

# Marina

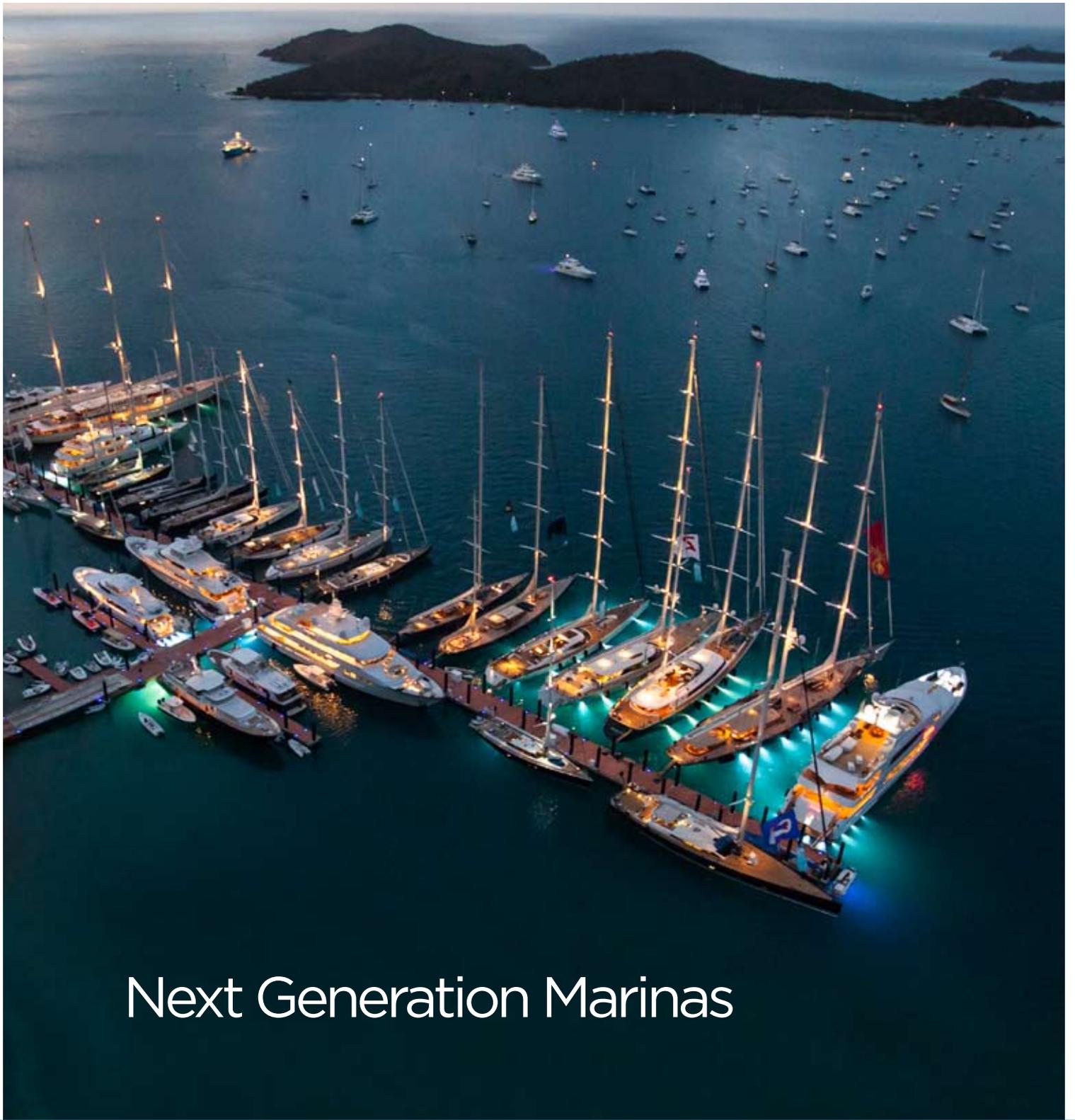
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Essential reading for marina and waterfront developers, planners and operators



# Next Generation Marinas



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*CGI of The Wharf waterfront project.*

## Waterfront points the way at **The Wharf**

by Robert Wilkes

**It's a familiar story around the world. The once bustling waterfront, the city's gateway to the world, was a tableau of sailing ships awaiting the tide. Then railroads and later automobiles turned the focus inland. The waterfront became a forgotten quarter of night clubs and bars surrounded by oily water and foul air.**

By the 1950s and 60s, cities began building renewal projects that were mostly unremarkable single-use buildings with their backs to the water. Broad freeways truncated the waterfront from the rest of the city, leaving it isolated and neglected.

