

Rybovich Marina, Florida

waterfront & marinas



The Rybovich Marina Redevelopment project in West Palm Beach will transform the waterfront in the City. The marina will include 147 wet slips to accommodate megayachts. Coastal Systems designed the following marine works for the project:

- 3,400 linear feet of steel sheet piling bulkhead
- 125,000 cubic yards of dredging
- Dredged material placement areas near Little Munyon Island
- Concrete piers for the 660-ton marine travelift

Coastal Systems performed a site-specific coastal engineering study to provide design loads for the concrete floating docks proposed for the marina. Numerical modeling utilizing the MIKE-21 software was conducted to evaluate wave attenuation for the marina. Tidal currents were also simulated with the MIKE-21 hydrodynamic model to evaluate flushing and to provide design criteria for vessel navigation. The design effort required a multi-disciplined team coordinating between the marine works contractor, floating dock manufacturer, upland civil engineers, architects and specialty boatyard consultants.

As part of the marina environmental permitting, Coastal Systems collaborated with the marina owner to develop site plans that would avoid and minimize impacts to seagrass. A site alternatives analysis was prepared and detailed marine resource and hydrographic surveys were conducted within the existing and proposed marina basin areas, as well as along the access corridors. Coastal Systems coordinated with marina and regulatory agencies to design mitigation and habitat restoration for the unavoidable impacts using the UMAM. Mitigation included seagrass habitat restoration offsite through the use of clean dredged material from the Project expansion area to fill a 2.9-acre dredge hole, as well as protection of seagrass habitat adjacent and out-of-kind native wetland/upland habitat restoration at Little Munyon Island.

Construction administration services were provided for the marine works.



Marine Travelift Piers



Bulkhead Improvements



Dredging

Client:	Huizenga Holdings
Location:	West Palm Beach, Florida
Date of Completion:	2009 (Phase I)
Construction Cost:	\$ 6,200,000 (Waterfront Phase I)

