CITY OF HALLANDALE BEACH

FY 2018-2019-012 Continuing Professional Architectural and Engineering Services and Other Services

Discipline: Water Resources/Stormwater Design/Wastewater Engineering

KCI TECHNOLOGIES, INC.
WORK AUTHORIZATION No. TBD

Lift Station No. 7 - Rehabilitation

Scope of Services: October 31, 2024

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 KCI TECHNOLOGIES INC. (CONSULTANT) (KCI) as requested by the City of Hallandale Beach (CITY) to provide Water Resources, Stormwater Design and WasteWater Engineering.

BACKGROUND

The City of Hallandale Beach (CITY) owns, operates, and maintains the existing wastewater system of gravity sewers, force mains and lift stations within the CITY corporate limits. The CITY has fifteen (15) lift stations that are owned, operated and maintained by the CITY. The CITY also maintains a network of approximately 12 miles of force mains, 57 miles of gravity sewer and nearly 1,200 manholes.

The CITY has requested KCI Technologies, Inc. (KCI) provide professional engineering services to upgrade existing Lift Station No. 7 by replacing/rehabilitating the existing can lift station with a dual submersible lift station at a new location within the general vicinity of the existing Lift Station No. 7 site

KCI representatives met representatives of the City and Big Easy Casino on 10/3/24 to discuss the three (3) options for the siting of the proposed Lift Station No. 7. Options included rehabilitation of the lift station at the current location or a newly constructed lift station at either of two (2) other potential sites. It was decided by the City to proceed with the option of a newly constructed lift station at a new location at the NE corner of NE 5 Street and NE 2 Ave. This professional services agreement will present scope and fees for the selected location.

SCOPE OF SERVICES

Task 1: Subsurface Utility Engineering – Utility Designating Services

KCI will initiate the utility designation phase of the project by requesting and reviewing existing utility as-built record information. This process aims to enhance the accuracy of utility designation within the following limits:

- Project Limits (Attachment 'A'):
 - NE 4th Court, extending through the full right-of-way width, from the west right-of-way from NE 3rd Avenue to a point approximately 330 feet to the west.
 - NE 5th Street, extending through the full right-of-way width, from the east right-of-way to a point approximately 200 feet to the east, being the terminus point of NE 5th Street, thence continuing east to the east right-of-way for NE 3rd Avenue.
 - o The private parking lot between NE 5th Street and NE 4th Court.
 - NE 4th Court, extending through the full right-of-way width, from the east right-of-way for NE 3rd Avenue to a point approximately 135 to the west.

The integration of existing facility records, in conjunction with the outlined approach and technology, is essential for optimal results. This combination of services maximizes the probability of accurately designating existing utilities. The gathered information will be instrumental in verifying subsurface utilities, potentially aiding in identifying their number, identity, size, and

material. It is crucial to note that this data will not replace actual geophysical location unless electronic verification using industry-standard techniques is unattainable.

The field marking of utilities can be customized to meet the Client's specific needs, with coordination and agreement established before project commencement. KCI commits to providing a comprehensive field sketch of all marked utilities, including those undetectable by electronic locators or ground-penetrating radar (GPR). KCI S.U.E. group will provide GIS sketches of utility designation for this project.

Moreover, KCI will supply copies of all documentation related to existing utility locations within the specified limits. This includes any studies, field notes, sketches, plan drawings, and newly received utility records, if any.

Conductive Utility Designation - KCI shall utilize Electromagnetic Induction Method (EM) utility locating equipment, incorporating a transmitter and a dual-function receiver with single and multi-frequency electromagnetic technologies. This method is suitable for inducing signals on buried conductive (metallic) utilities, including electric, communication, gas, water, pressurized sewer mains, and irrigation control wires within the predetermined limits.

Non-Conductive Utility Designation – Materials, such as PVC, HDPE, Transite, or Asbestos Cement pipes are not traceable with electronic locators. KCI shall employ various geophysical methods, such as Ground Penetrating Radar (GPR) with a dual-frequency system. This system consists of an antenna housing a transmitter, receiver, and profiling recorder, producing a graphic display of the data received. While GPR efficiency is site-specific and influenced by signal attenuation (absorption), dependent on the subsurface material composition, it remains a successful method for tracing nonmetallic underground utilities.

