



**MASON COUNTY
DEPARTMENT OF COMMUNITY DEVELOPMENT**

Mason County Bldg. III, 426 West Cedar Street
PO Box 186, Shelton, WA 98584

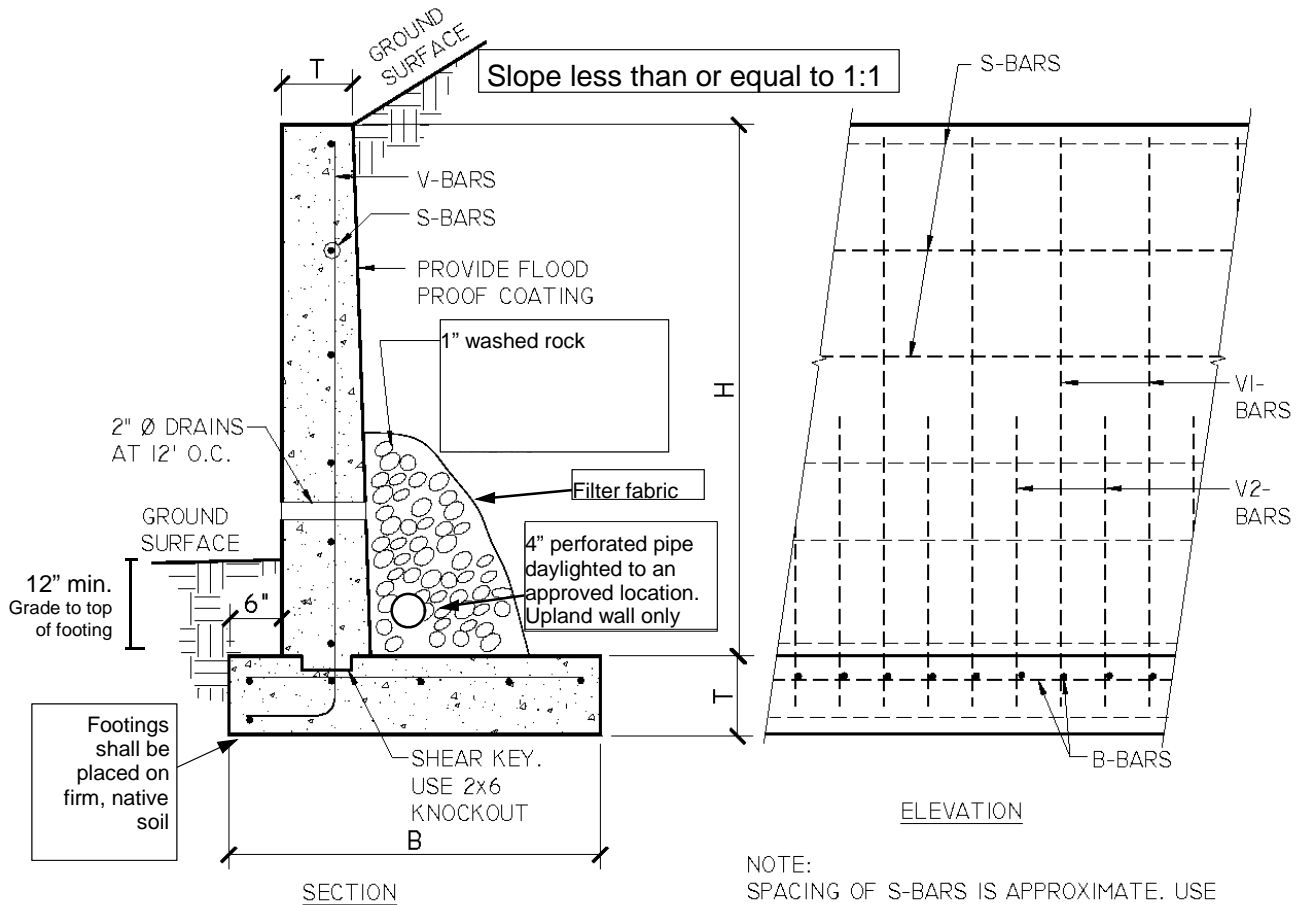
www.co.mason.wa.us

(360) 427-9670

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**CONCRETE RETAINING WALL and SHORELINE BULKHEAD
Prescriptive Design & Installation Standard**



H	B	T	VOL CONC	V-BARS		LENGTHS		B-BARS		S-BARS		REINFORCEMENT		
FT	FT-IN	IN	YDS ³ /FT	SIZE	SPACING	V1-BARS	V2-BARS	SIZE	SPACING	LENGTH	#	SIZE	SPACING	LBS PER FOOT
5	3-6	10	0.25	3/8"	10"	6'-4"	—	3/8"	10"	3'-2"	9	3/8"	12"	7.7
6	4-3	10	0.30	1/2"	10"	7'-4"	—	1/2"	10"	3'-10"	11	3/8"	12"	13.1
7	5-0	10	0.35	1/2"	7"	8'-4"	—	1/2"	7"	4'-8"	13	3/8"	12"	19.8
8	6-0	12	0.47	5/8"	9"	9'-8"	6'-0"	5/8"	9"	5'-8"	15	3/8"	12"	24.4

Concrete Retaining Wall and Shoreline Bulkhead

Height: Maximum Eight Feet

Upland concrete retaining walls installed in accordance with the prescriptive design shown on the reverse side need not be designed by an engineer unless the Mason County Building Dept. determines special conditions exist. Any retaining wall exceeding eight feet in height or varying from the prescriptive design requires an engineered design.

Location of Retaining Wall

Retaining walls must only be placed against stable slopes, consisting of firm, undisturbed soil. Drainage must be provided as shown with a 4" perforated drain pipe or 2" weep holes spaced not less than 12 feet on center. No surcharge load, such as a building or driveway, may be placed on the retaining wall or within a distance equal to the vertical height of the retaining wall unless an engineered design is prepared for the additional load.

Ground Surface Above Retaining Wall

The ground surface above the retaining wall shall be less than or equal to 1:1 (i.e. 1-foot vertical to 1-foot horizontal).

Retaining Wall Placement

The top of the footing for the retaining wall must be set a minimum of 12 inches below grade. The footing and wall dimensions shall not be less than outlined in the retaining wall chart. The footing shall be placed on firm, undisturbed earth.

Drainage

A minimum of 12 inches of washed granular drainage material shall be placed between the undisturbed soil and the retaining wall. The drainage materials must be composed of gravel with 1-inch particle sizes. Two-inch weep holes shall be located approximately 6-inches above grade, below the granular drainage material, spaced not less than 12-feet on center. At the base of the wall, a perforated drain pipe, with at least a four-inch diameter, shall be installed within the drainage materials. The drain pipe must drain to a point of discharge, approved by Mason County.

Inspections

Prior to the placement of concrete, the builder must schedule an inspection of the formwork and reinforcement placement for the retaining wall footing. During the first inspection, the inspector will verify the soil condition, footing dimensions, footing reinforcement, and footing placement as well as the provisions for drainage. At the next inspection, the inspector shall verify the wall dimensions and reinforcement prior to the wall pour. A final inspection must be performed once all work is complete.

To schedule an inspection call the Mason County 24-hour recorded inspection request line at (360)427-7262. Inspections can also be requested online at: www.co.mason.wa.us or by fax at (360) 427-7798.

When requesting an inspection please provide the following information:

- | | | |
|-------------------------------------|-----------------------|----------------------------------|
| 1) Name on permit | 2) type of inspection | 3) Permit number |
| 4) Site Address | 5) Type of permit | 6) Date inspection requested and |
| 7) Name and phone number of caller. | | |