FLOOD CONTROL

BACKGROUND
In September of 2011, Sacramento Municipal Utility District (SMUD) began construction on its East Campus Operations Center. This site was designed to produce as much power as it consumes over the course of a year, making it a net-zero energy site. The facility is pursuing Leadership in Energy and Environmental Design (LEED®) Platinum certification, the highest distinction issued by the U.S. Green Building Council. It features a five-story office building, fuel and general storage areas, maintenance space, shops and felt parking.

PROJECT SCOPE
For more than 60 years SMUD has been delivering power to the Sacramento region, serving a population of 1.4 million people. In September 2011, the company broke ground on its East Campus Operations Center, which includes a five-story office building, fuel/ general storage areas, maintenance space, shops and felt parking. Before construction of the campus could begin, a flood wall needed to be constructed due to the facility being located within a flood risk area. SMUD and the project’s engineers, Sacramento, CA based Bohler Engineering, wanted a solution that was non-corrosive and would contribute to the overall goals of the project and ultimately selected CMI’s UltraComposite™ UC 95 profile sheet piling.

PERFORMANCE
CMI’s UltraComposite™ UC 95 profile sheet piling was chosen for its high design strength, durability, cost and sustainability. By using UC 95, CMI was able to reduce both product and installation costs. CMI’s product also provides a longer life-cycle and lower environmental impact in manufacturing and shipping. UltraComposite™ sheet piling is also pultruded at an ISO-certified manufacturing facility to ensure consistent high quality. Crane Materials International (CMI) is committed to developing products that are environmentally responsible, while focusing on protecting and sustaining the environment.

CONSTRUCTION
The project was being designed and constructed to meet stringent environmental certification objectives and requirements, the products used needed to meet high environmental standards. CMI’s UltraComposite™ sheet piling was one of the few products able to meet these needs.

A local contractor, Blue Iron, Inc. was contracted for project which utilized 30 feet long sheets. Blue Iron used a medium weight excavator with a vibratory hammer attached for the driving. Soil conditions were extremely difficult and rocky. However, because of the UC 95’s durability and strength, Blue Iron was able to drive the sheets to maximum depth of 17 feet leaving the 13’ exposed for flood protection. Blue Iron averaged roughly 100 feet per day.

WALL SPECIFICATION
UC 95
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Crane Materials International (CMI) manufactures innovative products which provide value added sustainable solutions for the construction and engineering communities.

Physical properties are defined by ASTM testing standards, The Aluminum Association Design Manual, The Naval Facilities Design Manual DM 7.2, and The US Army Corps of Engineers General Design Guide: PVC Sheet Pile and/or standard engineering practice. The values shown are nominal and may vary. The information found in this document is believed to be true and accurate. No warranties of any kind are made as to the suitability of any CMI product for particular applications or the results obtained there from. Crane Materials International is a Crane Building Products® company. CRANE MATERIALS INTERNATIONAL products are covered by one or more of the following U.S. Patents and International Patents: 4,674,921; 4,690,588; 5,292,208; 5,145,287; 6,000,883; 6,033,155; 6,053,666; D420,154; 6,575,667; 7,059,807; 7,056,066; 7,025,539; 7,393,482; 5,503,503; 5,803,672; 8,250,271; 1,294,064; 1,931,237 and other patents pending. ©2005-2015 Crane Materials International. All Rights Reserved. CMI_1-15 250