AGREEMENT

THIS AGREEMENT is made and entered into on this 19th day of May, 2020, by and between the City of Delray Beach, a Florida municipal corporation ("City"), whose address is 100 N.W. 1ST Avenue, Delray Beach, Florida 33444, and Kimley-Horn and Associates, Inc., a North Carolina corporation (hereafter referred to as "Contractor") authorized to do business in the State of Florida, whose address is 421 Fayetteville Street, Suite 600, Raleigh, North Carolina 27601.

WHEREAS, the City desires to retain the services of the Contractor to provide the professional engineering design services in accordance with the City's Request for Qualifications No. 2019-040, and the Contractor's response thereto, all of which are incorporated herein by reference.

NOW, THEREFORE, in consideration of the mutual covenants and promises hereafter set forth, the Contractor and the City agree as follows:

ARTICLE 1. INCORPORATION OF REQUEST FOR QUALIFICATIONS

The terms and conditions of this Agreement shall include and incorporate the terms, conditions, and specifications set forth in the City's Request for Qualifications No. 2019-040 and the Contractor's response thereto, including all documentation required thereunder.

ARTICLE 2. DESCRIPTION OF GOODS OR SCOPE OF SERVICES

The Contractor shall provide the professional engineering design services identified in the specifications accompanying the City's solicitation, which is incorporated herein by reference and further detailed in Exhibit A, "Scope of Services."

ARTICLE 3. COMPENSATION

The City shall pay to the Contractor, in compliance with the Pricing Schedule attached hereto and incorporated herein as Exhibit B, "Fee Estimate," according to the terms and specifications of the referenced solicitation.

ARTICLE 4. MISCELLANEOUS PROVISIONS

a. Notice Format. All notices or other written communications required, contemplated, or permitted under this Agreement shall be in writing and shall be hand delivered, telecommunicated, or mailed by registered or certified mail (postage prepaid), return receipt requested, to the following addresses:

i. As to the City: City of Delray Beach
100 NW 1st Street
Delray Beach, Florida 33444
Attn: City Manager

ii. with a copy to: City of Delray Beach
200 NW 1st Street
Delray Beach, Florida 33444
Attn: City Attorney

iii. As to the Contractor: Kimley-Horn and Associates, Inc.
1615 South Congress Avenue, Suite 201
Delray Beach, Florida 33445
Attn.: Marwan Mufleh, Senior Vice President

b. Headings. The headings contained in this Agreement are for convenience of reference only, and shall not limit or otherwise affect in any way the meaning or interpretation of this Agreement.

c. Effective Date. The effective date of this Agreement shall be as of the date it has been executed by both the parties hereto.

ARTICLE 5. CONTRACT TERM

The term of this Agreement shall be from the effective date through the completion of work and full acceptance by the City, unless terminated earlier in accordance with terms set forth in the solicitation.

(The remainder of this page is intentionally left blank)

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates hereinafter written.

CITY OF DELRAY BEACH, FLORIDA

By: _____
Shelly Petrolia, Mayor

ATTEST:

By: _____
FOR Katerri Johnson, City Clerk

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

By: _____
Lynn Gelin, City Attorney

[SEAL]

KIMLEY-HORN AND ASSOCIATEES, INC.

By: _____

MARWAN MUFLEH
Printed Name

SR. V.P. / PRINCIPAL
Title

STATE OF Florida
COUNTY OF Palm Beach

The foregoing instrument was acknowledged before me by means of ☑ physical presence or ☐ online notarization, this 3 day of March, 2020, by Marwan Mufleh (name of person), as Sr. V.P./Principal (type of authority) for Kimley-Horn and Assoc, Inc. (name of party on behalf of whom instrument was executed).

Personally known ✓ OR Produced Identification
Type of Identification Produced _____

LORI D'AMICO
MY COMMISSION # FF 966756
EXPIRES: March 16, 2020
Bonded Thru Notary Public Underwriters

Lori D'Amico
Notary Public – State of Florida

EXHIBIT A

SCOPE OF SERVICES

PHASE 1

TROPIC ISLE NEIGHBORHOOD

Revised January 30, 2020

I. PROJECT DESCRIPTION

The Tropic Isle Neighborhood Area is located immediately east of Federal Highway, bordered by Linton Blvd on the north, Intracoastal Water Way (ICWW) on the east, and C-15 Canal on the south. The City of Delray Beach (City) would like to invest in infrastructure improvements in the Tropic Isle Neighborhood Area. These improvements include roadway paving, stormwater management, water main, sanitary sewer and lighting improvements and potential conversion of overhead utilities to underground. **Figure 1** illustrates the Neighborhood Area and shows the limits of the project. The area includes a total of approximately 5.75 miles of roadways.

The neighborhood streets are built on muck and loosely consolidated soils that have caused the pavements to deteriorate over the years. The City completed a street evaluation study of a majority, but not all the neighborhood streets. The study recommended avoiding disturbance of existing muck soils and maintaining existing roadway elevations. The neighborhood borders the ICWW and is susceptible to flooding from high tides and projected sea level rise. The City considered high tides and 30 year sea level rise projection when they recently updated the stormwater master plan. The updated master plan recommended raising the roads and converting the stormwater system to a pump system in the future. This study will reevaluate pavement solutions that will consider the stormwater master plan update recommendations of raising of roadways and potential disturbance of muck soils. The study will also revise the stormwater flood analysis model to base it on actual survey and finished floor elevations rather than LIDAR information and assumed finished floor elevations.

Given the breadth of components covered, the need to identify a clear scope of the required improvements and the infrastructure that may have already been upgraded, it is essential to complete the project in the following phases:

Phase 1- Basis of Design Report or Programming and Implementation Plan
Phase 2- Design Phase
Phase 3- Post Design Phase (Construction Phase)

The following project components will be included in Phase 1 of the Project:

- Data Collection

- Topographic survey and R/W determination
- Geotechnical engineering
- Targeted limited Subsurface Utility Exploration (SUE)
- Roadway pavement section concept design
- Development of conceptual roadway profile and evaluation of conceptual grading impacts on driveways
- Existing gravity sanitary sewer replacement limits
- Existing water main replacement/upgrade limits. Upgrade any existing 4" watermains to 6" watermains for fire protection
- Limits of replacement of force main segments along Spanish Tr and Florida Blvd.
- Assume addition of approximately 36 fire hydrants to meet current fire protection standards
- Identification of stormwater flooding targeted level of service
- Identification of Stormwater system piping upgrade limits and outfall locations to be fitted with insertion check valves. It is understood that piping improvements should consider the installation of future pump stations identified in the master plan
- Overhead to Underground Utility Conversion Feasibility
- Identification of potential Landscaping/Irrigation Impacts
- Street Lighting- Identification of areas to be considered for enhanced lighting and initial coordination with FPL
- Public outreach
- Alternatives analysis to include opinions of cost, schedule, and evaluation of impacts
- Development of abbreviated Basis of Design Report (BDR)

This scope of services includes the tasks required to complete Phase 1 (BDR / Programming and Implementation Plan). A main objective of the BDR is to determine, based upon existing condition assessments and community outreach, how to allocate CRA funds to maximize long term infrastructure investment in the Tropic Isle Neighborhood.

II. SCOPE OF SERVICES

Phase 1- BDR / Programming and Implementation Plan

1. Early Coordination and Data Collection: Obtain and review the following information, some of which is provided by the City for use in design:

- Original street evaluation and stormwater master plan update
- Street Improvement As-builts/Record Drawings

- Available utility As-builts/Record Drawings
- Available Water, Sewer, Master Plans and Atlas data
- Force Main Risk Factor report
- Aerial Photography
- Right-of-Way (ROW), Geographical Information System (GIS) and property data
- Topographic survey and available plat information
- Any other available studies or documents relevant to the project area provided by the City.

2. **Design Survey Services:** Provide Topographic survey. Consultant to coordinate with survey subconsultant regarding CAD files and to set up base map files for the entire project.

    a) Provide a topographic survey for streets (approximate length of 5.7 miles).
    b) Provide cross sections up to 50' intervals, up to 20' past right of way lines
    c) Obtain finished floor elevations
    d) Obtain driveway profiles
    e) Establish right of way from plat information
    f) Obtain drainage structure inverts
    g) Locate water meters
    h) Locate above ground utilities within right of way

    If after completion of Phase 1 it is discovered that additional survey is needed, it will be included in Phase 2.

