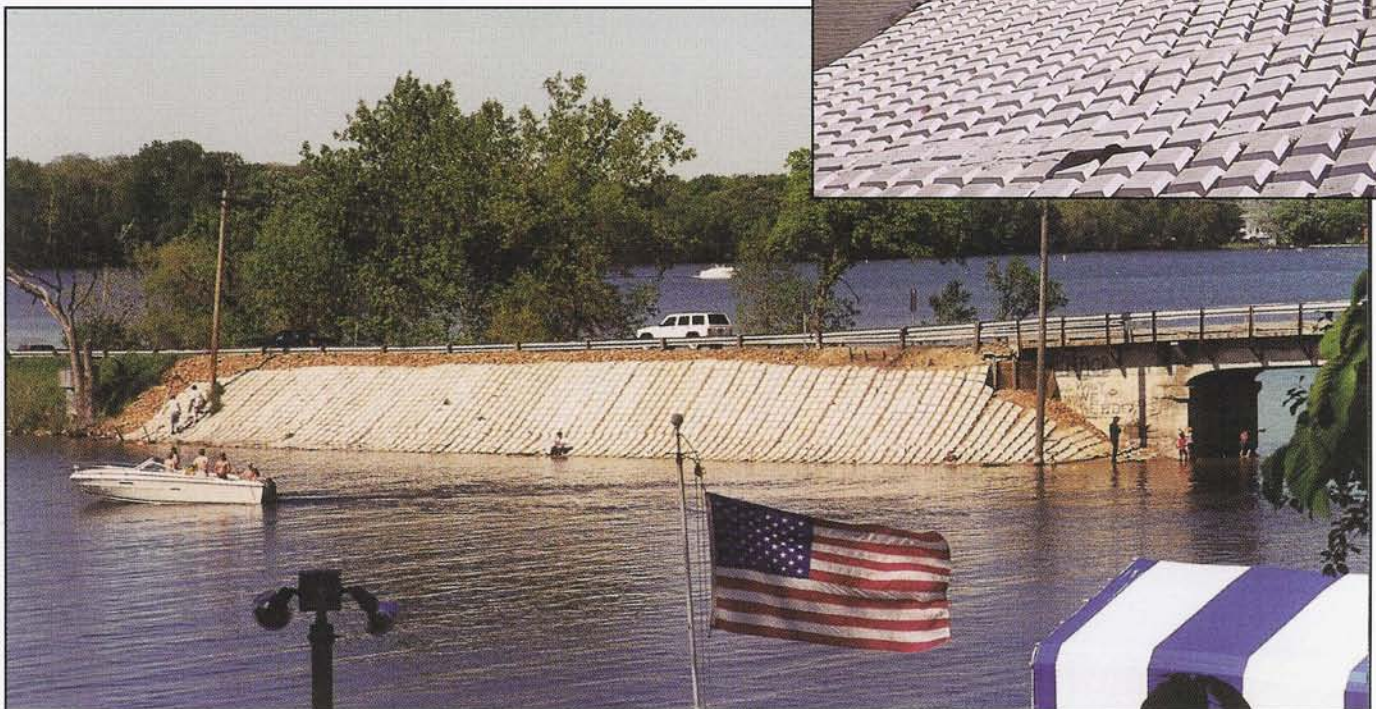
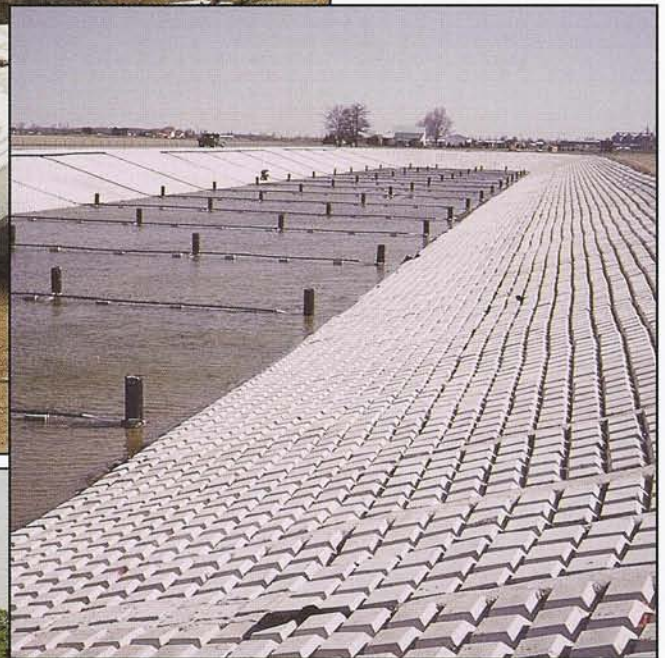


# Cable Concrete<sup>®</sup>

International Erosion Control Systems L.L.C.



*Articulating  
Concrete  
Block*



## CABLE CONCRETE

Cable Concrete is the premier precast articulating concrete block mat system. It consists of pyramidal shaped concrete blocks interwoven with stainless steel cable, underlaid with a durable geotextile fabric.

