	Stiff Clay W/O Free	-0.22	3.28	24.00	124.00	750	0.015	80	0.421730222
2	Stiff Clay W/O Free	3.28	8.28	-	124.00	750	0.015	80	0.421730222
3	Stiff Clay W/O Free	8.28	11.28	-	122.00	250	0.030	15	0.421730222
4	Sand (Reese)	11.28	12.20	-	122.00	250.00	0.030	15.00	0.421730222
5	Sand (Reese)	12.20	14.28	28.00	110.00	-	-	20	
6	Stiff Clay W/O Free	14.28	18.78	28.00	110.00	-	-	20	
7	Stiff Clay W/O Free	18.78	23.28	-	124.00	750	0.015	80	
8	Stiff Clay W/O Free	23.28	33.28	-	126.00	1500	0.010	350	
9	Stiff Clay W/O Free	33.28	49.78	-	131.00	4500	0.004	1500	

PYWALL results

SHEET PILE
 SECTION = PZ 40
 Depth = 40.10 ft
 Service Level Deflection = 3.170 in
 Strength Level Deflection = 7.403 in
 Max Strength I Moment Above Excavation Line = 58.775 kip-ft
 Max Strength I Moment Below Excavation Line = 227.8333 kip-ft
 Max Strength I Shear = 30.500 kips

< OK 3.659 in 86.63332513
 < OK 373.49 k-ft
 < OK 373.49 k-ft
 < OK 127.2524 kips (LRFD Section 6.10.9.2)