3. **Geotechnical Services:** Due to the addition of new streets to the scope and to evaluate utility construction in muck soils, additional geotechnical testing is required. Provide the services of a geotechnical engineer to perform subsurface testing and boring within the project area and coordinate those items as shown below:

    a) For the streets that have been added to the original evaluation scope including Florida Blvd, perform up to 7 standard penetration test (SPT) borings to an average depth of 15 feet to determine soil characteristics and ground water depths near Florida Blvd.
    b) Perform up to 6 standard penetration test (SPT) borings to an average depth of 35 feet along the eastern edge of the neighborhood within roadways to consider treatment of disturbed muck areas. Previous borings were not deep enough to consider solutions for construction in muck soils.
    c) Evaluate the data collected and provide the geotechnical engineering evaluation report, which will include the following:

    - Site Location and Exploration Plans
    - Subsurface exploration procedures
    - Thicknesses of pavement sections
    - Boring logs with field and laboratory data
    - Stratification based on visual soil classification and laboratory test results

- Groundwater levels observed during drilling
- Description of subsurface conditions
- Opinions and recommendations related to underground utility installation and new roadway construction considering utility/pavement performance (e.g. settlement) and site access limitations. Ground Modification options (such as soil mixing) and helical piles will be considered for purposes of addressing settlement of the roadways and utility lines.

  It is assumed that location of existing underground utilities prior to drilling is limited to contacting Sunshine State One Call of Florida (SSOCOF).

4. Roadway Evaluation:

We will provide the following services to evaluate the roadway design required for the area and contain the results in the BDR.

a) Pavement Analysis: Upon receipt of topographic survey, a visual review of all the roadways in the project area that have not been reviewed previously will be performed and the Tropic Isle *Roadway Evaluation Report dated August 2019* will be reviewed to determine the current pavement condition. The proposed roadway pavement analysis will factor in the existing muck and loose sands, location of utility excavation and recommend a typical pavement section. Develop typical pavement structure design and trench restoration details. Address muck interface standard treatment in excavated areas and the use of geotextile materials. Consider vibration impacts from construction operations. The Consultant will provide standard recommendation for each type of pavement reconstruction.

b) Roadway Analysis: Typical Section and Alignment - Many of the existing streets are not centered about the right of way. Review horizontal alignment and consider offsetting the existing roadway based on location of proposed utilities and impacts to driveways. Evaluate the typical addition of sidewalks and valley gutter to the street typical section to direct stormwater to inlets and better control paving longitudinal slopes. Prepare a typical section for typical street for City review and approval.

c) Roadway Profiles: We will work with our geotechnical engineer sub-consultant to advise on the feasibility of raising roadways, given the numerous lenses of organic material and loosely consolidated sands shown in original geotechnical study of the area. Based on the stormwater results and agreed upon level of service, generally analyze typical impacts of raising roadways on existing properties. It is assumed the analysis will be limited up to two elevation alternatives, one for the ultimate condition and the other for initial road reconstruction. Based upon our field visit, location of proposed utilities, muck disturbance, the pavement analysis and geotechnical evaluations, we will prepare a memorandum with exhibits recommending roadway, sidewalk, and driveway improvements.

5. Stormwater Evaluation:

Meet with City staff to align project resiliency goals with the proposed project approach and identify desired outcomes. Once the topographical survey information (including roadway crown elevations and all Finished Floor Elevations) is obtained, we will use the new information to update the hydrologic model used in the City's Stormwater Master Plan (SWMP) Update, dated February 2019. We will present the results of the updated model runs and how they compare to the SWMP results in the Basis of Design Report. We will meet with City staff to agree on a level of service to be presented to City officials and the public. We will update the Capital Improvement Project Map for Problem Area 10 (Tropic Isle), which details suggested drainage pipe sizing upgrades, roadways to be raised, and conceptual pump station locations.

The recommendations given in the SWMP included: increasing drainage infrastructure pipes within Problem Area 10 to as large as 72" diameter on some streets, raising the residential roadways by 0.25' – 1', and installing 10 pump stations to combat the 30-year sea level rise condition. The Level of Service (LOS) parameter for roadways was to keep 6" or less of inundation for the 5-year 1-day event at the 30-year sea level condition. The LOS assumed for the building structures (homes) was to attempt to keep all finished floor elevations dry during the 100-year, 3-day event at the 30-year sea level condition. Eleven (11) building structures were still predicted to be crested even with the enlarged pipes and ten additional stormwater pump stations. It should be noted that finished floor elevations in the SWMP were assumed 18" above the adjacent crown of roadway and that the best LiDAR data available at the time of analysis was 2007-08 Palm Beach East 5-ft DEM. It is also understood that the stormwater pump stations will not be designed or constructed as part of this project. With the new survey information, we can refine which LOS parameters are feasible for the City, based on constructability and cost efficiency.

The following specific exhibits will be developed to describe the results of the Stormwater/Drainage Evaluation within the Basis of Design Report:

- Updated Capital Improvement Project Problem Area 10 Map
- Updated Model results for 5-year 1-day, and 100-year 3-day storm events,
- Comparison table showing SWMP results vs. updated results with topographical survey
- Updated inundation working maps for Problem Area 10 for each storm event
- Updated Finished Floor Projected Flooding and Exceedance Value working Graphic
- Update Engineer's Opinion of Construction Cost Estimate for Problem Area 10

Assumptions made related to the Stormwater/Drainage Evaluation consist of the following:

- We will not be analyzing locations for proposed stormwater pump stations at this time. We will assume conceptual locations assumed in SWMP are still adequate.
- Private seawalls / containment berms will universally need to be at a minimum elevation of 4.2 ft.-NAVD by Year 2038 to realize the full benefit of the proposed drainage pipe / roadway improvements. It is assumed that these improvements will be made by property owners by Year 2038.
- Sea Level Rise (SLR) projections have increased from the 2015 data used during SWMP Update. We will use the latest Southeast SLR Compact projections, which are 1"-2" higher.

6. Drainage System Evaluation and Coordination:

Based on the stormwater analysis results, we will develop a preliminary concept layout for the drainage system to be constructed under this project, which can be expanded / used in the future. Prior to completing the drainage analysis, we will perform a site visit to "walk the project" to identify features that could impact proposed improvements. The BDR will contain the following information relative to the drainage system:

- Initial outfall detail for insertion check valve installation.
- Preliminary typical drainage pipe/structure location concepts while considering placement of proposed water and sewer and other utilities.
- Consideration of impacts of drainage construction on maintenance of traffic and adjacent properties.
- Discussion of trench excavation and restoration design based on geotechnical engineering results related to poor soil conditions.
- An Engineer's Opinion of Probable Construction Cost for the proposed drainage improvements.

We will conduct one (1) meeting with City Staff to discuss findings and construction options.

7. Water and Sewer Utilities Evaluation

Upon completion of the topographic survey (roadway elevations, manhole locations with rim and invert elevations, and sewer lateral cleanout locations), we will use this information to develop a a replacement concept for the gravity sewer system.

The existing sanitary sewer force mains that run through the project area will be replaced in kind as needed with input from the City.

The existing water distribution system and water mains that run throughout the project area will be replaced. The proposed new mains will consider (coordinated with proposed gravity sewer) associated construction techniques for their replacement. Hydraulic system modeling is not anticipated.

The following will be performed/developed to describe the results of the Water and Sewer Utilities Evaluation within the Basis of Design Report;

- Upon completion of the survey, perform a site visit to "walk the project" to become familiar with the neighborhood.
- Identify constructible options for both water and sewer main replacement.
- .
- Conduct one (1) meeting with City Staff to discuss site visit findings and construction options.
- Prepare an Engineer's Opinion of Probable Construction Cost for the water and sewer main replacement.

8. Overhead to Underground Utility Conversion Feasibility:

It is understood that the City would like to evaluate the feasibility related to conversion of overhead utilities to an underground location to assist the City in deciding whether or not these improvements should be included in the overall project. The goals of the Feasibility Assessment process are as follows:

- Data collection of existing utility infrastructure.
- Evaluation of the need for easements. It is understood the City prefers to locate the equipment in right of way to the greatest extent practical.
- Development of an order of magnitude opinion of probable cost for proposed undergrounding.

Kimley-Horn will perform a visual review of existing overhead lines within the project limits and document the approximate number of miles of overhead facilities that exist. Kimley-Horn will compile the data collected from survey to create a GIS base map showing the approximate locations of existing overhead infrastructure throughout the project area.

Using survey information collected for the project, we will evaluate existing right of way widths and the need for above and below grade equipment necessary for the conversion and determine if sufficient right of way exists for equipment placement or if easements will be needed to support the conversion.

Kimley-Horn will develop a conceptual 'order of magnitude' opinion of probable construction cost with input from utility owners for the overhead to underground conversion to be included in the Basis of Design Report. Costs will be provided in current dollars and based upon historical information for similar projects available to Kimley-Horn. The conceptual opinion of probable construction cost for the project may most closely resemble an AACE International Class 5 (Screening or feasibility) cost estimate.