These characteristics allow for unsurpassed flexibility and ease of installation. Add cable running both lengthwise and widthwise, offering loops on all sides for clamping to adjacent mats, and a durable erosion control system is created that can protect any size or shape area.

Cable Concrete provides the Owner with a cost effective solution which allows water permeability, vegetation, contour flexibility, subsoil confinement and long term control of erosion.



## CABLE CONCRETE DESIGN FEATURES

- \* Plant manufactured in needed mat configuration and delivered to the jobsite for fast and economical installation.
- \* 4000 psi minimum concrete.
- \* Air entrained concrete for durability and freeze-thaw fracture resistance.
- \* Type 302 stainless steel cable.
- \* Cables looped on all mat edges to provide for mat to mat connection and optional anchoring.
- \* Geotextile fabric attached to mat at plant.
- \* 20% to 40% open area to provide water permeability and vegetational growth.
- \* Pyramidal block shape allows for articulation ranging from 20° to 60°, depending upon block size.
- \* Complete engineering analysis, with flume testing, has been conducted by the Department of Civil and Environmental Engineering, University of Windsor, Ontario, Canada. Cable Concrete is manufactured to exacting specifications, which exceed both federal and state D.O.T. requirements.

## CABLE CONCRETE FACTS

\* **Stability:** Hydraulic conditions and flow velocities determine the block size and layout design needed to stabilize the erosive forces. The Cable Concrete mats, with the interwoven cable and mat to mat clamping, become one homogeneous control system. Cables are precast through each block, assuring both lateral and vertical stability.

\* **Flexibility:** The pyramidal shape of the blocks provides for large angular variability. This flexibility allows the system to adapt to abrupt changes in grade contours.

\* **Permeability:** The open area of the mats allows for sufficient transfer of water between the subgrade and the system surface. The attached geotextile fabric allows for relief of hydrostatic pressure without permitting migration of subgrade fines.

\* **Vegetation:** Native and exotic grasses, broadleaf plants and shrubs will grow in the open area of the mat if desired. Its smooth surface allows for easy access by pedestrians and vehicular traffic, and affords easy maintenance of vegetation. Plants' root systems actually enhance the stability of the system over the years. Because the cables are precast into the system, blocks can be removed for larger plantings without compromising the integrity of the system.

\* **Reusable:** The cables of the mat allow for use as a temporary erosion control material, for construction traffic or emergency situations. The mats can then be lifted for more permanent placement elsewhere or put into storage for the next jobsite.

## INSTALLATION

The Cable Concrete erosion control system offers quick installation by the Contractor or Owner. Mats are delivered to the jobsite by either flatbed or boomtruck. When possible, the 4 foot by 16 foot mats are delivered for placement by installer directly from truck to prepared ground, minimizing handling.



The mats are lifted and positioned with a lift bar supplied by the manufacturer. With the geotextile fabric already attached, the mats are normally placed in sequence from the downstream end of the job to the upstream end. This shingling of the fabric eliminates the potential for undermining of the completed system.



Anchoring of the completed system may be advisable, due to steep slopes or high water velocities. This anchoring is usually done at the upstream edges and in areas where excessive turbulence may occur. While all engineering data used to design a project is based on unanchored mats, anchoring offers an additional margin of safety and is often recommended.



Once placed, clamped and anchored, the Cable Concrete erosion control system can receive a variety of surface treatments. Washed rock can be dropped between the blocks for a clean, unvegetated look. Black dirt can be spread between the blocks and the area seeded for a fully vegetated, easily mowed surface. Or it can be left unfinished, allowing sediment and natural growth to determine final appearance.



## CABLE CONCRETE APPLICATIONS

- \* Lakeshore Protection.
- \* Riverbank Protection.
- \* Landfill Drainage Systems.
- \* Stormwater Pipe and Box Culvert Outlets.
- \* Boat Ramps / Access Roads / Fire Lanes / Low Water Crossings.
- \* Channel Lining.
- \* Spillways.
- \* Dike and Dam Overflow Protection.
- \* Bridge Pier and Abutment Scour Protection.
- \* Temporary and Emergency Erosion Control.

