Revised March 11, 2025

PROPOSAL FOR 72-INCH PIPE REPLACEMENT PROJECT AT GULFSTREAM PARK HALLANDALE BEACH

SCOPE OF SERVICES

A. Design

1. Field Review

Field visits will be required to refine the scope of the improvements. This task will consist of a review of the site and documenting existing conditions with photos and notes. One field review is anticipated.

2. Data Collection

Research should be conducted to review the project's existing records including the City's atlases and utility plans. The research efforts involve telephone conversations and meetings with agency staff, as well as reviewing record drawings and obtaining stormwater and utility atlases, flood maps, water table maps and others. Information will be collected from the City, FDOT and County.

3. Plans Preparation

Final designs and plans will be prepared based on the results of our field reviews, analyses, and discussions with the City's Staff. RJ Behar shall prepare 90% plans and final plans (100%) of the proposed improvements and submit them to the City for review and approval.

The following is a preliminary list of drawings:

Key Sheet
General Notes and Quantities
Plan & Profile (5 sheets)
Miscellaneous Details, drainage details and cross sections (3 sheets)
Erosion and Sediment Control Notes and Details (1 sheet)

Note: Demolition and any signing and markings will be shown on plan view.

4. Estimates of Probable Cost

RJ Behar will provide an Engineer's Opinion of Probable Cost at 90% and another final one with the final signed and sealed plans to use for comparison with the bids from contractors. The cost estimate shall include a detailed tabulation of all portions of the project.

5. Technical Specifications

Construction Specifications Institute (CSI) Format Specifications will be prepared for this project.

6. Utility Coordination

Utility Coordination: A design ticket will be requested from Sunshine One Call. All of the utilities identified on the ticket will be contacted and atlases for the utilities' facilities in the area will be solicited. The information from the utilities will be included in the drawings. This task includes follow-up with the utility companies to coordinate and resolve any possible conflicts.

7. Progress Meetings

Up to two progress meetings are expected for the project to discuss scope, progress and City comments. The meeting will be conducted at RJ Behar or by phone. Minutes will be prepared outlining the major items and decisions discussed at the meetings.

8. Permitting

The following permits will be obtained during design:

- Broward County Surface Water
- Broward County ERP
- Broward County ERL
- 404 Permit
- If there is a SFWMD permit, it will need to be modified.

9. Bidding Assistance

RJ Behar shall provide plans and specifications to the City for distribution to contractors. The City will provide the front-end documents. These will be reviewed for consistency with the project specifications. RJ Behar shall respond to requests for information (RFI's).

a. Meetings: Attend Pre-bid meeting(s).

b. Addendums: RJ Behar shall prepare all necessary responses to RFI's to answer questions posed by contractors.

10. Survey

See scope and fee proposal from Javier E. Bidot & Associates, PSC, Corp.

11. Subsurface Utility Engineering (SUE)

Up to seven (7) SUEs are included, these are as needed. See scope and fee proposal from Javier E. Bidot & Associates, PSC, Corp.

12. Geotechnical

See proposal from HRS.

13. Post Design Engineering Services (Construction Services)

a. During the construction there may be a need to attend the following meetings:

i. Pre-Construction Meeting
ii. Construction Progress meetings

b. A full-time inspector is included for 34 weeks.

c. Throughout the duration of the construction there may be a need to review shop drawings and submittals, provide clarifications, respond to requests for information (RFI) and review change orders. RJ Behar will create a log, review the shop drawings and will determine whether these are acceptable for construction or whether a re-submittal is required.

d. During the construction there may be a need to perform plan revisions. RJ Behar shall perform plan revisions as required by the Project to include Quality Control and supervision. One plan revision has been considered.

e. At the end of the project RJ Behar will review the As-built plans prepared by the contractor and prepare the final certification. No Record drawings will be provided.

Post design engineering services are time and materials, the design phase is lump sum.

Notes

- The City will provide the location of City owned existing utilities.

The fee for this project is $267,360.45. Refer to the attached fee breakdown and sub consultant's fee proposals for more details.

