

*Innovation #11: Marinas That Resourcefully Combine an Effective Mix of Products*



A Unifloat wave attenuator protects Unideck slips inside. Together with the custom designed roof system, the marina successfully blends three Bellingham Marine products.

*Willow Berm  
Marina  
Isleton,  
California*

**Bellingham**  
**MARINE**

*Innovative harbor  
and waterfront solutions*

1 A durable Unifloat wave attenuator protects against debris moving down river and provides side-tie moorage for visitors and larger craft.

2 The protective end and side walls of the covered slips can be seen in this view of a sailboat moorage. These slips provide firebreaks for added protection.

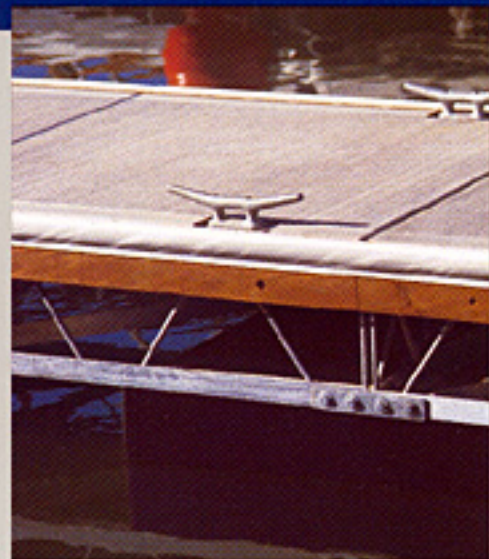
3 The computer-designed steel truss structure of Unideck is highlighted in this view. The cleat base is an integral part of the structure. The cast concrete decking provides a stable, permanent surface.



1



2



3

### **A Practical Blend of Bellingham Marine Dock and Roof Components:**

#### **Privately Owned & Publicly Financed:**

#### **Specially Designed and Engineered Roofing:**

#### **Number of Slips:**

#### **Owner:**

Willow Berm employs Unideck docks with a custom-engineered roof system. The wave attenuator and fuel dock are Unifloat for ultimate protection and durability.

The project was financed by a loan from the State of California Department of Boating and Waterways using funds from marine fuel sales.

The custom end and side walls work well to keep out sun, wind, rain and the dust from nearby agriculture, but resulted in additional side loads on the support structure. The computer-designed structure is engineered to withstand additional loads while maintaining the open architecture and affordability of the Bellingham Marine roof system.

94 slips between 50 and 80 feet.

Horst Hanf

Bay Area boaters seeking smoother, less windy waters love the Sacramento River Delta. Willow Berm Marina, 40 miles south of Sacramento and an easy drive from San Francisco, offers a full-amenity Unideck moorage to Delta boaters.

During the design phase, Bellingham Marine engineers studied the wave, wind and debris conditions at the site and recommended a Unifloat wave attenuator for enhanced ruggedness and durability. A Unifloat fuel dock was also installed. All docks are stoutly anchored by 10- and 12-inch driven steel pilings. The covered moorage includes uncovered sailboat slips at intervals to create firebreaks in the Bellingham Marine roof system.

Tenant amenities include locker boxes with telephone, TV, hose bibs and metered electricity. Manual alarms are available to alert the harbormaster in case of emergency. Docksides pumpouts are provided at each slip and pumpout service is provided to tenants and guests. Shoreside barbecue areas eliminate the fire hazard of docksides outdoor cooking.

Willow Berm's Unideck docks are perfectly suited to the Delta. The marina successfully mixes Bellingham Marine dock, roof, and wave attenuator systems in another example of site-specific engineering and design.