

June 17, 2015

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
RAS Pump Station No. 2 Replacement CMS
City Project No. 14-9522

Dear Mr. Aurelus:

As requested, Hazen and Sawyer, P.C. (H&S) is pleased to offer engineering services during construction for the RAS Pump Station No. 2 Replacement project at the Hollywood Southern Regional Wastewater Treatment Plant (SRWWTP).

BACKGROUND

The existing RAS PS No. 2 was constructed in 1973 and is critical to the proper functioning biological process at the wastewater treatment plant. Severe cracking of the walls and revisions to the operating levels within the neighboring clarifier trough in order to meet new regulatory requirements has provided a pathway for multiple leaks to penetrate the interior of the pump station. In addition, electrical and mechanical equipment has reached the end of its useful life and requires replacement. The design work has been completed, the construction contract has been advertised, an apparent low bid has been received and an award recommendation has been made. As a result, this work order addresses engineering services during construction for the RAS Pump Station No. 2 Replacement project.

SCOPE OF SERVICES

Task 1 – Construction Administration Services

H&S shall provide limited services for the management of the project during the construction phase. Such management activities shall include limited coordination and general correspondence with the CITY, Construction Contractor and subcontractors as well as handling and processing of submittals. This task also includes requests for contract interpretations and clarifications required by the Contractor which do not result in the submittal of formal Requests for Information. At the City's request, the level of effort associated with this task is two (2) hours per week for a period of 80 weeks (560 calendar days for final completion).

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Task 2 – Contract Interpretations and Clarifications

H&S shall log requests for information and issue necessary technical interpretations and clarifications of the Construction Contract Documents in a timely manner. For purposes of estimating level of effort associated with this task, it is assumed that ten (10) requests for information will be addressed by H&S.

Task 3 – Orders for Change

H&S shall develop/issue requests for routine project cost and/or schedule changes from the Contractor. Changes may be the result of unforeseen conditions or interferences arising during routine progress of work or additional improvements requested by CITY after the project bid date and processed as Change Orders or Field Orders. H&S shall evaluate the impact of the change request in terms of project cost and schedule. H&S shall prepare a recommendation of the change request and if accepted, a statement noting that the requested cost/schedule impacts are fair and reasonable. H&S' analysis of the change request shall be forwarded to CITY for processing. This Scope of Services has been based upon the preparation of one (1) Request for Proposal and one (1) order for change. It is noted that H&S' Scope of Services does not include claims analysis or litigation support.

Task 4 – Submittal Review

H&S shall log, track, review and process shop drawings and any other submittals which the Construction Contractor is required to submit within twenty-one (21) working days of receipt of the submittal except for special items requiring longer review time if so noted in the Construction Contract Documents. The review shall be for conformance with the design intent and compliance with the information presented in the Construction Contract Documents. H&S shall determine the acceptability of materials and equipment proposed by the Construction Contractor. This Scope of Services has been based upon the review and processing of a maximum of fifty (50) submittals, including re-submittals.

Task 5 – Construction Meetings

H&S shall attend meetings as follows:

Preconstruction Conference – H&S shall conduct a preconstruction conference attended by representatives of CITY and by the construction contractor. H&S shall provide the attendees with a written summary of the meeting which will be distributed electronically.

Construction Progress Meetings – As requested by the City during the project (up to a maximum of 9 meetings), H&S shall prepare an agenda, conduct a progress meeting with the Construction Contractor and the CITY to review project status and identify issues that may affect the project schedule. H&S shall produce a brief hand-written summary of critical issues discussed at each progress meeting and updated versions of shop drawing submittal and RFI logs.

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Task 6 – Field Observation Services

H&S shall conduct periodic on-site observations of construction to assist in determining if construction is proceeding in substantial accordance with the Contract Documents. Periodic observations for this effort are based on one (1) hour per week during the 560 day construction period. It is important to note that in performance of the duties noted herein, H&S shall not:

- Undertake any of the responsibilities of Contractor or its subcontractors, nor direct any of their work.
- Advise on or issue directions pertaining to any aspect of the means, method, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.
- Advise on, or issue directions about, safety precautions and programs related to the Contractor's Work.
- Approve any interruptions or modification of CITY's facilities without the approval of CITY.

