

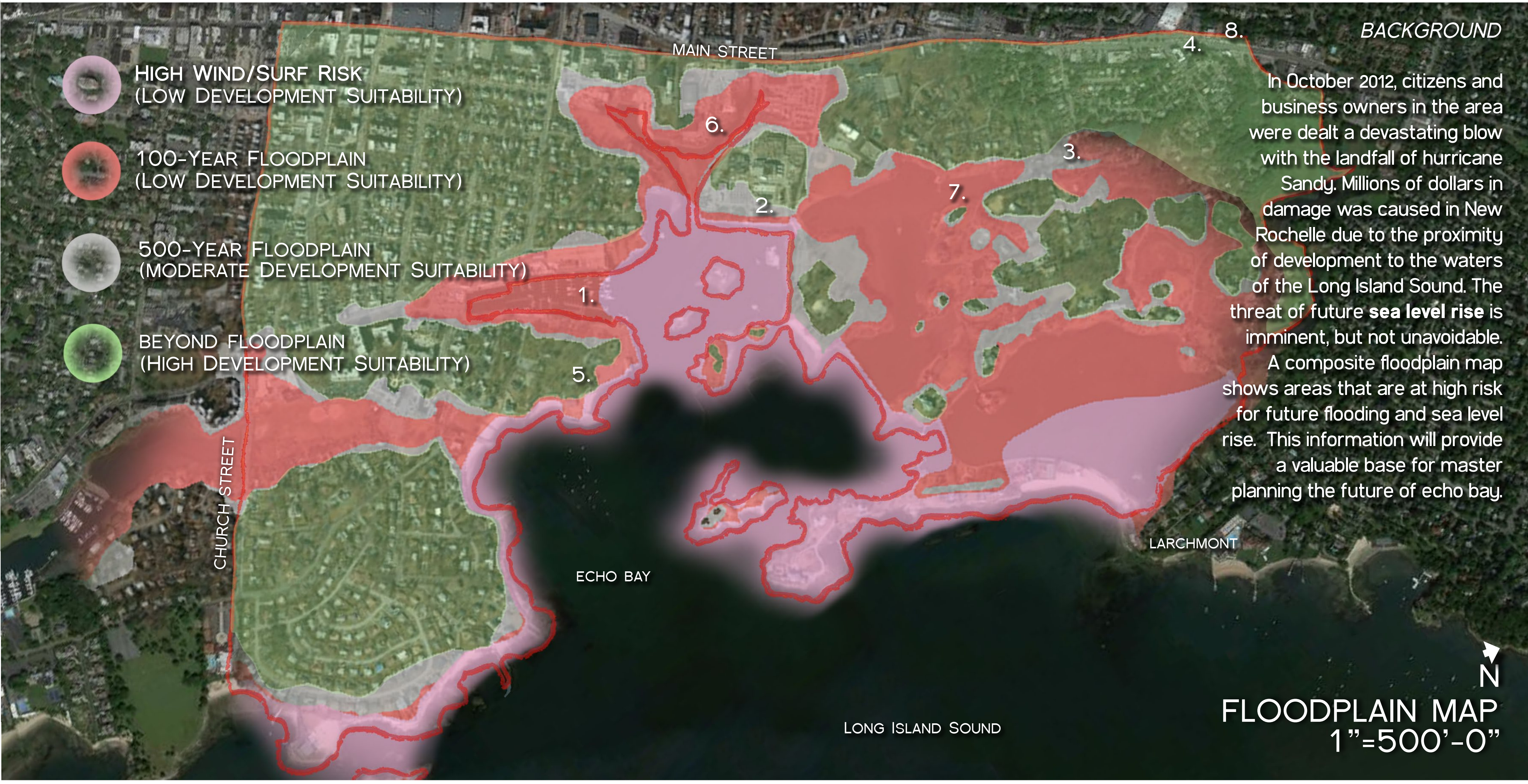
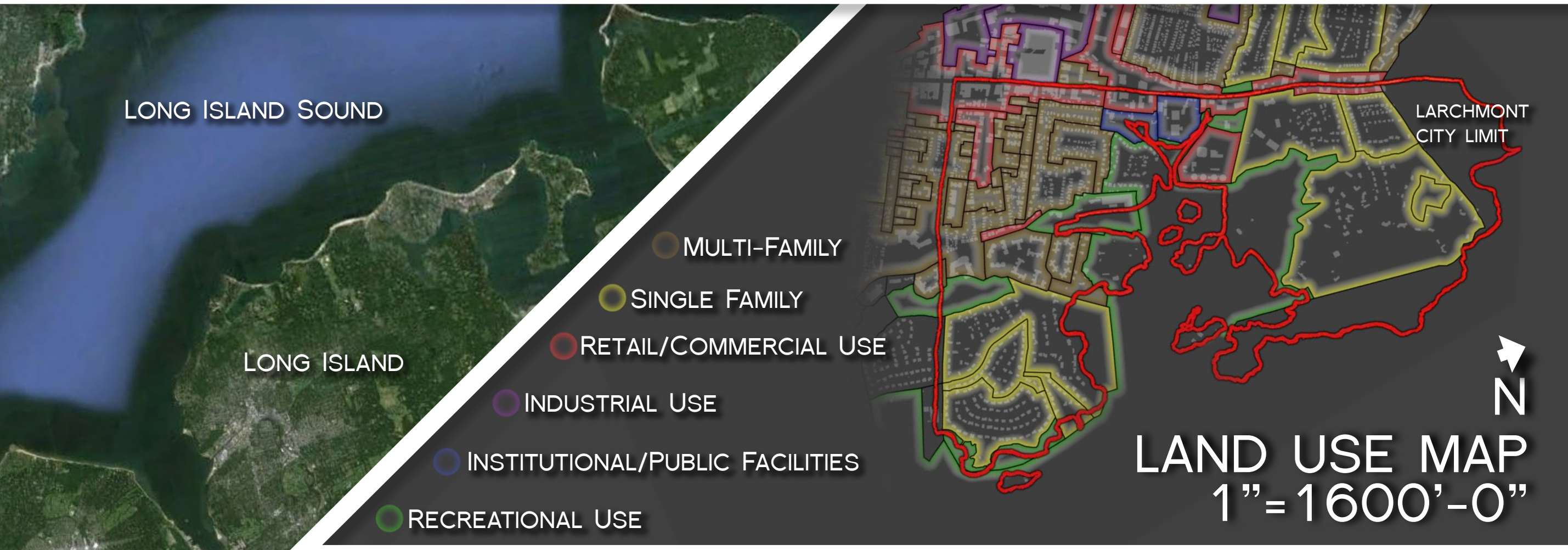
