

April 15, 2022

Jeff Jiang, 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
Injection Well Nos. 1 & 2 MIT Amendment 1
City Project No. 22-9735

Dear Mr. Jiang:

As requested, Hazen and Sawyer, P.C. (H&S) is pleased to offer engineering services during mechanical integrity testing of the deep injection wells numbers 1 and 2 at the Hollywood Southern Regional Wastewater Treatment Plant (SRWWTP).

BACKGROUND

Operation of the SRWWTP injection wells is regulated by permit from FDEP. A condition of the operating permit from the Florida Department of Environmental Protection (FDEP) requires mechanical integrity testing (MIT) to be performed on a regular basis. Dates for mechanical integrity testing are established based on the date of the casing pressure test and must be performed once every five years. Based on the date of the pressure test, testing of IW-1 will have to be performed by August 20, 2022 and IW-2 will have to be performed by August 30, 2022. Bids for the execution of the MIT were opened on April 7, 2022. Services included in this amendment consist of oversight and preparation of a report summarizing the results of the MIT, certified by an engineer registered in the state of Florida.

SCOPE OF SERVICES

Task 7 – MIT Field Services

CONSULTANT shall coordinate implementation of the MIT plan and provide general oversight services. The CONSULTANT shall conduct a preconstruction conference and the review of project schedules, pay requests, and other contractor submittals. The review shall be for conformance with the intent and compliance of the MIT plan and associated FDEP conditions. Services to be provided during testing oversight include preparation of daily reports, coordination with well driller and FDEP, accompanying visiting regulatory inspectors, witnessing testing, and observations for conformance with testing and permitting requirements. Construction progress meetings are not anticipated. Witnessing testing includes video surveys, packer tests, temperature logs and radioactive tracer surveys.

Task 8 – MIT Report

Upon completion of the MIT, CONSULTANT shall prepare a report that summarizes the results of the MIT. The report will provide the results and interpretation of the testing requested by FDEP for completion of said work. The report shall also include the results of water quality testing

performed by the City on water from monitor wells MW-1 and MW-2 during the last five years. The CONSULTANT shall present water quality testing results in tabular and graphical format, including interpretation. The CONSULTANT will submit a draft report to the City for review. A final report shall be prepared and submitted to the City and to FDEP within three weeks of receipt of written comments from the City.

KEY ASSUMPTIONS

- City will provide operational data of the injection wells in Excel format, including injection well flows, injection well pressures, injectivity test results, monitor well levels, and monitor well chemical analysis for the past ten years
- This scope of work does not include responding to issues pertaining to the new injection wells IW-3 and IW-4.

COMPENSATION

The engineering services for this project will be performed on a Not-to-Exceed basis in the amount of \$23,729. A fee breakdown is attached.

SCHEDULE

A low bidder for the MIT work has been identified and award is anticipated in early summer 2022. MIT efforts are anticipated to be performed by August 30, 2022. A report of the certified MIT results will be submitted to FDEP within 30 days of MIT completion.

Engineering services for the project will be performed as part of our Professional Services Agreement for General Engineering Hazen Services (Agreement) dated October 2017. Services provided by Hazen and Sawyer, D.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. 4321-091/1.0
G. Bulman

Attachment

**CITY OF HOLLYWOOD
SOUTHERN REGIONAL WASTEWATER TREATMENT PLANT
MIT FIELD SERVICES AND REPORT
Fee Breakdown**

<u>Tasks</u>	Labor Hours							<u>Subtotal</u>	<u>Fee</u>	
	<u>Senior Officer</u>	<u>Senior Associate</u>	<u>Associate</u>	<u>Senior Principal Engineer</u>	<u>Principal Engineer</u>	<u>Principal Scientist</u>	<u>Designer</u>			
LABOR										
Task 1 - MIT Field Services	0	8	12	0	0	48	0	0	68	\$ 11,445
Task 2 - MIT Report	0	8	12	0	40	0	4	4	68	\$ 12,184
Subtotal (Not-to-Exceed)	0	16	24	0	40	48	4	4	136	\$ 23,629
DIRECT EXPENSES										
Out-of-pocket										\$ 100
Subtotal										\$ 100
Total										\$ 23,729
Maximum Hourly Labor Rate	274.12	261.80	212.52	181.72	166.32	141.68	147.84	73.92		