## CABLE CONCRETE BENEFITS

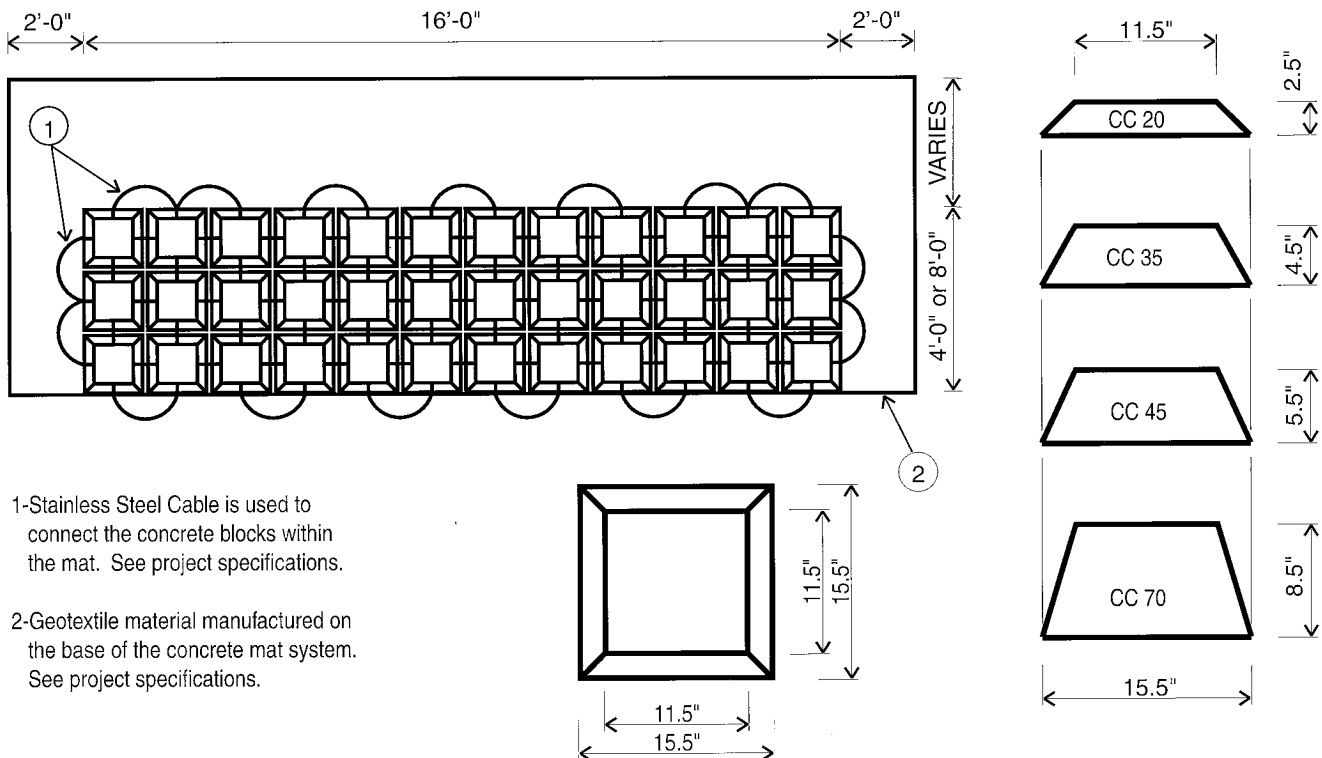
- \* Cost-effective solution to severe erosion needs.
- \* Precast mats with preattached geotextile speed installation and quality of finished project.
- \* Easily maintained when vegetated or rock filled.
- \* Highly resistant to ice damage and freeze-thaw cycle.
- \* Allows safe pedestrian access.
- \* Flexible mats can conform to existing ground contours, minimizing site preparation.
- \* Mats can be removed and reused as future site use or hydrologic data changes.
- \* Local precaster manufactures Cable Concrete to exacting specifications, that exceed both federal and state D.O.T. material requirements and assures a quality product.

*For further information, please contact:*

# CABLE CONCRETE BLOCK SPECIFICATIONS

		CC 20 20 lbs./s.f.		CC 35 35 lbs./s.f.		CC 45 45 lbs./s.f.		CC 70 70 lbs./s.f.	
MAT	AREA	64 s.f.	128 s.f.	64 s.f.	128 s.f.	64 s.f.	128 s.f.	64 s.f.	128 s.f.
	WEIGHT	1280 lbs.	2560 lbs.	2240 lbs.	4480 lbs.	2880 lbs.	5760 lbs.	4480 lbs.	8960 lbs.
	BLOCKS/MAT	36	72	36	72	36	72	36	72
BLOCKS	SPACING@BASE	0.5 in.		0.5 in.		0.5 in.		0.5 in.	
	SPACING@TOP	4.5 in.		4.5 in.		4.5 in.		4.5 in.	
	WEIGHT	35.6 lbs.		62.2 lbs.		80.0 lbs.		124.4 lbs.	
CABLE		LENGTH	WIDTH	LENGTH	WIDTH	LENGTH	WIDTH	LENGTH	WIDTH
	DIAMETER	1/8 in.	1/8 in.	5/32 in.	1/8 in.	5/32 in.	1/8 in.	3/16 in.	5/32 in.
	CONSTRUCTION	1 x 19	1 x 19	1 x 19	1 x 19	1 x 19	1 x 19	1 x 19	1 x 19
	BREAKINGSTRENGTH	2100 lbs.	2100 lbs.	3300 lbs.	2100 lbs.	3300 lbs.	2100 lbs.	4700 lbs.	3300 lbs.

## CABLE CONCRETE MAT DESIGN



1-Stainless Steel Cable is used to connect the concrete blocks within the mat. See project specifications.

2-Geotextile material manufactured on the base of the concrete mat system. See project specifications.