Kimley-Horn will prepare a brief summary of the feasibility assessment for inclusion into the Basis of Design Report. We anticipate that the document will contain the GIS base map if developed during the assessment approximating the locations of existing overhead utilities, the opinion of probable costs developed and a brief summary of the next steps, should the City decide to proceed with a conversion project. We will attend one meeting with the City to discuss the findings.

9. Deleted **Landscape, Hardscape, and Irrigation:**

10. Street Lighting:

We will coordinate with the City on use of decorative LED street lights by FPL to replace existing sporadic street lighting located on FPL power poles. The City will decide to either supplement the existing lighting that is on FPL wood poles or replace it with new FPL lighting if the overhead utilities are converted to underground. The monthly cost of lighting will be included as an amendment to the City's franchise agreement with FPL, however, up front costs to FPL will be required.

11. DELETED **Project Phasing Plan:**

12. DELETED **Traffic Management Plan:**
13. DELETED **Spoil Management Plan:**
14. DELETED **Permitting Requirements:**

15. Opinion of Probable Construction Cost:

We will prepare a comprehensive conceptual opinion of probable construction cost (OPC) for the draft BDR and update the OPC for the final BDR.

16. Community Outreach:

We will prepare an outreach plan for Phase 1. This plan will be expanded for subsequent phases to provide a uniform process to the public throughout all phases of the project. It is anticipated that the public involvement process will be continuous in subsequent phases due to the anticipated construction impact on access to residents' homes. The outreach plan will initially focus on understanding community needs and issues, developing trust and communication approach. The plan will engage members of the public focusing on civic and homeowner associations (HOA) consisting of:

- Tropic Isle Civic Association
- Tropic Harbor Homeowner Association
- Tropic Bay Condominiums Homeowner Association

We will submit the plan for the City's review. We will consider selection of HOA liaisons for streamlining the coordination process. We will attend one combined meeting with the HOA boards to describe the alternatives for the various aspects of the project. . We anticipate attending some of the HOA's regular meetings during Phase 2 to provide them with project updates without formal presentations. We anticipate regular coordination with public liaisons to keep lines of communication open during Phase 2.

Our public meeting for Phase 1 will focus on the alternatives analysis phase and coordination with City staff. We will collaborate with City staff and officials to determine level of stormwater service and acceptable flooding levels. We will discuss these levels of service with the public to ensure common understanding. We will also discuss project goals, desired outcomes, priorities and a communication plan.

17. Basis of Design Report (BDR)

a. **Draft BDR:** Summarize data, analysis, opinions of cost, concepts and exhibits and recommendations in a BDR. The report will include the following sections:
   - Existing conditions
   - Roadway improvements
   - Stormwater improvements
   - Water, sewer and force main improvements
   - Overhead to Underground conversion feasibility

- Street Lighting improvements
- Conceptual Opinions of Probable Construction Cost
- Typical concept plan exhibits (showing typical street improvements)

Review the report with City staff and discuss both their review comments and community input with them.

b. **Final BDR:** Incorporate appropriate City and community comments and provide the final report.

18. **Cleaning and televising sewer and drainage lines:** Sewer lines will not be televised since they will be replaced. If during the study the City desires to televise some drainage lines, it will be included as additional services.

19. **Subsurface Utility Exploration (SUE):** SUE will not be conducted in Phase 1. If during the study the City desires to investigate a few locations of existing utility lines, it will be included as additional services.

ASSUMPTIONS

Work described herein is based upon the assumptions listed below. If conditions differ from those assumed in a manner that will affect schedule of Scope of Work, Consultant shall advise City in writing of the magnitude of the required adjustments. Changes in completion schedule or compensation to Consultant will be negotiated with City.

1. City will provide Consultant record drawings of all available existing facilities and proposed facilities. The information will be provided to Consultant within 5 calendar days of Notice to Proceed (NTP).
2. City to provide access and entry rights to all infrastructure to be surveyed.
3. It is assumed property title search and acquisition of right of way and easements is not required for this phase of the project.
4. The design is to be based on the federal, state and local codes and standards in effect at the beginning of the project. Revisions required for compliance with any subsequent changes to those regulations is considered an Additional Services Item not currently included in this Scope of Work.
5. It is assumed no pump station improvements will be completed in this project.
6. It is assumed no reclaimed main design will be included in this project.
7. It is understood that all water, sewer, and stormwater infrastructure is to be replaced. As such, no condition assessment of existing utilities will be performed.
8. Traffic calming studies are not included. Only replacement of existing traffic calming devices in place is anticipated.

ADDITIONAL SERVICES

The following services are considered additional services:

1. The Consultant shall provide design phase and construction phase services to implement the recommendations of the Final Programming and Implementation Plan / BDR as additional services to be negotiated once Phase 1 is completed.
2. Additional meetings and public outreach effort beyond that specifically identified in the scope of services may be provided as additional services.
3. Project website design.
4. SUE and pipe televising.
5. Identification of required permits
6. Development of a Transportation Management plan
7. Development of recommended project phasing
8. Develop preliminary working roadway profiles
9. Develop preliminary working roadway cross sections
10. Address landscape impacts or improvements
11. Conduct a pre-application meetings with regulatory agencies to discuss permitting requirements.

III. TIME OF PERFORMANCE

Phase 1 anticipated schedule is detailed below Notice-to-Proceed. This schedule assumes a seven-day turnaround for review comments from the City when draft materials are submitted for review.

TASK	Months from NTP
Data Collection	3
Stormwater Analysis	4
Pavement Analysis	4
Roadway Analysis	5
Public Meeting	5
Alternatives Analysis	6
Public Meeting	6
Draft BDR	7
Public Meeting	7
Final BDR	8

IV. COMPENSATION

Refer to staff hour exhibit for a summary of expected staff hours and expenses. Fees will be invoiced monthly based upon the overall percentage of services performed. All permitting, application and similar project fees will be paid directly by the City.

