

July 13, 2021

Mr. Aqeel Abdool-Ghany
Assistant City Engineer
City of Hallandale Beach
630 NW 2nd Street
Hallandale Beach, FL 33009

**Re: Lift Station #13 Replacement
City of Hallandale Beach, FL**

Dear Mr. Abdool-Ghany:

In accordance with Resolution No. 2020-054, RFP #FY 2018-2019-012 Continuing Professional Architectural and Engineering Services and Other Services, the following scope of services is provided by Kimley-Horn and Associates, Inc., (hereinafter referred to as “Consultant”, “We” or “Kimley-Horn”) to the City of Hallandale Beach, (hereinafter referred to as “Client” or “City”) as requested to provide Water Resources/Stormwater Design/Wastewater Engineering Services associated with replacing Lift Station #13.

Project Understanding

The intent of the project is to convert the City’s existing Lift Station #13 from a “Can Style” lift station to a submersible lift station in the current location. Lift Station #13 is located adjacent to the “Gulfstream Academy of Hallandale Beach” on SW 8th Street. The Lift Station #13 replacement project scope is based on the City’s Wastewater Master Plan dated March 2018 and a site meeting held on 6/24/2021. The project objectives are as follows:

1. Review and evaluate the duplex submersible wastewater lift station capacity based on flow and operating pressures provided by the City to determine new pumping equipment requirements.
2. Coordinate new pumping equipment details for replacement of existing control panel system and existing emergency generator. The control panel and associated control system will be evaluated in terms of present operational problems, redundancy, Class 1 Division 2 compliance, and provisions for the City’s SCADA system. SCADA system requirements to be provided by the City.
3. Evaluate lift station site for demolition of the existing lift station as well as installation of the new submersible lift station.
4. Addition of a macerator system either in the wetwell or with an external assembly located upstream of the wetwell.
5. Evaluate gravity sewer and forcemain modifications or connection of the new submersible lift station to existing utilities nearby.
6. The intent is to replace the existing lift station in the same location with the use of bypass pumping.
7. Evaluate existing site conditions to comply with flood elevations for the new control system and emergency generator.
8. Evaluate site for installation of security fence for the new lift station and generator. No

landscaping improvements are proposed.

9. Providing site survey, geotechnical, and subsurface utility exploration (SUE) services for the installation of the new submersible lift station.

Scope of Services

The Scope of Services for the project will be provided by the Consultant and its sub-consultants Bailey Engineering Consultants for electrical design, Stoner & Associates, Inc. for field surveying, Tierra of South Florida for geotechnical, and InfraMap for Subsurface Utility Exploration (SUE) services.

Task 1 – Site Visit/Field Investigation

The Consultant will attend a project kick-off meeting with City staff to obtain and review available lift station information, control panel information, and electrical service information for Lift Station #13. The City will provide the Consultant with available gravity sewer collection system information, existing and proposed lift station operating data such as average daily flow, force main operating pressures, and project drawings. Per the City's Wastewater Master Plan, the intent is to size the lift station to include future wastewater flow data due to redevelopment.

The Consultant will perform a site visit with City staff to review existing conditions, site options, constructability impacts, and potential project improvements. City employee input will be requested as part of the field data collection process to better understand system operation and issues as well.

Task 2 – Site Survey

The Consultant will provide a topographic survey prepared by a Florida registered professional land surveyor meeting horizontal and vertical requirements for design survey. The survey will be used to develop a site plan for the proposed lift station design. During this phase, the Consultant will perform the following tasks:

- Limits of the survey include the current Lift Station #13 location and a similar width of the adjacent roadway for proposed utility connections.
- Establish horizontal and vertical control points to support the survey efforts. Horizontal coordinates will be based on the Florida State Plane Coordinates System, East Zone, North American Datum of 83/11, and elevations will be based on National American Vertical Datum of 1988.
- Locate surface features as follows: lift station structures, pavement, driveways, swales, sidewalks, slabs, curbs, walls, fences, and signage.
- Locate visible surface evidence of utilities as follows: utility poles, guy wires, street lighting, storm sewer structures, sanitary sewer structures, wire pull boxes, cable enclosures, utility cabinets, valves, valve boxes, meter boxes, backflow preventers, fire hydrants, and overhead utilities.
- Measure spot elevations approximately every 25 feet, at centerline and edges of pavement.
- Measure the rim and invert elevation of sanitary structures adjacent to the lift station, determine pipe types, size, and flow direction, when possible.
- Measure the rim and invert elevation of storm sewer structures within the limits of the survey, determine pipe types, size, and flow direction, when possible.

- Plot property lines, right-of-way lines and easements based on plats of record and information gathered from the Broward County Property Appraisers Web Site.

