

# SHORELOC® HAND-PLACED CONCRETE BLOCKS

THE

**FLEXIBLE** 

**HARD** 

**ARMOR** 

**THAT** 

**GROWS** 

**GREEN** 





SHORELOC® PROMOTES A MORE COMPLETE NATIVE REVEGETATION THAN TYPICAL REVETMENT SYSTEMS

SHORELOC® not only provides more immediate ground cover, independent testing also proves SHOREBLOCK® provides better long-term control through more reliable and denser materials.

## SHORELOC® is a flexible, interlocking matrix of concrete blocks of uniform size, shape and weight connected by a series of cables which pass longitudinally through preformed ducts in each block.

SHORELOC® is installed over site specific filter fabric on a prepared surface. SHORELOC® revetment systems combine the favorable aspects of lightweight blankets and meshes, such as porosity, flexibility, vegetation encouragement and habitat enhancement with nonerodible, self-weight and high tractive force resistance of a rigid lining.

SHORELOC® has proven to be an aesthetic and functional alternative to dumped stone rip-rap, gabions, structural concrete and other heavy-duty, durable erosion protection systems. SHORELOC® is easy to install, therefore, can dramatically reduce overall project costs. More specifically, when compared to other systems, life-cycle costs have been reduced because SHORELOC® is a permanent system and saves on subsequent maintenance expenses.

## Research and Design

Sampling and testing of SHORELOC® Hand-placed block is performed in accordance with ASTM C140 standard methods of sampling and testing concrete masonry units. Units meet these requirements at the

time of delivery to the job site. Durability is proven by field performance.

SHORELOC® is easy to install and environmentally friendly. SHORELOC® is often used as an alternative to cast-in-place concrete bulkheads, slope paving, gabions, soil cement or rock (rip-rap). SHORELOC® has excellent resistance to hydraulic shear and overtopping conditions. One of the environmental benefits of SHORELOC® is that vertical cores and spaces can be incorporated in the blocks throughout the system that allow vegetation to grow. Properly selected

plant species can almost completely cover the entire hard surface to blend in with the natural look of the project. During peak storm events, the SHORELOC® layer beneath the vegetation will protect the soil from erosion. The ability to support the ecosystem's habitat is a

major advantage of SHORELOC®.

#### SHORELOC® HAND-PLACED DESIGN ADVANTAGES

- Each block has an open area of 10-20% to allow for superior hydrostatic pressure relief and ecologically pleasing vegetative cover.
- One block style makes up the complete system.
- Interlocking block allows greater flexibility through the axes of articulation

   conforms better to ground contours and settlement.
- Tests have shown that the force needed to remove a block from a revegetated cover layer may be equal to 20 times the weight of the block.



SHORELOC® has been successfully tested by Colorado State University, in accordance with the hydraulic performance testing protocol established by the U.S. Federal Highway Administration.

(FHWA-RD-89-199).



## **Specifications**

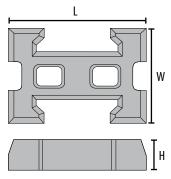
Small construction crews with a modest amount of equipment can install SHORELOC® Hand-placed

**concrete blocks.** The visibility of key system performance aspects are easy to monitor during installation, as opposed to cast-in-place concrete thickness, thickness and gradation of rip-rap. SHORELOC® is installed on top of a layer of geotextile fabric. The fabric acts as a filter to hold the protected soil in place while allowing water penetration. After the SHORELOC® installation is complete, the open cell voids or closed cell joints can be filled with granular material or soil. Unit to unit vertical offset should be limited to the value utilized in the design (typically one-half inch). If vegetation is required, hydraulic seeding or mulching provides a low cost and highly effective method of establishing commonly used grasses and plants. In applications subject to continually flowing water, solid units can be below the normal waterline or the voids of hollow units should be filled with gravel.

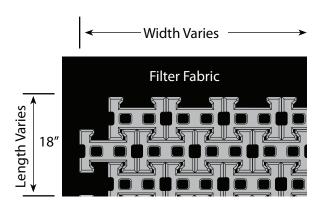
OPEN CELL											
BLOCK CLASS	DIMENSIONS IN.			BLOCK							
	Н	W	L	Unit Weight Lbs.	Weight Lbs./Sq. Ft.	UNIT COVERAGE SQ. FT.	OPEN AREA				
H-400 OC	4.00	12.00	16.00	30-35	30-35	1.0	25%				
H-500 OC	5.00	12.00	16.00	37-44	37-44	1.0	25%				
H-600 OC	6.00	12.00	16.00	45-53	45-53	1.0	25%				

CLOSED CELL											
BLOCK CLASS	DIMENSIONS IN.			BLOCK							
	Н	W	L	Unit Weight Lbs.	Weight Lbs./Sq. Ft.	UNIT COVERAGE SQ. FT.	OPEN AREA				
H-400 CC	4.00	12.00	16.00	38-45	36-42	1.0	10%				
H-500 CC	5.00	12.00	16.00	46-55	45-53	1.0	10%				
H-600 CC	6.00	12.00	16.00	56-66	54-64	1.0	10%				

Note: Additional block styles may be available in some areas. Check with your local SHORETEC® representative for product availability.



SHORELOC® Concrete unit weight 130-150 lbs./CF, minimum compression strength 4,000 PSI, Maximum Absorption 7% and dimensional tolerance +1/8".



Overall, woven monofilaments are preferred over nonwoven geotextiles because of their high hydraulic conductivity and durability. The soils particle size (among other factors) will ultimately determine the fabric selection.

### Features & Benefits

#### **DURABILITY**

SHORELOC® will not suffer loss of function due to chemical degradation, UV degradation, biological degradation, vandalism or aging throughout its design life.

#### **AFFORDABILITY**

The SHORELOC® System is engineered to ensure comprehensive project design and high quality components at 20-50% lower than alternative erosion control methods.

#### **ACCEPTABILITY**

SHORELOC® becomes part of the landscape and the local ecosystem. Its construction is free of hazardous projections thus offering opportunities for recreation as native grasses are quick to germinate in the soil-filled cells.

#### **STABILITY**

SHORELOC® has the necessary strength characteristics to resist displacement due to imposed tractive forces and wave loads and the necessary strength to resist both lateral displacement and vertical uplift.





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SHORETEC®, a Premier Concrete Products, Inc. company, may change product specifications without notice. The SHORETEC® system is suitable for use in the applications described in our literature and on our website, provided proper installation and engineering principles are followed. Professional engineering should be consulted before installation of SHORETEC® units to assure proper design. ALL EXPRESSED OR IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. Printed in the U.S.A. SHORETEC® is a registered trademark of Premier Concrete Products, Inc.