We are looking forward to working on this project. Please let us know if you need any further information.

Sincerely,

R.J. Behar & Company, Inc.
Hans Murzi, PE, CFM
Director of Water Resources

Hans Murzi

FEE PROPOSAL SUMMARY
R.J. BEHAR & COMPANY
PROJECT DESCRIPTION: 72-inch Pipe Replacement Project

	Engineering Services						Construction Services			
ACTIVITY	DIRECTOR, ENGINEER		PROJECT ENGINEER		ENGINEER		SR. INSPECTOR		MANHOURS BY ACTIVITY	TOTAL COST BY ACTIVITY
	STAFF HOURS	$ 246.00 HOURLY RATE	STAFF HOURS	$ 191.00 HOURLY RATE	STAFF HOURS	$ 146.00 HOURLY RATE	STAFF HOURS	$ 106.00 HOURLY RATE		
Field Visits (1 visit)	3	$ 738.00	3.0	$ 573.00		$ -		$ -	6	$ 1,311.00
Data Collection	0	$ -	0.0	$ -	8.0	$ 1,168.00		$ -	8	$ 1,168.00
Key Sheet	0	$ -		$ -	6.0	$ 876.00		$ -	6	$ 876.00
General Notes and Quantities	0	$ -	3.0	$ 573.00	9.0	$ 1,314.00		$ -	12	$ 1,887.00
Plan & Profile Sheets (5 sheets) @ 20 scale	0	$ -	10.0	$ 1,910.00	70.0	$ 10,220.00		$ -	80	$ 12,130.00
Miscellaneous Details, drainage details, cross sections (3 sheets)	0	$ -	8.0	$ 1,528.00	24.0	$ 3,504.00		$ -	32	$ 5,032.00
Erosion control details (1 sheet)	0	$ -	0.0	$ -	8.0	$ 1,168.00		$ -	8	$ 1,168.00
Cost Estimates (90 %, and final)	0	$ -	0.0	$ -	8.0	$ 1,168.00		$ -	8	$ 1,168.00
Specifications	0	$ -	4.0	$ 764.00	36.0	$ 5,256.00		$ -	40	$ 6,020.00
Utility Coordination	0	$ -	0.0	$ -	16.0	$ 2,336.00		$ -	16	$ 2,336.00
Progress/review Meetings onsite	8	$ 1,968.00	0.0	$ -	0.0	$ -		$ -	8	$ 1,968.00
Permitting	8	$ 1,968.00	8.0	$ 1,528.00	40.0	$ 5,840.00		$ -	56	$ 9,336.00
Bid Assistance	2	$ 492.00	6.0	$ 1,146.00	8.0	$ 1,168.00		$ -	16	$ 2,806.00
Post Design Services	10	$ 2,460.00	16.0	$ 3,056.00	80.0	$ 11,680.00	1360.0	$ 144,160.00	1466	$ 161,356.00
QA/QC	12	$ 2,952.00	0.0	$ -	0.0	$ -		$ -	12	$ 2,952.00
TOTAL	43	$ 10,578.00	58	$ 11,078.00	313	$ 45,698.00	1360	$ 144,160.00	1774	$ 211,514.00

LABOR FEE	$ 211,514.00
PERMIT FEES (not to exceed)	$ 5,000.00
SUBCONSULTANTS:	
SURVEY (Bidot & Associates)	$ 22,000.00
SUEs (Bidot & Associates) 7 SUEs	$ 8,050.00
GEOTECHNICAL (HRS)	$ 20,796.45
TOTAL:	**$ 267,360.45**

FEE PROPOSAL SUMMARY
R.J. BEHAR & COMPANY
PROJECT DESCRIPTION: 72-inch Pipe Replacement Project

Fee Summary:

Design & Permitting =	$ 52,352.00
Survey =	$ 22,000.00
SUEs =	$ 8,050.00
Geotech =	$ 20,796.45
Bid Assistance =	$ 2,806.00
Assistance During Construction =	$ 161,356.00
Total =	**$ 267,360.45**

JAVIER E. BIDOT & ASSOCIATES, CORP
LAND SURVEYORS • CONSULTANTS

November 12, 2024.

