

August 12, 2016

Clece Aurelus, P.E.  
**CITY OF HOLLYWOOD**  
Department of Public Utilities  
Engineering and Construction Services Division  
Post Office Box 229045  
Hollywood, Florida 33022

Hollywood Southern Regional WWTP  
Clarifier Nos. 5 & 6 Rehabilitation  
City Project No. 16-9531

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Dear Mr. Aurelus:

As requested, Hazen and Sawyer, P.C. (H&S) is pleased to offer engineering services during construction for the Reuse System Expansion Phase 2 project at the Hollywood Southern Regional Wastewater Treatment Plant (SRWWTP).

## **BACKGROUND**

The existing Clarifier Nos. 5 and 6, were constructed in 1990 and are critical to the proper functioning biological process at the wastewater treatment plant. Regular maintenance of the clarifiers has extended the useful life of the drive mechanism and associated components well beyond the typical service life of 6-10 years for wastewater use. Replacement of the center assembly, drive motor, seals, rake blades, skimmer arms, and scum scrapers is necessary along with associated miscellaneous metal repairs and alarm controls. It is the scope of this project to replace the drive mechanisms and seals and to perform other miscellaneous repairs at the West Plant clarifiers.

## **SCOPE OF SERVICES**

### **Task 1 – Detailed Design**

CONSULTANT will evaluate the existing Clarifier Nos. 5 and 6 for the purpose of preparing design documents suitable for bidding. The project shall include replacement of the center assembly, drive motor, torque limiting system, RAS suction valves, center column grating, neoprene seals, rake blades, skimmer arms, and scum scrapers, miscellaneous welding, spray water nozzle replacement, miscellaneous spray piping and valve replacement, interior and exterior painting, replacement of clarifier trough joint material and coating of troughs. It is envisioned that equipment will be replaced in-kind. The local control panel shall be replaced and typical clarifier instrumentation shall be connected to the existing SCADA system. The existing walkway, trusses, feed well, feed pipes, center column, rake arms, sludge removal pipes, sludge valves, scum drop box, weirs and baffles shall be reused. To the extent possible, a column inspection hatch similar in size and location to existing will be implemented in the design. Contract Documents (plans and specifications) for bidding/construction of the described work shall be prepared.

## **Task 2– Cost Opinion**

CONSULTANT shall provide a cost opinion on the project budget at the 90 percent design stage.

## **Task 3– Meetings**

The scope of work herein was based on City staff input. CONSULTANT shall submit 90% plans and specifications and attend one meeting during the design stage to receive final comments.

## **Task 4 – Bid Phase Services**

CONSULTANT shall provide assistance to the City during the bidding phase for the project. Activities to be performed are as follows: attend a pre-bid conference, reply to bidders' questions, draft up to two addenda to the technical specifications and drawings for City distribution, review the Bid Proposal form, prepare a Bid Tabulation, check contractor references of the lowest responsive bidder, and issue a recommendation of award. Contract document packages will be produced and sold by the City.

## **KEY ASSUMPTIONS**

- Information (drawings and specifications) from the manufacturer of the clarifier drives and components, Ovivo, will be used for the design. Previous plans and specifications in their present format will be used to the extent possible.
- Existing underground electrical conduit, electrical feeds, instrumentation conduit are adequate for the envisioned project and will not require expansion or replacement
- Surveying services, underground utility locates and geotechnical investigations are not envisioned
- The proposed work is considered maintenance and permitting is not envisioned, including with the City of Hollywood Building Department. No permitting, plan submittal or responses to Building Department comments is anticipated or included.
- No owner-furnished / pre-purchasing of equipment is anticipated
- No shop drawing or product submittal after acceptance of final design is included.
- The design approach will address minimal downtime of the existing operating facilities
- Value engineering and other outside reviews (other than City staff review) are not anticipated
- No local minority business enterprise or local small business enterprise participation is envisioned
- The City will competitively bid the project and enter into an agreement with an outside Contractor to complete the work. No prequalification of Contractors will be performed.
- The City will provide front end documents applicable to the project.
- The development of conformed contract documents will be performed by others
- Services during construction will be included under a separate work order

## **COMPENSATION**

The engineering services for this project will be performed on a Not-to-Exceed basis in the amount of \$42,529. A fee breakdown is attached.

## **SCHEDULE**

Engineering services will be completed within 4 months from receipt of the Notice-to-Proceed and requested information from manufacturers.

Engineering services for the project will be performed as part of our Professional Services Agreement for General Engineering Consultant Services (Agreement) dated February 2003. Services provided by Hazen and Sawyer, P.C. shall be limited to those services specifically identified in this work order.

We look forward to your reply. In the meantime, should you have any questions, please contact us.

Very truly yours,

**HAZEN AND SAWYER, P.C.**



J. Philip Cooke, P.E.  
Senior Associate

c: *File No. 4321-016/1.0*  
*J. McMahon*

*Attachment*

CITY OF HOLLYWOOD  
SOUTHERN REGIONAL WASTEWATER TREATMENT PLANT  
Clarifier Nos. 5 & 6 Rehabilitation  
Cost Breakdown

<u>Tasks</u>	<u>Senior Associate</u>	<u>Associate</u>	<u>Senior Principal Engineer</u>	<u>Engineer</u>	<u>Designer</u>	<u>Draftsman</u>	<u>Secretarial</u>	<u>Subtotal</u>	<u>Cost</u>
LABOR									
Task 1 - Detailed Design	30	54	26	30	28	28	0	196	\$ 32,045
Task 2 - Cost Opinion	2	8	0	4	0	0	4	18	\$ 2,822
Task 3 - Meetings	2	2	0	2	0	0	2	8	\$ 1,237
Task 4 - Bid Phase Services	4	22	0	0	0	0	8	34	\$ 5,675
Subtotal	38	86	26	36	28	28	14	256	<b>\$ 41,779</b>
DIRECT EXPENSES									
Computer (Graphics/CADD)									\$ -
Reproduction									\$ 500
Out-of-pocket									\$ 250
Subtotal									<b>\$ 750</b>
<b>Total (Not-to-Exceed)</b>									<b>\$ 42,529</b>
Maximum Hourly Raw Labor Rate*	\$66.34	\$60.32	\$54.84	\$44.02	\$42.74	\$29.41	\$22.64		
* Overall multiplier = 3.2									