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HALLANDALE BEACH
NE SECTION DRAINAGE INFRASTRUCTURE
(P2414)

Work Authorization

DATE: May 5, 2025
RE: Hallandale NE Section Drainage Infrastructure (P2414)
CLIENT: City of Hallandale Beach
400 S Federal Hwy Hallandale Beach, FL 33009
ATTENTION: Public Works Department
CGA NO: 25-8447

In accordance with RFP # 2018-2019-012 - Continuing Professional Architectural and Engineering Services, firm will be providing services based on the following discipline: Civil Engineering.

Calvin, Giordano & Associates, Inc. (CGA) is pleased to submit this proposal for professional services on the above-referenced project to the City of Hallandale Beach (CITY). The scope of work consists of providing survey, design, permitting, and bidding services for drainage improvements at select locations within the NE Quadrant. This project is based on the previously prepared City Stormwater Master Plan, Technical Memo 3 and will include the first portion (Phase 1) of Project 2 – Northeast Quad Injection Well System – NE 8th Ave. This scope of the project includes a review of the existing model, the city's GIS system, and field review to identify locations for two (2) stormwater pump stations in the southern area of the NE Quadrant as well as locations for strategic interconnects throughout the entire basin. The design and construction documents will include the two pump stations, each with a wet well, valve vault, injection well and associated cabinets and controls. The existing stormwater gravity collection system improvements are limited to the proposed connections to stormwater pump stations and up to three (3) strategic interconnections to the existing system. This project is the first phase of improvements in the northeast basin, and any additional drainage improvement project(s) will be included under separate contract. This proposal includes design, construction documents, permits and assisting during the bidding phase of the project for Cavin, Giordano & Associates and their required subconsultants. Improvements to roadways, sidewalks, and any other utility improvements not specifically listed in this proposal are excluded from this work authorization. Incidental to the drainage improvements will be some landscape removal and new plantings.

The specific scope of services to be provided by CGA is detailed in the subsequent pages.

I. SCOPE OF SERVICES

1) Task 1 – Project Management

A. CGA shall provide project management and project coordination services throughout the design and permitting process. This will include the coordination of the design team, permitting, design, schedule, and adherence of design to construction budget, adherence of design to the City of Hallandale Beach's goals and objectives and interactions with City of Hallandale Beach Staff. This task will also include prompt resolutions of any issues which may arise during the design and/or permitting process. Monthly status updates shall be submitted to the City indicating percent complete for each task.

2) Task 2 – Utility Coordination and Subsurface Investigation

A. CGA, in conjunction with US Utility Potholing & Air Excavation, shall perform an investigation into the utilities within the project area and in locations determined to have a high probability of potential utility conflicts. This task shall provide information on the construction plans meeting Subsurface Utility Engineering Quality Level A as described by ASCE "Standard Guidelines for Depiction and Collection of Existing Subsurface Utility Data". Data Acquisition is limited to available records and soft digs as noted below.

B. Utility Coordination

1. Create an 811 Design Ticket.
2. Submit Initial Utility Request Letters to applicable utility owners.
3. Create a utility matrix for tracking.
4. Log and input utility information into AutoCAD.
5. The CITY will provide water and sewer in PDF and AutoCAD.
6. Follow up responses and confirmation from the applicable utility owners.

C. Subsurface Utility Engineering (SUE)

1. It is anticipated during engineering design there will be a need for subsurface utility location of underground lines pertaining to electric, gas, telephone, cable tv, and fiber optic. Subsurface utility engineering will be provided along NE 2nd Street from Federal Highway to NE 12th Ave and both NE 8th Ave and NE 10th Ave intersections to adjacent NE 1st Court crossings to the south. These SUE services will include the following methods of location:

   (a) Ground Penetrating Radar (GPR) survey will be able to provide both the position and estimated depth of both metallic and non-metallic underground utilities. The diameter or composition of utilities cannot be accurately determined using GPR though it can be estimated.

   (b) Conventional Electromagnetic Pipe and Cable Locators – Location of underground utilities using conventional means. Depths of underground utilities can be determined when the EM equipment is being used in the active mode.

(c) Air Vacuum Excavation (Utility Potholing) - Utility potholing photographic evidence is obtained of the exposed utility with measurements as to depth and type.