Figure 1: Location of Project and Analysis

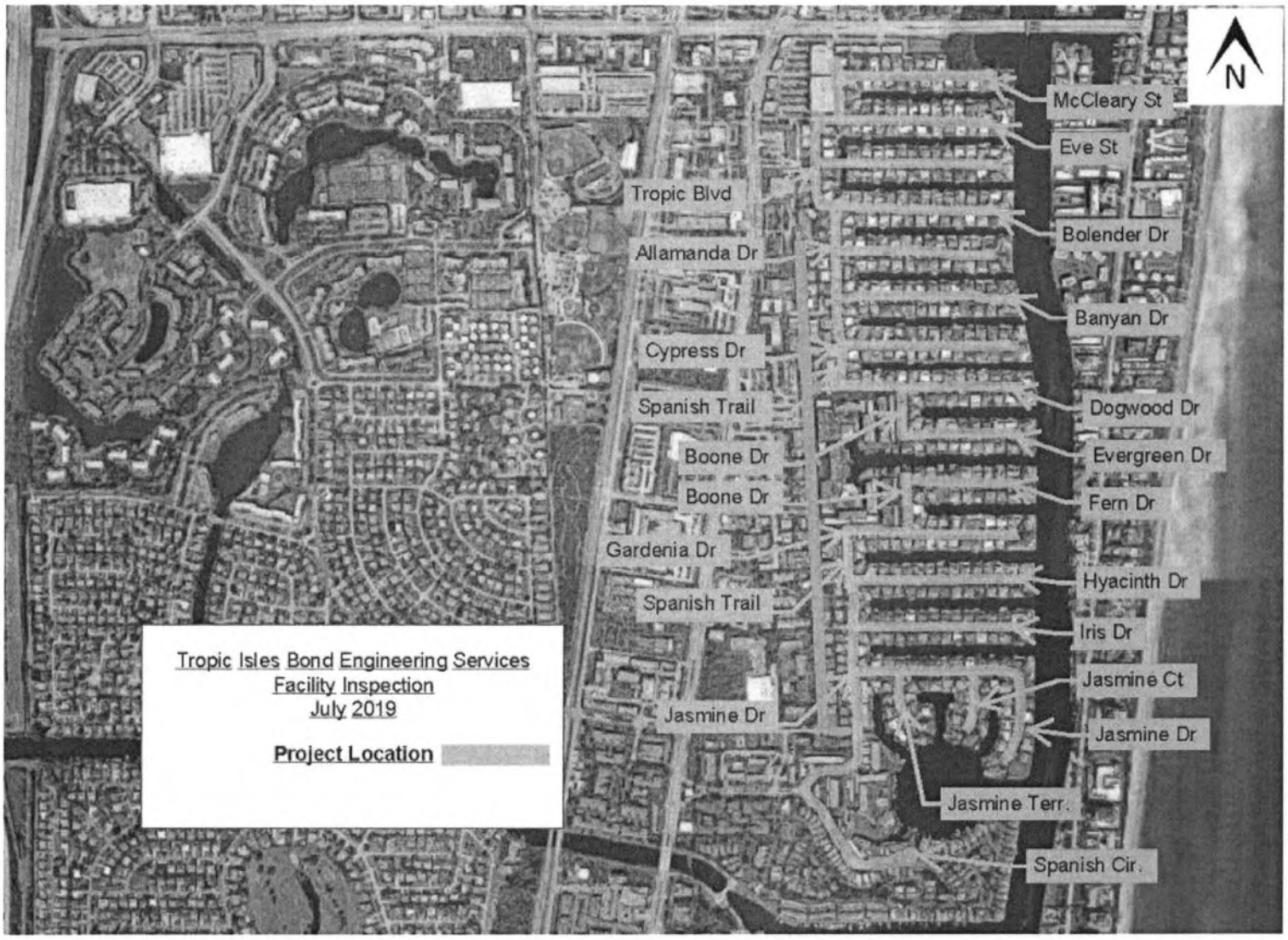


EXHIBIT B

City of Delray Beach
Tropic Isle Neighborhood Roadway & Utility Improvements - PHASE 1
STAFF HOUR AND FEE ESTIMATE

TASK	PRINCIPAL	PRINCIPAL ENGINEER	SR PROFESSIONAL	PROJECT ENGINEER	ANALYST	SR. DESIGNER	ADMIN ASST	TOTAL HOURS	LABOR FEE	NOTES/KEY ASSUMPTIONS
	$285.00	$215.00	$185.00	$158.00	$125.00	$145.00	$79.00			
PHASE 1 - PROGRAMMING AND IMPLEMENTATION PLAN / Basis of Design Report										
1 Early Coordination and Data Collection										
a. plans and documents - street evaluation, record drawings, utilities, FM report, R/W, GIS, survey, etc.		2.0		8.0	16.0		8.0			
b. Kick-off meeting		4.0	4.0					0.0		
2 Design Survey - coordination		1.0		2.0	0.0					
3 Geotechnical Services Coordination (items below by geotech Engr)										
BDR narration and recommendation		2.0	6.0							
	0.0	**9.0**	**10.0**	**10.0**	**16.0**	**0.0**		**45.0**	**$7,365.00**	
4 Roadway Evaluation										
a. Pavement Analysis										
Field work										
Review Existing Conditions				4.0	4.0					
Proposed pavement recommendations		2.0	8.0	8.0						
Collaboration & report narration		1.0	4.0							
b. Roadway Analysis										
Typical section & Sidewalk analysis		2.0	16.0	12.0	12.0					
Valley gutter evaluation		2.0	6.0	2.0	4.0					
c. Roadway Profiles										
Roadway elevation / raising streets analysis		2.0	8.0	16.0	12.0					
Driveway impacts analysis		2.0	2.0	8.0	8.0					
Typical exhibits			6.0		24.0					
QC			4.0							
Meeting with City & team collaboration		6.0		4.0						
Roadway Evaluation (pavement, roadway, profiles analysis) TasksTotal:	**0.0**	**17.0**	**54.0**	**54.0**	**64.0**	**0.0**	**0.0**	**189.0**	**$30,177.00**	
6 Drainage System Evaluation and Coordination										
a. Field Review/Identify flood problem areas										
b. Existing Permits/Records Review										
c. Stormwater Management Analysis Coordination		2.0	8.0							
d. Drainage exhibit				4.0	8.0					
e. deleted										
f. Prepare Engineer's OPC		1.0		4.0	4.0					
g. Meetings with City (combine with other mtg)										
h. QC			4.0							
Drainage Task Total:	**0.0**	**3.0**	**12.0**	**8.0**	**12.0**	**0.0**	**0.0**	**35.0**	**$5,629.00**	
7 Water and Sewer Utilities Evaluation										
a. Site Visit		2.0	6.0							
b. Identify water and sewer construction method and location		6.0	8.0							
c. Meetings with the City (1)		4.0								
d. deleted										
e. deleted										
f. Prepare Basis of Design Report narration for Water and Sewer		2.0	6.0			0.0	2.0			
g. Prepare Engineer's OPC		2.0		4.0	4.0					
h. QC			6.0							
Utilities Task Total:	**0.0**	**16.0**	**26.0**	**4.0**	**4.0**	**0.0**	**2.0**	**52.0**	**$9,540.00**	
8 OH to UG Utility Conversion Feasibility										
Site Visit										
Review Right of Way (typical street)	1.0		3.0		2.0					
Existing infrastructure	2.0			2.0	6.0					
Maps from survey					2.0					
Develop OPC			2.0		6.0					
Meeting with City										
Develop Summary of Findings	2.0		2.0		6.0					
QC			2.0							
UG Feasibility Task Total	5.0	0.0	9.0	2.0	22.0	0.0	0.0	38.0	**$6,156.00**	

9 Landscape and Irrigation									
DELETED									
Landscape Task Total:	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**$0.00**
10 Lighting									
Data Collection & coordination					4.0				
Field review (not required)									
Prepare Recommendations									
OPC (not required)									
QC			1.0						
Lighting Task Total:	**0.0**	**0.0**	**1.0**	**0.0**	**4.0**	**0.0**	**0.0**	**5.0**	**$685.00**
11 Project Phasing Plan (5 phases / years)									
DELETED									
12 Traffic Management Plan									
DELETED									
Spoils Management Plan									
13 DELETED									
14 Permitting Requirements									
DELETED									
15 Opinion of Probable Cost									
a. Alternatives analysis phase (streets, utilities, drainage)			8.0	4.0	8.0				
b. Draft BDR phase			8.0	4.0	8.0				
c. Final BDR phase			6.0	4.0	8.0				
d. QC			4.0						
Plan Task Total:	**0.0**	**0.0**	**26.0**	**12.0**	**24.0**	**0.0**	**0.0**	**62.0**	**$9,706.00**
16 Public Outreach									
Prepare outreach plan document		2.0	6.0						
Alternatives development phase - Prep, attend, document (1 mtg)	4.0		8.0						
Draft BDR phase - Prep, attend, document (DELETED)									
Commission meeting (DELETED)									
City progress meetings									
Project Flyers & mailers (for 1 combined HOA mtg)						8.0	32.0		
Exhibits Prep.		4.0			24.0				
Plan Task Total:	**4.0**	**6.0**	**14.0**	**0.0**	**24.0**	**8.0**	**32.0**	**88.0**	**$11,708.00**
17 BDR Reports									
Draft BDR Development		12.0	32.0						
Address review comments include meeting		6.0	16.0	8.0					
Final BDR Development		2.0	16.0	8.0					
QC		8.0							
Plan Task Total:	**0.0**	**28.0**	**64.0**	**16.0**	**0.0**	**0.0**	**0.0**	**108.0**	**$20,388.00**
Total Hours	**9.0**	**79.0**	**216.0**	**106.0**	**170.0**	**8.0**	**34.0**	**622.0**	

K:\ACD_Roadway_Marketing\Delray 2019 Proposals\Tropic Isle\Contract\[Fee Est Phase I Tropic Isle 2019-12-30 rev 2.xlsx]FEE

28.00	70.0	200.0	100.0	150	**Design Labor Fee Subtotal:**		**$101,354.00**
					Other Services		
					Terracon Subconsultant (geotech)	$	21,739.00
					Subconsultant (Pipe video inspection allowance)		NA
					Design Survey	$	116,550.00
					Utility verification Soft digs allowance		NA
					ADA Subconsultant (Stormwater Analysis & Modeling)	$	34,319.60
					Other Services Subtotal:	**$**	**172,608.60**
					Direct Expenses (1% of labor)		$1,013.54
					TOTAL FEE (Lump Sum)		**$274,976.14**

December 19, 2019

Terracon

Kimley-Horn and Associates, Inc.
1920 Wekiva Way, Suite 200
West Palm Beach, FL 33411

Attn: Mr. Marwan Mufleh
P: (561) 840-0850
E: Marwan.Mufleh@kimley-horn.com

Re: Proposal for Geotechnical Engineering Services
Tropic Isle Neighborhood Improvements
Delray Beach, Florida
Terracon Proposal No. PHD195088

Dear Mr. Mufleh:

We appreciate the opportunity to submit this proposal to Kimley-Horn and Associates, Inc. (KHA) to provide Geotechnical Engineering services for the above referenced project. The following are exhibits to the attached Agreement for Services.

