

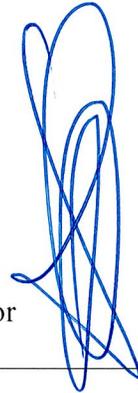
## MEMORANDUM

July 1, 2021

TO: City Commission

CC: Greg Harrison, City Manager  
Suzette Sibble, Assistant City Manager  
Brian Donovan, Assistant City Manager  
Earl Bosworth, Assistant City Manager

FROM: Horacio Danovich, GO Bond and Innovation District Director



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### Issue

Staff is seeking City Commission approval of a Resolution to execute a Change Order No. 1 with Kiewit Infrastructure South Company (KIS) in the sum of \$292,490.00 pertaining to repairs to the existing seawall underneath the SE 5<sup>th</sup> Avenue Bridge (see Location Map).

### Recommendation

Staff recommends Approval of the Resolution.

### Background

The GO Bond had set aside funds to replace the SE 5<sup>th</sup> Avenue Bridge and retained TY Lin (TY) as the design engineer and KIS as the Construction Manager at Risk (CMAR) to assist with the project. During the initial design stages, TY carried out survey work including partial underwater exploration to determine the conditions of the existing seawall and to identify methods of construction to repair and/or replace the seawall. TY concluded that the seawall could not be repaired and replacement was necessary.

KIS began seawall repairs along the south side of the bridge and attempted to backfill behind the seawall (standard procedure). The sandy material on the existing banks could not be contained and the backfilling did not work. KIS attempted to do the work utilizing five (5) different and approved techniques to no avail (see document titled **KISC - COPB - Seawall Unforeseen Conditions**). Further underwater exploration revealed that the seawall falls 16' short of the canal bed. As a result, the seawall does not really contain the bank as one might expect.



# CITY MANAGER'S OFFICE

Horacio Danovich, GO Bond & Innovation District Director

E: [horacio.danovich@copbfl.com](mailto:horacio.danovich@copbfl.com) | P: 954.786.7834 | F: 954.786.7836

TY, KIS and City staff met several times to discuss options to repair the seawall. We concluded that sheet piling was necessary to contain the bank and prevent it from collapsing onto the canal. Personally speaking, I experienced a similar situation on another project and sheet piling was the best possible solution. Steel plates are placed perpendicular to the canal bed and supported by vertical tie beams onto bank as well as tie beams driven into the bank. The sheet piles allow the construction of the new seawall.

The CMAR has to order the sheet piles and the supplier offers two options: lease or purchase. If the CMAR leases the sheet piles, then a very complex and delicate process is necessary to remove them. Leaving the sheet piles in place provides added safety. From my own personal experience, leaving the sheet piles in place is the best choice. After consulting with TY and KIS, we collectively believe that's the best approach albeit a more expensive option. Note the same approach would have to be utilized along the north bank.

Staff recommends approval.