The dark days of urban waterfront neglect are over. There is a new sense of optimism, pride and possibility. Among a number of ongoing urban waterfront revitalisation projects, The Wharf in Washington DC is the largest in the US and arguably the most comprehensive and consequential. The District of Columbia, "the District" as the locals call it, is turning its face toward the water again.

The US\$2.2 billion project encompasses 50 acres (20ha) of water and 24 acres (9.7ha) of upland improvements. It will feature 3,000,000ft<sup>2</sup> (278,709m<sup>2</sup>) of new residential, office, hotel, retail, cultural and public space. The waterside will include waterfront parks, promenades, piers, docks and three new marina facilities. A 6,000-person concert venue called The Anthem is under construction, as well as three major hotels. The Wharf is a testament to what can be accomplished

by private developers working in partnership with, as well as supported and encouraged by, the public sector.

Why the trend toward waterfront renewal? Environmental change is gradual and easy to take for granted, but the establishment of the Environmental Protection Agency (1970) and the Clean Water Act (1972) in America deserves some credit. Similar initiatives around the world have been equally successful. With a clean

harbour, planners and builders with big ideas can dream and anything is possible. The marina industry's clean marina programmes also deserve praise for this astonishing success.

### **The site**

Pierre l'Enfant designed the distinctive street patterns and public spaces of Washington DC in the 1790s. He formed four quadrants. The smallest, the southwest quadrant, is an India-shaped triangle formed by the convergence of the Potomac and the Anacostia Rivers. A dredging project (1882 to 1890) drained the nearby marshlands and created the Tidal Basin (the site of the Jefferson Memorial), and the two-mile long Washington Channel. The Channel is sheltered by East Potomac Park, a manmade landmass created from dredging material. The Wharf covers nearly a mile of shoreline

*American icons: the Washington Monument (top left corner); US Capitol (top right corner); National Mall (in between).*



# WATERFRONT DEVELOPMENTS



*The Wharf at an early phase of construction. Market Day Docks are in the lower right hand corner.*

Bellingham Marine has already completed a section of Wharf Marina called Z-Dock to reposition tenant boats in both Phase 1 and Phase 2.

Between the two marinas is the Recreation Pier, designed in a long, gradual curve with undulating vertical contours. The unusual design required hundreds of unique fixed-pier structures to achieve its irregular shape. Rec Pier, as it is known, will be surfaced in Kebony, a hardwood-like Norwegian decking product of treated wood with a silver-grey patina. Rec Pier will have a number of visitor activities including a public kayak and stand-up paddleboard launch. Further down is Pier 4, a dock for Entertainment Cruises and the District's only office on a pier. Across the channel at Hains Point will be the East Potomac Park Hop Dock for kayaks and other paddlecraft.

## Construction challenges

The major challenge was access. Because the land contractor dug a mile-long, 40ft (12m) wide trench the entire length of the waterfront, equipment and materials had to be positioned by barge. "Our floating dock contractor and our heavy marine contractor were all working shoulder to shoulder in the same space," said Sloop. Complicating matters further, services had to be maintained for existing marina tenants, many of whom were live-aboards. Special care was required to avoid driving piles in areas where WMATA (Washington Metropolitan Transit Authority) has tunnels under the Washington Channel. In spite of the difficulties, the waterside contractors coordinated their work and sequenced events seamlessly.

## Three planning principles

Waterfront planners can choose a range of strategies from simply renovating what is there to reimagining the city and its water bodies. The Wharf is clearly in the latter category. The Wharf's master planner is architect Stan Eckstut of Perkins Eastman, whose portfolio includes Battery Park in New York, Baltimore's Inner Harbor East and Rainbow Harbor in Long Beach.

Shawn Seaman, executive vice president and principal at PN Hoffman, is the project director. "Our team developed three guiding

along the Washington Channel where the tall ships once docked and maritime trade flourished.