This scope of services is based upon the assumption that the CITY shall provide a Resident Project Representative (RPR) to provide field observation services of the proposed Work. The RPR will perform the following duties and responsibilities:

- Attend pre-construction conference, progress meetings and other job conferences.
- Serve as the construction liaison, working primarily with the Contractor(s) superintendent(s) and plant staff.
- Assist in obtaining additional details or information when required at the job site.
- Conduct on-site observations of construction in progress (including specialized field tests) to assist in determining if construction is proceeding in substantial accordance with the Contract Documents.
- Inform the Contractor whenever the RPR believes that construction is unsatisfactory, faulty or defective, does not conform to the Contract Documents, does not meet the requirements of any inspections, tests or approval required to be made, or has been damaged before final payment.
- Immediately inform the Contractor upon the commencement of any construction requiring a submittal, if the submittal has not been accepted.
- Visually review suitability and method of storage of materials, equipment and supplies delivered to the construction site.
- Verify that operating and maintenance procedures are available to the City before equipment start-up and operator training is conducted by the Contractor.
- Observe, record, and report appropriate details relative to testing and start-up procedures.

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- Prepare and submit daily reports and maintain a daily diary or log book, recording hours on the job site, weather conditions, data pertaining to questions of extras or deductions, list of visiting officials and representatives of manufacturers, fabricators, suppliers and distributors, daily activities, decisions, observations in general and specific observations in more detail as in observing test procedures. Record names, addresses and telephone numbers of Contractor, subcontractor and major supplier personnel.
- Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project(s), and record the outcome of these inspections in the daily report.
- Review applications for payment with the Contractor for accuracy, back-up detail and completeness.
- During the course of construction, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by the Contractor are applicable to the items actually installed.
- Before issuance of a determination of substantial completion, prepare a list of items requiring completion or correction, in concert with the CITY. Participate in the final inspection.
- Coordinate with the CITY and Contractor for necessary shutdowns and interruptions of CITY facilities.

Task 7 –Startup Services

H&S shall coordinate and monitor startup activities of the project. A total of forty (40) hours of onsite attendance is envisioned for the RAS pumps, VFDs, and associated equipment.

Task 8 – Project Closeout

Upon receiving notice from the Contractor that the project is substantially complete, H&S, in conjunction with appropriate CITY staff, shall develop a “punch list” of the project. The “punch list” shall include items needing completion or correction prior to consideration of final acceptance. H&S shall develop the list with assistance from CITY. The list shall be forwarded to the Contractor by the CITY. Upon notification from the Contractor that all remaining “punch list” items have been resolved, H&S, in conjunction with appropriate CITY staff, shall perform a final review of the finished project.

Task 9 – Record Drawings

H&S shall prepare and distribute to the CITY within sixty (60) days of the date of receipt of final marked-up, red-lined field drawings from the Construction Contractor and CITY and all RPR daily reports, two sets of 22” x 34” signed and sealed prints of the 29 contract drawings. H&S shall also deliver the AutoCAD electronic version of the record drawings on compact disk. The record drawings shall incorporate those changes made during the construction process, based on the

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marked-up prints, drawings and other data furnished by the Construction Contractor and CITY to H&S with each pay application.

