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**CITY OF RIVIERA BEACH – MEMORANDUM**

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**TO:** UTILITY SPECIAL DISTRICT BOARD OF DIRECTORS

**THROUGH:** JONATHAN EVANS, CITY MANAGER, MPA, MBA, ICMA-CM

**FROM:** MARTHA MCNICHOLAS, P.E., SENIOR UTILITY ENGINEER

**SUBJECT:** CARDINAL CONTRACTORS, INC. DESIGN BUILD SERVICES

**DATE:** DECEMBER 18, 2019

**CC:** GENERAL PUBLIC

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**Background:**

The City utilizes gaseous chlorine and ammonia for chloramination disinfection that is constrained in its ability to automatically control the dosing and ratio of chlorine and ammonia application. The existing gas chlorination system is located in the structurally compromised North Chemical Building (NCB), and the ammonia feed system is located in the South Chemical Building (SCB). The City's overarching goal is to eliminate the continued use of chlorine gas and consolidate disinfection in the SCB to phase out continued operations that rely on the NCB. Other NCB systems that will be permanently consolidated elsewhere include the existing lime feed system (inoperable) and polymer feed system (already temporarily relocated) and existing electrical motor control equipment.

The noted improvements, together with other treatment process modifications were included in a Consent Order issued by the Palm Beach County (PBC) Department of Health (DOH) in June 2016.

This contract will be used as a mechanism for expediting the delivery of projects required to improve the performance and operational reliability of the Water Treatment Plant (WTP). The City intends to use the services of Design-Build entities to develop the detailed design requirements and implement the recommended improvements.



Potential projects that may be awarded under this Agreement include those required to comply with time sensitive requirements of the City's Consent Order, the cessation of operational use of the NCB as well as improvements aimed at enhancing the color removal performance of the existing WTP. This agreement does not constitute an obligation by the City to award any identified project. The City, in its sole discretion, will choose whether to award work under this agreement, which projects are assigned and allocation of projects between the selected Design-Build entities.

Specific projects that maybe considered for award under this agreement are as follows:

1. Sodium hypochlorite feed system
2. Ammonia system improvements
3. Polymer systems
4. Flow metering, water quality monitoring and control improvements
5. Lime Softener No. 3 influent modifications
6. Lime softening system improvements inclusive of a replacement storage/feed system for equipment currently housed in the NCB and modifications to the lime feed system in SCB
7. Replacement of electrical gear currently housed in NCB
8. General improvements to SCB (egress, ventilation, eyewash stations, windows, etc.)
9. Ancillary improvements -piping, injection points, supports, painting, color coding/labels/signs.
10. Polyphosphate feed system to enhance control of treated water scale forming tendency and color removal.
11. Carbon dioxide feed system (alternative to polyphosphate) to allow greater range of softening flexibility for enhanced color removal while controlling treated water scale forming tendency.
12. Ferric sulfate feed system for enhanced color removal performance.

**Citywide Goal:**

It is the goal of the City to provide water that is continuously safe to drink to the residents of the City, business owners, and other stakeholders within the Utility Special District including customers within the Town of Palm Beach Shores and unincorporated Palm Beach County, etc. It is the objective of this resolution for the Board to approve the design-build concept for expedited delivery of identified Water Treatment Plant improvement projects.



**Budget/Fiscal Impact:**

Design Build Services for the Water Plant projects are identified in the Fiscal Year 2019/2020 Budget. Page 1 and 2 of the City of Riviera Beach Utility District Capital Projects Plan (first reading) includes:

- \$3,900,000 for Lime Slakers for the north Chemical Building
- \$3,338,174 for WTP Disinfection System
- \$2,322,838 for WTP Enhancements
- \$2,312,200 for WTP Generators
- \$1,300,000 for North Chemical Building.
- \$513,500 for Ammonia System.

As this resolution is for the Board’s approval of the design-build concept which piggyback off of a contract the Palm Beach County has with Cardinal Contractors, Inc. At this time, there are no budget/fiscal impact and future procurement and fiscal policies have been followed.

**Recommendation(s):**

Staff recommends that the Board approves this design-build concept to conduct future WTP Capital Improvement Projects through Resolution Number 43-19UD by establishing a contract with Cardinal Contractors, Inc. by cooperative agreement.