The Channel is 15-20 ft (4.6-6m) deep for mooring purposes and that depth has been maintained without further dredging for more than a century. A 2ft (0.6m) tidal change provides adequate flushing to maintain water quality. A tidal gate allows water to flow between the Tidal Basin and the Channel during ebbing tides. The features of the old port are gone except for a small part of the original Fish Market building. However, its spirit lives on in the lively seafood market on the barges adjacent to the new Market Pier.

## The team

After years of planning and persistence, Monty Hoffman of PN Hoffman won the rights to redevelop The Wharf in 2006. As happens with large projects, the ownership structure has evolved into a joint partnership of PN Hoffman and Madison Marquette with some additional local partners. The ownership group is called Hoffman Madison Waterfront (HMW). Both firms are preeminent large-project developers. Phase 1 will be completed in October 2017 and Phase 2 is under way with completion scheduled for 2021.

## Waterside construction

"What is unique at The Wharf is that we approached the design from the waterside," said Rob Sloop, project director at Moffatt & Nichol, the principal engineer on the waterside. "The water was primary. We wanted people to arrive by water via many different modes, and we wanted the experience to be tied to the water."

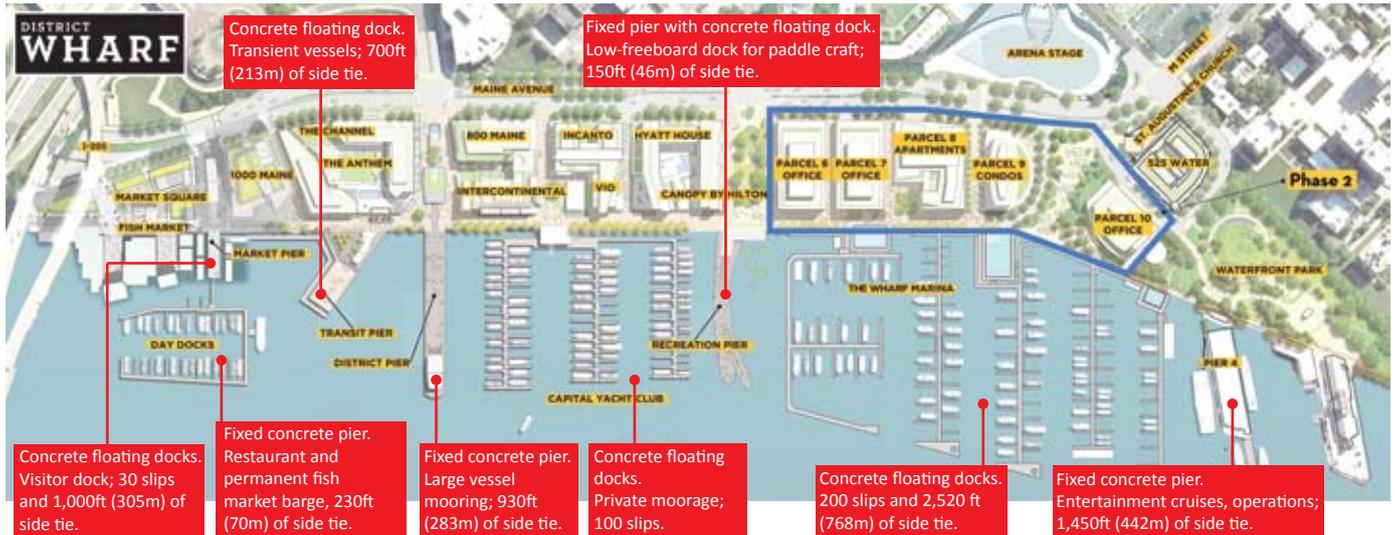
A quarter-mile-long replacement seawall and six new piers are being built by Cianbro Construction in Phase 1, including a pier to accommodate Entertainment Cruises and their commercial cruise fleet. Phase 2 includes three more fixed piers and the largest marina element, The Wharf Marina. Bellingham Marine built all floating dock and gangway structures to date. "Hoffman Madison Waterfront was interested in quality finishes and the potential for megayacht moorage," said Eric Noegel of Bellingham Marine. "They toured some of our large-yacht marinas in Florida and felt we had the right combination of product and project management experience."

## The waterside

The first marina component is the Market Pier Day Docks with 30 slips and 1,000 ft (305m) of side tie. Moving southeast, or downstream, the next structure is the fixed Transit Pier with attached Transit Taxi Dock, also a concrete floating dock. The longest pier in the project is called District Pier where large vessels will moor. The District Pier will host tall ship festivals and "ships of state" that are expected to once again call at the port of America's capital city.

