November 1, 2022

Mr. Peter Kunen, P.E.
Assistant Director of Public Works/City Engineer
City of Hallandale Beach
630 NW 2nd Street
Hallandale Beach, FL 33009

Re: Three Islands Boulevard, Parkview Drive and Leslie Drive
Water Main Improvement Project
City of Hallandale Beach, FL

Dear Mr. Kunen:

In accordance with City of Hallandale Beach's RFP #FY 2021-2022-010 Consultant's Competitive Negotiation Act (CCNA) Parkview Drive and Leslie Drive Water Main Improvement Project, 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 Engineering Services associated with the Three Island Boulevard, Parkview Drive and Leslie Drive Water Main Improvement Project.

Project Understanding

The intent of the project is to provide a new 20-inch, 16-inch and 12-inch potable water main system located in the City of Hallandale Beach, Florida. The proposed potable water main system will provide a new 20-inch water main on Three Islands Boulevard from Hallandale Beach Boulevard north to NE 11th Street. The project will also provide a new 16-inch water main from the intersection of Three Islands Boulevard and Parkview Drive to the north end of Parkview Drive and then west from Parkview Drive to the intersection of Three Island Boulevard and NE 11th Street. The proposed 16-inch water main will create a new hydraulic loop in the project area. A section of the proposed 16-inch water main (transmission only) that runs from the north end of Parkview Drive west to Three Islands Boulevard will require coordination with the City of Hollywood for utility easements. The project will also include a new 12-inch water main on Leslie Drive from Parkview Drive south to where public Right-of-Way ends. The 12-inch water main on Leslie Drive will not be a looped system. The total length of the proposed water mains is approximately 9,600 feet. The City intends to replace the aging water main on Three Islands Boulevard and Parkview Drive and establish a new hydraulic loop that does not currently exist to provide a more reliable and redundant potable water system. The project will include three (3) subaqueous water crossings that will be installed utilizing horizontal directional drill (HDD) so that the new water main will not be attached to any existing bridge and to complete the hydraulic loop to the north. The existing water services will be transitioned to the proposed water mains on Three Islands Boulevard, Parkview Drive and Leslie Drive. Additional water services are not anticipated on those roadways, but the scope of work includes limited hydraulic modeling to confirm proposed pipe sizes and fire hydrant coverage. New fire hydrants and water services are not proposed for the new section of water main (transmission only) from the north end of Parkview Drive west to Three Island Boulevard. The proposed professional services include design, permitting, bidding assistance, and post design services.

Scope of Services

The Scope of Services for the project will be provided by the Consultant and its Sub-consultants Stoner and Associates, Inc. for supplemental field survey, InfraMap for Subsurface Utility Exploration (SUE) services and Tierra South Florida for geotechnical services. The City will provide available field survey data for use by the Consultant.

Task 1 - Project Kick-Off

The Consultant will prepare for and coordinate a kick-off meeting with City of Hallandale Beach staff to introduce the project team, discuss the proposed project improvements, and develop project goals. The following items will be discussed as part of the kick-off meeting:

- The City shall provide the Consultant all available studies, master plans, or other documents pertaining to the project including available field survey data, all of which the Consultant may rely upon. The field survey shall be provided in CAD for use in developing the design plans for permitting and bidding.
- Obtain pertinent contact information as applicable for project coordination.
- Obtain a water meter inventory for the complete project area.
- Obtain water main system pressures and discuss fire flow data for use in hydraulic modeling.
- Perform a preliminary site ride to further observe existing conditions for site survey coordination.
- Discuss project schedule.