KEY ASSUMPTIONS

- H&S shall not be responsible for the acts or omissions of any construction contractor, any construction subcontractor or any other person (except H&S' own employees, subconsultants or other agents) at the project site
- H&S shall not be responsible for construction contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. H&S shall issue all technical instructions to the Contractor and shall interpret all technical requirements of the Construction Contract documents
- H&S services during construction are provided on the basis that consulting services are minimized and that City staff provide support and direction during construction. This work order was prepared on the basis that City will provide inspection and financial tracking and administration
- Use of collaborative software for document control and record keeping is not included.
- Normal 8-hour work days, 5 days per week are assumed.
- No materials testing/specialty materials observations by laboratories/specialty forms are included.
- Existing equipment is being replaced in-kind and no additional equipment or processes are being added, therefore O&M Manuals are not included.
- No training by H&S is anticipated.
- Permitting services were performed during design and are not included.
- Permitting for requested changes or additional construction efforts and permit tracking will be performed by others and is not included.
- The development of conformed contract documents for construction are not included
- The selected Contractor will maintain full responsibility for meeting safety and environmental regulations and conditions.
- The selected Contractor will be required to coordinate its work efforts with the City or its agent as required to allow for the timely construction observation of work.
- The City will receive, review and process Contractor applications for payment.

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COMPENSATION

<u>Description</u>	<u>Cost</u>
Labor	
Task 1 – Construction Administration Services	\$29,745
Task 2 – CDCs/RFIs	\$6,502
Task 3 – Orders for Change	\$2,684
Task 4 – Submittal Review	\$61,651
Task 5 – Construction Meetings	\$6,797
Task 6 – Field Observation Services	\$12,761
Task 7 – Startup Services	\$6,783
Task 8 – Project Closeout	\$4,224
Task 9 – Record Drawings	<u>\$4,583</u>
Sub-Total Labor	\$135,730
Direct Expenses	
Miscellaneous (postage, shipping, etc.)	<u>\$1,000</u>
Sub-Total Direct Expenses	\$1,000
 TOTAL (Not-to-Exceed)	 <u>\$136,730</u>

The services as outlined above will be performed on a not-to-exceed basis for \$136,730. A fee breakdown used to develop the fee is attached.

SCHEDULE

Per the Contract Documents, a construction duration of 530 days to substantial completion and an addition 30 days to final completion is anticipated. We are prepared to proceed with these services immediately.

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.

*Clece Aurelius, P.E.
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Very truly yours,

HAZEN AND SAWYER, P.C.

A handwritten signature in blue ink, appearing to read 'J. Philip Cooke', is positioned above the printed name.

J. Philip Cooke, P.E.
Senior Associate

*c: File No. 4321-068/1.0
J. McMahon*

CITY OF HOLLYWOOD
SOUTHERN REGIONAL WASTEWATER TREATMENT PLANT
RAS Pump Station No. 2 Replacement CMS
City Project No. 12-9214
Fee Breakdown

<u>Tasks</u>	<u>Senior Associate</u>	<u>Associate</u>	<u>Senior Principal Engineer</u>	<u>Principal Engineer</u>	<u>Engineer</u>	<u>Designer</u>	<u>Draftsman</u>	<u>Secretarial</u>	<u>Subtotal</u>	<u>Cost</u>
LABOR										
Task 1 - Construction Administration Services	80	0	0	80	0	0	0	0	160	\$ 29,745
Task 2 - CDCs/RFIs	0	10	10	0	20	0	0	0	40	\$ 6,502
Task 3 - Orders for Change	2	2	6	0	0	6	0	0	16	\$ 2,684
Task 4 - Submittal Review	50	0	50	0	300	0	0	0	400	\$ 61,651
Task 5 - Construction Meetings	9	0	0	22	0	0	0	19	50	\$ 6,797
Task 6 - Field Observation Services	0	0	0	80	0	0	0	0	80	\$ 12,761
Task 7 - Startup Services	4	0	12	24	0	0	0	0	40	\$ 6,783
Task 8 - Project Closeout	0	8	8	8	0	0	0	0	24	\$ 4,224
Task 9 - Record Drawings	2	4	0	0	4	0	30	0	40	\$ 4,583
Subtotal	147	24	86	214	324	6	30	19	850	\$ 135,730
DIRECT EXPENSES										
Miscellaneous (postage, shipping, etc.)										\$ 1,000
Subtotal										\$ 1,000
Total (Not-to-Exceed)										\$ 136,730