

Orange County Club Partners with Modular Wetlands

Staying Ahead of the Curve in Environmentally Friendly Design

The Situation

Orange County, CA – The 6,000 square-foot Ember Café & Music club boasts sophistication both inside and out. By combining cutting edge sound systems inside with an advanced stormwater filtration system along its exterior, the club is setting a new standard for entertainment and environmental awareness. “The environmentally sensitive times and region, steered us toward conscientious decision making regarding the construction and future impact of our site,” said Steve Norman, Director of Operations, Ember Café.

The Challenge

Extremely limited space for this project posed the biggest challenge. The system was to be situated in the back corner of a parking lot, where a challenge already existed in maximizing the area for patron parking purposes.

The owners of Ember Café quickly realized that there are not many companies and/or products that are environmentally green and compact in size.

The Solution

The owners consulted Nick Gambino of Gambino Engineering, the project’s civil engineer, for advice. In response, the engineer recommended that they look at a particular system that had been getting a lot of buzz in recent months, Modular Wetlands Systems, Inc.



“When we saw this system, we knew we found what we were looking for,” said Bill Taormina, CEO and Founder of Ember Café. “We always aim to stay ahead of the curve on everything. The multiple treatment stages allows for the water to be treated at a standard-exceeding level, which directly blends with our main goals. The aesthetic aspect of the system was a significant benefit as well, since we were creating such a beautiful interior, we wanted the exterior to represent the pleasing environment within.”

The Modular Wetlands System is constructed of pre-cast concrete and comes with a built-in traffic rated grate inlet treating over 121 gallons of water per minute. The drainage area of the Ember Café project is approximately 1 acre. With current regulations

About Modular Wetlands

A new and revolutionizing product from Bio Clean is the Modular Wetland System (MWS). This system is the industry’s first hybrid stormwater treatment system. While most systems utilize a single treatment method, the MWS incorporates a combination of many. It removes trash, floatables, oil and grease, sediments, heavy metals, nutrients and bacteria. Perfect for GREEN design and sustainable projects. For more information on MWS visit www.modularwetlands.com.



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and sizing standards in Orange County, a full size system can treat up to 1.4 acres assuming a .95 impervious coefficient.

"The company's support staff was spectacular. They were very knowledgeable about their product as well as local stormwater regulations. The company's stormwater consultants assisted with sizing, design, and the approval process. It was great working with a company that not only had a great product but also great service," said Gambino.

How Modular Wetlands Works

The treatment-train philosophy: Before runoff enters the sub surface flow wetland treatment cell it is moved through three pre-treatment stages: screening, sedimentation cell, and Bio-MediaGreen.

- **Screening:** The runoff is first screened to remove trash and debris.
- **Sedimentation Cell:** The pretreated water is then directed to a sedimentation cell to allow large sediments and total suspended solids (TSS) to settle out.
- **BioMediaGreen:** The runoff is then directed through an innovative perimeter filter, which contains a revolutionary filter media called BioMediaGreen. This media physically, chemically, and biologically removes a wide array of pollutants including dissolved metals and hydrocarbons.
- **Sub Surface flow wetland cell:** Only after being filtered by the three pre-treatment stages does the runoff enter the sub surface flow wetland treatment cell.

This treatment-train philosophy has proven to be the most effective and feasible way in dealing with stormwater and wastewater. "It's like a miniature waste water treatment plant; each stage of treatment protects the next stage from prematurely clogging," said Zach Kent, Stormwater Consultant, Modular Wetlands, Inc.

The Results

The Modular Wetlands System was installed in the spring of 2008. The full-size system is only 22 feet long and 5 feet wide so it satisfied the limited size constraints.

Since this project was built in an area with no existing storm drains, the company is using a sump and two large pumps downstream of the Modular Wetland System to pump out and discharge the clean water.

"Considering the constraints of the project, we were very satisfied with the process and the results," said Gambino.

About Ember Café

Inside this richly designed 6000 square foot club the crowd dances and mingles in what is truly a world class environment. This two story "Super Club" has truly delivered on its promise to bring sophisticated night life to Orange County. With a NASA like sound and video system, huge tapestry decorated VIP booths, a renowned gourmet chef, a stunningly beautiful café and restaurant, and multiple private party rooms, Ember Café and Music Club gives you the feeling that you're on vacation in Miami or Manhattan.



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