KCI will deploy a utility locating grade GPR unit along a random axis at random intervals within the project site limits. The objective is to identify consistent and significant anomalies in a linear pattern, justifying further investigation as potential undocumented utilities. It is essential to understand that GPR only recognizes anomalies, and unless traced to a known above-ground surface utility feature, these anomalies cannot be identified as known utilities. Depths of potential anomalies (and possible underground utilities) identified by GPR are approximate and should not be considered survey grade. The locations and depths identified by GPR should not be relied upon as a utility location, but rather an indication that further vertical verification investigations utilizing vacuum excavation are required.

Traceable utilities detected within the specified limits shall be marked on the surface according to the American Public Works Association standard color-coding system using paint & flags, utilizing the previously described geophysical equipment, which will include electromagnetic and GPR technologies.

Lump Sum Fee for this task shall be.....\$4,750.00

Task 2: Topographic Survey

KCI shall prepare a Topographic Survey throughout the following limits:

- Project Limits (Attachment 'A'):
 - o NE 4th Court, extending through the full right-of-way width, from the west right-of-way for NE 3rd Avenue to a point approximately 330 feet to the west.
 - o NE 5th Street, extending through the full right-of-way width, from the east right-of-way to a point approximately 200 feet to the east, being the terminus point of NE 5th Street, thence continuing east to the east right-of-way for NE 3rd Avenue.
 - o The private parking lot between NE 5th Street and NE 4th Court.

Office research and field reconnaissance will be performed to verify the location of the road right-of-way within the described services to an accuracy of 0.3'. Recorded plats encumbering and adjacent to the described limits, available through an online public records search, shall be plotted. KCI will not be obtaining an abstract of title, rights-of-way, easements, restrictions, covenants, ownership, or other instruments of record as part of these services.

Services include mapping the locations of above ground permanent improvements such as buildings, asphalt, concrete, fences, walls, traffic striping, and surface features of utilities. Underground utility designates, including the approximate depth of the utility as determined by ground penetrating radar described in **Task 1** of this proposal shall be located and shown on the permit plans described under **Task 3** of this proposal. Native trees larger than 3" Diameter at Breast Height (DBH) within the described limits shall be located. General tree type (if able to be identified in the field at time of survey) and diameter shall be noted on the survey (height and canopy spread will not be obtained).

Elevations shall be obtained throughout the described limits, on an approximate 50-foot grid, with intermediate highs and lows also obtained. As-Builts of observed gravity utility lines (storm, sanitary sewer) through the described limits, to include rim and pipe size, direction, material, and invert elevations shall also be obtained (where accessible). Elevations shall be relative to the North American Vertical Datum of 1988 (NAVD '88). Horizontal locations shall be relative the Florida State Plane Coordinate System, West zone, Transverse Mercator Projections, North American Datum of 1983 with a 2011 adjustment (NAD83/11), established by Global Positioning System (GPS) – Real Time Kinematic (RTK) methods, utilizing the Florida Department of Transportation (FDOT), Florida Permanent Reference Network (FPRN).

Deliverables include:

- 2020 AutoCAD Civil 3D file (.dwg)
- PDF digitally signed and sealed by a Florida Professional Surveyor & Mapper (P.S.M)

• Paper copies of the survey signed and sealed by a Florida P.S.M. (upon request).

