

Miami Beach's latest road-raising squabble: Who gets swamped by the flood waters?

March 15 2022, by Alex Harris and Martin Vassolo



Credit: Pixabay/CC0 Public Domain

Before Miami Beach became the first U.S. city to dramatically elevate streets before sea levels rise, hairstylist Gustavo Briand was used to flooding.



His Sunset Harbour salon is a block from Biscayne Bay, and on rainy days and high tides it was always a problem. He lost business when customers didn't want to cross the flooded road to get to his shop, or when they saw the foot of water on the concrete floor.

"Some of my clients used stand-up paddleboards to reach me," he said.
"I cut hair in flip-flops."

Sunset Harbour was the <u>city</u>'s first road raising project, and since it was built in 2018, the city said the neighborhood has been spared from 137 tidal floods. A city-funded study also found it led to higher property values.

Despite that, and striking before-and-after pictures, every road raising project proposed in the city since has been a dogfight. The newest one in West Avenue has been no exception.

Residents gripe about lengthy construction time, cost overruns, the changed esthetic and lost parking spots—and some even question the need to do these projects in the first place. But the biggest concern, by far, is what happens to that water that used to pool on the low streets.

Last year, some property owners sued the city over its road-raising program, alleging that the higher roads pushed floodwaters onto their low-lying properties and swamped their homes.

"Road raising done right is just fine," Miami Beach Commissioner Mark Samuelian told the Miami Herald. "The question is where you do it, when you do it and how much you do it."

Now the city is preparing to install powerful stormwater pumps and raise roads up to two feet near West Avenue, a neighborhood with a mixture of businesses, condominiums and single-family homes. There have



already been significant hurdles.

Since the city signed the initial contract in 2017, the cost of the project has doubled to nearly \$100 million. And of the more than 170 agreements the city needs from property owners, it only has four. And those are now invalid due to a permitting issue.

Miami Beach may have been the first to look at the projections for about two feet of sea rise by 2060—enough to swamp 40 miles of roads on the low-lying island—and decide to lift its streets, but it won't be the last. Miami-Dade, Miami, Key Biscayne and the Florida Keys are all in various stages of planning to raise roads, and they're all watching (and hopefully learning) from the showdown on the beach.

Residents and business owners who have newer buildings, which are usually built higher, cheer on the idea of higher roads and pumps to halt the flooding that makes their neighborhood impassable during high tides and rainstorms. But for those in low-lying spots where floodwater already collects, higher roads present a new danger.

One such spot is the Lincoln Road condo Valerie Navarrete has lived in for 17 years, which has an underground garage that already floods. She once lost her car during a rainstorm, and she said 15 other vehicles were wrecked as well.

When it rains, water from the street flows down the garage ramp, which Navarrete calls a waterfall. Even the new, high-tech pumps installed in the garage can't keep it away. But she's against raising the roads because she thinks it's just going to cause more flooding.

"Then we are all going to flood even worse," she said. "Now the waterfall is going to become like a tsunami."



A few years ago, Navarrete bought a hydraulic, portable dam that she installs at the entrance to the garage when it rains. As water flows into the garage, the dam activates and keeps the cars dry. But residents are then forced to park in the street.

Navarrete believes the city should continue with the infrastructure project but skip the road raising and instead just install water pumps in the streets to keep water off private property. If that doesn't work, she says, the city can then move to raise roads.

It's been a common argument ever since the city started building the giant, industrial-grade pumps around the city. Why not just use pumps?

Amy Knowles, the city's chief resilience officer, said the problem isn't just moving rainwater off the road. The flooding also comes from the tides and the rising groundwater underneath the city. As sea levels rise, the regular height of the ocean could be on par with the roads. Running pumps constantly also can be expensive.

"Just pumping is not going to lift the city out of the ocean. We have to elevate ourselves," she said. "It's like if you have a car stuck in a flooded intersection. You can't just pump the water out of the car, you have to pick the car up out of the water."

