

Surfside Drainage Improvement & Flood Hazard Mitigation Plan

Project Description

Project Purpose, Description and Risk Mitigation Goals

The Town of Surfside is seeking funding for a plan to enhance the portion of its drainage system that serves the ocean side (east side) of town. Enhancement of the existing system is needed to mitigate flooding from heavy rainfall and to ensure the Town's resilience against storm surge and sea-level rise. The upgraded system will benefit the Surfside's 5800 residents, as well as the neighboring communities of Bal Harbour and Miami Beach, whose storm water systems are tied into Surfside's. The need for enhancement of this part of Surfside's drainage system has been established in assessments by the Town's Public Works Department, engineering and planning consultants and the 2018-2020 Sustainability and Resiliency Committee.

Surfside has long experienced rainfall-induced flooding on major residential roads. In 2013, the Town completed a major retrofit project to install pumps and enhance drainage on the Biscayne Bay (western) side of town. However, this project did not address flooding to the east, including Abbott Avenue, a major residential street adjacent to the town's main commercial thoroughfare. In recent years, cars and homes on Abbott regularly have been damaged following 25-year storms, in part because water drains from other roads onto Abbott. This past year, two storms of a 25-year magnitude occurred in just six months, causing significant flooding and damage ranging from a few hundred to several thousand dollars. The Town has previously purchased and distributed "sandless" inflatable sandbags to residents whose properties experience flooding, but this is a temporary solution that will become less and less effective as climate change intensifies storms and sea levels continue to rise. To future-proof Surfside in a comprehensive, cost-effective way, major drainage enhancements are needed both along Abbott and in other areas on Surfside's eastern side that experience flooding and/or contribute to it. (See the attached maps for details on Surfside's present and anticipated future flood risk.)

The drainage improvement plan for Surfside's eastern side will build on the work done in 2013 to enhance drainage on the western side. It will also complement two more recent projects: the town's storm water master plan and a flood risk assessment that focuses on the potential future repercussions of sea-level rise and intensified hurricanes. The storm water master plan and the future flood risk assessment will be taken into account in developing the drainage system improvements, ensuring that the recommended improvements both address current flooding challenges and prepare the town for future ones. In short, the drainage improvements are the culmination of these other projects and the backbone of Surfside's long-term strategy for future-proofing the Town against growing flood hazards in the most cost-effective way possible.

Planning Process

Planning will begin with meetings with Surfside commissioners to explain why the drainage improvements are critical to the Town's future, and to give an overview of the planning process. The first of four public outreach events will then take place so residents and businesses

can learn about the drainage plan process and provide initial input on hazards to be addressed. Concurrently, the Town will either develop a scope of work for its existing engineering pool or create and issue a request for qualifications. Once the engineering firm is selected, contracted and commences data collection, a second public workshop and a survey will take place for additional input from residents and business. The Town and the engineering firm will also conduct meetings with stakeholders including Miami-Dade County, the Florida Department of Transportation, the U.S. Army Corps of Engineers, NOAA and partners at the University of Miami School of Architecture Littoral Urbanism Lab (LU_Lab). When the engineering firm releases the draft drainage enhancement plan, it will be presented to the public for feedback via another survey and a third workshop, and another round of meetings will take place with the aforementioned stakeholders for any additional input. After this input is integrated and a final plan is released, the Town and the engineering firm will hold a final public event to explain the recommendations and next steps. Lastly, the Town will work with the consultant on a funding strategy and will integrate the drainage improvement plan into the capital plan, the resilience strategy and the budget for fiscal year 2022-23.

Project Team

Jason Greene, the town's Finance Director and Interim Town Manager, will manage the scope development/RFQ process, including compliance with HUD guidelines on procurement. Jason has 22 years of experience in public finance and a master's in business administration from the University of Miami. Randy Stokes, Surfside's Public Works Director, will supervise work performed by the engineering and design firm. Randy has 35 years of experience in public works management, including four years as Surfside's Public Works Director and four as Assistant Director. Kate Stein, the Town's Sustainability & Resiliency Officer, will oversee public outreach; Kate has worked for Surfside for eight months and comes from a communications background. Finance Department staff will manage the grant.

Funding Estimate and Anticipated Outcomes

The funding request amount includes 12 months of engineering and design services and expenses associated with conducting public outreach, as well as estimated costs of creating a funding plan. The anticipated outcome is recommended drainage improvements that address current and future hazards, account for community priorities and include a funding strategy for full implementation of recommendations.

Surfside's current Comprehensive Plan discusses the need to correct deficiencies in storm water management and increase capacity of drainage facilities, and the need to regularly update management plans. The Town's Comprehensive Plan does not include an Executive Summary, so please see instead the attached table of contents and some of the key pages that address drainage planning.