Lump Sum Fee for this task shall be \$14,300.00

OPTIONAL SERVICES

Task 3: Subsurface Utility Engineering – Vacuum Excavation Services

KCI shall provide Vacuum Excavation Services at locations identified by the Engineer of Record. This process will be performed utilizing compressed air to break up the soil above existing utilities and then removing the soil with a 4" vacuum hose. The proposed distribution pole locations will be cleared with vacuum excavation cross sections, being 1' wide diameter, to a depth of 4' - 5'; then probed to approximately 10' in depth below the ground surface with a pneumatic air lance. By clearing the soil from around the top and sides of utilities, KCI will be able to attempt to obtain the size, material, type, condition, and depth of the utility. KCI will provide all equipment, personnel and supplies necessary, including the compressed air, vacuum, and storage of spoils for the completion of requested Test Holes. The KCI S.U.E. team will set a reference point (nail or hub) over the center of the utility at ground level for the KCI survey team to establish a coordinate value and elevation on said reference point to be utilized in the completion of the test hole report. Horizontal coordinates shall be relative the Florida State Plane Coordinate System, West zone, Transverse Mercator Projections, North American Datum of 1983 with a 2011 adjustment (NAD83/11). Elevations shall be relative to the North American Vertical Datum of 1988 (NAVD '88). Both Horizontal and vertical values shall be established by global positioning system (GPS) - real time kinematic (RTK) methods using the Florida Department of Transportation (FDOT), Florida permanent reference network (FPRN), applying the Geoid 18 model; with an absolute accuracy of +/- 0.5 feet and a relative accuracy of +/- 0.2 feet.

Restoration of the site will include compacting the material removed from the hole in 6" lifts. Any paved surface will be repaired with cold patch asphalt, tamped in place. Fee is based on one mobilization for the excavation of said structures.

**Fees are based on a onetime mobilization at a fee of \$800/location, with a minimum of five locations (minimum fee of \$4,000.00) and a maximum of 10 locations (\$8,000.00).

Deliverables include a Test Hole Report, to include:

- Unique number, only associated to that test hole.
- A sketch of the surrounding area and provide 3 swing-tie measurements pulled from other features/structures to the set reference point over the utility.
- Soil conditions, asphalt thickness, and the visual condition of the utility.
- Coordinate value (northing and easting), along with elevation of the located reference point (nail or hub).
- The down-measurement taken from reference point to the top of pipe. requested utilities

size, depth, and material type.

• Identify the utility type, apparent size, and material.

The fees are based on one (1) mobilization; minimum of four (4) locations. Any additional locations will be billed at \$800.00/location.

Lump Sum Fee for this task shall be\$4,000.00

Task 4: Utility Easements - Sketch & Description

KCI Shall prepare Sketch & Descriptions for proposed lift station and sanitary sewer easements as required.

Lump Sum Fee for this task shall be\$1,200.00

Deliverables include:

- 2020 AutoCAD Civil 3D file (.dwg)
- PDF digitally signed and sealed by a Florida Professional Surveyor & Mapper (P.S.M)
- Paper copies of the survey signed and sealed by a Florida P.S.M. (upon request).

TERMS AND CONDITIONS (Tasks 1-4)

- 1. Services do not include any field coordination visits.
- 2. KCI will commence with the above-described scope within fifteen business days after receiving notice to proceed.
- 3. Requested services outside this proposal shall be negotiated before services are performed.
- 4. All arrangements regarding access, and parking control, and clearing of surface obstructions from the area of investigation (if required) will be made by Client before and during the utility investigation and survey.
- 5. Any requested revisions to the permit drawings after final construction plans have been provided to KCI, such as a revised structure location or clearance from a utility/feature, will incur an additional charge to be negotiated with Client before revision to permit plans is to be performed.
- 6. The performance of the describe S.U.E. utility designates, and utility excavation does not relieve the client of their responsibility to notify local One Call services prior to construction.
- 7. Nonmetallic utilities such as PVC, Asbestos Cement, Terracotta, and Plastic pipes are nonconductive and cannot be traced with Electromagnetic instrumentation unless an

- intact trace wire is present. KCI's crews are equipped with Ground Penetrating Radar (GPR) units and shall attempt to trace nonmetallic utilities without a trace wire. Because GPR results can be affected by environmental factors such as soil conditions and subsurface ground water, KCI cannot be held responsible for nonconductive utilities.
- 8. Although geophysical methods provide a high level of assurance for the location of subsurface objects, the possibility exists that not all features can or will be identified due to depths, size, subsurface soil conditions, and other factors unmanageable by KCI. Therefore, Client understands that no geophysical method (including electromagnetic pipe and cable locators) is guaranteed to detect 100% of subsurface features and/or utilities. KCI will not be liable for any damage that may occur.
- 9. Test holes that exceed 5' in depth will incur a charge of \$80/foot for each foot of excavation beyond 5'.
- 10. These services are to take place during normal daylight working hours and additional fees may apply in the event a specific project needs to be scheduled at night or during the weekend.
- 11. If a permit is needed for field collection of the survey or S.U.E. services, any fees associated with the effort to obtain the permit, in additional to application fees, will incur an additional charge.
- 12. If Maintenance of Traffic (MOT) is required and needs to be outsourced, those fees will be in addition to the described services.
- 13. All survey work shall be performed in accordance with the Standards of Practice as set forth by the Board of Surveyors and Mappers pursuant to Rule 5J-17 of the Florida Administrative Code, pursuant to Section 472.027 Florida Statutes.
- 14. All S.U.E. Technicians involved in the completion of the requested utility designation services are UTA certified Professional Utility Locators and hold OSHA certifications for jobsite safety, maintenance of traffic and confined space entry.