2. The location of underground utilities discovered shall be indicated on the ground surface using spray paint or other methods as specified by the design engineer. Surveying will locate all utility markings for incorporation into the overall survey base map file.
3. 20 Utility Potholes are included. Surveying services will identify, and stake proposed soft dig locations and as-built soft dig locations with measured down distances and other pertinent as-built utility information as identified by subsurface utility locations.
4. Add and properly annotate field verified utility information into AutoCAD.
5. Perform a site visit to verify results of the utility subsurface investigation.

3) <u>Task 3 – Topographic Route & Tree Survey</u>

A. The survey task includes conducting a Topographic Route Survey for approximately 3,250 linear feet (0.6 + miles) of streets within the project limits of the NE Quadrant Drainage Improvements including an as-built inventory of all storm drainage and sanitary sewer structures within the project limits.

B. Data Gathering

1. Obtain and review all public records documents as to rights-of-way, property ownership, platted easements, etc., as necessary to define the right-of-way limits of each roadway corridor.
2. Obtain, review and field recover any National Geodetic Survey (NGS), Florida Department of Transportation (FDOT) or Broward County Engineering Department BCED) horizontal and vertical survey control within and/or adjacent to the project limits.

C. Topographic Route Survey

1. Prepare a geometrically precise base map referenced to Florida State Plane Coordinates (East Zone NAD 83/90) with all right-of-way lines, lot lines, platted easements and all lot, block and recorded plat information.
2. Obtain cross section topographic information at a maximum of fifty (50) foot intervals between longitudinal and cross-sectional points together with any grade breaks, swales, mounds or other definitive elevation change within the roadway corridor. All survey data will to referenced vertically to North American Vertical Datum of 1988 (NAVD88) and horizontally to North American Datum 83/90 (NAD 83/90).
3. Locate all above ground improvements within the project limits, with horizontal locations and vertical elevations being provided for such items as edge-of-pavement, sidewalks, driveways, access points \ curb cuts, buildings and visible above ground utilities. Visible above ground utilities refer to the visible structures (e.g., manholes, valve boxes, inlets, risers, etc.), typically associated with storm drainage, sanitary sewer, potable water, electric, gas, telephone and cable television.

4. As-built survey of storm drainage and sanitary sewer systems to include measurements for pipe sizes, type of material, bottom of structure, direction of flow and invert elevations for any accessible manholes of storm and sewer manholes\inlets within the project limits.
5. Prepare a Map of Survey signed and sealed by a Professional Surveyor & Mapper registered in the State of Florida. The survey will be prepared in accordance with the standards as set forth by Chapter 5J-17 of the Florida Administrative Code, pursuant to Florida Statues Chapter 472.027.

D. Tree Survey

1. All trees within the roadway right-of-way corridors with a diameter greater than 3 inches at breast height will be located together with information pertaining to tree type, height, canopy spread and tree diameter Survey language
2. Utilizing the information by the survey department noted above, the landscape architecture department will provide the tree/palm identification within the project limits. The Botanical and Common name of each of the tree and palm within the right of way shall be provided. The survey table shall include these descriptions with the information noted above.

4) <u>Task 4 - Geotechnical Engineering Services (performed by Nutting Engineers)</u>

A. Perform up to four (4) Standard Penetration Test (SPT) borings to a depth of 15 feet for the alignment of new gravity or force main pipe.

B. Perform two (2) SPT borings to a depth of 40 feet at the proposed pump station structures sites.

C. Prepare a Geotechnical Report including a description of the findings, general site preparation, and pipeline design bedding criteria recommendations.

5) <u>Task 5 – Hydrogeological Investigation (performed by Hydrologic Associates)</u>

A. Complete two SPTs to 200 feet below grade at NE 2nd Street in order to determine the minimum casing depth for a drainage injection wells in the drainage improvements corridor.

1. Review of FDEP database for permitted drainage wells in the area
2. Utility locates and MOT during drilling
3. Collect and analyze 30 groundwater samples
4. Prepare a Reasonable Assurance Report (RAR) that will be suitable for submittal to FDEP
5. Respond to FDEP comments as needed for injection well permitting

B. Conduct two specific capacity tests involving a 7” diameter borehole to a depth of the anticipated production zone, pumping groundwater from the borehole at a measured rate, and measuring the drawdown and recovery of the water table. These capacity tests will only be completed if it is determined by the SPT’s and RAR that the corridor is desirable for drainage wells.