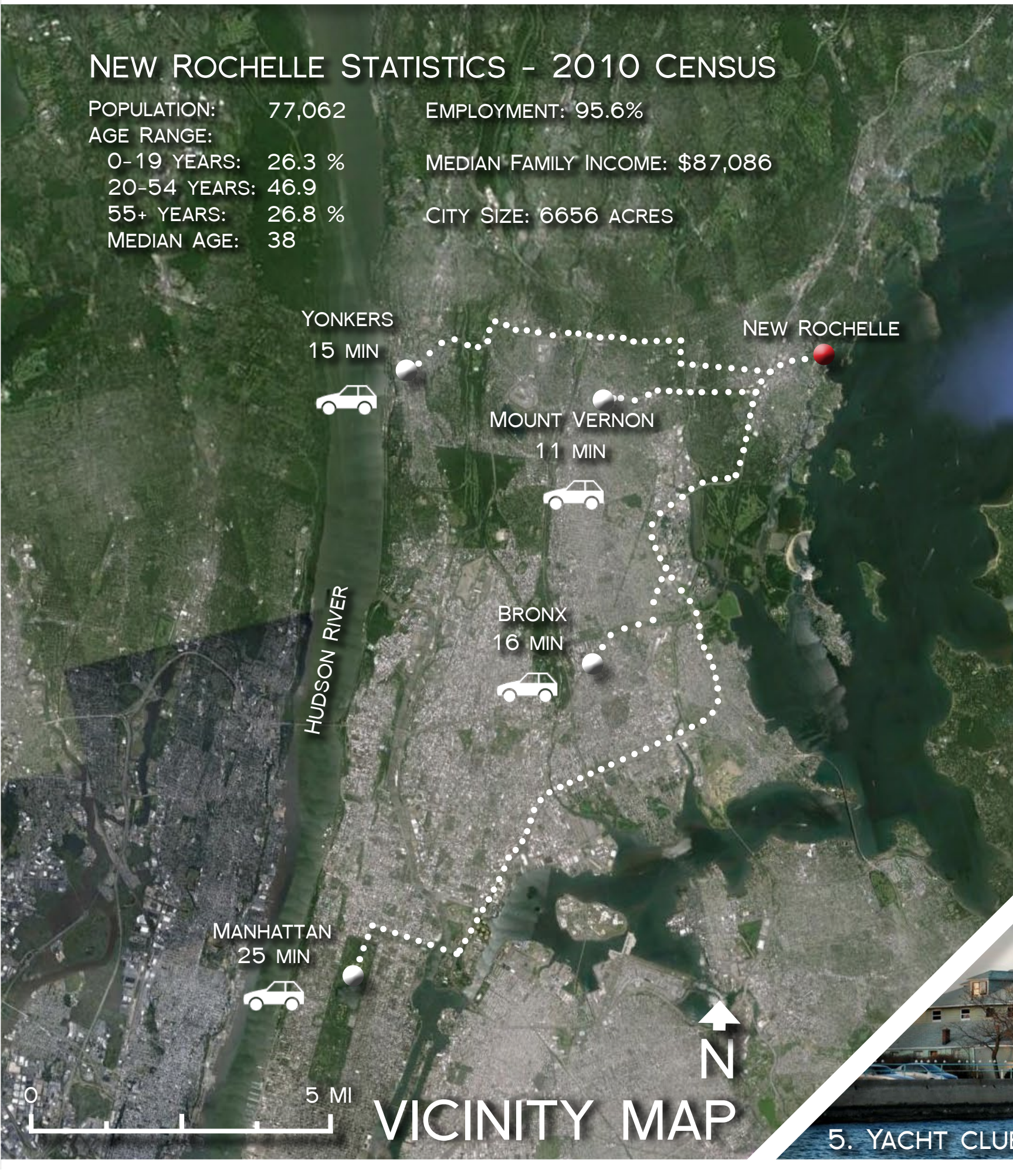
ECHO BAY SITE ANALYSIS