Deliverables: The following deliverable shall be provided under Task 2:

- Survey drawing on 24"x36" sheet, utilizing AutoCAD.

Task 3 - 60% Design Submittal

- In addition to the information obtained as part of Tasks 1 and 2, the Consultant shall perform the following 60% design items:
 - Develop initial lift station calculations based on flow and pressure data provided by the City.
 - Develop preliminary requirements and approach for removal/demolition of the existing lift station equipment.
 - Develop preliminary submersible lift station mechanical improvements.
 - Develop preliminary electrical and generator system requirements.
 - Develop preliminary electrical service and FPL coordination requirements.
 - Develop preliminary approach for installation of new macerator system.
 - Develop preliminary gravity sewer and force main connections.
 - Develop preliminary site improvements such as security fence and concrete/pea gravel site.
- Based on the preliminary design development, the Consultant shall prepare a 60% plans submission. The 60% design submission shall include, at a minimum, the following:
 - Cover Sheet
 - Preliminary site plan
 - Lift station improvements in plan and cross section
 - Preliminary electrical plans
 - Gravity sewer and force main improvements in plan view only
 - General construction notes and details
- The Consultant shall conduct a geotechnical investigation at the existing lift station location for the proposed submersible lift station and utility improvements. The scope of work includes two (2) 30' borings (SPT) and two (2) pavement cores at the lift station location. The report shall be signed and sealed by a Professional Engineer registered in the State of Florida and shall contain a project vicinity map, plan view showing the location of borings, basis and results of tests performed, description of findings, and recommendations.
- The Consultant shall submit 60% plans for City review. The design drawings shall be submitted on 11" x 17" plan sheets.
- The Consultant shall attend one (1) coordination meeting with the City to address/review comments.
- The Consultant shall prepare an initial opinion of probable cost (OPC) based on the 60% design.

Deliverables: The following deliverables shall be provided under Task 3:

- Three (3) original sets of the 60% design package (11" x 17" plan sheets), together with one (1) electronic copy.
- One (1) copy of the initial OPC.
- One (1) hard copy and one (1) electronic copy the Geotechnical Report.

Task 4 - 90% Design Submittal

- The Consultant shall incorporate the review comments from the 60% design submission and permitting agencies as discussed in Task 6 in the 90% design submission. The 90% design submission shall include, at a minimum, the following:
 - Cover sheet
 - Site plan
 - Existing lift station demolition plan
 - Mechanical and electrical lift station improvement plans
 - Gravity sewer, macerator, and force main improvements in plan and profile
 - General construction notes and details
- The Consultant shall submit the 90% plans for City review. The design drawings shall be submitted on 11" x 17" plan sheets.
- The Consultant will prepare bid documents that will include technical specifications and bid form. The Front-End contract documents will be provided by the City.
- The Consultant shall attend one (1) coordination meeting with the City to address/review comments.
- The Consultant shall update the OPC.

Deliverables: The following deliverables shall be provided under Task 4:

- Three (3) original sets of the 90% design package (11" x 17" plan sheets), one (1) electronic copy.
- One (1) copy of the Bid documents, electronic copy in PDF and Word
- One (1) copy of the updated OPC.

Task 5 – Final Design Submittal

- The Consultant shall incorporate the review comments from the 90% design submission in the Final design submission.
- The Consultant shall submit the Final design for City review. The Final design submittal will include the bid documents and design drawings. The design drawings shall be submitted on 11" x 17" plan sheets.
- The Consultant shall finalize the OPC.
- Once comments are addressed, or if no comments or corrections are necessary, the Consultant shall submit the Final design submittal to the City.

Deliverables: The following deliverables shall be provided under Task 5:

- Three (3) original sets, signed and sealed of the Final Plans (24" x 36" plan sheets) and Bid Documents, with one (1) electronic copy.
- One (1) copy of the final OPC.

Task 6 - Permitting

- The Consultant submit for permits through the Broward County Environmental Protection and Growth Management Department (BCEPGMD), the Florida Department of Environmental Protection (FDEP), and Broward County Traffic Engineering Division (BCTED). No other permits from agencies such as Broward County Highway Construction and Engineering Division (BCHCED) or Florida Department of Transportation (FDOT) are anticipated or included in this scope of work.
- The Consultant will prepare an Engineering Report for the lift station. The Engineering Report is required as part of the Florida Department of Environmental Protection (FDEP) permitting process.
- The Consultant will prepare permit application packages for submittal to the regulatory agencies associated with the lift station improvements. Permit applications will require City signatures and all permitting fees will be paid by the City.
- The Consultant shall respond to reasonable permit comments from the regulatory agencies.