Following the District Pier, new floating dock marinas are replacing two existing facilities. Bellingham Marine has completed a 100-slip facility at the members-only Capital Yacht Club. Next to the yacht club will be a new 200-slip marina with 2,520 ft (768m) of side tie. The Wharf Marina will be completed in Phase 2 and is planned to have heavy-duty floating docks and power to accommodate megayachts, including high-end services and crew facilities.

# WATERFRONT DEVELOPMENTS



principles: create a true waterfront neighbourhood, bring the District to the water's edge, and make the waterfront neighbourhood walkable," he said.

The first principle, to create a true waterfront neighbourhood, is modelled after some of the world's great waterfronts such as Copenhagen, Stockholm and Vancouver. To reach that goal, The Wharf employs a mix of more than a dozen local and internationally-recognised architectural firms. Selecting multiple architects for the buildings and public spaces ensures that the waterfront will be a lively destination with a multitude of experiences - and that the neighbourhood will be truly re-imagined.

The second principle, to bring the District to the water's edge, was achieved in an unexpected way. "Eckstut set out to create a master plan for The Wharf," said Seaman. "He began by considering how the things on the water activate the landside uses. That was brilliant. The master plan reconnects people in Washington DC to the new and beautiful waterfront."

Michael Bruce, maritime manager for The Wharf, elaborated. "We are building a central harbour for the District with a variety of commercial and public uses. As we cleared away the old slips, we realised we have a huge body of water. More than a parking lot for boats, we will have an active waterfront with marinas, day docks, public piers, tall ships, excursion cruises and water taxis. We are creating a robust water taxi system to link The Wharf to points all around the DC area."

The third principle is to make The Wharf pedestrian friendly. Buildings and public spaces are confined to 200ft<sup>2</sup> (18.6m<sup>2</sup>) of walkable blocks with

a number of circulation paths, rather than the previously impermeable large blocks that forced people to enter at major intersections. The two-storey parking garage is under the buildings, eliminating large surface parking areas that separate the waterfront from the city. Ambience is enhanced by a number of small courtyards that architects call mews (stables reconfigured into shops and restaurants).

The Wharf Street granite-cobblestone-paved promenade is a 60ft (18m) wide shared environment for pedestrians and cars. When the backs of the buildings faced the water, the original two-level promenade was dismal and uninviting. The new promenade is 12ft (3.6m) above sea level and ringed by shops and restaurants. One-way 5-mph auto access will allow drop offs and valet parking. Reintroducing the automobile makes the site approachable, lively and functional.

## The permitting

Beginning in the 1970s, the federal government began ceding control of federal lands and waterways to the District, including the Washington Channel. Local control made the project feasible for HMW. Permitting involved a complex web of agencies and authorities. Reagan International Airport is nearby and it was necessary to get a permit from the Federal Aviation Administration to introduce building cranes. In what may be a marina industry first, permission to extend the development out into the Federal Channel required an act of Congress.

## The grants

The project greatly benefited from a series of grants from the Fish and

Wildlife Service of the US Department of the Interior. Grant funding has financed at least 50% of the costs of the 30-slip visitor marina, the eight-slip mooring field and a paddle-craft day dock. Grant funding also enabled the purchase and operational costs of a vessel-sewage pump-out boat. Funding came from three programmes: \$1.71 million from the Boating Infrastructure Grant Program (BIG); nearly \$94,000 from the Clean Vessel Act Grant Program (CVA); and \$228,000 from the Boating Access Grant Program (BAG).

HMW noted that the grants enabled the architects and builders to maintain high standards of quality, including surfaces and finishes throughout The Wharf.

## Conclusions

The Wharf is impossible to relate in one article, but some impressions stand out. The Wharf is part of a trend, a worldwide "about face" in which cities embrace their waterfront and discover its potential. The location in the heart of Washington DC is spectacular. The architecture, history, art and culture of the District attracts 20 million visitors a year. To Americans, the Capitol, the National Mall and the Memorials are sacred ground.

The Wharf will now be part of that. Making the water primary in the planning, framing the development in the context of a neighbourhood, and the concept of permeability from the city to the water are all pure genius. Phase 1 will be completed soon, in October 2017. Let's all go.

**Robert Wilkes writes about the marina industry from Bellevue, Washington State.**