Legislation Text

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TO: **Mayor and Commissioners**
FROM: **Missie Barletto, Director Public Works**
THROUGH: **Terrence R. Moore, ICMA-CM**
DATE: **September 13, 2021**

MOTION FOR RETROACTIVE APPROVAL FOR SUBMITTAL OF A GRANT APPLICATION RESILIENT FLORIDA GRANT PROGRAM TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) IN THE AMOUNT OF $39,600,000 FOR MANAGEMENT FOR THE TROPIC ISLE ROADWAY AND UNDERGROUND UTILITY IMPROVEMENTS PROJECT (PROJECT NO.19-015).

Recommended Action:
Staff is requesting retroactive approval from City Commission for submittal of Resilient Florida Grant Program to the Florida Department of Environmental Protection (FDEP). One qualifying City of Delray Beach Capital Improvement Project was submitted to the FDEP on August 31, 2021 for funding consideration (Tropic Isle Roadway and Underground Utility Improvements Project).

Background:

The City of Delray Beach Public Works Department (City) is responsible for the maintenance of the roadways within the Tropic Isle neighborhood. Over several years, these roads have experienced uneven surface wear of the roadways, excessive sinkholes, asphalt cracking, and accelerated deterioration which has adversely impacted roadway drainage and drivability. The deterioration of the roadways has caused an increase in maintenance costs and has shortened the lifespan of the roadways. A recent engineering evaluation of the subsurface soils showed evidence of muck underneath the roadways which is the leading factor in the roadway deterioration. In addition to the subsurface investigation, a utility assessment was conducted which determined that both the water and sewer infrastructure was more than 50 years old and nearing expected lifespan. The Public Works recently completed a street evaluation study of a majority of the neighborhood streets. The study recommended avoiding disturbance of existing muck soils. The neighborhood borders the Intracoastal Water Way (ICWW) and is also susceptible to flooding from high tides and projected sea level rise. The City considered high tides and 20-30 year sea level rise projection within the seawall vulnerability study and the updated stormwater master plan. The updated master plan recommended raising the roads and converting the stormwater system to a pump system in the future.

The Tropic Isle neighborhood is located immediately east of Federal Highway, bordered by Linton Blvd on the north, the ICWW on the east, and the C-15 Canal on the south. The City Public Works Department has identified infrastructure improvements in the Tropic Isle neighborhood as a priority in the Capital Improvement Plan (CIP). These improvements include roadway paving, stormwater management, water main, sanitary sewer and lighting improvements. The area includes a total of approximately 5.75 miles of roadways.

The anticipated outcome of this project includes the following utility improvements:

1. Stormwater - Improved stormwater system using a 20-year design duration for the 5-year 1-day storm event will keep the crown of the road above storm stage elevation. Upgrades to existing drainage structures, addition of check valves (backflow preventers), raising of low lying streets and rehabilitation of existing utilities while streets are being reconstructed are an efficient way of addressing current flooding conditions.

2. Street Design - The project includes raising streets by approximately 6 inches and reconstruct with normal crown. The intent is to provide 18-foot-wide street pavement with a 2-foot gutter on each side and no sidewalks to minimize impacts to private property. Roads will be designed with a saw-tooth profile and valley gutter along the edges of pavement to direct rain runoff to inlets. Existing drainage systems will be modified to match new grades. Portions of private driveways and pervious roadside will be modified to connect to existing conditions, mainly within street right- of-way.

3. Water Mains - The current water main is antiquated and made of asbestos concrete pipes (where applicable). Through this project, the pipes would be resized, replaced, and fire hydrants would be added to increase fire flow.

4. Sanitary Sewer - The project would include lining segments of the existing vitrified clay pipe, as needed, or provide point repairs where lining is not an option. Sanitary manholes will be sealed and raised to new street grades.

SB 1954 specifies that roadways and water utility conveyance systems are critical assets. This project will include raising the roads in the Tropical Isle neighborhood by 6 inches, improving and upgrading storm drainage, and repairing and replacing utility infrastructure, thereby adapting these critical assets to the effects of flooding and sea level rise.

It is anticipated that this construction project will take three years to complete. Funding in the amount of $39,600,000 (Year 1: 15.4 million, Year 2: 12.1 million, and Year 3: 12.1 million) is being requested as grant funding through the FDEP. It is anticipated that construction of the project will begin in July 2022 and end in July 2025. The Public Works Department will be responsible for operating and maintaining the proposed project. We affirmatively state that there is a commitment to do so. We have been working toward solving this flooding problem, exacerbated by the effects of sea level rise for some time now.

Per the City's Administrative Policies and Procedures Manual, Policy BF-24, Grant Administration Policy and Procedure, all grant applications must be approved by the City Commission, and whereas the grant application deadline precedes the Commission meeting date, the initiating department may request approval from the City Manager and obtain approval from the City Commission thereafter. This item is for the Commission to retroactively approve one grant application submitted to the FDEP on August 31, 2021.

City Attorney Review:

City Attorney approved as to form and legal sufficiency.

Funding Source/Financial Impact:
No matching funds are required at this time, and therefore there is no financial impact associated with this request (at this time).

Timing of Request:
N/A