Exhibit A	Project Understanding
Exhibit B	Scope of Services
Exhibit C	Compensation and Project Schedule
Exhibit D	Site Location

Our base fee to perform the Scope of Services described in this proposal is $21,739.10. See Exhibit C for more details of our fees and consideration of additional services.

Your authorization for Terracon to proceed in accordance with this proposal can be issued by sending us your Individual Project Order using this proposal as an attachment.

Sincerely,
Terracon Consultants, Inc.

Jaime Velez, P.E.
Senior Geotechnical Engineer

Douglas S. Dunkelberger, P.E.
Principal

EXHIBIT A - PROJECT UNDERSTANDING

Our Scope of Services is based on our understanding of the project as described by KHA and the expected subsurface conditions as described below. We request the design team verify all information prior to our initiation of field exploration activities.

Site Location and Anticipated Conditions

Item	Description
Parcel Information	The project consists of the roadways within the Tropic Isle Neighborhood in Delray Beach, Florida. The entire neighborhood area is roughly 200 acres. It is bounded to the east by the Intracoastal Waterway and to the west by Florida Blvd. The northernmost (east-west aligned) street is McCleary Street and the southernmost street is Spanish Circle. The center of the neighborhood is located near: Latitude: 26°25'50"N, Longitude: 80° 4'4"W (See Exhibit D)
Existing Improvements	The site is a residential neighborhood mainly consisting of single-family waterfront homes. The roadways are all two-lane, undivided roadways surfaced with asphalt.
Existing Topography	The roadways appear to be gently sloping downwards from west to east, with surface elevations ranging between about +8 and +3 feet (Google Earth Pro, datum not known)
Site Access	We have assumed that the roadway alignment will be accessible with truck-mounted equipment without the need for a right-of-way permit.

Planned Construction

Item	Description
Information Provided	The following information was provided to us by KHA.

Item	Description
Project Description	Over a number of years the Tropic Isle neighborhood roadways have experienced uneven surfaces, numerous surface depressions, asphalt cracking and deterioration which have adversely impacted roadway drainage and rideability and increased maintenance costs. In order to correct the current roadway situation, new roadway engineering and utility designs are required. We understand that KHA is to design roadway and underground utility improvements including potential replacement of water/drainage/sanitary /cable/phone/electric/irrigation lines as well as right-of-way landscaping, street lighting and roadway signage. Drainage pipes could bottom as deep as about 8 feet below grade with associated manhole structures potentially bearing at about 10 feet deep. Approximately 6 miles of roadway and underground utility improvements are planned. Consideration is also being given to raising the roadway elevations. The design/construction of the proposed improvements will need to allow for vehicular access (at all times) of residents to their homes during construction.

Existing Geotechnical Conditions

Earlier this year Terracon conducted a subsurface investigation across the Tropic Isle neighborhood that included the drilling of 45 Standard Penetration Test (SPT) borings to depths of 15 to 20 feet below grade (drilled in February 2019). The results of the subsurface exploration disclosed about 1 to 6 inches of asphalt concrete over (about) 5 to 11 inches of base course. Beneath the pavement section exists relatively clean to silty sands. In most of the borings, a layer of muck or peat (ranging from ½ to 9 ft in thickness) exists (typically) between about 4 and 12 feet below grade. Sands generally follow beneath the muck and either extend to the termination depth of the borings (i.e. 15 to 20 feet below grade) or to a limestone formation (starting usually between 11 and 18 feet below grade) that typically extends to the termination exploration depth. The sands above the muck are believed to be man-made fills that were placed during the dredging of the Intracoastal Waterway, which occurred sometime prior to 1940.

Groundwater was found at depths ranging from 0.3 to 8.8 feet below ground surface (bgs) while sampling. Variations in depth to groundwater are mainly attributed to three factors: 1) variations in ground surface elevation 2) influence from the adjacent Intracoastal Waterway which is tidal and 3) rainfall that occurred during the field work.

EXHIBIT B - SCOPE OF SERVICES

Our proposed Scope of Services consists of field exploration, laboratory testing, and engineering/project delivery. The purpose of our work is to develop geotechnical recommendations for the proposed utility line installations and pavements. We will evaluate geotechnical related options for installation of the new utility lines and potentially raising the roadway grades while minimizing settlement due to muck compression. Over-excavation and replacement of the muck will be considered as well as ground modification options such as soil mixing and rigid inclusions (for the roadways) as well as helical piles (for support of the stormwater utility lines).

Field Exploration

The proposed subsurface exploration program includes the drilling of borings along the eastern edge of the neighborhood (where muck is relatively deep) to obtain deeper subsurface information (than prior borings) as well as borings along or near Florida Boulevard, which was not explored in the prior subsurface exploration.

We proposed to perform the following field exploration program.

- Visit the project site, field mark exploration locations, and contact the Sunshine State One Call of Florida (SSOCOF) for the clearance of public utilities.
- Since the work will be within existing residential roadways, a maintenance of traffic plan will be developed and implemented in order to limit impacts to local traffic, and to provide a safe working zone.
- Once underground utility clearance is obtained, mobilize truck-mounted drilling rig and drill borings in accordance with the table that follows.

Number of Test Locations	Planned Boring Depth (feet) [1]	Type	Planned Location
7	15	SPT Boring	Along or near to Florida Boulevard
6	35		Eastern edge of neighborhood within roadways

1. Below ground surface

- The Standard Penetration Test (SPT) borings will be drilled using mud rotary methods and samples of the subsurface materials will be obtained at frequent vertical intervals in accordance with procedures outlined in ASTM D 1586 (the Standard Penetration Test).
- Soil sampling in the SPT borings will be completed in general accordance with industry standard procedures wherein split-barrel samples are obtained. In addition, we will observe

and record groundwater levels during drilling. Once the samples have been collected and classified in the field, they will be placed in appropriate sample containers for transport to our laboratory.

- The boreholes will be backfilled with gravel or bentonite chips, followed by dry Sakrete and then surfaced with cold-patch asphalt mix.

We have assumed that we are not responsible for location of underground utilities beyond contacting SSOCOF locate service. Location of private lines is not part of the SSOCOF and is NOT included in the Terracon scope. If the locations of private lines are not known, and this information is desired, we have included a private utility locate under the Additional Services section of this proposal.

Property Disturbance: We have not budgeted to restore the site beyond backfilling our boreholes and cold-patching the surface in pavement areas. If there are any restrictions or special requirements regarding this site or exploration, please provide them with your acceptance of this proposal.

Site Access: We anticipate that the cleared portions of the site will be accessible to our truck-mounted drilling equipment and that our work can be performed during normal business hours and without the need of a right-of-way permit.

Safety

At Terracon, we all have a personal and uncompromising commitment to everyone going home safely each and every day. Incident and Injury-Free (*IIF*) is about care and concern for people. It is our personal and organizational commitment at all levels of the company and is where safety is held as a core value as well as an operational priority. Working safely is an inseparable part of working correctly, just as much as other operational priorities, in particular quality, profitability and schedule. Incident and Injury-Free is our commitment to our people and others, who we value for who they are and what they do. *IIF* is not just something we do, it's in everything we do.

As part of our IIF process, we will prepare a "Pre-Task Plan" for this project where we will identify the potential site safety and job hazards associated with your site. Our Pre-Task Plan will identify and prepare our personnel to be able to handle conditions such as but not limited to traffic control, environmental contamination, site access issues, overhead and underground utilities, adverse weather conditions, and personal protection equipment and will continually be reviewed and reevaluated throughout the field work activities. We understand that each site is unique and may contain different safety conditions and as a company to protect our personnel as well as others, we look at each site individually to identify the potential concerns. For this project, the implementation of a MOT plan is an example of our focus on safety.

Laboratory Testing

The recovered soils and materials will be classified in the laboratory in accordance with the Unified Soil Classification System (ASTM D 2487) and appropriate geological terminology. Selected samples will be tested for moisture content and organic content to aid in the classification process and our analysis.

Engineering and Project Delivery

Results of our field and laboratory programs will be evaluated by a professional engineer. The engineer will develop a geotechnical site characterization and perform the engineering calculations necessary to develop appropriate geotechnical engineering design criteria for the project.