WATERFRONT RECOVERY NEW ROCHELLE, NY



NEW ROCHELLE STATISTICS - 2010 CENSUS

POPULATION: 77,062 EMPLOYMENT: 95.6%
 AGE RANGE: MEDIAN FAMILY INCOME: \$87,086
 0-19 YEARS: 26.3 %
 20-54 YEARS: 46.9 %
 55+ YEARS: 26.8 %
 MEDIAN AGE: 38 CITY SIZE: 6656 ACRES



CASE STUDY

QUNLI, CHINA WETLAND PARK TURINSCAPE

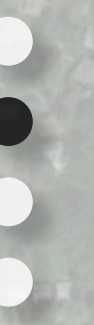
A new urban district in Northern China, Qunli New Town began development in an area with frequent flood and water log. A 42 hectare wetland threatened by high density urban space on all sides was revitalized into a stormwater park, providing habitats and ecosystems for wildlife and Qunli residents alike.

ECO URBAN CORE



ECHO BAY MASTER PLAN

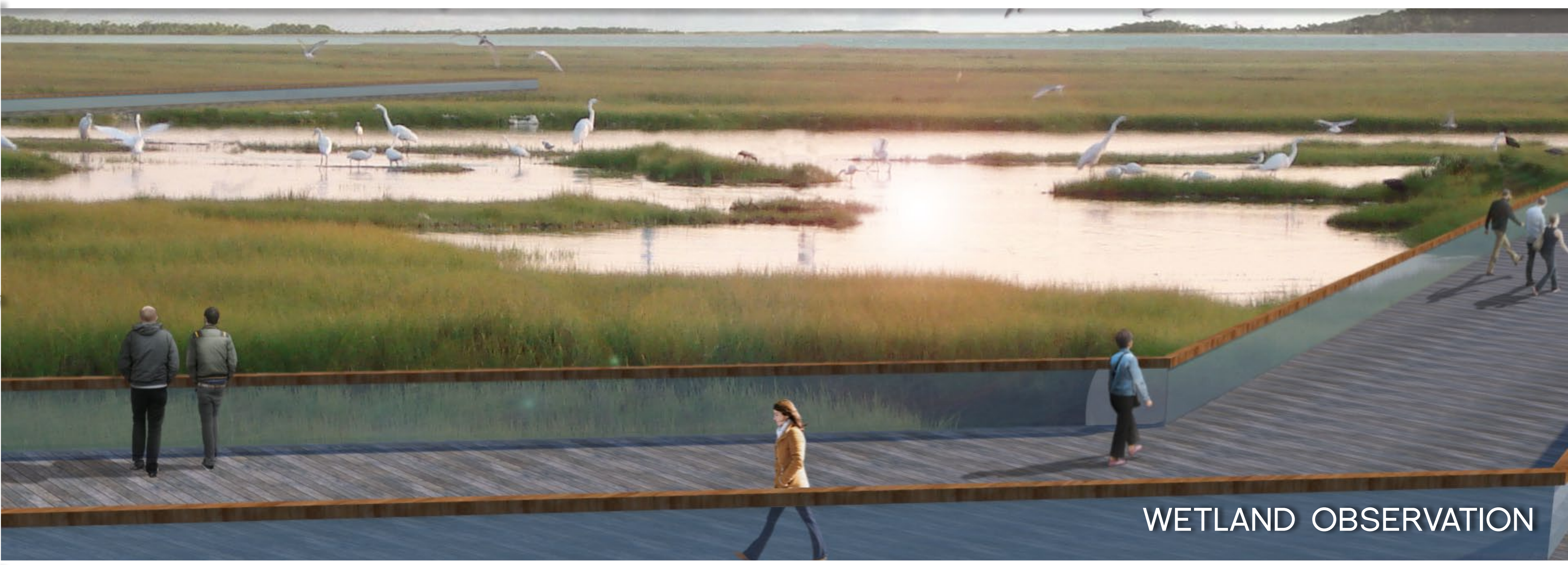
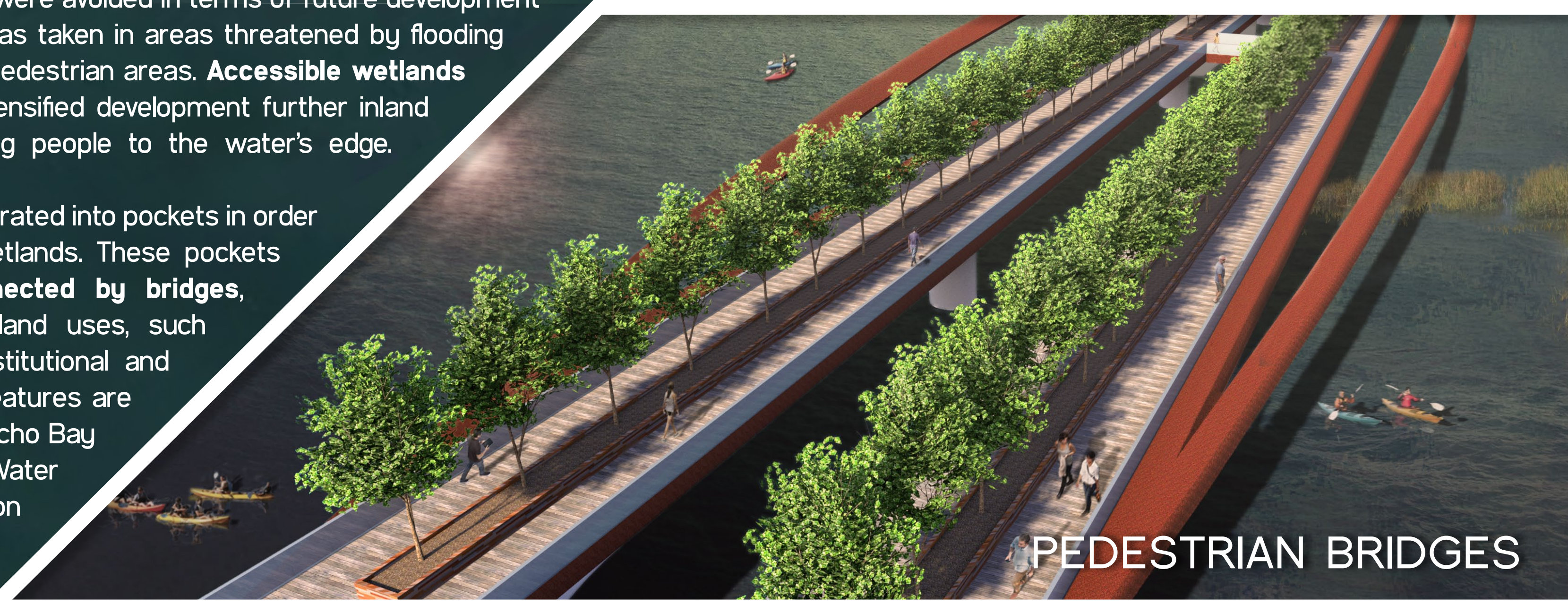
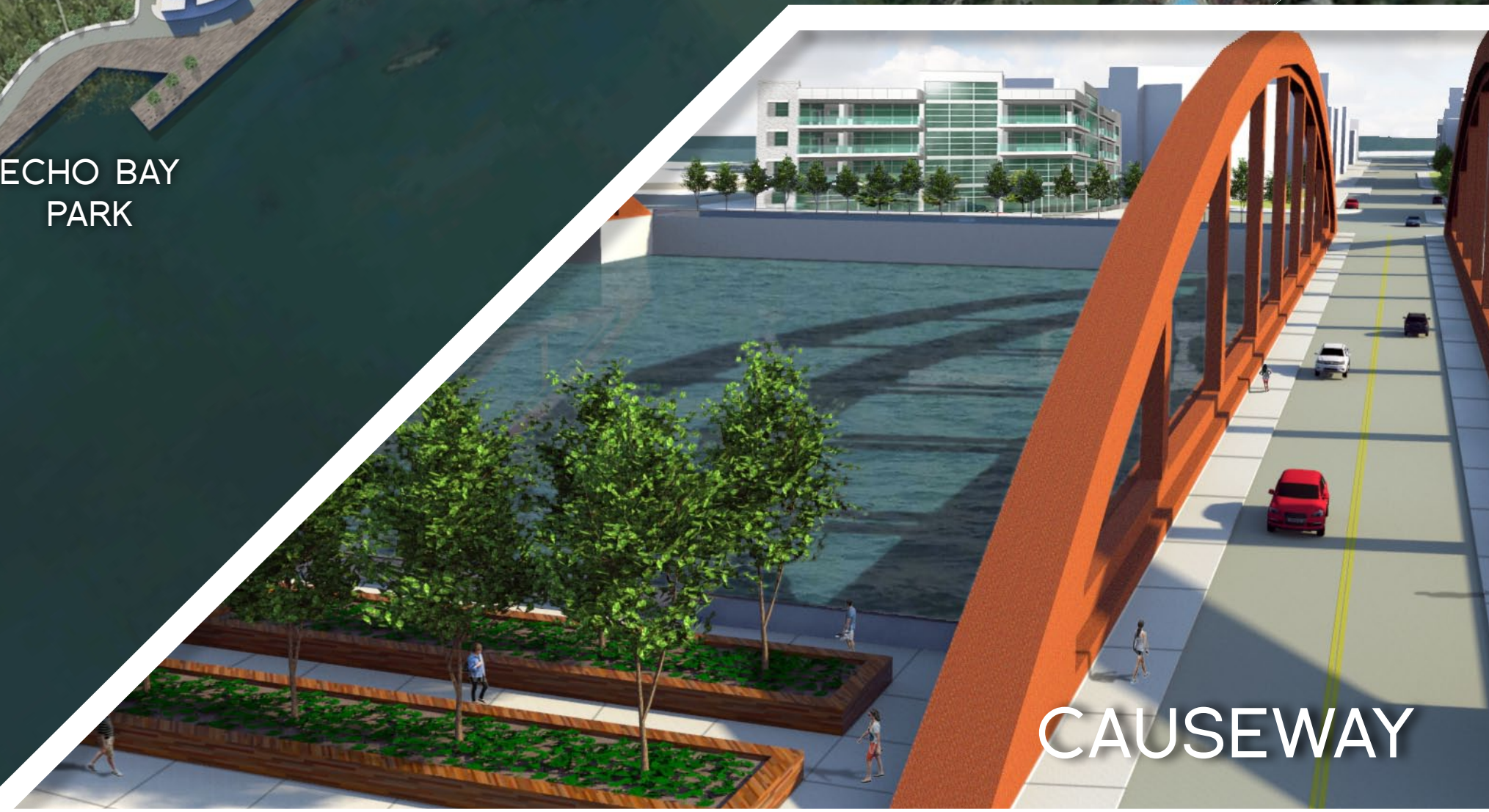
WATERFRONT RECOVERY NEW ROCHELLE, NY