6) Task 6 – Preliminary Investigation and 60% Design Plans

A. Scope analysis

1. Utilizing the City's existing model, the City's GIS system, and a field visit with City staff, CGA will prepare a memorandum with recommended interconnects within the NE quadrant network. A meeting with city staff will be held to decide on the three strategic interconnects to be included in this phase of the project.
2. Create a flood routing model of drainage system associated with the two (2) proposed pump stations (assumed to include NE 2nd Street from Federal Highway to NE 12th Ave and both NE 8th Ave and NE 10th Ave intersections to adjacent NE 1st Court crossings to the south and NE 3rd Street crossings to the north).
3. Coordinate with City for results of the existing system cleaning.
4. Coordinate with FPL for power availability for the potential pump station sites
5. Meet with the City to confirm the results of the initial modeling.

B. 60% Design Submission.

1. Prepare 60% civil (paving, grading and drainage plan, mechanical plan, stormwater pollution prevent plan, details), electrical, landscape architecture, and instrumentation and control plans for the proposed pump station improvements as well as the three (3) selected interconnect improvements.
2. Utilizing the tree survey, the landscape architects shall conduct site visits within the approximate 3,250 linear feet of streets within the project limits of the NE Quadrant Drainage Improvements right of ways to evaluate the condition of each existing tree/palm. A Tree Disposition Plan shall be developed which illustrates the canopy size graphically, an evaluation for each tree/palm with photographic evidence of the condition at the time of the site visit. These trees/palms shall be noted to remain, to be relocated or to be removed based on the proposed improvements within the right of way.
3. Prepare a Planting Plan for tree mitigation in affected areas and around the Pump Station to address screening issues for the neighborhood. These plans shall include a Planting Plan, Details and Specifications and an Irrigation Plan, Details and Specifications. We are anticipating utilizing potable water for this irrigation system. A watering contract shall be noted in the planting plans for the right of way, and therefore no irrigation plans shall be included in the scope of services.
4. Prepare 60% Opinion of Probable Construction Cost, Class 2 (as defined by Association for the Advancement of Cost Engineering International).
5. Prepare 60% Technical Specifications.
6. CGA shall submit 60% design plans to the City of Hallandale Beach Staff for review. The submittal will include an electronic copy in PDF format of plans, AutoCAD file, one (1) Opinion of Probable Construction Cost and one (1) Draft Technical Specifications Documents, as well as PDFs of the above items.

7. Meet with the CITY to discuss and coordinate 60% Submission comments. Review, respond and address comments from the CITY.

7) <u>Task 7 – Structural Engineering – Lakdas/Yohalem Engineering</u>

A. Prepare structural engineering plans for:

1. The proposed structures or wet well and valve vault at the two (2) pump station sites in the NE quadrant.

8) <u>Task 8 – Final Plans</u>

A. 90% Design Submission

1. Prepare 90% civil, electrical, landscape architecture, and instrumentation and control plans.
2. Coordinate with City staff for remote monitoring and SCADA controls for the pump station, drainage and monitoring wells, and control structure to be compatible with the City's current system.
3. Prepare 90% Opinion of Probable Construction Cost, Class 1 (as defined by Association for the Advancement of Cost Engineering International).
4. Prepare 90% Technical Specifications.
5. Constructability Review
6. CGA shall submit 90% design plans to the City of Hallandale Beach Staff for review. The submittal will include two (2) 24" x 36" sets of plans, AutoCAD file, one (1) Opinion of Probable Construction Cost and one (1) Draft Technical Specifications Documents, as well as PDFs of the above items.
7. Meet with the CITY to discuss and coordinate 90% Submission comments. Review, respond and address comments from the CITY.