Your project will be delivered using our ***GeoReport®*** system. Upon initiation, we provide you and your design team the necessary link and password to access the website (if not previously registered). Each project includes a calendar to track the schedule, an interactive site map, a listing of team members, access to the project documents as they are uploaded to the site, and a collaboration portal. The typical delivery process includes the following:

- Project Planning – Proposal information, schedule and anticipated exploration plan will be posted for review and verification
- Site Characterization – Findings of the site exploration
- Geotechnical Engineering – Recommendations and geotechnical engineering report

When utilized, our collaboration portal documents communication, eliminating the need for long email threads. This collaborative effort allows prompt evaluation and discussion of options related to the design and associated benefits and risks of each option. With the ability to inform all parties as the work progresses, decisions and consensus can be reached faster. In some cases, only minimal uploads and collaboration will be required, because options for design and construction are limited or unnecessary. This is typically the case for uncomplicated projects with no anomalies found at the site.

When services are complete, we upload a printable version of our completed geotechnical engineering report, including the professional engineer's seal and signature, which documents our services. Previous submittals, collaboration and the report are maintained in our system. This allows future reference and integration into subsequent aspects of our services as the project goes through final design and construction.

The geotechnical engineering report will provide the following:

- Site Location and Exploration Plans

- Subsurface exploration procedures
- Thicknesses of pavement sections
- Boring logs with field and laboratory data
- Stratification based on visual soil classification and laboratory test results
- Groundwater levels observed during drilling
- Description of subsurface conditions
- Opinions and recommendations related to underground utility installation and new roadway construction considering utility/pavement performance (e.g. settlement) and site access limitations. Ground Modification options (such as soil mixing) and helical piles will be considered for purposes of addressing settlement of the roadways and utility lines.

Additional Services

In addition to the services noted above, the following are often associated with geotechnical engineering services. Fees for services noted above do not include the following:

Private Utility Locate: Due to the narrow shoulders along these roadways, we understand that there may be numerous underground utilities pipelines and laterals near our boring locations. For an additional fee, Terracon can conduct a Ground Penetrating Radar (GPR) survey to supplement the SSOCOF public locate around our test locations. Even if the GPR survey is performed, Terracon will not be responsible for damage to existing underground utilities. We will take reasonable precautions to avoid damage to existing utilities.

Review of Plans and Specifications: Our geotechnical report and associated verbal and written communications will be used by others in the design team to develop plans and specifications for construction. Review of project plans and specifications is a vital part of our geotechnical engineering services. This consists of review of project plans and specifications related to site preparation and pavement construction. Our review will include a written statement conveying our opinions relating to the plans and specifications' consistency with our geotechnical engineering recommendations.

EXHIBIT C - COMPENSATION AND PROJECT SCHEDULE

Compensation

Based upon our understanding of the site, the project as summarized in Exhibit A, and our planned Scope of Services outlined in Exhibit B, fee is shown in the following table:

Task	Lump Sum Fee
Subsurface Exploration, Laboratory Testing, Geotechnical Consulting & Reporting	$21,739.10

Additional services not part of the base fee include the following:

Additional Services (see Exhibit B)	Lump Sum Fee	Initial for Authorization
Private Utility Locate Service [1]	$2,000	
Plans and Specifications Review	$500	

1. If the owner/client is unable to accurately locate private utilities, we can subcontract a private utility locating firm and/or utilize geophysical equipment, if necessary. The detection of underground utilities is dependent upon the composition and construction of utility lines. Some utilities are comprised of non-electrically conductive materials and may not be readily detected. The use of a private locate service does not relieve the owner of their responsibilities in identifying private underground utilities.

Unless instructed otherwise, we will submit our invoice(s) to the address shown at the beginning of this proposal. If conditions are encountered that require Scope of Services revisions and/or result in higher fees, we will contact you for approval, prior to initiating services. A supplemental proposal stating the modified Scope of Services as well as its effect on our fee will be prepared. We will not proceed without your authorization.

Project Schedule

We developed a schedule to complete the Scope of Services based upon our existing availability and understanding of your project schedule. However, this does not account for delays in field exploration beyond our control, such as weather conditions, permit delays, or lack of permission to access the boring locations. In the event the schedule provided is inconsistent with your needs, please contact us so we may consider alternatives.

GeoReport® Delivery	Posting Date from Notice to Proceed [1, 2]
Project Planning	1 week
Site Characterization	4 weeks
Geotechnical Engineering	6 weeks

1. Upon receipt of your notice to proceed we will activate the schedule component of our *GeoReport*® website with specific, anticipated calendar days for the three delivery points noted above as well as other pertinent events such as field exploration crews on-site, etc.
2. We will maintain a current calendar of activities within our *GeoReport*® website. In the event of a need to modify the schedule, the schedule will be updated to maintain a current awareness of our plans for delivery.

EXHIBIT D – SITE LOCATION

Tropic Isle Neighborhood Improvements ▪ Delray Beach, Florida

December 19, 2019 ▪ Terracon Proposal No. PHD195088

Terracon

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXHIBIT E - FEE BREAKDOWN
TROPIC ISLE NEIGHBORHOOD IMPROVEMENTS
TERRACON CONSULTANTS, INC
GEOTECHNICAL ENGINEERING SERVICES

ITEM DESCRIPTION		UNITS	QUANT.	UNIT RATE	FEE
GEOTECHNICAL					
I. PROJECT STARTUP					
A. Stake Boring Locations & Utility Clearance (Senior Eng. Tech)		hours	16	$ 75.63	$1,210.08
B. Health and Safety Plan (Project Manager)		hours	6	$ 99.18	$595.08
	SUBTOTAL - PROJECT STARTUP				**$1,805.16**
II. FIELD EXPLORATION					
A. Drilling Crew Mobilization		each	1	$ 500.00	$500.00
B. SPT Borings (7 to 15 ft, 6 to 35 ft)					
35-foot SPTs		each	6	$ 700.00	$4,200.00
15-foot SPTs		each	7	$ 600.00	$4,200.00
	SUBTOTAL - FIELD EXPLORATION				**$8,900.00**
III. LABORATORY TESTING					
A. Visual Engineering Classification (Senior Engineer)		hours	6	$ 103.83	$622.98
B. Moisture Content		each	10	$ 10.00	$100.00
C. Organic Content		each	6	$ 50.00	$300.00
D. Grain Size Distribution		each	4	$ 80.00	$320.00
	SUBTOTAL - LABORATORY TESTING				**$1,342.98**
IV. PROJECT MANAGEMENT, ENGINEERING & REPORT PREPARATION					
A. Principal Engineer		hours	12	$ 156.60	$1,879.20
B. Senior Engineer		hours	32	$ 103.83	$3,322.56
C. Project Manager		hours	40	$ 99.18	$3,967.20
D. Senior CADD Designer		hours	8	$ 65.25	$522.00
	SUBTOTAL - ENGINEERING				**$9,690.96**

	TOTAL	**$21,739.10**

KEITH

December 19, 2019
(updated January 6, 2020)

Marwan Mufleh, PE
Principal
Kimley-Horn
1920 Wekiva Way, Suite 200
West Palm Beach, FL 33411
Phone: 561-840-0850
Cell: 954-815-6898
Email: Marwan.Mufleh@kimley-horn.com

RE: Agreement for Professional Services
Project Name: Tropic Isle Roadways
Project Location: Delray Beach, FL
Our Project/Proposal Number: 11201.M0