Task 2 – Site Survey

The Consultant will provide supplemental field survey on Three Islands Blvd. from Hallandale Beach Blvd. north to the guard house located in the median. The supplemental survey data will be prepared by a Florida registered professional land surveyor meeting horizontal and vertical requirements for design survey. The survey will be used as the base map for overlaying the proposed design and will consist of approximately 1,400 LF roadway including adjacent intersection limits. During this phase, the Consultant will perform the following tasks:

- The topographic survey will extend to the right of way lines, including intersecting streets to 25 feet beyond the point of radius return.
- Establish horizontal and vertical control points to support the survey efforts.
- Vertical control (elevations) will be based on the North American Vertical Datum of 1988.
- Horizontal control will be based on the Florida State Plane Coordinates System, East Zone, North American Datum of 83/2011.
- Elevations will be measured approximately every 100 feet, at centerline and edges of pavement and high and low spots.
- Locate surface features within the survey limits as follows: pavement, driveways, paved swales, sidewalks, slabs, curbs, walls, fences, and signage.
- Location 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 the rim and invert elevation of sanitary sewer and storm drainage structures within the site limits. When accessible, determine pipe type, size, and flow direction, when possible. Structures located within active roadways will be as-built at the field crew's discretion, based on safety considerations.
- Locate pavement striping.
- Locate trees three caliper inches in diameter or larger. Denote tree trunk diameter and common name only. Prepare a Tree Table which list each tree species by common name, survey point number, and trunk diameter.
- Obtain one cross section of the South Channel canal bottom at a location to be determined later.
- Obtain top and bottom of seawall at both ends of the proposed easement.
- Depict on the survey the approximate location of right of way lines for informational purposes only.

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

- Supplemental basemap survey plan in digital AutoCAD and PDF formats prepared by a professional land surveyor registered in the State of Florida.

Task 3 – Geotechnical Services

The scope of geotechnical services will include the performance of soil borings, pavement cores, laboratory testing, data evaluation, engineering analysis, construction recommendations and considerations for the installation of the proposed water main improvements. The findings will be presented in a Geotechnical Report prepared for the project. Based on an estimated spacing of 1 boring per every 1,000 feet, ten (10) soil borings to a depth of ten (10) feet below the existing ground surface will be provided for the water main improvement area. Six (6) additional borings to a depth of sixty-five (65) feet below the existing ground surface will also be provide for the three (3) water crossings. Two borings will be provided for each of the three (3) HDD designs but all borings will be performed on land. Ten (10) pavement cores will be provided as well.

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

- Two copies of a geotechnical report signed and sealed by professional engineer.

Task 4 - Subsurface Utility Exploration

The Consultant shall retain the services of a Subsurface Utility Exploration (SUE) company in an effort to locate and mark underground utilities in select areas of the project as determined by the Consultant. The work shall include locating gas, water, electric, telecommunications and cable television where possible. It is estimated that field efforts will include up to Forty -five (45) "soft dig" locations. Note, "soft dig" is defined as 1) exposing and confirming the utility and providing horizontal and vertical data (test hole), 2) cutting and removing sod, asphalt or concrete surface at the selected locations, 3) using vacuum excavation techniques to safely expose the facility, 4) measure and record the depth to the top of the facility, and 5) back fill the test hole with native soil, compact in lifts and provide restoration of surface to original condition or better. This information will be used in the plan production of the proposed water main improvements.

Note: Based on the information provided by the SUE company, utility locations will be provided in an effort to reduce the likelihood of damage during excavation. The Consultant does not guarantee that all utilities will be able to be verified in the field by this technology.

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

- Horizontal alignment sketches designating existing utilities as detected from the surface. The sketches will include photographs of spray paint markings produced in the field.
- Test hole results report listing size, depth from surface and type of material found.
- Install an identifiable above ground marker at the test hole location consisting of a nail and disk in asphalt, or iron rod and cap with survey stake in grassed areas.

Task 5 - 30% Design Submittal

Base on the preliminary design data discussed above, the intent of this task is to prepare the 30% design submittal denoting the proposed horizontal alignment for the water main improvements as follows:

- Review field survey files, asbuilt/atlas information, and meter inventory information provided by the City.
- Utilize Broward County Parcel GIS data and existing water usage data to determine estimated water system demands for system design.
- Contact utility owners/companies and request available information depicting the locations and configuration of existing utilities within and around the project area.
- Perform site walk to coordinate the information on the field survey provided by the City.
- Develop the preliminary water main layout for water services, fire hydrants, coordination with existing utilities, and the HDD water crossings. The intent is to not design each water service/fire line location/installation as part of the service connection transition process but to utilize typical water service/fire line installation details.
- Perform preliminary coordination with regulatory agencies having jurisdiction over the project to discuss permitting requirements for both open cut and HDD applications, required fees, and estimated durations for approval.
- Identify and coordinate proposed connection points and fire flow testing locations with the City to obtain existing distribution system pressures and fire flow data from the City for hydraulic modeling.
- Based on City provide data, perform hydraulic modeling (limited to the project area) and data analysis to evaluate pipe sizes, capacity and pressure requirements throughout the project area.
- The water main improvements are proposed to be primarily located in the City's right-of-way, but the new water main (transmission only) from the north end of Parkview Drive west to Three Island Boulevard will require coordination with the City of Hollywood for a utility easements.
- Assist City with City of Hollywood easement coordination and provide survey/sketch and legal document (approximately 1,300 LF x 15-foot wide) prepared by Stoner and Associates, Inc. for use by the City in obtaining the actual project easement.
- The water main improvements will require a sovereign submerged lands lease through FDEP/USACE for the Three Islands Boulevard water crossing.

- Assist City with the FDEP/USACE easement coordination and provide survey/sketch and legal document (approximately 200 LF x 20-foot wide) prepared by Stoner and Associates, Inc. for use in obtaining a consent of easement through the USACE real estate division.
- Using the modeling results and field survey data, the consultant shall prepare 30% plans for the proposed water main improvements within the project area. The 30% plans will be a horizontal alignment in plan view only for coordination of the proposed approach. Profile sheets will not be included in the 30% plans.
- The 30% plans will consist of a cover sheet with location map, index of sheets and preliminary construction notes. The water system improvements will be based on City of Hallandale Beach and/or Broward County Utility Standards.
- The Consultant shall submit 30% design submittal for City review. The 30% plans shall be submitted on 11" x 17" plan sheets.
- The Consultant shall attend one (1) coordination meeting with the City to address/review comments.

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

- Three (3) original sets of the 30% design submittal (11" x 17" plan sheets), together with one (1) electronic copy.

Task 6 - 60% Design Submittal

Once the 30% plans have been approved by the City, these will be used as the basis for preparing the 60% design submittal. The intent of this task is to further develop the 30% design submittal previously approved in Task 5 and prepare a design denoting the proposed horizontal and vertical alignments for the water main improvements as follows:

- Update hydraulic modeling (limited to the project area) and data analysis based on design development.
- The Consultant will prepare 60% plans that will further refine the horizontal alignment of the proposed water main system, incorporate 30% review comments, and develop profile views showing the preliminary vertical alignments in reference to existing utilities. Profile views will reflect the HDD's for the three (3) proposed water crossings.
- The profile views will provide the "best available" locations, depths and sizes of existing underground utilities that cross and may be in potential conflict with the proposed water main. The Consultant will coordinate with the City on the use of SUE as described in Task 4 to further identify the horizontal and vertical locations of the conflicting utilities.
- The 60% plans will include water system components such as valves, water service/fire line locations, and fire hydrants as well as typical detail(s) for water service connections to existing water meters.
- The 60% plans will include preliminary roadway restoration plans identifying the limits of the roadways that will be impacted by utility improvements, roadway restoration/construction details and stormwater pollution prevention plan details. Stormwater and landscaping improvements are not included as part of this scope of work but can be provided as an additional service.
- The Consultant shall submit the 60% design submittal for City review. The 60% plans 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 will update the preliminary Opinion of Probable Cost (OPC).

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

- Three (3) original sets of the 60% design submittal (11" x 17" plan sheets), one (1) electronic copy.
- One (1) copy of the updated OPC.

