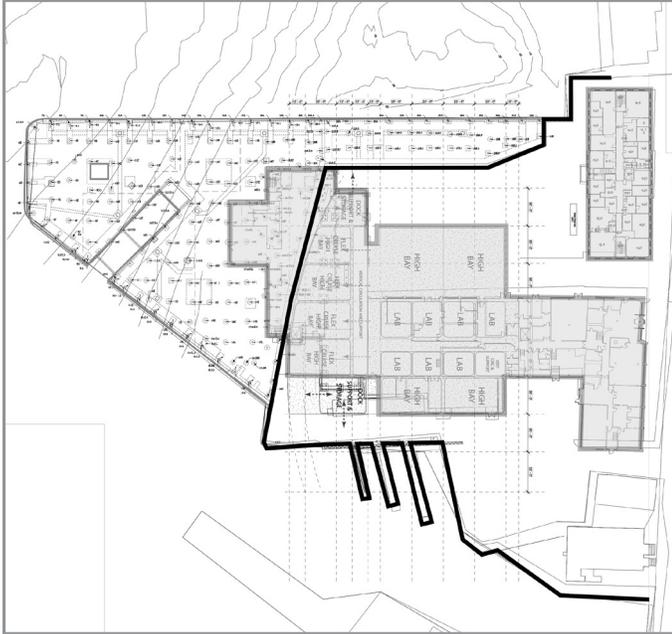


# WOODS HOLE OCEANOGRAPHIC INSTITUTION

# Waterfront Improvement Project



## OVERVIEW

The Woods Hole Oceanographic Institution (WHOI) plays a leading role in southeastern Massachusetts' "Blue Economy," the commercial, academic and government business ecosystem responsible for \$3.5 billion of economic benefit. Fundamental to WHOI's marine activity is the Iselin Dock, the most complete waterfront facility dedicated to the support of ocean-going research vessel and underwater vehicle operations in the United States. Iselin Dock is the homeport for the large research vessels *Atlantis* and *Neil Armstrong* and the coastal research vessel *Tioga*. The dock also routinely provides berthing to government research vessels, other academic research vessels, commercial ships and numerous yachts. The dock facility houses test

facilities, shops and staging areas for submersibles and robotic vehicles. These facilities are used by all the scientific disciplines within WHOI, as well as researchers from around the region. The economic value of the activities on the dock exceeds \$35 million per year. The dock is now close to the end of its 50-year engineering design life and requires significant and increasing annual maintenance to address age-related deterioration of steel and decking. Because of this, WHOI plans to replace the dock with a new, state-of-the-art facility in order to provide the infrastructure to support WHOI's important work for the next half century.



WHOI Dock in 1937



1950



2012



## CONTEXT

Since its founding in 1930, WHOI has had waterfront facilities in Woods Hole capable of berthing and supporting the activities of its ocean-going research vessels, as well as those of other institutions. The Iselin Marine Facility was constructed in its current configuration in 1969 to accommodate an expanding fleet. It consists of a triangular shaped dock and a complex of facilities to support activities that benefit from direct access to the waterfront. The dock has over 700 linear-feet of deep-water berth, 430 ft. on the west face that can accommodate two vessels end-to-end and 256 ft. on the east face, which can accommodate a Global class research vessel. The dock is a reinforced concrete deck built on over 200 steel pilings. On the dock and adjacent bulkhead apron are three buildings totaling over 90,000 square feet which house flexible “high bays,” machine shops, rigging shops, underwater vehicle labs and office space. The complex supports ship mobilization, vehicle, equipment and sensor testing and loading, as well as dive operations for training, testing and inspection.

## ISELIN STATUS

In the last decade, investments have been made for repairs and maintenance to the dock’s decking and piles, incrementally extending its service life. A recent comprehensive inspection and engineering analysis of the deck indicates the facility is approaching the end of its useful life and needs to be replaced within the next decade. To that end, we are initiating planning for a major redevelopment project that will provide a world-class waterfront research facility for WHOI and its partners for the next several generations of oceanographers and engineers.

## THE PLAN

Our goal is to start the project in 2017 and target completion in the next 7 to 10 years, which, with some continued investment in maintenance, is within the projected useful life of the existing facility. The Iselin building is partly on the dock and also will likely require replacement, with potential impacts on adjacent

shops and labs. In all, the investment is likely to approach \$50 million. It is expected that the pre-construction process will take up to 5 years, and the construction process approximately three years. We will be working closely with all stakeholders to minimize disruption and anticipate phasing and the relocation of certain waterfront activities on an interim basis.

## OPPORTUNITY

WHOI’s sea-going capabilities are central to its identity and mission. The replacement of the Iselin dock provides an opportunity for the Institution to create a waterfront facility that anticipates and enables the direction of the next half-century of ocean research. Through an open and deliberative process, we plan to assess future needs in the context of a changing environment including rising sea levels, and incorporate those needs into an upgraded, state-of-the-art waterfront facility that will serve future oceanographic needs for the next 50 years.

## FEASIBILITY STUDY

As a first step, WHOI will undertake a feasibility study with the following scope:

- » Investigate the options and constraints for the new dock, bulkhead and adjacent buildings
- » Develop preliminary design of the new dock and bulkhead
- » Develop preliminary design of new Iselin building(s)
- » Identify all required permits and develop a permitting plan
- » Prepare a project budget
- » Prepare a project schedule
- » Develop a scoping document for permitting, engineering and architectural design services
- » Develop a plan to engage our stakeholders, including the WHOI constituency, our research partners and collaborators and the greater Woods Hole, Falmouth and Cape Cod communities
- » Prepare a final report