B. 100% Design Submission

1. Prepare 100% plans.
2. Prepare 100% Opinion of Probable Construction Cost, Class 1 (as defined by Association for the Advancement of Cost Engineering International).
3. Prepare 100% Technical Specifications. CITY will provide the Front-End Specifications.
4. CGA shall submit 100% design plans to the City of Hallandale Beach Staff for review. The submittal will include two (2) 24" x 36" sets of plans, one (1) Opinion of Probable Construction Cost and one (1) Technical Specifications Documents, as well as PDFs of the above items.

9) <u>Task 9 – Permitting</u>

A. Prepare and process permit applications through the following entities:

1. South Florida Water Management District
2. Broward County Surface Water Management
3. Florida Department of Environmental Protection permit for the drainage injection wells (if required)

B. Attend pre-application meetings with each agency prior to 60% plans.

C. Digital copies of any packages submitted for permitting will be provided to the CITY.

10) <u>Task 10 – Building Department Dry Run</u>

A. Provide 90% plans to the City building department

B. Respond to comments from the building department and make a resubmittal of the plans

C. Addressing comments and resubmittal are included. CGA will wait to address comments until all city reviewers have submitted their comments in an effort to minimize resubmittals.

11) <u>Task 11 – Bidding Services</u>

A. Submit Bid Package to the City of Hallandale Beach Staff. Set of Construction Documents Plans signed & sealed, Technical Specifications Documents in PDF format will be provided.

B. Attend one (1) pre-bid meeting for the project, respond to prospective bidder RFI(s), issue addenda as needed during the bid process.

C. CITY will run and record minutes for the pre-bid meeting.

D. Assist the City with Bid Evaluation and Recommendation

12) <u>Miscellaneous Services/Assumptions</u>

A. The City will complete a cleaning of the existing collection system.

II. ASSUMPTIONS AND EXCLUSIONS

- The only services included in this contract are those identifies above. No other Services are included in this contract.
- The City will complete a cleaning of the existing collection system.
- Fees for permit applications, plan reviews, and permit closeouts shall be paid by others.
- CITY to provide any available as-builts of all developments or future projects within the Project Limits and coordinate internally to provide CGA with any building permits / applications that are submitted or approved that affect or are within the Project Limits.
- Stormwater system modeling is limited to the project area and does not include full basin routing and stage storage results.
- The design is strictly focused on drainage design and no other utilities or disciplines (e.g., sanitary sewer, water, streetscape, etc.). Only the plans sheets previously mentioned are

included. Maintenance of Traffic (MOT), Site Planning, Transportation, Signalization, or other disciplines are specifically excluded.

- CITY shall provide CGA with submittal review comments within ten (10) business days of receiving them. It is understood that some task durations are beyond CGA's control, such as permit review times.

- CITY acknowledges that CGA has no control over costs of labor, materials, competitive bidding environments and procedures, unidentified field conditions, financial and/or market conditions, or other factors likely to affect the cost estimates of this project, all of which are and will unavoidably remain in a state of change, especially in light of the high volatility of the market. CITY further acknowledges that this is a "snapshot in time" and that the reliability of cost estimates will inherently degrade over time.

- Backfilling of test holes will utilize native spoils in 6" lifts. Test holes in roadways will be restored using asphalt cold patch.

- All new plantings will be proposed within the Project Limits. If new plantings are required outside of the Project Limits, it shall warrant additional fees for surveying and for assessing that area.

- This proposal assumes the CITY will not require this project to go through any city site planning process since the work in within public right of way.

- CGA is not preparing photometric analysis or lighting for the lift station areas. If this is requested or required, an ASA shall be required.

- The project will be constructed within City right of way therefore no Broward County or FDOT permitting is included.

- If any additional services are required, additional scope and budget will be required.