Task 7 - 90% Design Submittal

Once the 60% plans have been approved by the City, these will be used as the basis for preparing the 90% design submittal. The intent of this task is to further develop the 60% design submittal previously approved in Task 6 as follows:

- The Consultant will prepare 90% plans that will further refine the horizontal alignment of the proposed water main system, incorporate 60% review comments, and update the profile views showing the vertical alignments in reference to existing utilities. Profile views will be updated for the three (3) proposed water crossings as well.
- Adjust the proposed horizontal and vertical alignments based on SUE findings to further define utility conflicts.
- Finalize coordination with the City as it relates to the proposed utility easements for the new water main (transmission only) from the north end of Parkview Drive west to Three Island Boulevard and the Three Island Boulevard water crossing.
- The 90% plans will include updated water system components such as valves, water service/fire line locations, and fire hydrants as well as typical detail(s) for water service connections to existing water meters.
- The 90% plans will include updated roadway restoration plans, roadway restoration/construction details, stormwater pollution prevention plan details, and signing and pavement marking details.
- The Consultant shall submit the 90% design submittal for City review. The 90% plans 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 7:

- Three (3) original sets of the 90% design submittal (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 8 – Final Design Submittal

Once the 90% plans have been approved by the City, these will be used as the basis for preparing the final design submittal. The intent of this task is to finalize the plans as follows:

- Incorporate 90% design drawing review comments.
- Incorporate permit agency review comments.
- The Consultant shall submit the final plans for City review. The final design submittal will include the bid documents and design plans. 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 8:

- 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 9 - Permitting

The Consultant will prepare and submit applications, supporting documents and plans for review by the following agencies:

- City of Hallandale Beach Public Works - Review of plans for water main improvement work and coordination with the City Staff.
- Broward County Traffic Engineering Division (BCTED) - Review of plans for signing and marking throughout the project area.
- Florida Department of Environmental Protection (FDEP) – Application for the proposed water main construction permit. FDEP Form 62-555.900(7) - Notice of Intent to Use the General Permit for Construction of Water Main Extensions for PWS.
- South Florida Water Management District and the United States Army Corp. of Engineers - Environmental Resource Permit (ERP) for the Three Islands Boulevard water crossing.
- The Consultant will prepare permit application packages for submittal to the regulatory agencies associated with the water main improvements. Permit applications will require City signatures and all permitting fees with be paid by the City.
- The Consultant shall respond to reasonable permit comments from the regulatory agencies.
- No portion of the proposed water main is located on roadways owned by Broward County. Permitting through Broward County Highway Construction and Engineering Division (BCHCED) is not included in this scope of work.

Deliverables: The following deliverables shall be provided under Task 9:

- Permit application packages for signature by the City.

Task 10 - 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 11 - Post Design Services

The following scope is based on an eighteen (18) 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 plans and specifications. Site visits will be performed by the Consultant's inspector. Four (4) site visits per month estimated at four (4) hours per visit. Assume seventy-two (72) site visits. The Consultant will provide site reports for each visit.
- The Consultant shall provide responses to Requests for Information (RFI's). Assumes 20 RFI's.
- The Consultant shall assist the City with review of the Contractor's payment applications and provide comments and/or recommendations. Assumes 18 payment application reviews.
- As part of activating any new water distribution system improvements, coordination with the Florida Department of Environmental Protection (FDEP) will be required to confirm the new system has been pressure tested and disinfected properly. The Consultant will assist the City in developing permit coordination packages to submit for FDEP clearance. Permit packages will require City signatures, and all permit fees will be paid by the City. The Consultant will review Asbuilt drawings prepared, provided, and certified by the Contractor for incorporation into the FDEP clearance packages.
- 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.
- 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.
- In addition to the FDEP clearance packages, the Consultant shall coordinate closing permits with the other agencies listed in Task 9.

Project Assumptions

- City shall provide access to site.
- City will provide operating pressure data and fire flows for hydraulic modeling.
- City shall provide and coordinate complete Front-End documents.
- Water main specifications and details will be based on City of Hallandale Beach or Broward County Standards.
- City will provide all permit application fees.

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 11. These services may include but are not limited to such items as the following:

- Additional site survey beyond the limits as described in Task 2.
- Post Design services beyond the anticipated eighteen (18) month construction duration
- Relocations/modifications of existing City utilities other than the proposed water main improvements.
- Professional services associated with work on private property for service connections.
- Roadway and/or sidewalk design/improvements other than site restoration for the proposed water main improvements.
- Drainage design/improvements.
- Landscaping and irrigation design/improvements.
- Development of Record Drawings
- Public Outreach Program

Project Schedule

The Consultant shall perform the services identified in Tasks 1 – 9 within 450 days of the written Notice to Proceed. Tasks 10 and 11 shall be determined based on the bid date.