Mr. Hans Murzi, PE
RJ Behar & Company, Inc.
6861 SW 196th Avenue Suite
302
Pembroke Pines, FL 33332

Re: Proposal for Existing Conditions, Topographic & Utilities Survey for **a 72"** Storm Sewer Pipe Replacement Project at Gulfstream Park, City of Hallandale, Florida

Gentlemen,

Let me thank you at the outset for considering us an option for quality surveying services.

The present is in response to your request for proposal of November 4, 2024.

The work consists on performing a comprehensive existing conditions, topographic and utility designation survey along a subject corridor with an approximate total length of 2,720' in support to the P&S engineering design for the replacement of a 72" storm sewer pipe. Please refer to Figure 1, below for schematic survey area and project extension.

Figure 1. RFP Image-*Survey Limits*

I. Statement of Work

1. Horizontal & Vertical Control- We will establish horizontal and vertical control by GPS and/or survey conventional methods, at our option, based on official Federal base monuments. Vertical control will be referred to NAVD88, unless otherwise instructed prior to mobilization. Horizontal coordinates will be referred to NAD83(2011) Florida East. We will set up 3 permanent survey marks at convenient locations for future reference. Proposed project units are US Survey Feet.

2. Existing Conditions Survey – We will perform an existing conditions survey along the existing 72″ storm sewer pipe and up to 50′ each side of the storm sewer line, as outlined on figure 1, including but not limited to abutting road frontage, property corners found, fences, storm sewer structures, pipe diameters, invert elevations, trees greater that 6″ DBH, above ground utilities, drainage/outfall structures, signs, shrubbery and dense wood area demarcation, drainage structures, buildings, etcetera.

3. Topographic/Hydrographic Survey – We will collect data at 25′ intervals and additional changes in within the subject corridor, in a manner sufficient to produce a digital terrain model (DTM). Data will be processed and graphically represented as 1-foot contours.

4. Property Lines and Public Right of Way- We will portray the public right of way, platted easements, and adjacent property limits, based strictly on Public Records.

5. Utility Location and Identification Survey – We will designate and survey the drainage, water distribution, power, gas, and sanitary system as determined by our physical inspection and prospecting. Work will be carried out by different methods (e.g., EM, TDM, GPR, etc.) in compliance with ASCE specification 38-22, quality level D, C and B.

   Prospecting will be performed at 100 feet intervals, except for known or found facilities which will be located and traced whenever identified in subject area.
   The deliverables for this portion if the work will include rim, drop (if existing) and invert elevations, size, type, and material of the located facility. For found facilities which have no above ground evidence, we will consult record documents and determine if the found facility can be characterized, otherwise will be labeled "unknown".

6. Non-destructive Excavation (NDE) For Utility Confirmation

   We will perform up to 5 shallow potholes (up to approx. 7 feet deep) utilizing non-destructive excavation methods (e.g. air jackknife, hand or

vacuum) in one multi-day mobilization to confirm the location, size, material and depth of designated utilities as proposed on RFP drawings. The location of these potholes will be determined by client based on foreseen utility conflict areas or in other areas of interest after evaluating the preliminary deliverables. Please refer to Enclosure No. 2, for more information on the proposed excavation task.

II. Exclusions

1. Any service not specifically outlined above.
2. Boundary Retracement Surveys.
3. Record and deed research and analysis. Property line information to be obtained from public databases.
4. Dewatering of surcharged sewer and storm lines.
5. Filing of any City or County documentation.

III. Deliverables

We will provide up to 2 signed and sealed plots. Copies of digital files in AutoDesk AutoCad and TIN format will be provided as part of the deliverables.

IV. Fees

Our fees for the subject task is as follows:

- Existing Conditions, Topographic & Utility Survey, as a lump sum, $22,000.00.
- NDE task (up to 5 shallow potholes (up to 7'), as a lump sum, $1,150.00 per pothole.