CONCEPT

In the new, **resilient** master plan, these areas were avoided in terms of future development wherever possible. A safe-to-fail approach was taken in areas threatened by flooding with the use of boardwalks, piers and other pedestrian areas. **Accessible wetlands** have retaken much of the waterfront, and densified development further inland is permeated by **green corridors** that bring people to the water's edge.

Development on the waterfront has been separated into pockets in order to protect and enhance the surrounding wetlands. These pockets create several different **communities connected by bridges**, allowing for circulation between different land uses, such as residential, commercial, business and institutional and protected wetlands. A number of different features are located across the waterfront, including the Echo Bay Aquarium, New Rochelle Armory Museum, Water Treatment Facility, the Echo Bay Convention and Civic Centers and Echo Bay Park.





INUNDATION

Concrete stairs lead down and away from the sidewalk of an urban street, providing a significant **change in elevation** that will allow for sea level rise to occur without major harm to any commercial or residential development. These variable **periods of inundation** limit access to lower boardwalks based on the tides in Echo Bay.

This site plan shows a **tiered public space** directly over the grassy waters of Echo Bay. A number of different level changes allow pedestrians to experience space from a distance before arriving. A combination of curves and straight lines provide a juxtaposition between natural and built forms. Avenues of small trees provide shade in some areas, while others remain bathed in sunlight.

N
SITE PLAN
1"=30'-0"

IMMERSION

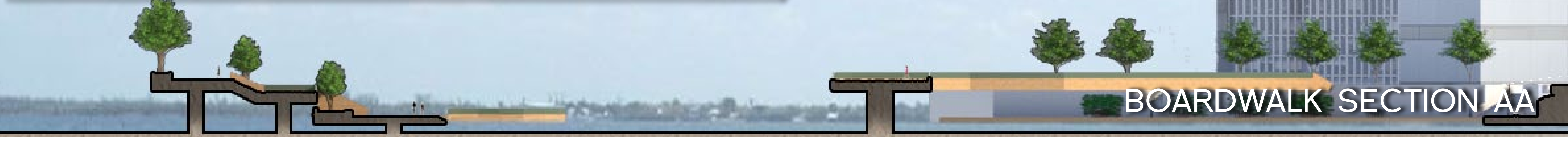
Beyond the densified mixed-use development of New Rochelle's coastline, a network of boardwalks creates ample opportunities for pedestrians to experience the waterfront and nature first-hand. A series of public spaces creates a diverse range of experiences, views and opportunities for **immersion in the wetland environment**. These escapes from the nearby urban atmosphere provide the public with waterfront access that can easily be found by following the street grid to its edge on any side.