Method of Compensation

The Consultant will accomplish the services outlined in Tasks 1 through 11 for an amount not to exceed $939,381.00. The following task items represent a breakdown of the proposed fee for reference:

Task 1 – Project Kick-Off	$7,510.00
Task 2 – Site Survey	$19,925.00
Task 3 – Geotechnical Services	$36,545.00
Task 4 – Subsurface Utility Exploration	$40,716.00
Task 5 – 30% Design Submittal	$219,840.00
Task 6 – 60% Design Submittal	$175,710.00
Task 7 – 90% Design Submittal	$161,940.00
Task 8 – Final Design Submittal	$65,960.00
Task 9 – Permitting	$61,420.00
Task 10 – Bidding Assistance	$9,955.00
Task 11 – Post Design Services	$139,860.00
Not to Exceed Amount	**$939,381.00**

Closure

The terms and conditions of the City of Hallandale Beach's RFP #FY 2021-2022-010 "Consultant's Competitive Negotiation Act (CCNA) Parkview Drive and Leslie Drive Water Main Improvement Project" 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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Kimley»Horn

WORK PLAN - FEE SCHEDULE

PROJECT:	Three Islands Boulevard, Parkview Drive and Leslie Drive Water Main Improvement Project	SHEET:	
CLIENT:	City of Hallandale Beach	PROJECT NO.	
ESTIMATOR:	Gary R Ratay	DATE:	11/01/22

DESCRIPTION:	Senior Engineer	Project Manager	Project Engineer	Engineer	Junior Engineer	Support Specialist	Inspector	Survey Sub	Geotechnical Sub	SUE Sub	Expenses	Line Total	Task Total
Task 1 - Project Kick-Off													
Project Kick Off Meeting - Discussion pertinent project items		2	2									$1,020.00	
Coordinate field survey, master plan, water meter inventory, and utility information		6	6	12		2						$5,470.00	
Preliminary site ride		2	2									$1,020.00	$7,510.00
Task 2 - Site Survey													
Supplemental site survey services (Stoner and Associates)								$13,385			$500	$13,885.00	
Coordination and CAD file development		4	6	10	10	2						$6,040.00	$19,925.00
Task 3 - Geotechnical Services													
Geotechnical services with reports (Tierra South Florida)									$31,915			$31,915.00	
Coordination and report review		4	8	8		2						$4,630.00	$36,545.00
Task 4 - Subsurface Utility Exploration													
SUE services (InfraMap), Estimate 45 test holes										$32,996		$32,996.00	
Coordinate with SUE subconsultant		6	8	12	12	2						$7,720.00	$40,716.00
Task 5 - 30% Design Submittal													
Review field survey, master plan/water system information		6	10	20								$7,560.00	
Review water meter inventory/addresses		6	10	20								$7,560.00	
Determine estimated water system demands		6	20	40								$13,410.00	
Contact/coordinate with utility companies			4	6	6	1						$3,005.00	
Site Visit for survey review			4	4								$1,620.00	
Develop preliminary water system layout		20	60	80	80							$45,600.00	
Develop preliminary approach for water service/fire connections		10	40	60	80							$34,650.00	
Preliminary coordination with permitting agencies		4	8	8		2						$4,630.00	
Coordinate with City to obtain operating pressure and fire flow data			6	6	6							$3,330.00	
Perform limited hydraulic modeling		10	20	40	60							$23,550.00	
Provide easement coordination and sketch and legal documents for transmission section		6	10	20				$980				$8,540.00	
Provide easement coordination and sketch and legal documents for Three Islands Boulevard water crossing		6	20	20				$1,600				$11,410.00	
Develop 30% construction drawings in plan view only		20	60	80	120							$51,600.00	
Finalize 30% design submittal and submit to the City		2	4			2						$1,720.00	
Prepare for and attend meeting with City to review 30% design submittal		3	3			1						$1,655.00	$219,840.00
Task 6 - 60% Design Submittal													
Update hydraulic modeling		4	6	10	20							$7,290.00	
Incorporate 30% review comments		10	30	40	40							$22,800.00	
Incorporate existing utility information		10	20	40	40							$20,550.00	
Further develop water system design and construction details		10	40	40	60							$28,050.00	
Coordinate with City on SUE requirements			4	4	6							$2,520.00	
Develop 60% construction drawings in plan and profile.		40	80	100	120							$65,400.00	
Develop roadway restoration plans		6	20	40	40							$19,410.00	
Develop stormwater pollution prevention details.		2	6	6	10							$4,500.00	
Finalize 60% design submittal and submit to the City		2	4			2						$1,720.00	
Prepare for and attend meeting with City to review 60% design submittal		3	3			1						$1,655.00	
Provide updated OPC		1	2	6								$1,815.00	$175,710.00

