

Engineering Services

Technical Bulletin

Versa-Lok segmental retaining walls (SRW) provide a very structurally efficient solution for any hardscape project. SRW walls of 100' or higher are not uncommon. The guidelines are provided for general information and planning and are not intended to take the place of engineering.

- Conventional reinforced concrete masonry unit (CMU) walls require heavy reinforcement for heights greater than 9-10 feet. Versa-Lok SRW walls are always more efficient for walls of that height.
- · Generally, any wall greater than 4' high should be engineered.
- General Shale Versa-Lok SRW units comply with ASTM C1372.
- Estimating Quantities

Units Per 100 sq. ft.

Square Ft.	Standard	Mosaic	Accent	Cobble
100 pcs.	151 pcs.	61 pcs. Standard 61 pcs. Cobble 121 pcs. Accent	301 pcs.	301pcs.

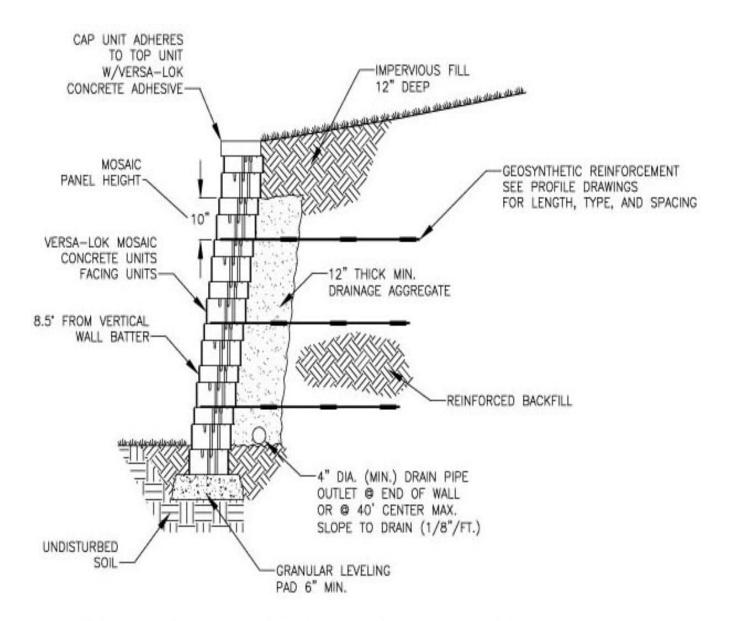
^{*}Number of Caps = 0.8 x wall length (Capface area = 0.33 sq. ft./linear ft.)

Unit Data

	Face (HxL)	Wall Thickness	Weight	Area
Square Foot	8" x 18"	12"	87 lbs.	1.00 sq. ft.
		· -		
Standard	6" x 16"	12"	82 lbs.	0.66 sq ft.
Cobble	6" x 8"	12"	38 lbs.	0.33 sq. ft.
Accent	4" x 12"	12"	36 lbs.	0.33 sq. ft.
Mosaic Panel*	N/A	12"	192 lbs.	1.667 sq. ft.

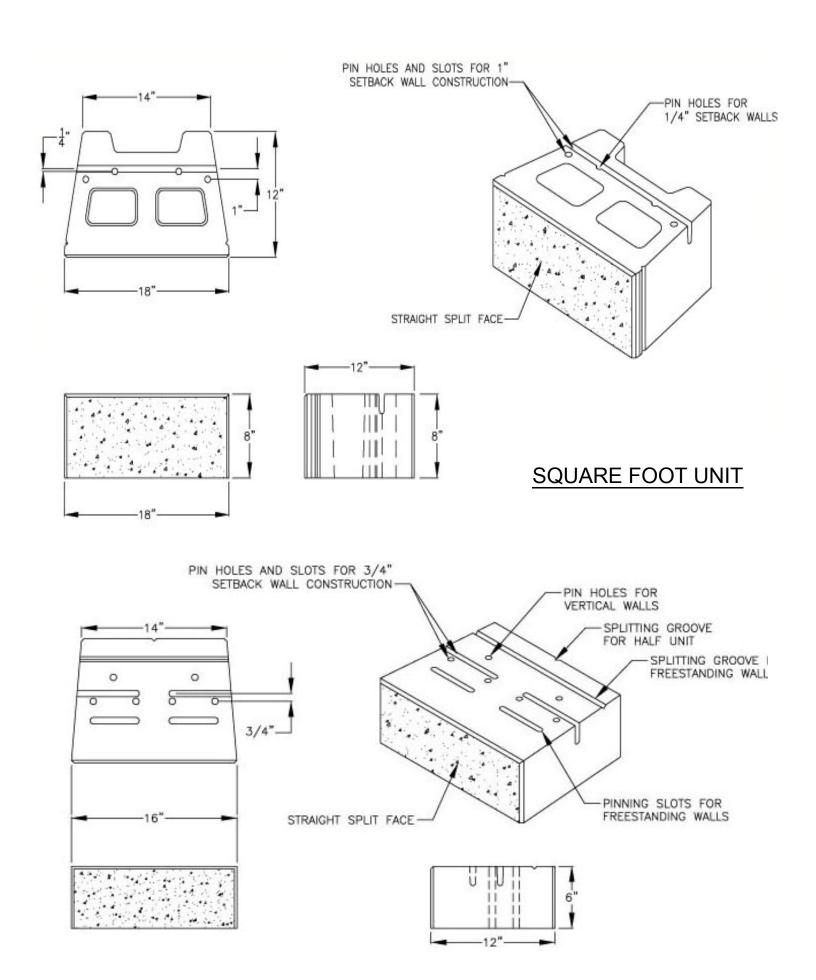
*(1-standard, 1-cobble, 2-accent, 6-pins)

