

Bomanite Pervious Concrete Systems

PROJECT PROFILE

JEAN LAFITTE AUDITORIUM



PROJECT INFORMATION

Finding the exact sequence of product, preparation and installation is often driven by the building site's particular challenges. Such was the case for the Town of Jean Lafitte, Louisiana. In September 2008, Hurricane Ike destroyed the town auditorium while flooding thousands of homes and businesses in Jefferson Parish. The existing auditorium's central location adjacent to Lafitte Library and both the elementary and middle schools, was critical to its success as a community landmark. The Town was determined to rebuild and resolve site issues related to the flood plain.

The Federal Emergency Management Agency (FEMA), funded the new auditorium, however they required that the site be raised out of the flood plain before new construction could begin. Filled with more than nine feet of a local soil known as River Sand, the site was raised and a pile-supported building was designed for the new 18,000 sf auditorium. Elevating the site resulted in some drainage complications along the parking lot where a steep embankment transitions down to a ball field at the original grade.

"The slope needed to be stabilized beyond the parking lot because of the steep grade and concerns about erosion," says Robby Oswald, owner of Bomanite of New Orleans, the contractor hired to resolve the issue. Oswald describes the hill as descending about 7 feet in just 12 feet of distance and with rain runoff in Louisiana's damp climate, the hill side would likely deteriorate quickly. Once it did it would be potentially dangerous in a highly-trafficked area between the schools and library.

"The Grasscrete Slope Protection System was the ideal solution because it allows grass or other vegetation to grow within the voids. In this case it was covered with sod," continues Oswald, who along with other Bomanite Licensees across the country have exclusive rights to this innovative concrete system that has been in development since the mid-1970's. Beyond the ability to be planted naturally, a key to Grasscrete's success is its overall strength and durability. The Grasscrete molded-pulp former was used to allow cast-in-place concrete to be monolithically placed. When the forms are continuously reinforced with #4 rebar, the result is a compressive strength that can range from 4,500 psi to 12,000 psi depending on the specific mix used. That strength is identical to other flatwork concrete. Another important part of concrete's strength is in the thickness of the slab. Grasscrete formers are designed for a 5 ½ inch thick concrete pan.

As a Bomanite Licensed Contractor, Oswald has used Grasscrete on many other applications and notes that it is especially useful in situations where the client wants a vegetated surface but municipal codes require access for emergency vehicles. He adds that overflow and industrial parking lots where surface drainage can be beneficial, as well as roadway shoulders and embankments are all opportunities for engineers to consider Grasscrete.

PROJECT DETAILS

LOCATION

Jean LaFitte, LA

CLIENT

Town of Jean LaFitte

INSTALL COMPLETED

2016

BOMANITE SYSTEMS

Grasscrete Slope Protection System

BOMANITE LICENSED CONTRACTOR

Bomanite of New Orleans, Inc.

P. O. Box 1427

Metairie, LA 70004

TEL: 504-467-5070

FAX: 504-467-5077

Website: www.bomaniteneworleans.com

Email: roswald@bomaniteneworleans.com

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Jean LaFitte Auditorium - Grasscrete Molded Pulp Former Installation



Jean LaFitte Auditorium - Grasscrete Concrete pour Installation



Jean LaFitte Auditorium - Grasscrete Concrete Pour Installation



Jean LaFitte Auditorium - Grasscrete Installation Voids Removed