Kimley»Horn

WORK PLAN - FEE SCHEDULE

PROJECT:	Three Islands Boulevard, Parkview Drive and Leslie Drive Water Main Improvement Project	SHEET:	
CLIENT:	City of Hallandale Beach	PROJECT NO.	
ESTIMATOR:	Gary R Ratay	DATE:	11/01/22

DESCRIPTION:	Senior Engineer	Project Manager	Project Engineer	Engineer	Junior Engineer	Support Specialist	Inspector	Survey Sub	Geotechnical Sub	SUE Sub	Expenses	Line Total	Task Total
Task 7 - 90% Design Submittal													
Incorporate 60% review comments		10	20	20	30							$15,450.00	
Incorporate SUE information		10	20	30	30							$17,250.00	
Finalize coordination with City on proposed utility easement		4	12	12								$6,000.00	
Further develop water system design and construction details		10	40	40	60							$28,050.00	
Develop 90% construction drawings in plan and profile.		40	60	80	100							$54,300.00	
Develop roadway restoration and signing and marking plans		6	20	20	40							$15,810.00	
Develop bid form and specification package		10	20	20		10						$12,200.00	
Finalize 90% design submittal and submit to the City		2	4			2						$1,720.00	
Prepare for and attend meeting with City to review 90% design submittal		3	3			1						$1,655.00	
Submit 90% construction drawing packages to permitting agencies		4	12	12	12	2						$8,050.00	
Provide updated OPC		1	2	4								$1,455.00	$161,940.00
Task 8 - Final Design Submittal													
Incorporate 90% review comments		6	10	20	20							$10,560.00	
Incorporate permit agency review comments		4	20	40	40							$18,840.00	
Develop final construction drawings		10	40	60	60	6						$32,400.00	
Prepare final design submittal and submit to the City for bidding		2	4			2						$1,720.00	
Assist City with finalizing bid document for bidding		2	4	4		2						$2,440.00	$65,960.00
Task 9 - Permitting													
City of Hallandale Beach plan review submittal		2	2	4								$1,740.00	
Broward County Traffic Engineering Department plan review submittal		6	10	20	20	2						$10,810.00	
Florida Department of Environmental Protection permit applications		10	12	30	40	2						$17,200.00	
SFWMD/ACOE environmental resource permit application for Three Islands Boulevard water crossing		10	40	40	40	2						$25,300.00	
Submit and coordinate permitting packages for signatures		4	4	6		2					$3,000	$6,370.00	$61,420.00
Task 10 - Bidding Assistance													
Attend pre-bid meeting		2	2			1						$1,145.00	
Respond to reasonable RFI's		6	10	10		2						$6,010.00	
Provide bid evaluation/recommendation		2	4	6		2						$2,800.00	$9,955.00
Task 11 - Post Design Services (Based on 540 day construction contract)													
Attend pre-construction meeting		2	2			1	2					$1,375.00	
Shop drawing review		10	20	30		4						$13,250.00	
Perform site visits - 4 visits/month, 4 hours/visit, 72 visits		36					288				$2,500	$45,880.00	
Respond to RFI's - 20 reviews		20	20	40		10						$18,650.00	
Review pay applications - 18 reviews		18		18		9	36					$13,635.00	
Prepare and submit certification packages for regulatory agencies		10	30	40	40	10						$24,050.00	
Review As-Built drawings		6	10	10			10					$6,910.00	
Perform substantial completion walk through and provide punch list		6	6			1	6				$500	$4,375.00	
Perform final site walk		4	4			1	4					$2,625.00	
Permit close out process		10	12	12		2	10					$9,110.00	$139,860.00
TOTAL HOURS	**0**	**499**	**1,005**	**1,360**	**1,242**	**93**	**356**	**$15,965.00**	**$31,915.00**	**$32,996.00**	**$6,500.00**		
LABOR RATE ($/HOUR)	**290.00**	**285.00**	**225.00**	**180.00**	**150.00**	**125.00**	**115.00**	**1.0**	**1.0**	**1.0**	**1.0**		
SUBTOTAL	**$0.00**	**$142,215.00**	**$226,125.00**	**$244,800.00**	**$186,300.00**	**$11,625.00**	**$40,940.00**	**$15,965.00**	**$31,915.00**	**$32,996.00**	**$6,500.00**		
PAGE TOTAL												**$939,381.00**	**$939,381.00**

