

AMENDMENT NO.2 TO AGREEMENT TO PERFORM PROFESSIONAL ENGINEERING SERVICES TO WATER RECLAMATION FACILITY MASTER PLAN BETWEEN THE CITY OF DURHAM AND HAZEN AND SAWYER, P.C.

This contract amendment (“Amendment”) is dated and entered into as of the _____ day of _____, 20_____, between Hazen and Sawyer, P. C., a foreign corporation authorized to do business in the State of North Carolina, (hereinafter referred to as the “Engineer”) and City of Durham (hereinafter referred to as the “City”).

The City and the Engineer entered into a contract titled “Agreement to Perform Professional Engineering Services to the WATER RECLAMATION FACILITY MASTER PLAN between the City of Durham and Hazen and Sawyer, P.C.”, dated SEPTEMBER 15, 2010 That contract is referred to as the “Original Contract.” Amendment No. 1, dated September 6th 2012, added design and permitting services for projects developed as a result of master planning. Summarily, these projects included aeration basin and piping modifications at both WRFs; chemical storage and feed improvements at each WRF; demolition at the NDWRF; and a new side stream treatment facility at the SDWRF.

The Original Contract is hereby amended as follows:

1. Under Exhibit A, The following items are added to Exhibit A at the end of Section E.4:

“NDWRF Standby Electrical Power Generation Facilities scope modifications –
The NDWRF standby electrical power generation facilities were originally planned as a centralized System with 12,470v generation and replacement of the on-site distribution system owned by Duke Energy with a new distribution system owned by the City. Due to contractual constraints with Duke Energy, the City has determined to install a decentralized system with multiple generator sets and will continue to use the Duke owned on-site distribution system.

The Engineer shall design the following generator facilities:

- 1,500 kW, 4,160VAC generator to serve the blower facilities
- 300 kW, 480VAC generator to serve the UV disinfection facilities
- 1,000 kW, 480VAC generator to serve Plant B preliminary and primary treatment and the aeration basins
- 750 kW, 480VAC generator to serve the Plant A low lift pump station and other Plant A loads
- Electrical modification to supply the filters and RAS pump station from the existing Plant B 600kW generator located in the administration.

The generator sizes listed above are approximate and may change through the course of the design. The designs will include automatic transfer switches for each new generator for automatic open transition transfer between the generator and utility sources. There is no work planned related to modifying or replacing the existing Plant B 600 kW generator. Related to this project, the City will be able to negotiate a reduction in the facility charge from Duke Energy by no longer reserving capacity on the backup electrical service to the NDWRF. The Engineer will have no responsibility for negotiation of the terms, conditions and execution of the contract with Duke Energy.”

2. The following items are added to Exhibit A after Section E.18.

“E.19. NDWRF and SDWRF SCADA Renovations – The Engineer shall design renovations to the NDWRF and SDWRF SCADA system software. This work shall include specifications for all existing control strategies, revisions to the historical data system, new control system screens, new servers and historian servers at both plants. During construction, the Engineer shall conduct a pre-construction coordination meeting, review SCADA system submittals, conduct four Display “Look and Feel” workshops to facilitate inclusion of modern information display philosophies, review all displays, attend a factory acceptance test, conduct special inspections of the installed SCADA system, develop information for inclusion in O&M Manuals, and record drawings of the system.”

3. Under Exhibit A, the following items are added to Exhibit A in Part 3 after Item 4:

“NDWRF & SDWRF Additional Inspection Services – The Engineer shall provide up to 2 full time resident project representatives as needed to complete Construction Inspection tasks assuming a 24 month construction schedule for Contract 3 work at SDWRF and an 18 month assumed schedule at NDWRF. Should the contractor schedule extend beyond these periods there will be a need to amend this agreement to extend the inspection period. Residents duties shall include obtaining exposed in-place and as built project details such as pipe inverts, conduit location, sizes, wire junctions and unique details of each system. The details shall be recorded on the as-builts before buried or inaccessible infrastructure is covered. Electronic as-builts will be updated before release of final construction contract payments to confirm proper communication of all project details from the contractor.

The Engineer shall perform all specialty inspections as required under the revised 2012 NC Building Code.

Additional Electronic Construction Documentation – The Engineer shall provide and maintain electronic construction documentation that is accessible by the Owner. The project information database shall be controlled such that certain data, i.e. submittals and

RFIs, is available to the Contractor and that other project information, i.e. claims analysis, correspondence, etc. is only available to the Engineer and the Owner. The project controls database shall be updated on a daily basis during construction. The Final deliverable shall be indexed and linked. Photographic services provided by the contractor shall be merged and included in the final deliverable.

Scan City Records for Electronic Operations and Maintenance Manual – The Engineer is providing an electronic operations and maintenance manual as part of the Work. In addition to providing searchable PDF copies of vendor O&M manuals from the construction occurring under the WRF Master Plans project, the Engineer shall scan City records of all vendor O&M manuals from previous construction projects and incorporate these into the electronic operations and maintenance manual.