Payment terms are 30 days, not subject to a "paid when/if paid" clause.

V. Schedule

Mobilization for this task shall occur within 15 working days from NTP. Deliverables shall be submitted within 30 working days from mobilization.

VI. Important notes:

1. Our proposal is based on our present limits of liability (see proforma attached). Certificates will be provided upon request.
2. We will furnish all equipment, vehicles, personnel, supervision, lodging and

other cost of travel allowances required to perform the work.

3. Engineer to provide surveyor with GIS shapefiles of existing water, sewer and stormwater.

4. This proposal is valid for 30 days.

I'm available to meet with you at your convenience to discuss the terms disclosed herein or any related matter.

Cordially,

Carlos M. Lebron, PSM
Vice President

CL/cl

Enclosure

ENCLOSURE 1 - SUBSURFACE UTILITY SURVEYS

Subsurface Utility Survey –- The American Society of Civil Engineers on its specification 38-22, has defined the discipline of Subsurface Utility Engineering as the management of risks and databases pertaining to the utility and underground asset mapping at various Quality Levels, among other technical parameters. This task pertains to the subsurface utility data collection component that the Engineer will utilize for its utility and risk management strategy.

The following is the list of existing Quality Levels for the diverse utility mapping tasks possible under this discipline:

Quality Level D – Typically referred to as the research and consultation of the diverse sources of records and maps and reporting them to the project owner or Engineer.

Quality Level C – This level adds the survey of the assets based on the above ground evidence. This includes the location of poles, manholes, hydrants, etc, graphically represented in the context of existing records. This project is proposed to Quality Level C.

Quality Level B – This level adds to the record research and land survey, the designation of underground assets by means of diverse forms of induction, including but not limited to sound and electromagnetic induction, ground penetrating radar, etcetera.

Quality Level A – This level of survey adds the physical uncovering of assets for verification by various means including but not limited to hand excavation, vacuum excavation and others. This level provides the highest level of accuracy and is the most expensive modality of utility surveys. Quality Level A is not included in this proposal.

The present task is proposed to quality levels B accuracy.

Limitations and Disclaimer – Subsurface Utility Surveys (SUS/SUE) bring a significant benefit to asset owners, contractors and other entities in the manner they point out existing underground assets to be conserved. SUS/SUE activities rely on the interpretation of an instrument generated signal in order to designate an asset. Signals are affected by soils type, humidity, contamination and the proximity of other assets to the subject and locations with the effect of degrading the accuracy of the asset position.

While it has been established that quality level D, C and B SUS/SUE studies render a return to investment ratio better than 10 to 1, there is no substitute to non-destructive excavation to accurately determine the location and depth of underground assets. Therefore, client shall specify that any contractor working onsite perform its excavation with workmanlike methods and extreme care in the vicinity of survey marks or in the vicinity of utilities identified in his drawings and assume any contingent, direct and indirect liabilities as owner of the excavation.

SUBSURFACE UTILITY LOCATING BY AIR/VACUUM TEST HOLE SERVICE

The intent of the proposed test hole service is to provide the actual horizontal and vertical location of existing utilities or structures at the point of interest by air/ vacuum excavation to facilitate the identification and resolution of potential design conflicts and aid in the protection of these facilities during construction.

Tasks:

1. Request records from utility owning agencies as appropriate.

2. Supply qualified personnel and provide them with the resources, transportation and field supplies to perform the requested services.

3. Coordinate with the client to determine what test holes are needed and their expected locations.

4. Coordinate with inspectors, property owners, "ONE CALL" and others as required. Comply with all laws and regulations concerning excavation. Obtain all permits needed to perform the test holes.

5. Determine in the field the actual location of the proposed improvements in possible conflict with existing utilities. This shall be accomplished by using the plan supplied by the client.

