

SPECIFIC AUTHORIZATION NO. 4

CITY OF FORT PIERCE OHIO AVENUE REALIGNMENT AND ROADWAY IMPROVEMENTS – EAST OF US HIGHWAY ONE

SCOPE OF SERVICES

Pursuant to the provisions contained in the “RFQ No. 2013-005 – Professional Services Agreement” between The City of Fort Pierce (hereinafter referred to as “CITY”) and Kimley-Horn and Associates, Inc. (hereinafter referred to as “ENGINEER”) dated the 5th day of January 2015, CITY authorizes the ENGINEER to provide services under the terms and conditions set forth herein and in the AGREEMENT, which is incorporated herein by reference as though set forth in full.

The CITY desires additional services related to the realignment of Ohio Avenue east of US Highway 1, hereinafter referred to as the “Project”.

This Project is an FDOT funded project.

Section 1 - Scope of Work and Schedule of Services

ENGINEER will provide the following services in accordance with this AUTHORIZATION:

Professional consultant services are required for the preparation of engineering plans, bid documents, and specification package to support the design, permitting, and bidding of improvements to Ohio Avenue between US Highway One and 3rd Street. The engineer will prepare the plans along with the bid and specification packages to meet the requirements of the City of Fort Pierce and Florida Department of Transportation. The proposed improvements and scope of services are more particularly described in Exhibit “A”, attached hereto and incorporated by reference herein.

Section 2 - Deliverables

ENGINEER shall provide the following deliverables to the CITY as listed below and as described in Exhibit “A”, attached hereto and incorporated by reference herein:

30% Design Drawings	2 Months from NTP
60% Design Drawings	4 Months from NTP
90% Design Drawings	6 Months from NTP
100% Design Drawings	7 Months from NTP

SPECIFIC AUTHORIZATION NO. 4

**CITY OF FORT PIERCE OHIO AVENUE REALIGNMENT AND ROADWAY
IMPROVEMENTS – EAST OF US HIGHWAY ONE**

Section 3 - Method and Amount of Compensation

CITY will compensate ENGINEER for services under this AUTHORIZATION in accordance with the payment method as set forth in the attached Exhibit "B", attached hereto and incorporated by reference herein.

The budget (or fee) for the services is not to exceed \$135,875.00

Section 4 - CITY's Responsibilities

CITY hereby designates City Engineer or designee as CITY's representative pursuant to Section 8 of the AGREEMENT.

Section 5 - Other Provisions

All applicable portions of the AGREEMENT not specifically modified herein shall remain in full force and effect and are incorporated by reference herein.

IN WITNESS WHEREOF, this AGREEMENT, consisting of eight pages has been fully executed on behalf of the ENGINEER by its duly authorized officer, and the CITY has the same to be duly executed in its name and in its behalf, effective as of the date herein above written.

CITY OF FORT PIERCE, FLORIDA:

By: _____
Linda Hudson, Mayor

Date: _____

Attest: _____
Linda Cox, City Clerk

SPECIFIC AUTHORIZATION NO. 4

**CITY OF FORT PIERCE OHIO AVENUE REALIGNMENT AND ROADWAY
IMPROVEMENTS – EAST OF US HIGHWAY ONE**

KIMLEY-HORN & ASSOCIATES, INC.

By:  _____
Brian Good, P.E., Senior Vice President

Date: 7/25/17

APPROVED AS TO FORM & CORRECTNESS:

By:  _____
James M. Messer, City Attorney

Date: 8/1/2017

EXHIBIT "A"
DETAILED DESCRIPTION OF THE PROJECT
AND
ENGINEER SCOPE OF SERVICES

CITY OF FORT PIERCE OHIO AVENUE ROADWAY IMPROVEMENTS

PROJECT DESCRIPTION:

The CITY desires to improve Ohio Avenue to a 2-lane divided urban boulevard between US Highway 1 and S. 3rd Street. The corridor will be designed with auxiliary turn lanes to support turning movements onto US Highway 1 and to support the commercial development currently under construction lying immediately north of the corridor. The CITY desires that the new Ohio Avenue alignment be designed to remove the travel lane skew through the US Highway 1 intersection.

The corridor is envisioned to contain decorative street lighting and median landscaping. In addition, the existing Indian Hills Golf Course monument sign located in the northeast corner of the US Highway 1/ Ohio Avenue intersection, will be reconstructed into the proposed Ohio Avenue median.

DESCRIPTION OF TASK DELIVERABLES:

The ENGINEER agrees to perform professional roadway design and related services in connection with the project as required and set forth in the following:

A. General:

1. The ENGINEER will endeavor not to duplicate any previous work done on the project. After issuance of written authorization to proceed, the ENGINEER shall consult with the CITY to clarify and define the requirements for the project and review available data.
2. The ENGINEER will attend conferences with the CITY and its representatives upon reasonable request.
3. In order to accomplish the work described under this Task Order in the time frames and conditions set forth, the ENGINEER will observe the following requirements:
 - a. The ENGINEER will complete his work on the project within the time allowed by maintaining an adequate staff of registered engineers, draftsmen, and other employees on the work.
 - b. The ENGINEER will design the project in such a manner as to be in reasonable conformance with applicable federal, state and local laws, and shall comply with the Florida Department of Transportation (FDOT) Plans Preparation Manual Design Criteria, latest edition.
 - c. The ENGINEER will prepare all necessary sketches and completed application forms to accompany the CITY's applications for required federal, state, or local permits.
 - d. The ENGINEER will cooperate with the CITY in order that all phases of the work may be properly scheduled and coordinated.
 - e. The ENGINEER will send a complete preliminary set of construction plans to any city, county, state, regional or federal regulatory agency from which a permit or other approval is required prior to final approval of the design by the City Engineer, and will coordinate the project design with all applicable agencies.
4. Compensation to the ENGINEER for basic services shall be in accordance with Section IV – Compensation, of this Agreement, as mutually agreed upon by the

ENGINEER and CITY.

