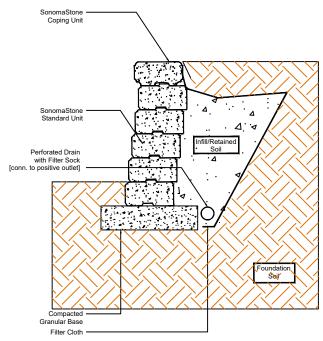
SONOMA STONE®

RETAINING WALL GRAVITY SECTION

1110mm (3.64ft) Site: Surcharge - Clays Infill: Granular



Design Specific Geometric Informat	on
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Retaining Wall System	SonomaStone	Geogrid Type and Manufacturer	N/A			
Maximum Height mm (in)	1110 (43)	Minimum Geogrid LTDS kN/m (lb/ft)	N/A			
Maximum Slope Above Wall	Horizontal	Maximum Slope Below Wall	None			
Max. Surcharge Above Wall kPa (lb/sq.ft)	Pedestrian Surcharge 2.4 kPa (50 lb/sq.ft)	Depth of Embedment mm (in)	186 (7)			
Batter of Wall	7.12 •	Compacted Base Dimension mm (in)	746 x 186 (29 x 7)			

Design Specific Soil Information

Soil Region Soil Region Infill / Retained Foundation Base Drainage Description (by USCS) GP CL GW see infill Effective Internal Friction Angle 36° 28° 39° NR Moist Unit Weight KVoum ((bou, ft) 18 (115) 20 (127) 22 (140) NR Effective Cohesion KPa (b/sq, ft) NR 13 (270) NR NR Soil Placed in 150mm (6') (lfts and compacted bo 55% 11*:1/1 for mhed Allowable bearing cap.must exceed Crushed Gravel (breg draining) Gravel infill must begap graded, angular, free drain							
Description (by USCS) GP CL GW see infill Effective Internal Friction Angle Angular 3/4" clear stone (no fines) Inorganic Clays Low Plasticity Well graded, free draining Granular see infill Most Unit Weight KN/cum (Blou,tt) 36 28 39 NR Effective Cohesion Kefa (B/sq.tt) 18 (115) 20 (127) 22 (140) NR Effective Cohesion Notes NR 13 (270) NR NR NR Soil Notes Placed in 150mm (6") lifts and Angular drain stone placed at Allowable bearing cap.must exceed Crushed Gravel (ree draining) Gravel infill must be gap graded,		Soil Region					
Description (by USCS) Cm Inorganic Clays Low Plasticity Well graded, free draining Granular see infill Effective Internal Friction Angle 36° 28° 39° NR Moist Unit Weight KVicum (locu, ft) 18 (115) 20 (127) 22 (140) NR Effective Cohesion kPa (lb/sq, ft) NR 13 (270) NR NR Soil Placed in 150mm Kha (b) fts and Angular drain stone placed at stone placed at Allowable bearing cap.must exceed Crushed Gravel (free draining) Gravel infill must be gap graded,		Infill / Reta	ined	Foundation	Base	Drainage	
(by USCS) Angular 3/4* clear stone (no fines) Inorganic Clays Well graded, free draining Granular see inflii Effective Internal Friction Angle 0 0 28 39 NR Moist Unit Weight kN/cu.m (ib/ou.ft) 18 (115) 20 (127) 22 (140) NR Effective Cohesion KPa (bright) NR 13 (270) NR NR Soli Placed in 150mm Notes Angular drain done placed at one placed at Allowable bearing cap.must exceed Crushed Gravel (free draining) Gravel inflil must be gap graded,		G	P				
Internal Friction Angle 36 28 39 NR Moist Unit Weight KVcum (Ibcu.tt) 18 (115) 20 (127) 22 (140) NR Effective Cohesion kPa (lb/sq,ft) NR 13 (270) NR NR Soli Notes Placed in 150mm (6°) lifts and Angular drain stone placed at stone placed at Allowable bearing cap.must exceed Crushed Gravel (free draining) Gravel infill must be gap graded,		Angular 3/4" clea	ar stone (no fines)			see infill	
Weight kN/cu.m (ib/ou.ft) 18 (115) 20 (127) 22 (140) NR Effective Cohesion kPa (b/sq.ft) NR 13 (270) NR NR Soli Placed in 150mm Notes Angular drain done placed at be gap graded, Allowable bearing cap.must exceed Crushed Gravel (free draining) Gravel infill must be gap graded,	Internal Friction	36 [°]		28 [°]		NR	
Cohesion kPa (lb/sq,ft) NR 13 (270) NR NR Soil Placed in 150mm (6") lifts and Angular drain stone placed at Allowable bearing cap.must exceed Crushed Gravel (free draining) Gravel infill must be gap graded,	Weight	18 (115)		20 (127)	22 (140)	NR	
Notes (6") lifts and stone placed at cap.must exceed (free draining) be gap graded,	Cohesion	NR		13 (270)	NR	NR	
SPD. of wall as shown SPD. w/ no fines.	Notes	(6") lifts and compacted to 95%	stone placed at 1H:1V from heel	cap.must exceed	(free draining) compacted to 98%	be gap graded, angular, free drain	

NR - Not Required

Notes:

1. This design meets or exceeds the minimum factors of safety required by Risi Stone Systems based on the design parameters listed above. The analysis was performed as outlined in the National Concrete Masonry Association Design Manual for Segmental Retaining Walls, Third Edition. This is a typical, non site-specific Design.

2. No analysis of global stability, total or differential settlement, or seismic effects has been performed.

3. This design is only provided to illustrate the general arrangement of the SRW structure for preliminary costing and feasibility purposes only. This drawing is not for construction. A qualified Engineer must be retained to provide the Final Design prior to construction.

4. Structures such as handrails, guardrails, fences, terraces, and site conditions such as water applications, drainage and soil conditions, additional live and dead loads, etc., have significant effects on the wall design and have not been taken into account in this typical section. When accounted for in the Final Design, other conditions and elements may result in additional design measures (geogrid, drainage, etc) and cost.

5. For geogrid reinforced structures, a minimum Long Term Allowable Design Strength of 14 kN/m was assumed.

Contact your manufacturer or Risi Stone Systems for a list of approved geogrid reinforcements.



Engineering design by RisiStone Inc.



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