



BRICKELL BAY DRIVE  
CITY OF MIAMI



## ENVIRONMENT

# Faster, better climate resilience. Columbia U helps refine South Florida projects.

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August 08, 2018 09:04 PM

Updated August 09, 2018 07:00 AM

The rising seas that threaten South Florida could one day be fended off by a tree-lined terrace on Miami's Brickell Bay Drive, or by street-end parks on Miami Beach's West Avenue. County residents could turn to their local train station for solar phone charging and emergency information after a hurricane.

This week, experts huddled at Miami-Dade College and brainstormed ways to make five South Florida resilience projects better and get them finished faster. Experts from Columbia University's Center for Resilient Cities and Landscape's Resiliency Accelerator and leaders of various local

involved groups spent three days developing new ideas to make these projects resilient — fast.

The \$3.7 million workshop was sponsored by the Rockefeller Foundation, the same group behind the 100 Resilient Cities initiative, which is working with Miami, Miami Beach and the county to debut a plan to make the city more resilient to climate change and other stresses.

Miami had its team focus on Brickell Bay Drive, a weak spot where Hurricane Irma's floodwaters immersed part of the wealthy neighborhood, turning roads into rivers, at least for a short time. City officials pointed out the water was gone the next day.

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Solutions included taking the flat piece of land and giving it plant-lined steps down to the water, which would provide more protection against storm surge and help integrate the area with nearby buildings that will one day have to be elevated. The lowest part would be fringed with a “living shoreline,” a collection of mangroves and other plants designed to soak up storm surge before it makes its way to land.

Since those solutions go against current code, the city will have to turn the spot into an “Adaptation Action Area,” one of the few sea-rise-friendly changes implemented at the state level in recent years. Once the city grants permission to change the area's designation, work can begin on crafting a strategy for the project, which could cost north of \$30 million to design and build.

The fastest construction could get started is 2021.

“This was a very short discussion on something that will take a lot more work,” said Alan Dodd, the city's new head of the resilience and public works department. “We think it's doable and a great chance to try a new philosophy that will expand to all our downtown waterfront areas.”

Miami Beach brought its already half-completed West Avenue project to the table. For the rest of the project, the experts suggested more plants to naturally soak up water — something the city is trying to integrate into each of its resilience projects after advice from multiple organizations this year — in the form of parks on several street ends. They also suggested swapping out on-street parking between 8th and 14th streets in favor of more space for pedestrians.

Another idea: floating streets.

“The idea is as groundwater rises the road would float above it,” said Betsy Wheaton, the city’s environment and sustainability director. “This is just a concept. This is just to inspire.” The plan is to craft a change order for the contractor by October.



SOUTH CORRIDOR - SW 200 ST STATION  
MIAMI DADE COUNTY



Miami-Dade County’s South Corridor transportation project was one of several examined by experts from Columbia University’s Center for Resilient Cities and Landscape’s Resiliency Accelerator in a three-day workshop to develop the most resilient plans for each project.

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The county's plan had the longest timeline — new bus and train terminals to be finished by 2040, with the design process starting in 2020. The idea, said county resilience officer Jim Murley, is that these \$20 million “hubs” would be sustainable, solar-powered and encourage affordable housing development nearby.

“This is Miami-Dade County in 2050 if we're able to pull this off,” he said.

The group also looked at two projects further north: living seawalls installed in a pocket park in West Palm Beach and a few dozen cottages for temporarily housing the homeless in Palm Beach County.

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