



August 28, 2019

Robert Weber  
Coastal Program Manager  
Town of Palm Beach, Engineering Division  
Public Works Department  
951 Old Okeechobee Road, Suite A  
West Palm Beach, FL 33401

**RE: Lake Worth Lagoon Waterway Access Maintenance Dredging  
Justification for Change Order #5 for Coston Marine Services, Inc.  
Dredging of Rock in the north leg of the Central Waterway, and Central &  
North Cut Expansion**

Dear Mr. Weber:

This letter is provided as justification for Change Order #5 associated with the above referenced project. These correspondence addresses three additive line items associated with the dredging of additional rock in the north leg of the Central Waterway, extension in the North Waterway from 770 S. County Road to 760 S. County Road, and 638 ft. extension of the south leg of the Central Waterway by Coston Marine Services, Inc. (Coston) and additional time for ATM to oversee and administer this additional work.

### **North Leg of the Central Waterway Rock Excavation**

Following advancement of excavation within this area, sub-surface rock was encountered by the construction contractor within the excavation template. This rock represents a changed field condition in regard to the original base contract assumptions regarding material to be excavated and it is acknowledged that excavation of rock requires additional equipment and effort beyond the base contract unit rate assumptions. Based on consultation by the Engineer and Town staff and with representatives of Palm Beach Intracoastal Neighbors (PBIN), it was concluded that excavation of this area should be retained within the expanded project scope and it was acknowledged that excavation of the rock material would occur at an increased cost relative to the base contract unit quantities.

Based on this direction and given the need for this work to be completed expeditiously, a cost proposal for this additional effort was requested from Coston Marine Services, Inc. (the dredge contractor). This proposal includes an additional unit rate of \$85.00 per cubic yard for the approximate 3,000 cubic yards of rock excavation within the dredge template. A discount of \$51,510 in the central waterway is applied for the base contract amount. **This line item equates to an additional cost of \$203,490.00.**



The increased unit rate is consistent with current industry costs particularly given the uncertainties associated with mechanical excavation of rock material and there is no practical alternative for the excavation of this material through an alternate approach.

### **North Waterway Extension (To 760 S. County Rd.)**

Extension of the North Waterway to 760 S. County Rd. requires the dredging of approximately 1,300 cubic yards of sand/silt/cobble material. This would be excavated at the unit rate of \$17.17 per the base contract and would total \$22,300. Coston estimate adds an additional \$2.70 per cubic yard for General Conditions which ATM does not include. Rock is not expected in this area and the excavation of rock is not included in this estimate. **This line item results in a net additive change order in the amount of \$22,300.00.**

### **Central Waterway - Southern Extension (638 ft.)**

Extension of the south leg of the Central Waterway an additional 638 ft. requires the dredging of approximately 2,127 cubic yards of sand/silt/cobble material. This would be excavated at the unit rate of \$17.17 per the base contract and would total \$36,520. Coston estimate adds an additional \$2.70 per cubic yard for General Conditions which ATM does not include. Rock is not expected in this area and the excavation of rock not included in this estimate. **This line item results in a net additive change order in the amount of \$36,520.00.**

### **Extension of Time**

The increase in volume associated with Change Order #5 requires additional time beyond the contract time provisions within the base contract. This Change Order #5 results in an additional 188 days to complete this additional project segments.

Extension of time based on the following:

- 123 days for the above line items as per Change Order #5 from Coston Marine.
- 15 days for Stop Work per ATM/Town
- 50 days for residential maintenance, post-contract work

Based on the above information and the current completion date of September 25, 2019, this would extend the project completion date to on or around March 31, 2020.

### **Recommendation**

It is recommended by the Engineer of Record that an additive change order as defined above should be applied to the project budget to address the excavation of additional rock material in the north leg of the Central Waterway and the extensions of the North and Central Waterways as described above.



**This results in an increase to the project budget of \$262,310.00 (inclusive of the three additive change orders).**

Should you have any questions regarding this Change Order, please feel free to contact me at your convenience.

Sincerely,

***Applied Technology & Management, Inc.***

A handwritten signature in black ink, appearing to read "M. Jenkins".

Michael G. Jenkins, Ph.D., P.E.  
Coastal Engineering Principal