Task 5: Geotechnical Services (Florida Engineering and Testing, Inc)

KCI's subconsultant Florida Engineering & Testing, Inc. (FE&T) will provide geotechnical engineering services as follows:

Subsoil Investigation

- 1. Perform seven (7) Standard Penetration Test borings to a depth of 20' including Engineer's signed SPT logs.
- 2. One (1) Exfiltration / Hydraulic Conductivity Test with Engineer's Report (including "k" value & 15' auger boring)
- 3. Asphalt patches as applicable
- 4. Mobilization and Demobilization

Lump Sum Fee for this task shall be \$\\$6,840.00

Subcontract - GPR Scan

Blood Hound to GPR (ground penetration radar) locate Eight (8) test boring locations.

Lump Sum Fee for this task shall be.....\$5,400.00

Task 6: Data Collection

KCI will perform data collection services by researching existing permits, as-builts, reports and any other pertinent documents available to be provided by the CITY. KCI was provided with the City of Hallandale Beach Wastewater Master Plan report dated March 2018, prepared by Hazen and Sawyer consultants.

Lump Sum Fee for this task shall be.....\$5,000.00

Task 7: Public Outreach - Casino and Residential Properties

If requested by the CITY, KCI representatives will prepare necessary documents and meet with the community residents and stakeholders, along with CITY representative(s), to discuss the scope of the proposed upgraded Lift Station #7 options.

Lump Sum Fee for this task shall be.....\$2.780.00

Task 8: Landscape Architectural Services

8.01 Planting Plan

KCI shall prepare planting plans, based on the site plan, building foot print and survey (including survey of existing trees) proposed in this document or supplied by CLIENT in electronic Cad file format (AutoCAD, MicroStation or Cad DXF), as showing trees, shrubs, sod and ground cover, details, technical specifications and notes necessary for planting plan submission to the City of Hallandale Beach. CLIENT shall provide KCI with any property and lease encumbrances. Revisions to the plan after work has started will be considered additional services.

8.02 Irrigation Plan

KCI shall prepare an irrigation modification plan based on the site and planting plans previously described. The plan will show all piping, sleeving, details and technical specifications necessary for construction. The water source is to be municipal water. Electrical drawings may be required

from CLIENT'S electrical engineer for controllers and pumps. Revisions to the plan after work has started will be considered additional services.

Lump Sum Fee for this task shall be\$2,800.00

8.03 Tree Preservation/Removal Schedule

KCI shall prepare the tree preservation/removal schedule for the existing trees based on the tree survey, site, grading and planting plans for submission to City of Hallandale Beach. KCI shall prepare a tree inventory using the tree survey supplied by CLIENT in cadd DXF format. The tree preservation/removal schedule will be developed in conjunction with Tower site plan. Includes Arborist Reports for up to 3 large trees. Trees requiring Commission approval and revisions after work has started will be additional services.

The CLIENT shall provide the KCI with the following:

- 1. Proof of ownership of property documentation as required by City of Hallandale Beach.
- 2. Tree Survey signed and sealed by a registered surveyor.
- 3. All review related fees.
- 4. Additional information required by City of Hallandale Beach.

Lump Sum Fee for this task shall be\$2,740.00

8.04 Landscape Related Meetings

Meetings with municipal plan reviewers, plan review committees, commission and CLIENT as requested by the CLIENT or required by the approval process will be invoiced on an hourly basis in accordance with our professional fee schedule.

