

MAY 2011 MEETING

Wednesday, June 8, 2011 (1.0 PDH)

TECHNICAL PROGRAM

Shoretec Revetment Methods

Speaker: Patrick Bonorden, Regional Engineer, Premier Concrete Products, Inc., Houston, TX, Tel. No. (713) 641-2727

Patrick Bonorden is currently the Regional Engineer at Premier Concrete Products, Inc. in Houston, TX. He has earned a Civil Engineering Degree from the University of Texas. His 20+ years of experience includes design for TxDOT and private engineering firms. He has also worked in Construction Management and as a Technical Advisor.

PRESENTATION SUMMARY

To an audience of about 45 attendees at the HESS Club, Mr. Bonorden presented information on Shoretec erosion control products. The most commonly installed product produced by Shoretec is "ShoreBlock", a bi-directional articulated erosion control revetment system.

Mr. Bonorden described the ShoreBlock system as an articulated concrete block erosion control revetment system. He stated that the ShoreBlock system uses a bi-directional corrosion resistant synthetic cable system to create large articulated concrete block systems. The interlocked block systems are referred to as "mattresses". The articulated nature of the mattresses implies that the system is able to conform to the shape of the grade during installation and to changes in the subgrade while remaining interlocked and without loss of system integrity. The interlocking concrete blocks are also designed allow for expansion and contraction. The special block shapes also provide for additional interlocking restraint. The systems may be hand placed or installed by crane as large pre-assembled mattresses. Some of the key points presented were:



- The mattress sizes may range up to 8 feet wide by 40 long.
- The blocks are a variety of depths and are designed for the specific needs of the site with 4" to 6" blocks being the most common.
- A geotextile underlayment is critical to the success of the performance of the system.
- The large mattresses speed and simplify installation.
- The shape of the interlocking concrete blocks allows for re-vegetation.
- The concrete block is not designed for traffic specific use but handles traffic easily which allows service and maintenance traffic to use the surface without harm
- The life span of the installed product is currently projected to average 25-40 years.
- Cost competitive with other systems. More expensive than rip rap but a superior product.

A variety of excellent slides were shown and much technical data and handouts were available for the attendees. Mr. Bonorden stressed that although Premier Concrete Products does not provide installation services, they do assist with the system design and they do provide the specialty spreader bars and erection components needed for quick and successful mattress installation.