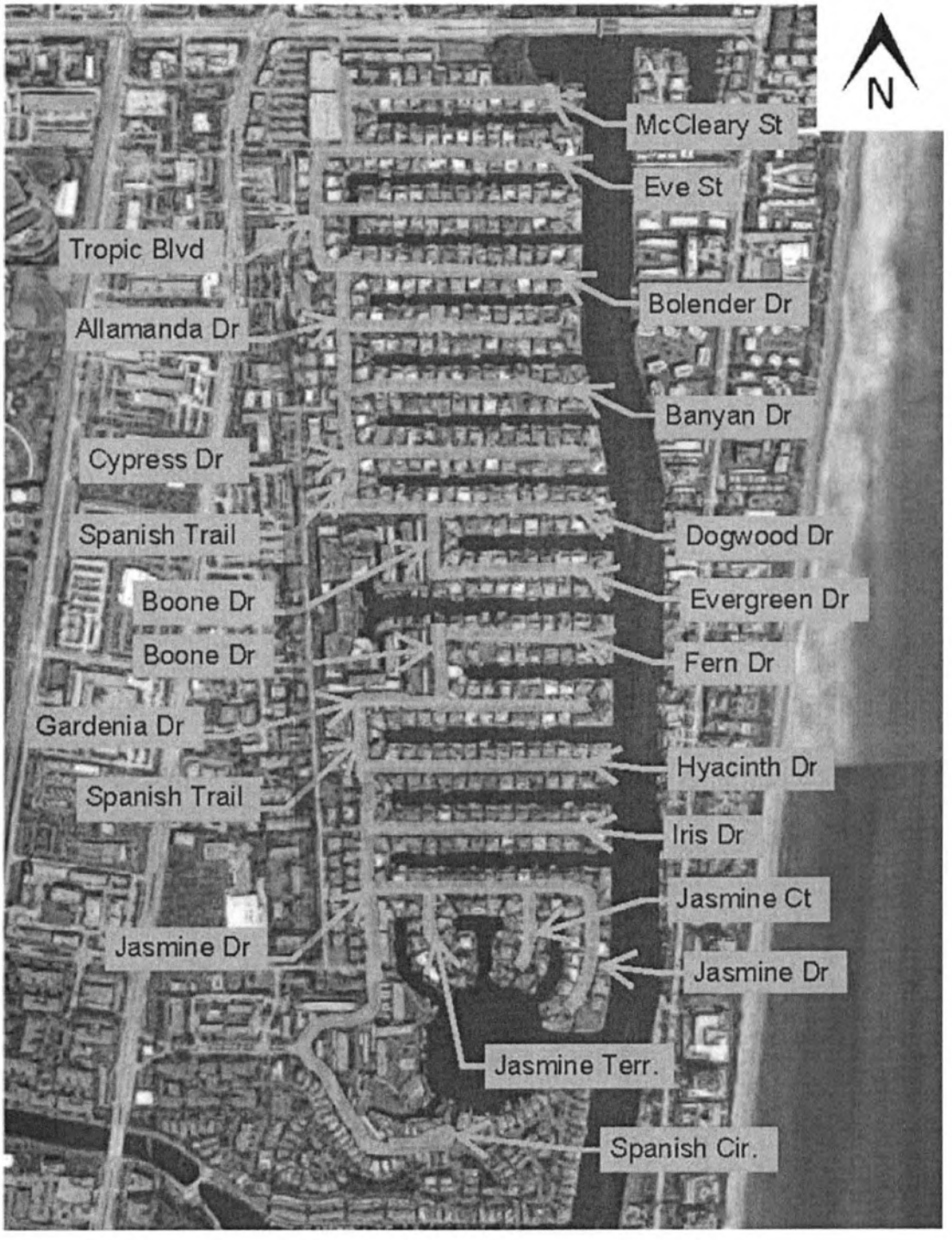
Dear Mr. Mufleh,

In accordance with your request and subsequent discussions between members of our association and yourself, this agreement between Keith and Associates, Inc. (KEITH) ("CONSULTANT") and Kimley-Horn ("CLIENT") for professional services is submitted for your consideration and approval. The purpose of this Agreement is to outline the scope of services recommended by CONSULTANT and accepted by CLIENT, and to establish the contractual conditions between CONSULTANT and CLIENT with respect to the proposed services. CONSULTANT will begin work after receipt of a fully executed copy of this Agreement. Such receipt shall constitute written notice to proceed.

PROJECT UNDERSTANDING

The CLIENT has requested that KEITH provide survey support of neighborhood improvements for the Tropic Isles roadways.

Project Areas – Site Map



PROJECT SCOPE

KEITH services included for this project

☒ Survey

☐ ALTA/NSPS
☒ Topography
☐ Boundary
☐ Tree
☐ Sketch and Description
☐ Construction Layout
☐ Construction As-Built
☐ Other_____

☒ SUE

☒ Horizontal Designation (Quality Level B)
☐ Location Services (Quality Level A)
☒ Utility Mapping (Quality Level C)
☐ Records Research (Quality Level D)
☐ Other_____

It is assumed adequate service points already exist on-site or at the abutting site boundary or in the adjacent public right-of-way. No sewage pump station or offsite improvements or extensions, other than service connections, are anticipated under this Proposal.

DESCRIPTION OF SERVICES AND DELIVERABLES

SURVEY SERVICES

Task 101 Route Survey

KEITH shall prepare a Topographic Survey of the Tropic Isles Roadways highlighted in the exhibit above. The total length of the roadways is approximately 5.75 miles. Survey shall show all surface features within the rights-of-way including roadways, traffic striping, driveways, signs, landscaping, surface utilities, etc. Trees will be noted by common name and trunk diameter. Storm and Sanitary structures will be noted with rim elevations only. (invert elevation, diameter, material and direction are an optional service listed below) Survey shall include the right-of-way lines of the roadways together with the parcel lines of the adjoining properties. Elevations shall be shown at an interval of approximately 50 feet, including intermediate changes in grade and shall extend across the roadway and include 20 feet beyond both right-of-way lines, including elevations on all driveways. Finished floor elevations of each structure adjoining the roadways shall be noted. Water meters and sewer cleanouts of each structure shall be searched for and located. Cleanouts shall be noted by top of nut elevation. Survey shall be referenced to the Florida State Plane Coordinate System (NAD83/11) and the North American Vertical Datum of 1988 (NAVD88). Deliverables shall include a signed and sealed Topographic Survey, AutoCAD Civil3D file and a DTM surface in XML and Civil3D formats.

Street Name	From	To	Centerline Length
McCleary Street	Spanish Trail	End	1220'
Eve Street	Spanish Trail	End	1390'
Tropic Boulevard	Spanish Trail	End	1390'
Bolender Drive	Spanish Trail	End	1390'
Allamanda Drive	Spanish Trail	End	1240'
Banyan Drive	Spanish Trail	End	1280'
Cypress Drive	Spanish Trail	End	1335'
Dogwood Drive	Spanish Trail	End	1670'
Boone Drive	Dogwood Drive	Evergreen Drive	370'
Evergreen Drive	Boone Drive	End	905'
Fern Drive	Boone Drive	End	885'
Boone Drive	Fern Drive	Gardenia Drive	365'
Gardenia Drive	Spanish Trail	End	1355'
Hyacinth Drive	Spanish Trail	End	1335'
Iris Drive	Spanish Trail	End	1315'
Jasmine Drive	Spanish Trail	End	1965'
Jasmine Terrace	Jasmine Drive	End	495'
Jasmine Court	Jasmine Drive	End	445'
Spanish Trail	McCleary Street	Dogwood Drive	2425'
Spanish Trail	Gardenia Drive	Spanish Circle	2945'
Florida Boulevard	Beginning	Avenue L	3850'
Avenue L	Florida Boulevard	Spanish Trail	255'
Iris Drive	Florida Boulevard	Spanish Trail	255'
Avenue C	Florida Boulevard	Spanish Trail	285'

SUBSURFACE UTILITY ENGINEERING (SUE) SERVICES (Phase 2)

KEITH will follow ASCE Standard 38-02 – "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data" during the field and office operations for this project. The quality levels discussed below are defined within the standard. CONSULTANT is to provide professional services associated with designation and mapping of existing subsurface utilities. KEITH shall designate all known tone able and non-tone able utilities (from right of way to right of way) Gravity systems, service laterals, irrigation or overhead facilities are not included in this investigation.

Task 201 Horizontal Designation Services

KEITH will horizontally mark any known tone able and non-tone able underground utilities that are represented on as-built plans, above ground appurtenances, and other miscellaneous utility records (to be provided by CLIENT). Conductive utilities will be marked on the surface utilizing active geophysical prospecting techniques in conjunction with electromagnetic equipment utilizing passive radio and audio frequencies. Known non-conductive utilities and/or structures will be marked on the surface utilizing Ground Penetrating Radar (GPR), above ground features, professional judgment, utility plats and/or as-builts. This task does not include identifying gravity systems, service laterals, irrigation, or overhead facilities unless specifically requested by the CLIENT and included in the scope of services.

Task 202 Utility Mapping

KEITH will identify surface features on a topographic plan or ground surface that are surface appurtenances of existing subsurface utilities. KEITH will survey such features, check accuracy and completeness for applicability with the existing project correlating applicable utility records to these surveyed features, considering the geometries and indications on the records of these surface features. KEITH will determine when records and features do not agree and resolve discrepancies. Additional resolution may result from consultation with utility owners.

Subsurface Utility Engineering Conditions and Understandings

CLIENT is required by law to contract Sunshine State One Call of Florida forty-eight (48) hours in advance of any CLIENT excavation. KEITH will not access confined spaces. If confined spaces need to be accessed for locating purposes, then the client will be notified, and further arrangements will be made for said access. Additional fees may be applicable. If additional MOT is required beyond the capability of KEITHS standard MOT operations, KEITH will notify the client. Additional requests outside the scope of services, when requested by client and/or client's representative, will be invoiced on an hourly basis. This proposal assumes site access is available and work can be performed between the hours of 7:30 AM and 5:00 PM Monday through Friday.