Road raising alone can only do so much. It's a fix but there are flaws.

Briand's Sunset Harbour hair salon, for instance, doesn't see flooding from the front anymore, but on some days, the water rises so fast it shakes the manhole cover in the garage behind his building. That floodwater flows down the two steps to the back door of his shop, where he installed a \$40 flood barrier to try and keep it out.

"There will come a day that the pump doesn't work. What will happen



then?" he said.

And the city's own report points out that the West Avenue road raising project would cause first-floor flooding on at least 15 properties, due to runoff from another neighborhood nearby.

To fix that, Miami Beach plans to install small stormwater pumps at each of the spots, along with a series of drains at the lowest spots in the neighborhood, as it did in the last road raising project in the wealthy communities of Palm and Hibiscus Islands.

Those drains, installed on the public grassy right of way and in private yards, connect to the city's stormwater system, which uses powerful pumps to flush the water back into Biscayne Bay. Miami Beach didn't get proper permits for the drains originally, leading to a rebuke from the county's environmental department.

The city also has plans to launch a \$1.3 million grant program this summer that will help pay for minor flood fixes on private property, Knowles said. That includes absorbent landscaping, barriers for doors and windows and elevating air conditioning units but not more complicated expensive fixes like raising homes or installing new sea walls.

"There are some low properties. They were low before the project and they're going to be low after the project. We have to be as innovative as possible to help private property owners," she said. "We want the money to go to properties that really need it the most."

Miami Beach's longer-term vision is that after key roads are raised, the buildings will follow. Any new construction home or business in Miami Beach already has to be about 8 feet (or more) above sea level, and city code allows builders to go even higher.



Ian Kaplan, president of the homeowners association for Palm, Hibiscus and Star Islands, said that's already happening in his neighborhood.

"The long view is the vast, vast majority of older homes are going to be torn down and rebuilt," he said. "Every day another house is being torn down. People are voting with their pockets by investing millions and millions of dollars into these homes to make them more resilient."

That solution may work perfectly for the kind of Miami Beach residents who have millions on hand to build or buy a brand new home, which are legion, but they aren't the only people who live on the island.

Aris Papadopoulos, a resilience expert and founding chairman of the Resilience Action Fund, , gave a speech at a neighborhood event in West Avenue on Tuesday, where he argued the city shouldn't raise roads in front of low-lying properties. Dozens of residents applauded.

"If you ask anyone if they'd rather see water on the roads or in their house, they'll always say roads," he said. "If you can't sequence both together, at least in the vulnerable neighborhoods, let's get the houses raised before the roads."

He believes the city should financially help residents prepare for the higher roads long before they're built, and give them a heads up on how high the roads will be and when they'll be installed.

"We've got to get to the point where people are saying 'please raise my roads'," he said.

As anti-road raising sentiment rises in West Ave, Miami Beach Mayor Dan Gelber met with members of the North of Fifth Neighborhood Association on Tuesday where he said urged the group to not allow a "small number of voices drown out the voices that you might represent."



He showed before-and-after photos of areas where the city raised the road, a flooded street in one photo and a dry one in the next.

"The idea that this isn't something we should be doing, you have to believe your eyes are lying to you," Gelber said. "We know it's working."

Bernardo Sandoval, president of the neighborhood group and the Mirador Master Association on West Avenue, said he fears sinking property values and rising insurance rates if the road-raising project is defeated.

He likened the argument made by those against road raising to his 6-year-old daughter asking not to eat her vegetables or do her homework, not knowing the consequences down the road. In 10 or 15 years, residents may regret not raising the <u>road</u>, he said.

"It would be completely irresponsible not to raise the roads," he said.

©2022 Miami Herald. Distributed by Tribune Content Agency, LLC.

Citation: Miami Beach's latest road-raising squabble: Who gets swamped by the flood waters? (2022, March 15) retrieved 25 April 2024 from https://phys.org/news/2022-03-miami-beach-latest-road-raising-squabble.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.