

**MEMORANDUM**Meeting Date 9-14-20

Date: September 14, 2020

To: Max Royle, City Manager

From: William Tredik, P.E., Public Works Director

Subject: Ocean Walk Drainage Update

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**BACKGROUND**

Ocean Walk is an 18-acre subdivision built in the 1980s, consisting of 55 single family residential lots. The subdivision relies upon a non-functional "accreted-in" roadside swale system which drains Lee Drive to a single point, whereupon runoff is conveyed via a 24" pipe to the Mickler Boulevard drainage system. Due to the non-functional roadside swales, valleys at driveway aprons hold water for significant periods of time after a rainfall event. After reaching Mickler Boulevard, runoff travels via the new pipe south to 16<sup>th</sup> Street, where it continues both west (to a private pond on Old Beach Road) and south to the 11<sup>th</sup> Street canal. Both pathways converge at Lakeside Park, whereupon flow continues west under S.R. A1A to the Mizell Road pond, where natural processes remove nutrients prior to its discharge to the Matanzas River.

The western portion of Lee Drive is low-lying, with Lidar information indicating elevations as low as 4.0 NAVD. Heavy rains in early June 2020 led to localized significant street flooding on Lee Drive. Property owners assert that the street flooding in June was the most severe since Hurricane Matthew in 2016, and believe it was exacerbated by the installation of the new pipe along Mickler Boulevard.

Due to the street flooding in June 2020, Public Works immediately implemented the following actions to reduce the potential for future street flooding, including:

- Removal of vegetation and muck from the 11<sup>th</sup> Street Canal
- Removal of vegetation and muck from the Mickler Boulevard Canal
- Cleaning and inspection of the 24" outfall pipe from Lee Drive
- Removal of vegetation from the 16<sup>th</sup> Street ditch
- Removal of vegetation from the private pond outfall at Old Beach Road
- Have pumps on standby to pump down staged water from Lee Drive

In addition to the above immediate mitigating actions, Public Works is taking the following interim steps to reduce the likelihood of future flooding while a long-term strategy is implemented:

- Installation of a pump-out structure on Mickler Boulevard to facilitate stormwater pumping
- Purchase of inflatable pipe plugs to block flow and allow better pipe maintenance and/or backflow protection.
- Install backflow protection device on the Lee Drive outfall to the Mickler Boulevard pipe.
- Budget for a trailer mounted high-volume stormwater bypass pump to allow quick response to potential flooding

**REQUESTED ACTION**

This is an information item. The public works director will present an update on the progress of flood mitigating actions and strategies for a long-term solution.