City of Hallandale Beach
Water Main Improvement Project
Three Islands Boulevard, Parkview Drive and Leslie Drive

Engineer's Preliminary Opinion of Probable Cost
November 1, 2022

Bid Item	Description	Quantity	Unit	Unit Price	Total Item Price
1	Mobilization, bonds & insurance	1	LS	$400,000.00	$400,000.00
2	Maintenance of Traffic	1	LS	$150,000.00	$150,000.00
3	Survey and testing	1	LS	$90,000.00	$90,000.00
4	Water main, 20" C-900 PVC, open cut	4,000	LF	$250.00	$1,000,000.00
5	Water Main, 20" HDPE, HDD	400	LF	$800.00	$320,000.00
6	Water main, 16" C-900 PVC, open cut	3,600	LF	$200.00	$720,000.00
7	Water Main, 16" HDPE, HDD	800	LF	$600.00	$480,000.00
8	Water main, 12"C-900 PVC, open cut	800	LF	$180.00	$144,000.00
9	2" HDPE water service connection with meter box	20	EA	$4,500.00	$90,000.00
10	4" water/fire service connection only	6	EA	$7,500.00	$45,000.00
11	6" water/fire service connection only	15	EA	$9,000.00	$135,000.00
12	8" water/fire service connection only	10	EA	$10,000.00	$100,000.00
13	Gate Valve, 20"	4	EA	$8,000.00	$32,000.00
14	Gate Valve, 16"	4	EA	$7,000.00	$28,000.00
15	Gate Valve, 12"	4	EA	$5,000.00	$20,000.00
16	Gate Valve, 8"	10	EA	$3,000.00	$30,000.00
17	Gate Valve, 6"	15	EA	$2,500.00	$37,500.00
18	Gate Valve, 4"	6	EA	$2,000.00	$12,000.00
19	Fittings	3	TN	$25,000.00	$75,000.00
20	Water main connections	8	EA	$6,000.00	$48,000.00
21	Fire hydrant assembly	16	EA	$6,500.00	$104,000.00
22	Air release valve assembly	9	EA	$3,500.00	$31,500.00
23	Milling existing asphalt pavement (minimum depth 1")	60,000	SY	$8.00	$480,000.00
24	Asphaltic concrete overlay	60,000	SY	$16.00	$960,000.00
25	Adjust utility covers	1	LS	$30,000.00	$30,000.00
26	Pavement markings	1	LS	$100,000.00	$100,000.00
27	Grout/abandon existing water main	8,500	LF	$15.00	$127,500.00
28	Site restoration	1	LS	$150,000.00	$150,000.00
				Sub Total	**$5,940,000.00**
				20% Contingency	**$1,190,000.00**
				Preliminary Opinion of Probable Cost	**$7,130,000.00**

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, this Opinion of Probable Construction Cost is based on our most current data. We have added a 20% contingency onto the OPC and it may still be below the actual bid.