User Instructions for Use of Specifications:

SECTION 02279 - CELLULAR CONCRETE MATTRESSES FOR EROSION CONTROL

GEOTEXTILE FABRIC: As with any revetment system, the geotextile fabric is a critical element for long-term performance. Care should be taken in the selection of the geotextile fabric for the hydraulic and soil conditions for the specific project site, and all geotextile requirements should be included in a separate section in the contract specifications under GEOTEXTILES USED AS FILTERS, as referred to in the attached specification - CELLULAR CONCRETE MATTRESSES FOR EROSION CONTROL. Assistance in selection of the proper geotextile may be obtained from most geotextile distributors and/or manufacturers.

BLOCK SIZE/WEIGHT: Block weight requirements can and will vary depending on the geometry and hydraulic conditions of the specific project. The user must determine the required block size and weight to be specified under 2.2.1 Design Requirements and also specify Open or Closed Cell configuration under 2.2 of this specification. For assistance in determining the appropriate SHOREBLOCK® product for specific hydraulic design conditions, contact your local SHOREBLOCK® representative. It should be noted that the methods used by SHORETEC® in designing channel flow applications using SHOREBLOCK® products are based on data obtained from testing under controlled flow conditions per FHWA-RD-89-199 Hydraulic Stability of Articulated Concrete Block Revetment Systems During Over-topping Flow and subsequent design methodology developed by Paul E. Clopper, P.E. and published in the article, "Protecting Embankment Dams with Concrete Block Systems", HydroReview, April 1991. The hydraulic characteristics (hydraulic stability, Manning's N, etc.) of products other than SHOREBLOCK® can vary significantly for the same block thickness and weight. SHOREBLOCK® has demonstrated superior hydraulic performance under these testing conditions. A copy of this test report, as well as, the HydroReview, April 1991, article can be obtained from your local SHOREBLOCK® representative. Care should be taken to evaluate the ability of alternative products to perform under the project specific hydraulic conditions with the same weight product specified under 2.2.1 Design Requirements. Submittal of test results per FHWA-RD-89-199 is required by the attached specification for this purpose.

ANCHORING: Anchoring requirements as outlined in 2.5 EARTH ANCHORS should be evaluated and modified as necessary for the specific project. Steep slopes and/or severed flow conditions may warrant additional anchors.

SURFACE TREATMENT: The surface treatment outlined in 3.3.1 and 3.3.2 is not critical for product performance. The user, depending on the application, may choose to eliminate these sections from the specification for specific projects for economic or practical reasons. Under most conditions, the revetment system will eventually silt in and vegetate on its own. If a surface treatment is used, the specific requirements should be included in a separate section in the contract specifications under TURF, as referred to in the attached specification.

GENERAL: As with any specification, the user should review the entire specification for applicability to each specific project. Our representatives are always available to answer any questions you may have and to provide technical assistance when needed.

SHOP DRAWINGS: Section 1.4.1 is optional. User may want to include this section for projects that have complex geometries and/or incorporated structures such as pipe penetrations, pilings, etc.