6. At the approximate point of possible conflict with the proposed improvement, excavate a test hole using air/ vacuum excavation. Provide all measurements necessary to perform the work safely and to cause no damage to the utility structure. The test hole will be of the minimum size required to expose the utility of interest and record the following information:

    a. Depth below grade (cover).
    b. Utility material, shape and overall condition.
    c. Approximate diameter of pipes, cables, conduits and the configuration of multiple conduit systems.
    d. The general directional trend of the utility.
    e. Thickness, type and condition of paving material.
    f. General soil conditions.

7. Install a permanent survey marker directly over the centerline of pipes or edge of concrete structures or conduit banks at grade. Indicate on the Test Hole Form the placement of the marker relative to the utility cross section.

8. Backfill test hole with excavated material in 6" lifts by air pneumatic tamping. Soil placed within 1 foot of the exposed utility will be clean and tamped carefully. Backfill materials will be adequately compacted to prevent later subsidence of the test hole. Provide select backfill materials, such as insulating sands and gravels, when needed. Restore test hole area to original condition. Ribbon of appropriate APWA/ULCC color will be installed in the backfill from utility to grade.

9. Repair and restore all pavement cuts to insure a long lasting, permanent repair using our standard cold patch method. Guarantee patch for 1 year and return to repair within that time if test hole sinks more than ½" below original grade (permanent marker). In the event that the permitting agency does not accept cold patch as permanent repair, the cost to restore the pavement to the satisfaction of the permitting agency will become a cost over and above the estimate.

10. Record the location of the permanent marker with a minimum of three (3) swing tie measurements to convenient existing permanent structures on site.

10a. (Optional - See Scope Statement) Survey test hole locations with a total station survey instrument and data collector relevant to the client provided project control. Process survey locations to provide northing, easting and grade/ utility elevations. Generate stations and offset for the test holes if baseline geometry is provided.

11. Cad Test Hole Forms. Also, provide a Test Hole Inventory report to list numerically the test holes completed/ attempted.

12. Technical limitations of small hole Air/Vacuum excavation:

    In order to provide a cost effective service that causes minimal disturbance to site amenities and utilities, and is acceptable to permitting agencies, the size of the test hole excavation is kept to a minimum. A nominal size of 64 square inches (8" x 8") is the assumed size of the average test hole. Given this size excavation, the following limitations are stated for the benefit of the designer in choosing test hole locations.

    a. The bottom/invert of pipes and large diameter cables and conduits is not directly available in most test holes. The point of measurement of these utilities is typically the crown or shallowest point on the utility. Invert information is derived from crown cover plus diameter.

    b. The diameter of most pipes greater than 24" cannot be recovered directly from a single test hole. The diameter of pipes less than 24" is determined by exposing half or the entire pipe, as needed, and directly

measuring the outside diameter with a rule to the nearest 1/2". If pipe diameter is critical on larger than 24" pipes, it may be necessary to perform additional holes. This type of investigation falls outside of the normal scope of test hole services.

c. Encased systems and non-encased conduit banks are typically exposed on one edge. This allows the test hole to be excavated down the side of the utility until a discernable bottom edge can be evaluated. Although it is usually possible to determine the bottom edge of these systems, it is not possible to determine conditions under these or other utility systems, such as concrete overpour and other utilities. It is important for the designer to remember that the bottom edge of an encased system or unencased conduit bank may not represent its lowest point, and that the shape of the system may not be the same on both sides. The width of these systems may not be determined from a single test hole. Encased systems and unencased conduit banks may require two test holes to document the width (and both sides top and bottom elevations).