III. ESTIMATED SCHEDULE

Hallandale NE 8th Ave Drainage Phase 1					
Task	**Description**	**Duration for Task (calendar days)**	**Start Date**	**Finish Date**	**Calander Days from Notice to Proceed**
	Notice to Proceed	1	6/30/2025	7/1/2025	0
1	Project Management	520	6/30/2025	12/2/2026	
2	Utility Coordination & SUE	60	7/1/2025	8/30/2025	60
3	Route Survey	60	7/1/2025	8/30/2025	60
4	Geotech Report	30	9/29/2025	10/29/2025	120
5	Hydro	45	7/1/2025	8/15/2025	45
6&7	SWM Modeling	30	8/30/2025	9/29/2025	90
6&7	Prepare 60% Design	90	9/29/2025	12/28/2025	180
	City reviews 60%	14	12/28/2025	1/11/2026	194
8	Prepare 90% Design	30	1/11/2026	2/10/2026	344
	City Reviews 90%	14	2/10/2026	2/24/2026	358
	Review, Respond & Address Comments	14	2/24/2026	3/10/2026	372
8	Prepare 100% Design	30	3/10/2026	4/9/2026	402
	City Reviews 100%	14	4/9/2026	4/23/2026	416
	Review, Respond & Address Comments	14	4/23/2026	5/7/2026	430
9	Permitting	120	1/11/2026	5/11/2026	314
10	Building Dry Run	45	3/10/2026	4/24/2026	417
11	Bidding Services	90	5/7/2026	8/5/2026	520

IV. AUTHORIZATION

CGA will perform the above Scope of Services for a lump sum fee of **$436,082.00**. The attached table provides the hourly breakdown for these professional services.

By: _____

Name: David Stambaugh, PE

Title: Vice President of Professional Services
Calvin, Giordano & Associates, Inc.

By: _____

Name: Jeffrey Towne

Title: Interim Director of Public Works
City of Hallandale Beach

HALLANDALE BEACH ADDITIONAL PARKING CITY HALL
Fee Schedule

Staff-Hours by Classification & Hourly Rate for Services

Task		Engineering Department												Landscape Architecture/Environmental Department			Survey Department				Sub-Consultants					Task Subtotal
		Civil Engineering Services							Electrical Engineering Services			Instrumentation & Controls		Landscape Architecture Services			Survey Services									
		Director	Project Manager	Project Engineer	Engineer	Sr. CADD Tech Manager	Permit Administrator	Task Subtotal	Project Manager	CADD Technician	Task Subtotal	Project Manager	Task Subtotal	Landscape Architect	Landscape Architect CADD	Task Subtotal	Sr. Registered Surveyor	Survey Crew	Survey CADD Technician	Task Subtotal	Geo-technical	SUE	Hydro-geological	Structural	Task Subtotal	
		$175.00	$150.00	$130.00	$110.00	$115.00	$90.00		$150.00	$95.00		$150.00		$135.00	$95.00		$145.00	$135.00	$95.00		LS	LS				
1	PM	20	156					$26,900.00			$0.00		$0.00			$0.00				$0.00					$0.00	$26,900.00
2	Util Coord & SUE		8		30	48	8	$10,740.00			$0.00		$0.00			$0.00				$0.00		$16,000.00			$16,000.00	$26,740.00
3	Survey		8					$1,200.00			$0.00		$0.00			$0.00	48	132	99	$34,185.00					$0.00	$35,385.00
4	Geotech		8					$1,200.00			$0.00		$0.00			$0.00				$0.00	$6,245.00				$6,245.00	$7,445.00
5	Hydro		16					$2,400.00			$0.00		$0.00			$0.00				$0.00			$72,000.00		$72,000.00	$74,400.00
6	Prelim & 60%							$91,580.00			$13,280.00		$4,800.00	20	36	$6,120.00				$0.00					$0.00	$115,780.00
	Prelim	12	56	120					16																	
	60	12	214	48	66	146	11		32	64		32														
7	Structural		32					$4,800.00			$0.00		$0.00			$0.00				$0.00				$36,612.00	$36,612.00	$41,412.00
8	Final plans	16	160	32	56	122	20	$52,950.00	8	16	$2,720.00	8	$1,200.00	8	10	$2,030.00				$0.00					$0.00	$58,900.00
9	Permitting		82		48		9	$18,390.00			$0.00		$0.00			$0.00				$0.00					$0.00	$18,390.00
10	Building Dry		24		32		6	$7,660.00	16	8	$3,160.00	6	$900.00	8	8	$1,840.00	12			$1,740.00					$0.00	$15,300.00
11	Bidding	4	56		30	8	8	$14,040.00	4	2	$790.00	4	$600.00			$0.00				$0.00					$0.00	$15,430.00
Total Amount								$231,860.00			$19,950.00		$7,500.00			$9,990.00				$35,925.00					$130,857.00	**$436,082.00**