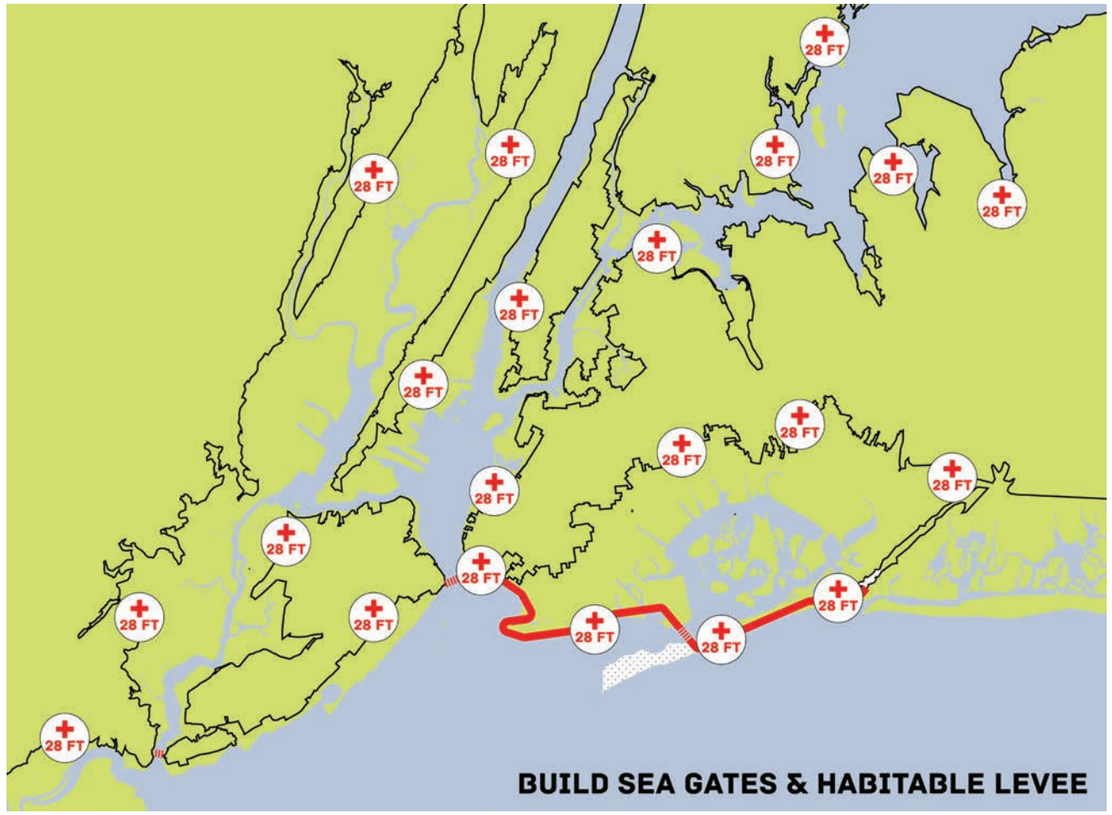
28+
Michael Sorkin Studio

Rockaway Beach

28+ takes its name from the elevation above which the city is safe from drastic floods. We have designed a barrier that connects this contour, beginning from a ridge at the end of the Rockaways, running along the peninsula, crossing the opening of Jamaica Bay with an operable gate, snaking around Coney Island, and meeting another gate at the Verrazano Narrows.



28′ Contour

The 28-foot-above-sea-level contour represents high ground not likely to be impacted by severe hurricane events. The concept driving the habitable levee is to extend the connection of this contour, creating a contiguous high point along the Rockaway waterfront that also protects inland communities and the Jamaica Bay habitat.

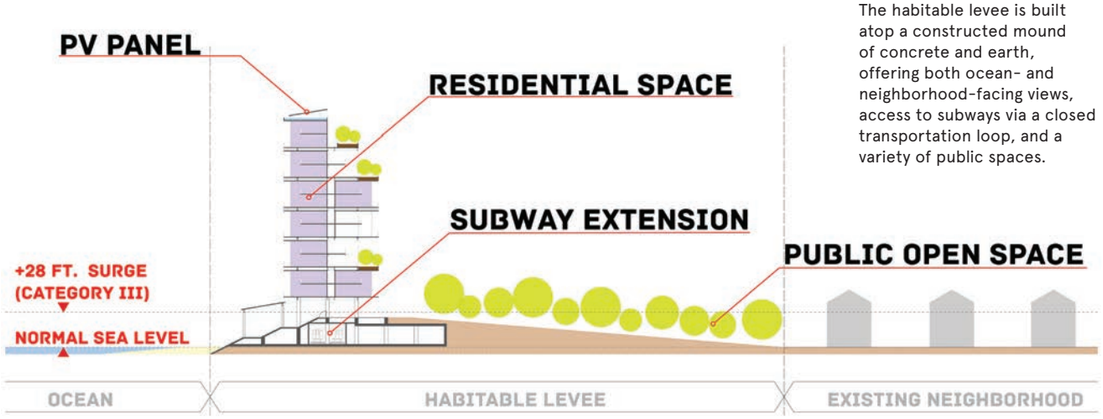
Properties at Risk

New York City has over 250,000 business, residences, and public buildings in areas within hurricane-evacuation zones. The habitable levee proposed in this project would protect them all from future storm events, inevitably saving lives as well as billions in property damage and loss of economic activity in the years to come.