PRICE PROPOSAL FOR GEOTECHNICAL SERVICES: 72-INCH DRAINAGE PIPE INSTALLATION

ALONG GULF STREAM PARKING LOT

CITY OF HALLANDALE BEACH, FLORIDA

HR ENGINEERING SERVICES, INC. (HRES)

7815 NW 72nd AVENUE - MEDLEY, FLORIDA 33166

HRES PROJECT No.: HR24-1903R

DECEMBER 11, 2024

FIELD EXPLORATION

a) Performing one (1) SPT boring to a depth of 50 feet at the new outfall wall, and nine (9) SPT borings, each to a depth of 25 feet, spaced approximately 300 feet along the proposed pipe alignment. We understand that the existing drainage pipe is collapsing at several locations. Based on our quick review over Google, it appears that most proposed borings have ready access and may be performed using a truck-mounted drill rig. The boring proposed for the outfall wall requires access coordination for ***the crossing over the horse track and removal of a fence to provide access to the truck-mounted rig. We require that this fence be removed and put back after drilling by others.***

b) Permits. The work requires a permit to get inside the Gulf Stream parking lot. HRES will call for underground utilities; however, there may be underground utilities not located by Sunshine One Call and need to be located by Gulf Stream maintenance personnel. In addition, some of the SPT borings may require additional access, as an example the SPT boring for the new outfall wall. The work requires coordination with Gulf Stream to get access and help from RJ Behar to perform this coordination.

c) HRES will contact Sunshine one call. We will need the Gulf Steam maintenance personnel to mark any underground utilities not located by Sunshine FL811 before we start the drilling.

Reporting

d) Provide a drainage report that includes the finding by the borings and foundation and construction recommendations for the installation of the new 72-inch drainage pipe and the outfall wall.

1. FIELD EXPLORATION AN LABORATORY SERVICES: 9 SPT BORINGS TO 25, 1 SPT BORING 50 FEET

	UNITS	# OF UNITS	UNIT RATE	TOTAL $	
1.1) 9 SPT Borings to 25 feet and 1 SPT boring to 50 feet=9x25'+1x50'=275 feet	feet	275	$17.00	$4,675.00	
1.2) Temporary Casing: 0'-50'= 275 feet	feet	275	$8.00	$2,200.00	
1.3) Grouting Holes: 275 feet	feet	275	$6.50	$1,787.50	
1.4) Rig Mobilization: for a truck-mounted rig.	each	1	$500.00	$500.00	
1.5) Organic Content Tests	each	10	$55.00	$550.00	
1.6) Fines Content Tests	each	10	$50.00	$500.00	
1.7) Grain Size Tests	each	3	$65.00	$195.00	
1.8) Natural Moisture Content Tests	each	10	$15.00	$150.00	
1.9) Corrosion Tests	each	2	$140.00	$280.00	
Subtotal Field Exploration				**$10,837.50**	52.1%

ALONG GULF STREAM PARKING LOT

CITY OF HALLANDALE BEACH, FLORIDA

HR ENGINEERING SERVICES, INC. (HRES)

7815 NW 72nd AVENUE - MEDLEY, FLORIDA 33166

HRES PROJECT No.: HR24-1903R

DECEMBER 11, 2024

2. MOT SERVICES

2.1) HRES assumes that no permit from the City of Hallandale Beach is required.	each	0	$500.00	$0.00	
2.2) Barricades, cones	each	1	$300.00	$300.00	
Subtotal MOT Services				***$300.00***	1.4%

3. ENGINEERING FOR REPORTING AND TECHNICIAN SERVICES

3.1) Engineering Technician for boring layout, site meeting with FL 811 and Gulf Steam personnel). $26.62x3.0=$79.86	hour	20	$79.86	$1,597.20	
3.2) Staff Engineer for boring drafting, boring description, report preparation support: 2.75 units, 14 hours. $35.49x3.0=$106.47	hour	25	$106.47	$2,661.75	
3.3) Project Engineer - Report Preparation, including recommendations for drainage pipe construction and outfall wall. $42.0x3.0=$126.0	hour	25	$126.00	$3,150.00	
3.4) Senior Engineer for report review, QA/QC. $50.0x3.0=150.0	each	15	$150.00	$2,250.00	
TOTAL TECHNICIAN SERVICES AND ENGINEERING		85		***$9,658.95***	46.4%
TOTAL FOR GEOTECHNICAL SERVICES				***$20,796.45***	100%

HR ENGINEERING SERVICES, INC.

Hernando R. Ramos

Hernando R. Ramos, PE
Chief Geotechnical Engineer/President