KCI shall attend up to four (4) meetings.

Lump Sum Fee for this task shall be.....\$2,460.00

Task 9: Electrical Design (Smith Engineering Consultants, Inc.)

KCI's subconsultant, Smith Engineering Consultants, Inc. (SEC), shall provide engineering services as follows:

- 1. Initial site visit and review of preliminary project documents.
- 2. Coordinate with FPL for the replacement/installation of electrical service.
- 3. Electrical design, including power, control, lighting, instrumentation, and SCADA/telemetry for the replacement of the existing lift station electrical system. The electrical replacement will include, but not be limited to, the electrical service, pump control panel, RTU, conduits and wiring. A permanent generator installation will be designed to provide backup power to the site. New site features will also include a light pole, odor control system, and pressure and flow meter (mag-meter).
- 4. Submit 30%, 60%, 90%, and 100% plans, specifications, and cost estimate.
- 5. Submit plans for an electrical permit dry run, respond to review comments, and revise the plans accordingly.

SEC will prepare contract documents suitable for bidding, permit, and construction. We propose to furnish AutoCAD drawings using base plan drawings provided by KCI.

Lump Sum Fee for this task shall be \$13,800.00

Task 10: Lift Station Design Services

KCI will provide design services to replace the CITY's existing "can-type" Sanitary Lift Station #7 with a new dual pump submersible lift station and new valve vault at a new location (NE corner of NE 2 Ave. &NE 5 St.). Observed site conditions and recommendations were presented in the Master Plan prepared by Hazen Consultants provided by the CITY and are to be used as a basis for this scope of work as it relates to the rehabilitation of the existing lift station in addition to the City's request during scoping sessions.

The design plans will consist of the following completion/client review phases:

Schematic Phase30% CompleteDesign Development Phase60% CompleteConstruction Document Phase90% CompleteFinal Bid Documents Phase100% Complete

The design will include or address the following scope items:

- Demolition Plan
- General Notes
- Existing Conditions Plan

- Lift Station Plans
- Temporary Bypass Plan
- Landscaping Plans
- New Wet Well with Dual Submersible Pumps, Motors and Accessories
- New Valve Vault
- Check 100 yr. Flood Level
- Grinder in Terminal Manhole
- Emergency Generator
- SCADA Interface
- Security Fencing and Gate
- New Equipment, Pump Starter Panels, Float Switches, Disconnect Switch
- Site Lighting
- Erosion Control Plans
- Access Point for Maintenance
- Opinion of Construction Cost
- Bid Documents: Front End Documents (to be provided by the CITY), technical specs and standard details

Lump Sum Fee for this task shall be.....\$87,680.00

Task 10: Gravity Sewer and Force Main Design Services

KCI will provide design services to extend gravity sewer from the existing Lift Station site to the new site selected by the City and new force main from the new Lift Station site eastward to a proposed connection to the existing 10" force located in NE 3 Ave.

The design plans will consist of the following completion/client review phases:

Schematic Phase 30% Complete
Design Development Phase 60% Complete
Construction Document Phase 90% Complete
Final Bid Documents Phase 100% Complete

- Demolition Plan
- General Notes
- Existing Conditions Plan
- Gravity sewer Plans and Profiles
- Force Main Plans and Profiles
- Erosion Control Plans
- Opinion of Construction Cost
- Bid Documents: Front End Documents (to be provided by the CITY), technical specs and standard details

Lump Sum Fee for this task shall be.....\$48,425.00

Task 11: Permit Applications

Lift Station/Site Design

KCI will provide technical criteria, written description and design data for use in filing applications for permits relative to KCI's scope of services with the governmental agencies having jurisdiction to review the design of the project. Application and permit fees are the responsibility of the CITY and are not included within this agreement. The following regulatory agencies' permit applications or informational submittals will be provided for the design:

- FDEP Sanitary Lift station review
- Broward County Water and Wastewater Services (BCWWS)
- Broward County Highway Construction and Engineering (BCHCED) Paving and Drainage Review (connection to existing force main/pavement restoration)
- City of Hallandale Beach Building Dept.- Electrical review
- Stormwater Management Exemption Coordination with Agencies (BC RED / SFWMD)

Electrical Design

Fee for this task shall be.....\$1,200.00

Task 12: Bid Assistance

KCI

KCI will attend a Pre-Bid Meeting with prospective bidders to describe the scope of work and clarify any concerns the contractors may have. Subsequent to the Pre-Bid Meeting, KCI will respond to contractor's request for information (RFIs) during the bid preparation period, prior to the submittal of bids.

