

GREEN TECHNOLOGY

*drives design of Port Covington
to protect Chesapeake Bay*



Port Covington Maritime Center is the newest and most modern boat repair facility on Chesapeake Bay. Tidewater Yacht Service is the boatyard's anchor tenant.

BY ROBERT WILKES

Bob Brandon started in the boatyard business at the age of 14. In the forty-plus years that have past, Brandon has spent all of his working life in the boatyard industry, where he developed a healthy respect for the environment, and especially for the health of Chesapeake Bay. “If we pollute the bay and it dies,” said Brandon, “there won’t be any boaters. We’ll all be out of business.”

In 2004, Brandon got an opportunity to put his environmental beliefs to the test. He was moving his boatyard to a new location on the Bay, providing him with an opportunity to put his ideas for an environmentally-designed boatyard and marina into action.

Current status

Brandon owns and manages the newest and most modern boat repair facility on Chesapeake Bay: Port Covington Maritime Center. Its major tenant is Tidewater Yacht Service, a major repair and service center for large boats. In fact, Port Covington is one of the only large-boat, full-service boatyards in Chesapeake Bay.

Anchored by a two story, 6,000 sq. ft. office and retail building connected to a 9,000 sq. ft. repair building, the repair facility sports 30-foot high doors and accommodates vessels up to 55 feet long. A paved and lighted outdoor boat storage area offers year-round water and electricity. Haulouts are managed with 35- and 75-ton Travelifts working at two haulout slips and a 20-ton fork-

lift is available for outdoor rack storage for boats up to 40 feet.

For 20 years at its prior location, Brandon's boatyard business was on a five-acre site in Baltimore's famous Inner Harbor. His 2005 move to a new location was prompted by interest from a large corporate neighbor (Domino Sugar) that wanted his Inner Harbor site for refinery expansion. Brandon sold the Inner Harbor site in 2005, giving him a chance to rebuild on a larger eight-acre site and to design a less cramped, more efficient facility—with a rigorous approach to pollution control—from the ground up.

Port Covington isn't far from its original location and still convenient to the Inner Harbor. It is adjacent to Interstate 95, only a mile west of Fort McHenry, whose broad stripes and bright stars were bombarded by the British fleet in September 1814. The fort successfully defended Baltimore Harbor in a battle that is the central feature of our national anthem.

The current site is only 15 minutes from Baltimore/Washington International Airport. Its location makes it a favorite drop-off point for cruisers, who will leave their boats for repair and maintenance while they fly home for a visit.

Port Covington Maritime Center is a marina, but it is primarily a boatyard and repair facility with only a few permanent rental slips. The marina provides berths for boats in work or awaiting work, and unused slips generate income as transient rental moorage.

Port Covington has 28 slips in 40 and 60-foot lengths, and a side tie for boats up to 250 feet. In building the marina, Brandon initially considered a floating wood-dock system, but eventually selected concrete floating docks from Bellingham Marine. Brandon cited the greatly reduced maintenance costs of a concrete dock system as the major impetus behind the decision.

Another important factor in building the docks was time. "We were selected to host the 2006 round-the-world Volvo Ocean Race sailing contest during its stop in Baltimore at the end of the leg from Rio de Janeiro," said Brandon. "That became a driving factor in our construction schedule with no room for

error. Bellingham Marine helped us complete the project on schedule."

The marina fronts a large open stretch of the Patapsco River, and is protected by an 180-foot long, 12-foot wide floating dock that acts as a wave attenuator. "Our depth here is 30 feet," said Brandon, "so it wasn't feasible to build a fixed breakwater. We have a five-mile fetch, and the floating dock has really done the job. In our case, the standard dock configuration, because of its great width and draft, was sufficient. We did not have to use specially-shaped attenuator modules. Our customers love the docks," said Brandon, "and tell us they feel just like being on land. We expect the docks to be virtually maintenance free for years and years."

The marina is stout. Brandon noted that because the marina and boatyard would service large vessels, the steel pilings needed to be 100 feet long and 22 inches in diameter. The heavy-duty construction made the marina ideal for larger slips.

Andy Gibbs, manager of project development for Bellingham Marine's Northeast Division, said, "Before anyone else, Bob [Brandon] determined the need for slips to handle larger yachts. Port Covington is one of only a few marinas in Baltimore that can handle large boats." When a 60-foot catamaran needed service, Port Covington was the only marina in the Bay in which it could be moored.

Port Covington's success proved him right. Brandon also owns water rights next door to Port Covington where he

plans to build a 400-slip recreational marina called Winan's Cove Marina. The marina is slated for future construction to be phased-in with a planned residential and commercial development.

