Rebuilding by Design
Urban flood protection infrastructure, New York, NY, USA

Main authors
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Project data
Context: Landscape, urban design and infrastructure
Client: US Department of Housing and Urban Development
Background: New construction and conversion
Flanked start: June 2014

Summary and appraisal by the jury

The BIG U project addresses the vulnerability of the city of New York to coastal flooding, as experienced during the catastrophic impact of Hurricane Sandy in 2012, and proposes a protective ribbon around lower Manhattan. The master plan, to be executed in several phases, uses a raised form strategically to create a sequence of public spaces along the raised bank. The infrastructural form incorporates green infrastructure, with communal amenities along a line that acts as a civic infrastructure belonging to the public at large.

To propose a large-scale flood protection system by means of a set of small-scale interventions was steered by the jury as an ingenious solution that could easily be transformed to other similar conditions – in an age marked by climate change and rising global sea levels. The panel appreciates the project’s conceptual framework proposing to merge the requirements of a “Robert Moses” type of hard infrastructure with the less community-driven nature of “Jane Jacobs”. Here, local neighborhood actively engage in defining specific programs, functions, and public amenities along a line that acts as a civic infrastructure belonging to the public at large.

Sustainability concept

Superstorm Sandy overwhelmed New York City and surrounding regions in 2012 and caused USD 65 billion in damages in the USA. The federal government issued Rebuild by Design, an unprecedented call to action to not only repair but to enhance preventative measures and encourage collaboration across agencies. BIG U mediates between perceived opposing forces (growing cities and exposure to extreme weather) so they can work together. Neighborhoods in the floodplain strategically grow to provide coastal protection while improving commercial, recreational, and cultural resources. The project proposes a protective ribbon around Manhattan that provides coastal protection while improving commercial, recreational, and cultural resources. The project proposes a protective ribbon around Manhattan that provides coastal protection while improving commercial, recreational, and cultural resources. The project proposes a protective ribbon around Manhattan that provides coastal protection while improving commercial, recreational, and cultural resources. The project proposes a protective ribbon around Manhattan that provides coastal protection while improving commercial, recreational, and cultural resources. The project proposes a protective ribbon around Manhattan that provides coastal protection while improving commercial, recreational, and cultural resources.

BIG U consists of three components: BIG Bench, Battery, and Berm. BIG Bench is a continuous protective element that mediates new and existing infrastructures. It is designed like street furniture: practical, attractive, fun, practical.

Progress from Bangkok to Venice, coastal cities are at risk. BIG U’s various segments become a catalyst of adaptive strategies and replicable prototypes.

People: An intensive public process including teams, residents, and disaster preparedness groups. Residents designed their own waterfronts through drawings and interactive models.

Planet: BIG U is community-focused, offers more smart growth for cost, and uses land more efficiently. Community micro-gold and water management plans create redundancies to decrease storm risks and allow incremental climate change adaptation. BIG U could also bundle renewable energy systems to further increase reliability.

Prosperity: Superstorm BIG U is able to incorporate various financing models. Leveraging local and government investment engenders neighbors in developing protective measures that create tremendous economies of scale.

Place: BIG U embraces social infrastructure and balances stringent regulations for safety, operation and durability with communal amenities.

Further authors
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