Fee for this task shall be......\$5,860.00

SEC -Electrical Subconsultant

- 1. Attend the pre-bid meeting.
- 2. Respond to requests for information (RFI's), and issue addenda as necessary.

Fee for this task shall be.....\$1,800.00

Task 13: Pre-Construction Services

KCI and SEC, Inc. will attend a Pre-Construction Meeting, review civil and electrical shop drawings.

Fee for this task shall be.....\$9,680.00

Task 14: Contract Administration

KCI and SEC, Inc. shall provide construction administration services including: respond to contractor's RFI's, review of contractor's pay requests, review contractor's record drawings.

Fee for this task shall be......\$11.570.00

Task 15: Construction Observation

KCI

KCI and SEC, Inc. shall provide limited construction observation services to certify to the regulatory agencies that the construction work has been completed in substantial compliance with the plans and permits included in this item are described as follows:

- a. Site Visits: KCI shall make visits to the site at intervals appropriate to the various stages of construction as KCI deems necessary in order to observe the progress of the various aspects of the contractor(s)'s work. Minimum observations shall include:
 - Earthwork/trenching operations
 - Periodic backfilling and compaction operations
 - Sodding installation
 - Pavement Restoration
- b. Inspection Testing: The Contractor shall provide to KCI certified testing reports as required by the FDEP. Certified testing reports shall confirm installations are in accordance with FDEP's minimum testing requirements. Minimal observations shall include:
 - Density tests for backfill material compaction
 - Pump station startup and substantial punch list
 - Generator and load bank test
 - Final walkthrough and prepare final punch list

NOTE: The fee noted above is based on attendance at a pre-construction kickoff meeting and two (2) periodic inspections per week for a 12 month duration (52 weeks) construction schedule. If

additional site inspections are necessary, a contract amendment for the additional services will be provided.

Fee for this task shall be.....\$84,020.00

SEC -Electrical Subconsultant

- 1. Attend the pre-construction meeting.
- 2. Review electrical equipment shop drawings.
- 3. Respond to contractor requests for information (RFI's).
- 4. Attend up to two (2) construction meetings and/or site visits as necessary.
- 5. Attend the generator load bank test.
- 6. Attend the pump station start-up and prepare a substantial completion punch list.
- 7. Attend the final walk-through and prepare a final punch list.
- 8. Prepare record drawings based upon contractor "as-built" drawings.

Fee for this task shall be.....\$9,000.00

Task 16: Final Certification

KCI shall prepare the final certification for submittal to the jurisdictional agencies and the CITY and process with record drawings provided by the contractor or by other means agreed upon by both KCI and the CITY.

NOTE: It is the contractor's responsibility to schedule with the jurisdictional agencies for inspections and to notify KCI of all inspections and testing. KCI shall represent the CITY to observe construction and to advise if the construction is in accordance with the approved plans. The contractor must obtain agency approval and forward this information to the KCI for final certification. CITY and contractor shall process and prepare documents (as-builts) for dedication of improvements to the agencies (if applicable).

We anticipate the following items requiring as-built certification:

- Compacted backfill material
- Sodding installation (if disturbed during construction activities)
- Landscaping
- Pump Startup
- Electrical (Pumps and generator)
- Gravity Sewer Installation
- Force Main Installation

Fee for this task shall be......\$10,480.00

Task 17: Civil Related Coordination Meetings

KCI shall attend team meetings required to review the work tasks associated with this proposal.

KCI shall also attend requested meetings with the CITY's designated Project Manager, contractor, and meetings with Broward County and FDEP for reviews.

KCI shall attend up to six (6) meetings.