Rockaway Beach from the South

We have calculated that this project could be fully self-financing. By topping the flood-protection apparatus with what would surely be highly desirable places to live and work, an income stream could be generated that would cover all costs for the infrastructure.

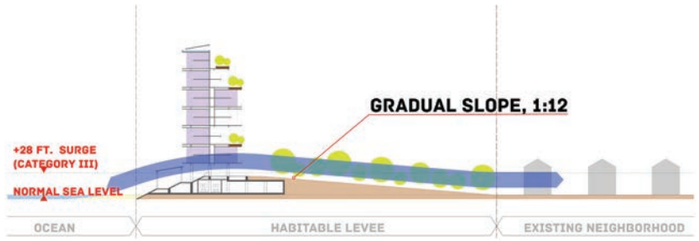
SITE SECTION



Site Section

The habitable levee is built atop a constructed mound of concrete and earth, offering both ocean- and neighborhood-facing views, access to subways via a closed transportation loop, and a variety of public spaces.

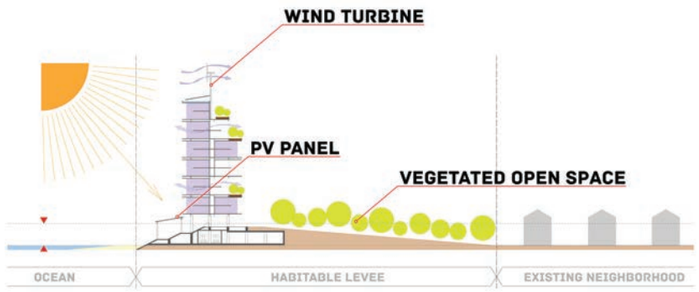
PUBLIC WATERFRONT ACCESS



Public Access (Section)

Existing residents will have unfettered access (except during hurricane events) to the waterfront through and over the levee.

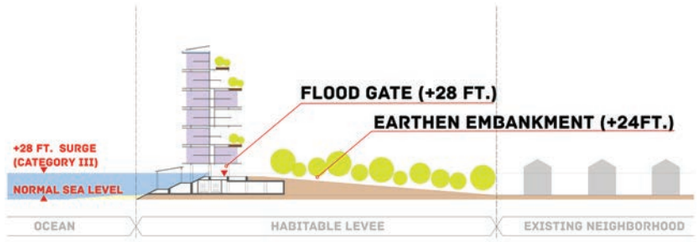
ENERGY SYSTEMS



Energy Systems (Section)

The project generates nearly half of its required energy through passive-demand reduction, and electrical generation via the use of photovoltaic cells, wind turbines, and the conversion of organic waste. Wave and geo-thermal energy generation are also possible.

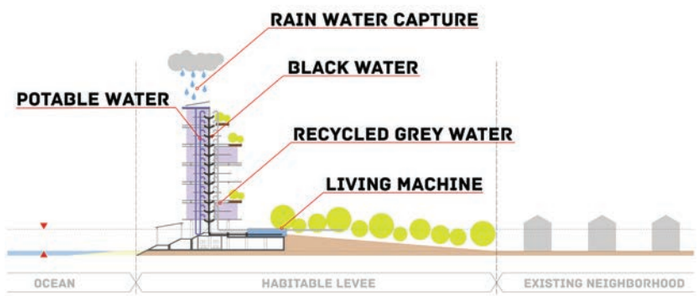
FLOODING SECTION



Flood Protection (Section)

As it is built on an embankment of 24 feet, most storm surges will not reach the structure itself. However, in the event of a category III event, a floodgate built into the levee will close, preventing inundation beyond the site.

WATER SYSTEMS



Water Systems (Section)

Through a variety of systems, the habitable levee is completely self-sustaining in its water use. The levee is equipped with water capture systems, and recycles its grey and black water through its living machines, which provide biological, onsite treatment.

Rockaway Beach from the South

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Rockaway Street View

Although any such system would require the collaboration of many architects and a variety of expressions harmonized with local conditions, the portion we have illustrated is designed for modular construction and proposes that factory-built components be delivered from the seaside and erected with minimum disruption to neighborhoods.

Plan View

28+ negotiates a balance between landscape and engineering solutions to mitigate the impacts of future storms along the Atlantic coast and to protect the neighborhoods lining Jamaica Bay, including JFK airport, from rising sea levels and storm-related inundation. The project also closes a crucial transit loop, connecting the A train to the 2 and 5 trains to improve public-transportation access and discourage the use of personal vehicles. Finally, the habitable levee accommodates population growth from other coastal waterfront areas of the city and region that are not as well equipped to deal with storms and climate change.

28+ was one of twenty-five projects presented at the MoMA PS1 temporary relief and cultural center, VW Dome 2, in Rockaway Beach, New York. Michael Sorkin Studio was invited by the MoMA to take part in its effort to foster creative debate on urban recovery after Hurricane Sandy.

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All images courtesy of Michael Sorkin Studio