SCHEDULE

SURVEY SERVICES

Task 101 Route Survey	12 week duration

SUE SERVICES

Task 201 Horizontal Utility Designation	12 weeks duration

COMPENSATION

SURVEY SERVICES

Task 101 Route Survey

Control	$13,450 (Lump Sum)
Topographic Data Collection	$64,000 (Lump Sum)
Storm & Sanitary Inverts (*optional*)	$ 8,250 (*Lump Sum – optional*) Phase 2
Right-of-way and Parcels	$22,600 (Lump Sum)
Finished Floor Elevations	$16,500 (Lump Sum)
	$116,550 (Phase 1)

SUE SERVICES (Phase 2)

Task 201 SUE Services

Horizontal Utility Designation	$78,400 (Lump Sum)
Utility Mapping Services	$22,000 (Lump Sum)
~~Total Fee~~	~~$216,950 (Lump Sum)~~
+	$8,250 (Optional Service) Phase 2

If you concur with the foregoing as well as the attached General Terms and Conditions dated June 1, 2018 and wish to direct us to proceed with the aforementioned work, please execute the agreement in the space provided and return same to the undersigned.

IN WITNESS WHEREOF, CONSULTANT and CLIENT have executed this agreement the day and year indicated below.

As to CONSULTANT	As to CLIENT
KEITH	Kimley-Horn
Alex Lazowick	Client: _____
Executive Vice-President	Title: _____
DATED: _____	DATED: _____

TABLE 1

Kimley Horn & Associates / City of Delray Beach
Tropic Isle Underground Utility Improvements

Date: 12/17/2019

Man-hour and Fee Estimate

		ADA Engineering, Inc.			TOTALS			
Task /Subtask	**Task Description**	**Project Manager**	**Project Engineer**	**Administrative**	**Total Labor Hours**	**Total Labor Costs**	**Other Direct Expenses****	**Total**
	Rate	$195.00	$140.00	$70.00				
1	**Update Model**	**56**	**154**	**8**	**222**	**$33,320.00**	**$ 999.60**	**$34,319.60**
1.1	Input FFE and Roadway Elevations from Survey	4	24		28	$4,140.00	$ 124.20	$4,264.20
1.2	Update to new SLR Projections	2	2		4	$670.00	$ 20.10	$690.10
1.3	Produce Results for 5y 1d and 100y 3d events	2	16		18	$2,630.00	$ 78.90	$2,708.90
1.4	Update CIP Problem Area 10 Map	2	12		14	$2,070.00	$ 62.10	$2,132.10
1.5	Update Working Inundation Maps for Problem Area 10		4		4	$560.00	$ 16.80	$576.80
1.6	Update Working Finsihed Floor Projected Flooding Graphic		4		4	$560.00	$ 16.80	$576.80
1.7	Produce Model Update verbiage for Basis of Design Report	30	60	4	94	$14,530.00	$ 435.90	$14,965.90
1.8	Update Engineer's Opinion of Construction Cost Estimate for Area 10	4	8	4	16	$2,180.00	$ 65.40	$2,245.40
1.9	Coordination with Geotechincal regarding raising road profile	6	12		18	$2,850.00	$ 85.50	$2,935.50
1.10	Coordination with KHA regarding Report formatting	6	12	4	22	$3,130.00	$ 93.90	$3,223.90
	Total Hours	**56**	**154**	**8**				
	Total $ Per Individuals	$10,920	$21,560	$560				
	TASK ORDER TOTAL				**222**	**$33,320.00**	**$ 999.60**	**$34,319.60**

** Assume 3% for Expenses

Kimley»Horn

March 3, 2020

Ms. Ilyse Triestman
Purchasing Manager
City of Delray Beach
100 N.W. 1st Avenue
Delray Beach, FL 33444

RE: ***Tropic Isle Neighborhood Roadway and Utilities Improvements***
RFQ 2019-040
Project No. 19-015

Dear Ms. Triestman:

Attached is the signed agreement for the referenced project.

Per the agreement, the RFQ and our Response are incorporated by reference. We would like to reiterate the exception that was included in our response to the RFQ, which is now incorporated in the agreement.

Per Article 1 of the Agreement, and our exception to the indemnification language in section 10.25 of the City's Request for Qualifications No. 2019-040 (RFQ), it is our understanding that the indemnification language in the Agreement shall be consistent with FL Statute 725.08, and for further clarification shall be as follows: *"The Contractor shall indemnify and hold harmless the agency, and its officers and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the Contractor and other persons employed or utilized by the Contractor in the performance of the contract."* Any other indemnification language in the Agreement or the RFQ shall be null and void.

Incidentally, the indemnification language the City used in the continuing services contracts was in accordance with the FL Statute and is insurable by commercial liability insurance, unlike the language of this RFQ.

Please provide a copy of the executed agreement at your convenience. Please contact me at (561) 840-0850 or marwan.mufleh@kimley-horn.com should you have any questions.

Sincerely,

Marwan Mufleh, P.E.
Sr. V.P. / Principal

K:\BCD_Roadway_Marketing\Delray 2019 Proposals\Tropic Isles\Contract\LTO_2020.03.03_Contract signed_Tropic Isle_MHM.docx.dotx

CITY ATTORNEY OFFICE - LEGAL REVIEW CHECKLIST

Name of Agreement: Agreement with Kimley-Horn and Associates, Inc.

Department: Public Works- Utilities Contact person: Ilyse Triestman

City Manager approval ☐

City Commission approval ☑
Agenda item #:
Agenda meeting date: 04/07/2020
Resolution #: 60-20

Agreement Action:	New ⊙	Renewal* ○	Amendment* ○	*Renewal: Only change is the agreement term *Amendment: For changes other than/in addition to term

Does the Contractor require the City to sign first?: No

For City Attorney Use only:

Agreement Terms:	**Comments/Specific Provision in Agreement**
Term (Duration of Agreement)	Art. 5: execution of Agreement through completion of work
Termination Clause	RFQ 28- for convenience, 29- for default, and 30- for fraud or misrepresentation
Renewal Clause	N/A
Insurance	City standard
Indemnification	City standard
Assignment	RFQ 22: not without written prior consent
Fiscal Funding Requirement	RFQ 66
FL. Public Records Provision (2016)	RFQ 50
Inspector General Provision	RFQ 32
Governing Law	Florida
Venue	Palm Beach County
Attorney's fees	RFQ 42- each party shall pay their own attorney's fees

Business Principles:	**Comments**
Fees: Total Value	$274,976.14
Fees: Per Fiscal Year	

Other Issues:	**Comments**
Non-Negotiable Issues/ Miscellaneous Issues/ Special Considerations	

Consistent with applicable policies including, but not limited to, Procurement policies. Yes ☑

Attorney: Kelly Brandon, Esq.
Reviewed and approved as to form and legal sufficiency only

Form version 5, March, 2018

RESOLUTION NO. 60-20

A RESOLUTION OF THE CITY OF DELRAY BEACH, FLORIDA, APPROVING AN AGREEMENT WITH KIMLEY-HORN AND ASSOCIATES, INC. FOR PROFESSIONAL ENGINEERING DESIGN SERVICES FOR THE TROPIC ISLES ROADWAY UNDERGROUND UTILITY IMPROVEMENTS PROJECT; AUTHORIZING THE CITY MANAGER TO EXECUTE ANY AMENDMENTS THERETO AND TO TAKE ALL ACTIONS NECESSARY TO EFFECTUATE THIS AGREEMENT; PROVIDING AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

WHEREAS, the City of Delray Beach (City) is authorized to enter into agreements to provide services, programming and products in accordance with its Charter; and

WHEREAS, the City requires professional engineering design services for the Tropic Isles Roadway Underground Utility Improvements project in accordance with the City's Request for Qualifications No. 2019-040; and

WHEREAS, the City desires to enter into an agreement with Kimley-Horn and Associates, Inc. for professional engineering design services for the Tropic Isles Roadway Underground Utility Improvements project; and

WHEREAS, the City Commission deems approval of this resolution to be in the best interest of the health, safety, and welfare of the residents and citizens of the City of Delray Beach and the public at large.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DELRAY BEACH, FLORIDA, AS FOLLOWS:

Section 1. The foregoing recitals are hereby affirmed and ratified.

Section 2. The City Commission of the City of Delray Beach has reviewed and hereby approves this Agreement between the City and Kimley-Horn and Associates, Inc., which is attached to this Resolution as Exhibit "A".

Section 3. The City Commission authorizes the City Manager to execute any amendments and take any other actions necessary to effectuate this Agreement.

Section 4. This resolution shall become effective immediately upon adoption.

PASSED AND ADOPTED in regular session on the 19th day of May, 2020.

ATTEST:

FOR Katerri Johnson, City Clerk

Shelly Petrolia, Mayor

Approved as to form and legal sufficiency:

Lynn Gelin, City Attorney