Lump Sum Fee for this task shall be \$8,640.00

Task 18: Permit Fee Allowance (Reimbursable)

KCI shall provide payment for anticipated permit fees related to design plan permit submittals /reviews by the jurisdictional agencies. KCI shall be reimbursed by the City when invoiced from this task allowance amount.

Allowance amount for this task shall be\$5,000.00

ASSUMPTIONS

The following assumptions were made in preparation of the above scope:

- CITY is responsible for providing Front End documentation, including preparation of specific forms required for web based bid service.
- All permit fees shall be paid by CITY
- This scope of services does not include time for KCI to assist CITY in the event of a bid protest.

PURSUANT TO SECTION 558.0035, FLORIDA STATUTES, A DESIGN PROFESSIONAL WHO IS AN INDIVIDUAL EMPLOYEE OR AGENT OF CONSULTANT MAY NOT BE HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE OCCURRING WITHIN THE COURSE AND SCOPE OF THIS CONTRACT.

SCHEDULE OF COMPLETION

The anticipated duration for the major work tasks is summarized in the table below:

TASK	Description	Task Duration (days)	Completion from NTP (days)
1	Subsurface Uti. Eng Util. Designating	30	30
2	Topographic Survey	60	60
3	Subsurface Uti. Eng Vacuum Excav.	30	150
4	Utility Easements- Sketch & Description	30	150
5	Geotechnical Services (FE&T)	30	30
6	Data Collection	60	60
7	Public Outreach - Casino /Res. Prop.	30	90
8	Landscape Architectural Services	60	180
9	Electrical Engineering (SEC)	90	180
10	Lift Station Design	120	180
	Gravity Sewer and Force Main Design	120	180
11	Permit Applications	90	240
12	Bid Assistance	60	240
13	Pre-Construction Services	30	270
14	Contract Administration	360	630
15	Construction Observation	360	630
16	Final Certification	30	660
17	Civil Related Coordination Meetings		

SCHEDULE OF COMPENSATION

Compensation shall be made to KCI not to exceed the total of \$369,245.00. KCI shall bill the CITY on a monthly percent complete by task basis as indicated in the table below.

TASK	Description	Fee By Task (To be billed by Percent Complete)	
1	Subsurface Util. Eng Util. Designating	\$4,750.00	
2	Topographic Survey	\$14,300.00	
3	Subsurface Util. Eng Vacuum Excav.	\$4,000.00	
4	Utility Easements-Sketch & Description	\$1,200.00	
5	Geotechnical Services (FET)	\$12,240.00	
6	6 Data Collection		
7	Public Outreach – Casino/Res. Properties	\$2,780.00	
8	Landscape Architecture Services	\$11,900.00	
9	Electrical Design (SEC)	\$13,800.00	
10	Lift Station Design	\$87,680.00	
	Gravity Sewer and Force Main Design	\$48,425.00	
11	Permit Applications	\$17,120.00	
12	Bid Assistance	\$7,660.00	
13 Pre-Construction Services		\$9,680.00	
14	Contract Administration	\$11,570.00	
15	Construction Observation	\$93,020.00	
16	Final Certification	\$10,480.00	
17	Civil Related Coordination Meetings	\$8,640.00	
18	Permit Fee Allowance	<u>\$5,000.00</u>	
	PROJECT TOTAL	\$369,245.00	

Hallandale Beach Lift Station No. 7 - Rehabilitation

Engineer's Opinion of Probable Construction Cost Order of Magnitude Estimate (-50% to +100%) **Description** Amount **Mobilization/ Demobilization** \$37,000 **New Lift Station Construction:** Mechanical \$212,000 Structural \$286,000 Electrical/I&C \$212,000 Site/Civil \$27,000 Yard Piping \$37,000 \$37,000 Landscaping Fencing/Gate \$11,000 \$11,000 Site Lighting **Temporary Bypass Pumping** \$265,000 **New Force Main Construction** \$300,000 \$800,000 **New Gravity Sewer** Subtotal \$2,235,000 Contingency (15%) \$335,250 Contractor O&P (15%) \$335,250 **Permit Fee Allowance** \$50,000

Authorization KCI Technologies, Inc

GRAND TOTAL

Regional Practice Leader

FPL Service Coordination Allowance

Bruce Reed, RLA Date

\$10,000

\$2,965,500