Deliverables: The following deliverables shall be provided under Task 6:

- Permit application packages for signature by the City.

Task 7 - Bidding Assistance

- The Consultant shall prepare an agenda and attend a pre-bid meeting. The Consultant shall respond to questions from prospective bidders.
- The Consultant shall provide supplemental information to prospective bidders during the bidding process. Addendums will be issued by the City.
- The Consultant shall review bids to determine the most responsible and responsive bidder and provide the City with a recommendation for award of the construction contract.

Task 8 - Post Design Services

The following scope is based on a nine (9) month construction duration and on the post design hours shown below for this task.

- The Consultant shall attend and prepare minutes for a pre-construction meeting.
- The Consultant shall review shop drawings, product data, cut sheets, and submittals to determine compliance with the drawings and specifications, and recommend submittal action to the City.
- The Consultant shall make periodic site visits for the purpose of determining general compliance with the approved project drawings, plans, and specifications. Site visits will be performed by the Consultant's inspector. Two (2) site visit per month estimated at four (4) hours per visit. Assume eighteen (18) site visits. The Consultant will provide site reports for each visit.

- The Consultant shall provide written responses to Requests for Information (RFI's). Assumes eight (8) RFI's.
- The Consultant shall assist the City with review of the Contractor's payment applications and provide comments and/or recommendations. Assumes nine (9) payment application reviews.
- Once the Contractors advise that their project is substantially complete, the Consultant shall participate in a substantial completion walk through and prepare a project punch list.
- The Consultant shall attend the lift station startup meeting to observe and verify lift station performance. Actual startup services and performance documentation will be the lift station vendor's responsibility.
- Once the Contractors advise that the project punch list is complete, the Consultant shall participate in a final completion walk through to confirm items have been addressed.
- The Consultant shall coordinate permit closeout processes for the agencies as discussed above.

The Consultant shall not be responsible for the acts or omissions of any Contractor or subcontractor, any of the Contractor(s)' or subcontractor(s)' agents or employees, or any other persons (except the Consultant's own employees and agents) at the site or otherwise performing any of the Contractor(s)' work.

Project Assumptions

- City shall provide access to site.
- City shall provide all available data as discussed above associated with Lift Station #13 for use by the Consultant.
- City shall provide existing electronic CAD files, if available. It is the Consultant's responsibility to verify accuracy.
- City shall provide and coordinate complete Front-End documents.
- All lift station specifications and details will be based on Broward County Standards. Separate CSI format specifications will not be provided.
- City will provide all permit application fees.
- The new submersible lift station with emergency generator will be installed in its current locations. If lift station replacement requirements result in new utility easements, additional professional services will be required.

Additional Services

The Consultant will provide, as requested and authorized by the City, additional services that may be required above and beyond those described in Tasks 1 through 8. These services may include but are not limited to such items as the following:

- Roadway and sidewalk design/improvements except within the project area
- Drainage design/improvements
- Landscaping and irrigation design/improvements
- Attendance at Progress Meetings during construction
- Post Design services beyond the anticipated nine (9) month construction duration

Project Schedule

The Consultant shall perform the services identified in Tasks 1 – 6 within 270 days of the written Notice to Proceed. Tasks 7 and 8 shall be determined based on the bid date.

Method of Compensation

The Consultant will accomplish the services outlined in Tasks 1 through 8 for an amount not to exceed \$203,636.00. The following task items represent a breakdown of the proposed fee for reference:

Task 1 – Site Visit/Field Investigation	\$6,185.00
Task 2 – Site Survey	\$5,105.00
Task 3 – 60% Design Submittal	\$55,351.00
Task 4 – 90% Design Submittal	\$40,025.00
Task 5 – Final Design Submittal	\$25,410.00
Task 6 – Permitting	\$18,320.00
Task 7 – Bidding Assistance	\$2,320.00
Task 8 – Post Design Services	\$50,920.00
Not to Exceed Amount	\$203,636.00

Closure

The terms and conditions of the City of Hallandale Beach’s “Continuing Professional Architectural and Engineering Services and Other Services; RFP 2018-2019-012” shall govern this scope of services.

I appreciate this opportunity to submit this proposal. If you have any questions or need additional information, please contact me at (954) 535-5100.

Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.