Another unique aspect of Port Covington is its exceptionally large float modules, custom-designed for a future fuel dock. Until then, Brandon maintains a fuel dock at his old location.

Brandon's specifications called for a 20-foot wide fuel dock to facilitate fueling operations, while at the same time keeping a traffic lane clear for boaters accessing the berths beyond the fuel dock.

"These are unusual floats," said Gibbs. "They're 12 by 20 feet, but they are attached together along their sides, not ends, to achieve the 20-foot width. We ran the through-rods for the walers parallel to the long dimension of the float. They were built in our plant in York, Pennsylvania, and shipped by truck. They are really impressive to see out of the water."

The environment

Chesapeake Bay, more than 200 miles long with more than 50 tributaries, is the largest estuary in the United States. It is a major environmental concern on a local and national scale. Because it draws its water from an immense area of the Eastern Seaboard, effective environmental efforts are more difficult to track and remediate.

Three principal pathologies are at work on the Bay. Nutrient runoffs from



Port Covington's exceptionally large float modules will allow the marina to build a custom-designed fuel dock on this 20-ft. wide dock.



Wherever practical, Port Covington has deployed grass greenbelts and “living roofs” to capture runoff and keep pollutants out of Chesapeake Bay.

farms result in an increase in the growth of algae. The algae blocks light from reaching bottom grasses, leaving the bay low on oxygen. Overharvesting of oysters, which once could filter pollutants in the Bay in an hour, has nearly eliminated the oyster population. Finally, growing commercial, industrial, recreational, and urban activities continue to add pollutants.

At present, there are several programs in place designed to bring the Bay back to health. The Baltimore Harbor/Patapsco River area in Maryland is one of three “Regions of Concern” in the Bay (the Anacostia River in the District of Columbia and the Elizabeth River in Virginia are the other two). These are the focal points for cooperative, multi-agency efforts designed to assess, reduce, and prevent specific toxins from entering within the tidal waters of the Chesapeake Bay. Assessments are being made to determine how the programs are working and measure the status of the Bay.

Considering his location in the middle of a Region of Concern, it is no surprise that Bob Brandon would do everything possible to protect the waters around his facility. “It requires a united front from everyone that lives and works in the drainage basin,” said

Brandon. “It takes a combination of voluntary and mandatory remedies.”

As the design-build process got underway, Brandon worked with Dr. Patrick Kangas of the University of Maryland’s Biological Resources Engineering Department. Their goal was to examine all construction and devise the best possible environmentally friendly solution. For example, Brandon worked with Dr. Kangas to give key buildings “living roofs,” that is, roofs made with sod and grass to retain water to keep it from going into the Bay as runoff. In addition, functional landscaping, which intercepts and absorbs potential runoff from work and storage areas, was added wherever practical.

Port Covington uses a unique rain-water collection system to supply the water to the pressure washers used for bottom washing. “There are requirements for the management of storm water we have to adhere to,” Brandon explained, “so we installed a storm water retention facility close to the water. Civil engineers prescribed grading to minimize runoff and direct it toward specially-designed storm water inlets. This insures that as little silt and sediment as possible reaches the Bay.”

Most significantly for a boatyard where bottom paints are present, the

area where the bottom work is done was graded away from the dock so that waste water and pollutants are captured and sent to sediment tanks below ground. There, the sediment is collected and removed by a waste hauler.

Cleanliness

For Bob Brandon, cleanliness at Port Covington wasn’t an afterthought. Under his relentless attention to house-keeping, the boatyard is kept clean and orderly, a far cry from the dirty, messy places in other sections of the country. “We continually get compliments about how clean we maintain our boatyard,” said Brandon.

A marine business that prides itself on cleanliness is probably one with high levels of customer service, and that is true at Port Covington. For example, Brandon himself has been known to shuttle a customer to the airport when needed. But his greatest contribution may be to the ecology of the surrounding area. Port Covington, and its owner Bob Brandon, have been leaders in the fight for a clean Bay and for the health of the boating industry.

Robert Wilkes is a frequent contributor to Marina Dock Age, and lives in Bellevue, Wash.

DID YOU KNOW ?

Maryland is a leader in promoting Clean Marinas

Annapolis, Md.—When it comes to promoting and certifying Clean Marinas, Maryland is a national leader. Maryland’s Clean Marina Initiative recognizes and promotes marinas, boatyards, and yacht clubs of any size that meet legal requirements and voluntarily adopt pollution prevention practices. At press deadline, Maryland’s Department of Natural Resources has certified more than 120 marinas as Clean Marinas, and its goal is to certify 25 percent of the estimated 600 marinas in the state. Boaters are encouraged to patronize certified Clean Marinas and to adopt clean boating habits.