Construction Administration Warranty Period Services – For all new parts and equipment installed as part of the Contract 3 – Chemical Systems and Nutrient Related Improvements project, the Engineer shall receive and log into the project controls database the Contractor’s pertinent equipment data including but not limited to hp rating, serial numbers, make and model numbers, recommended maintenance schedules, guarantees and warranties. The Engineer shall monitor and report on warranty claims and resolutions throughout the construction warranty period.

SDWRF Admin/Lab Building Credit for Construction Administration - The City elected not to proceed with construction of the SDWRF Admin/Lab Building Modifications. The Engineer completed Bid Period Services but not the Construction Administration Services for this portion of the work. The Engineer shall provide a credit to the City for Construction Administration Services not rendered associated with that contract package.”

4. Under Exhibit A, the following items are added to Exhibit A in Part 3 after Item 4, replace the Schedule with the following:

5. The total additional contract amount for this Amendment No. 2 is \$714,828.00. Accordingly, under Exhibit C, Article 4, Section C4.01, delete the first paragraph and table of section 1 and replace with the following:

1. An amount up to the OWNER shall pay ENGINEER an additional amount of up to **\$3,432,630.00** based on the following assumed distribution of compensation (Design Phase and Bid/Construction Administration Phase – Lump Sum and Construction Inspection Phase – Billing Rates based on direct labor multiplier). The Total Contract Amount shall be adjusted as follows:

Task	Original Contract Amount	Amendment No.1	Amendment No.2	Final Contract Amount
A. Current and Future Capacity	Lump Sum \$136,679	-	-	Lump Sum \$136,679
B. Master Site Plans	Lump Sum \$494,262	-	-	Lump Sum \$494,262
C. Energy Management Plan	Lump Sum \$142,478	-	-	Lump Sum \$142,478
D. Major Facilities Management Schedule	Lump Sum \$78,390	-	-	Lump Sum \$78,390
E. Improvements				
1. Design Phase	Lump Sum \$652,028	Lump Sum \$296,696	Lump Sum \$94,361	Lump Sum \$1,043,085
2. Bid and Construction Administration Services (Lump Sum)	Lump Sum \$386,519	Lump Sum \$80,025	Lump Sum \$108,916	Lump Sum \$575,460
2a. Bid and Construction Administration Services (Time and Materials)	-	-	Labor Rate x 3.15 Multiplier \$46,670	Labor Rate x 3.15 Multiplier \$46,670
3. Construction Field Services	Labor Rate x Multiplier \$416,236	-	Labor Rate x 2.35 Multiplier \$464,881	Labor Rate x 2.35 Multiplier \$881,117
Subtotal-E. Improvements	\$1,454,783	\$376,721	\$714,828	\$2,546,332
F. Regulatory Assistance	Labor Rate x Multiplier \$34,489	-	-	Labor Rate x 3.15 Multiplier \$34,489
Subtotal – All Tasks	\$2,341,081	\$376,721	\$714,828	\$3,432,630

6. Under Exhibit C, Article 4, Paragraph C4.01, 7, Add the following:

In recognition that the Engineer will provide field staff for the Resident Project Representative (RPR) position rather than sub-contracting this portion of the work for Contract 3 – Chemical Systems and Nutrient Related Improvements, the Hourly Rate times Multiplier for the RPR services for Contract 3 and any remaining RPR services under this Contract shall be based upon a direct labor Multiplier of 2.35.

7. Under Exhibit K Section– Special Provisions insert the following:

1.8. E-Verify Compliance. The contractor represents and covenants that the contractor and its subcontractors comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes (NCGS). The City is relying on this E-Verify Compliance section in entering into this contract. The parties agree to this section only to the extent authorized by law. If this section is held to be unenforceable or invalid in whole or in part, it shall be deemed amended to the extent necessary to make this contract comply with NCGS 160A-20.1(b).

IN WITNESS WHEREOF, the parties hereto have executed this Amendment to the Original Agreement, the Effective Date of which is indicated on page 1.

ATTEST:

OWNER – CITY OF DURHAM

By: _____

Preaudit Certification:

ENGINEER:

HAZEN AND SAWYER, P.C.

By: _____

Secretary

Vice President

Corporate Seal – Engineer

Date Signed: _____

State of North Carolina

ACKNOWLEDGMENT BY CORPORATION

County of Wake

I, a notary public in and for the aforesaid county and state, certify that Robert S. DiFiore personally appeared before me this day and stated that he is Secretary of Hazen and Sawyer, P.C., a corporation, and that by authority duly given and as the act of the corporation, the foregoing Amendment with the City of Durham was signed in its name by its Vice President whose name is Ronald L. Taylor, sealed with its corporate seal, and attested by himself as its said Secretary. This the _____ day of _____, 2014.

My commission expires:

Notary Public