

HOLLY BEACH

Cameron Parish, Louisiana



ACB SHORELINE PROTECTION

PROJECT TEAM

OWNER:

State of Louisiana

ENGINEER:

Louisiana Dept. of Transportation

SUPPLIER:

Premier Concrete Products, Inc.

TECHNICAL DESCRIPTION:

Product: Shoreblock SD 900
Block Type: Open Cell
Square Feet: 465,000
Thickness: 9"
Installation Date: 1984



GULF SIDE AFTER HURRICANE IKE (2008)



LAND SIDE AFTER HURRICANE IKE (2008)

Project Description:

The Holly Beach project site is located in Cameron Parish, in extreme southwestern Louisiana. The Chenier Ridge that supports LA Hwy 82 is the last line of defense protecting thousands of acres of intermediate marsh habitat in the Sabine National Wildlife Refuge from the Gulf of Mexico.

LA Hwy 82, the only east-west road in the area, also serves as the only Hurricane evacuation route for local communities; providing residents of Johnson's Bayou, Ocean View Beach, Constance Beach, and Holly Beach egress west to east, and then northward on LA 27.

Problem:

Shoreline erosion in this area is caused by the Mississippi River channelization and Calcasieu Ship Channel jetties, which limits sediment transport availability, and is also accelerated by frequent storm events. Prior to the 1984 and 1988 ACB armoring projects, shoreline erosion in the project area was occurring at rate of 24 ft. per year.

Solution:

Following several unsuccessful shoreline armoring projects in 1970 and 1977, the Louisiana Department of Transportation utilized SD 900 OC ACB mattresses on two subsequent projects completed in 1984 and 1988. Since completion of these two Gulf-Side **armoring** projects, the site has experienced numerous tropical storms and hurricanes during the last 20-year period, including a direct hit from Hurricane Rita in 2005 and significant effects from Hurricane Ike in 2008. Although the highway has sustained repeated damage on the **un-armored** landside during overtopping events, the **ShoreBlock**® armored Gulf side has performed exceptionally, preventing any significant damage to the armored (Gulf) side of Hwy 82¹.

CASE STUDY