- Toe embedment depth
 - o Minimum 6" for level toe slope
 - 1/7 x wall height for walls with toe slope
- Typical Geogrid spacing (S); S=2 x wall thickness
- Typical Geogrid lengths (L)
 - L = 60% wall height with level backfill
 - L = wall height with sloped backfill
- Geogrid Types
 - o VG 1.5 (4' W x 50' L) Bi-Directional (homeowner & small contractor friendly)
 - o VG 3 (6' W x 150' L) Uni-Directional
 - o VG 5 (6' W x 150' L) Uni-Directional
- Versa-Lok SRW wall design is based on the principal of "reinforced earth" and the geogrid reinforcing is
 what makes the wall stable. The Versa-Lok units themselves provide only a minor role structurally. The
 use of geogrid reinforcing will provide for a more stable and structurally sound wall regardless of height.
- Versa-Lok units are all split face and are available in the following configurations:
 - Square Foot Unit
 - Standard Units (tumbled and straight edge)
 - Mosaic System (Standard, Cobble & Accent units)

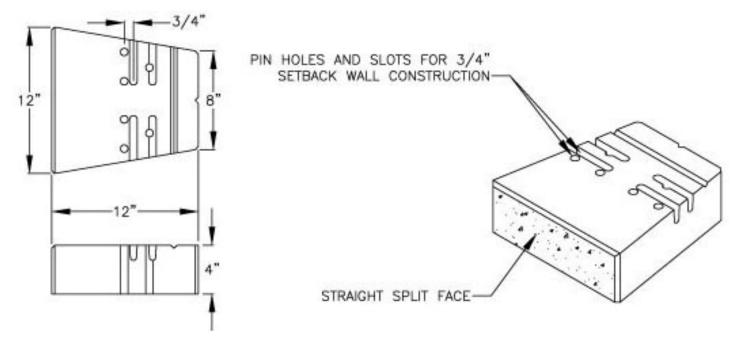


TYPICAL SECTION-REINFORCED RETAINING WALL

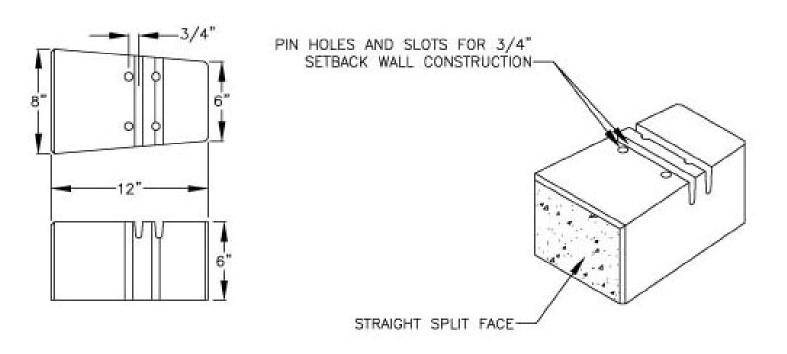
MOSAIC SCALE: NONE



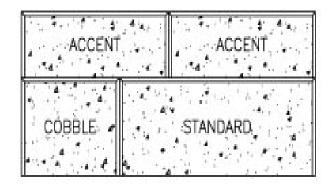
STANDARD UNIT

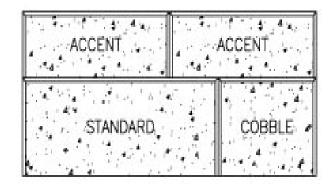


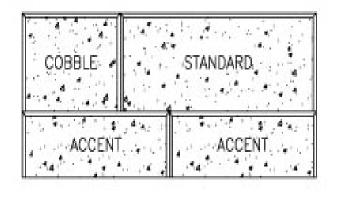
ACCENT UNIT

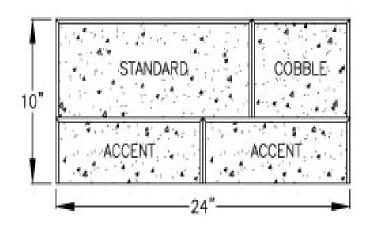


COBBLE UNIT









MOSAIC PANELS