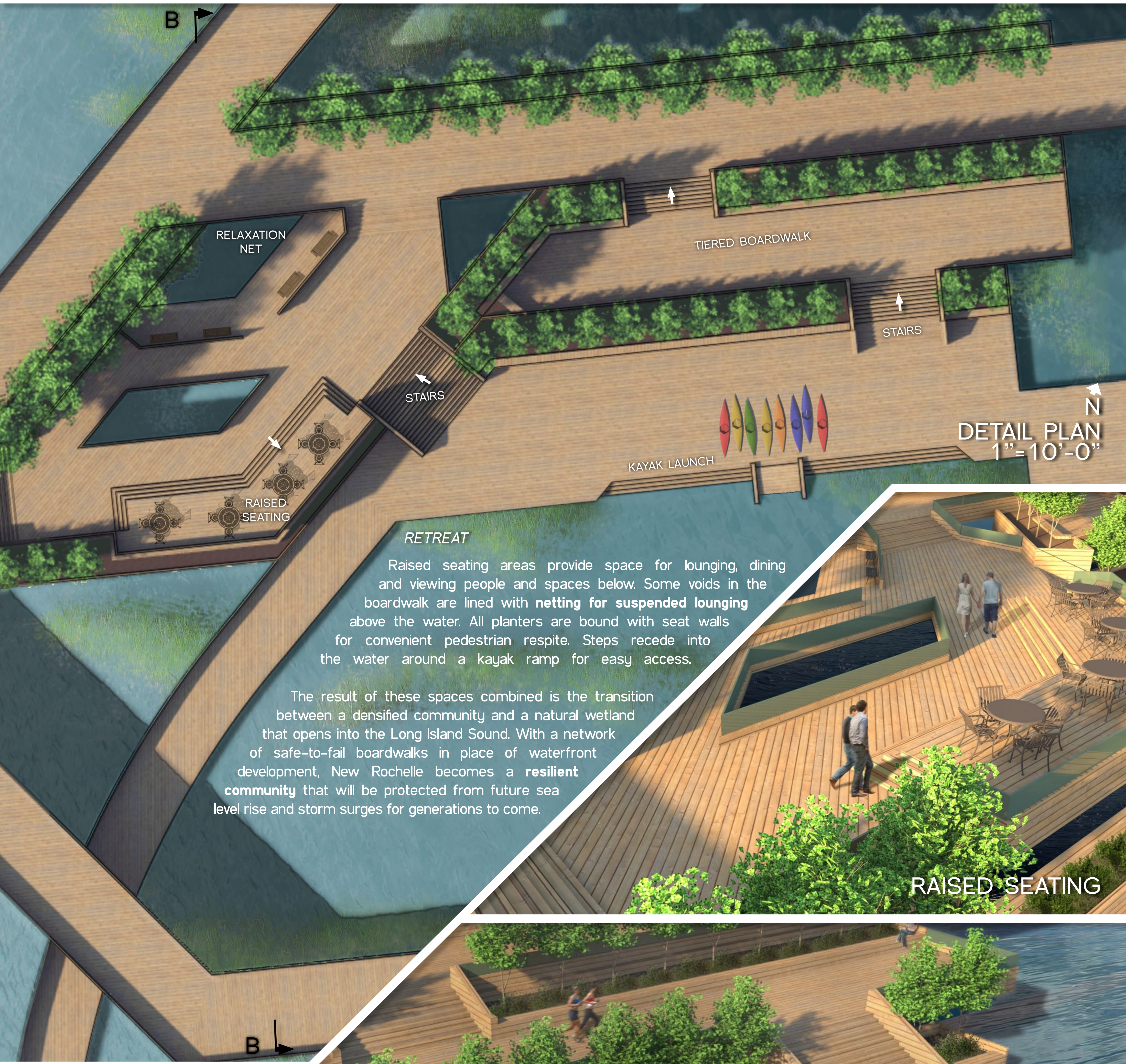
LOCATOR MAP



WATERFRONT ACCESS



BOARDWALK SECTION AA



RETREAT

Raised seating areas provide space for lounging, dining and viewing people and spaces below. Some voids in the boardwalk are lined with **netting for suspended lounging** above the water. All planters are bound with seat walls for convenient pedestrian respite. Steps recede into the water around a kayak ramp for easy access.

The result of these spaces combined is the transition between a densified community and a natural wetland that opens into the Long Island Sound. With a network of safe-to-fail boardwalks in place of waterfront development, New Rochelle becomes a **resilient community** that will be protected from future sea level rise and storm surges for generations to come.