Gary R. Ratay, P.E.
Vice President

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WORK PLAN - FEE SCHEDULE

PROJECT: Lift Station #13 Rehabilitation	SHEET:
CLIENT: City of Hallandale Beach	PROJECT NO.:
ESTIMATOR: Gary R Ratay	DATE: 07/13/21

DESCRIPTION:	Senior Engineer	Associate Engineer	Director Engineer	Project Manager	Project Engineer	Engineer	Junior Engineer	Support Specialist	Inspector	Survey Sub	Geotechnical Sub	Electrical Sub	SUE Sub	Expenses	Line Total	Task Total
Task 1 - Site Visit/Field Investigation																
Project kick-off meeting/site visit					2	2									\$1,195.00	
Existing system data collection and review					4	6	10	10							\$4,990.00	\$6,185.00
Task 2 - Site Survey																
Perform, coordinate and provide site survey					2	2	4	6	1		\$2,800				\$5,105.00	\$5,105.00
Task 3 - 60% Design Submittal																
Review capacity and operating pressure data provided by City					2	4	4	4							\$2,270.00	
Develop preliminary demolition approach					2	2	6	6							\$2,490.00	
Develop preliminary lift station design					2	6	10	10							\$4,330.00	
Prepare 60% plan set			4		4	4	20	20	2						\$8,390.00	
Prepare 60% plan set, electrical					2	4	6	6				\$15,900.00			\$18,740.00	
Perform and provide geotechnical services						2	2				\$8,120				\$8,770.00	
Perform and provide SUE services, 8 soft digs					1	4	8	8					\$4,541.00		\$7,736.00	
Prepare project cost estimate					1	1	2								\$690.00	
Submit 60% plan set package and meet with City					1	2	4	4	2						\$1,935.00	\$55,351.00
Task 4 - 90% Design Submittal																
Incorporate 60% City comments and permit agency comments					2	4	10	10							\$3,980.00	
Prepare 90% plan set			4		10	10	20	40	2						\$13,430.00	
Prepare 90% plan set, electrical					2	4	6	6				\$7,950.00			\$10,790.00	
Prepare bid documents					6	10	20	20	10						\$9,890.00	
Submit 90% plan set package and meet with City					1	2	4	4	2						\$1,935.00	\$40,025.00
Task 5 - Final Design Submittal																
Incorporate 90% comments from City					2	4	4	4							\$2,270.00	
Prepare Final plan set			4		4	6	20	20	2						\$8,740.00	
Prepare Final plan set, electrical					1		2	2				\$2,650.00			\$3,435.00	
Update bid documents					2	10	20	20	4						\$8,340.00	
Finalize cost estimate					1	1	2	2							\$960.00	
Submit Final plan set package and meet with City					1	2	2	2	2					\$300	\$1,665.00	\$25,410.00
Task 6 - Permitting																
Coordinate with Applicable Permitting Agencies						2	2								\$650.00	
Prepare engineering report					6	10	20	10	4						\$7,850.00	
Prepare permit applications					4	10	10	10	4						\$5,920.00	
Submit and respond to reasonable permit comments					4	4	6	6	2					\$400	\$3,900.00	\$18,320.00
Task 7 - Bidding Assistance																
Attend pre-bid meeting					2										\$430.00	
Respond to reasonable RFI's					2		4		2						\$1,260.00	
Review bids and provide recommendation of award					1		2		1						\$630.00	\$2,320.00

City of Hallandale Beach
City Project Name: Lift Station #13 Replacement



Engineer's Preliminary Opinion of Probable Costs

July 13, 2021

Bid Item	Description	Unit	Quantity	Unit Cost	Total Cost
1	Mobilization, Bonds & Insurance	LS	1	\$50,000	\$50,000
2	Maintenance of Traffic	LS	1	\$15,000	\$15,000
3	Bypass pumping	LS	1	\$40,000	\$40,000
4	Demolition of existing pump station	LS	1	\$75,000	\$75,000
5	Installation of submersible pump station with valve vault	LS	1	\$400,000	\$400,000
6	Install new macerator system	LS	1	\$45,000	\$45,000
7	Install force main improvements and connect to existing system	LF	150	\$150	\$22,500
8	Install gravity system improvements and connect to existing	LF	100	\$120	\$12,000
9	Install ¾ inch HDPE water service with RPZ and hose bib	LS	1	\$5,000	\$5,000
10	Install/modify electrical service	LS	1	\$35,000	\$35,000
11	Install new pump control panel system and electrical pump station components	LS	1	\$60,000	\$60,000
12	Install new above ground generator system	LS	1	\$120,000	\$120,000
13	Pump station site restoration	LS	1	\$30,000	\$30,000
Subtotal					\$909,500
20% Contingency					\$182,000
Preliminary Opinion of Probable Construction Costs					\$1,100,000

Notes:

1. The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.
2. Due to current conditions in the construction industry and the preliminary nature of this Opinion of Probable Construction Cost, we have added a 20% contingency onto the OPC and it may still be below the actual bid.