B. Topographic Design Survey:

The CITY agrees that the ENGINEER may utilize the design topographic survey developed to support the commercial redevelopment, currently under construction.

C. Roadway Analysis and Plans:

Roadway set of plans shall consist of the following:

	30%	60%	90%	100%
Cover Sheet	P	S	S	F
Summary of Pay Items		P	S	F
Typical Sections	P	S	S	F
Summary of Quantities & General Notes	P	S	S	F
Plan and Profile Sheets (40 scale)	P	S	S	F
Intersection Plan & Details		P	S	F
Special Details		P	S	F
Cross Sections at 50 ft intervals		P	S	F
Stormwater Pollution Prevention Plans		P	S	F
Signing & Pavement Marking Plans (40 scale double plan)	P	S	S	F
Signalization Plans		P	S	F
Landscape and Irrigation Plans		P	S	F
Lighting Plans		P	S	F
Construction Cost Estimate and Quantities	P	S	S	F

Notes: (P)-Preliminary, (S)-Substantially Complete, (F)-Final

General Construction Plan Requirements:

- Plans shall be prepared on 11" x 17" sheets.
- Each phase submittal shall include a minimum of three (3) sets of 11" x 17" drawings and one (1) set of disk(s) with drawings in PDF format.
- Plan and Profile sheets shall depict existing right-of-way, proposed right-of-way, section lines, property lines, temporary construction easements, and centerline of construction. Horizontal control points with state plane coordinates for all PC's, PT's, curve radius, curve length and horizontal

PI's shall be included on the Plan or summarized in an alignment table.

- Plans shall include proposed curb return profiles for the proposed turn lane.
- Match lines shall not be located within the limits of an intersection.
- Soil boring information shall be plotted on cross sections with soil classification and high season water table.
- All quantities shall reference FDOT Pay Item Numbers.
- All details shall reference applicable FDOT Index Numbers.
- All specifications shall reference to FDOT Specifications for Road and Bridge Construction. Any deviations are special specifications not included in FDOT Specifications are required in the Technical Specifications.

The plans will be prepared based upon English units. Design will be conducted in MicroStation and Geopak and required deliverables shall be provided in PDF format.

The following items are not included:

- Franchise Utility Relocation Plans

D. Drainage analysis and Plans:

1. Perform drainage investigations and analysis necessary to prepare a design which will drain the project in accordance with the City of Ft. Pierce Code of Ordinances, South Florida Water Management District (SFWMD) and FDOT design criteria. The work will include the engineering analyses for any or all of the following:
 - a. *Determine Base Clearance Water Elevation*
Analyze, determine, and document high water elevations which will be used to set roadway profile grades. Determine surface water elevations at the proposed closed basin drainage structures to be located within the roadway right of way.

b. Design of Stormwater Management Facility

Design stormwater management facilities to meet requirements for stormwater quality treatment, attenuation and flood control.

c. Design of Storm Drains

Develop a "working drainage map", determine runoff, inlet locations, and spread. Calculate hydraulic losses (friction, utility conflict and, if necessary, minor losses). Determine Design tailwater and, if necessary, outlet scour protection.

d. Drainage Design Documentation Report

Compile drainage design documentation into report format. Include documentation for all the drainage design tasks and associated meetings and decisions.

2. A Stormwater Pollution Prevention Plan (SWPPP) will be developed in conjunction with this project. The site specific SWPPP is a requirement of both the EPA National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Construction Activities, and the FDEP Generic Permit for Stormwater Discharges from Construction Activities.

E. Permitting:

The ENGINEER shall prepare permit applications to the SFWMD and U.S. Army Corps of Engineers (ACOE) for submittal by the CITY. This will consist of all required evaluation, design, coordination, and follow-up work necessary to support permit applications. The CITY will review the permit applications as necessary. The ENGINEER shall assemble and be responsible for the final submittal. The ENGINEER shall prepare permit sketches for submission by the CITY to ACOE and SFWMD for dredge and fill activities, if necessary. The ENGINEER shall submit all permit sketches on 8.5" x 11" sheets. Sketches shall be neatly scaled, signed and sealed, and reproducible. The CITY will be responsible for all permit application fees.

F. Franchise Utility Coordination:

The ENGINEER will coordinate with franchise utility providers operating within the project limits to identify existing facilities and identify facilities that may be impacted by the proposed improvements. The ENGINEER is not responsible for developing franchise utility relocation plans, if necessary.

G. Signing and Pavement Marking Plans:

Signing and Pavement Marking plans shall include: Preparation of the plan layout, key map, quantities (including signing and pavement marking quantity), tabulation of quantities, and detail of major signs. Plans are to be prepared in accordance with the latest design standards and practices (MUTCD), FDOT Standard Specifications, Indexes, and shall be accurate, legible, complete in design and drawn at the same scale as the Roadway Plans, furnished in reproducible form.

H. Signalization Plans:

Mast-arm traffic signal will be designed at the following intersection:

- US Highway 1 and Ohio Avenue (full signal design)

The signalization improvements will be designed to meet current CITY and FDOT standards. Luminaries will be provided on each mast arm pole. The pole analysis and design of the signal systems will be completed and submitted to CITY for review. Signalization plans will be included with the roadway plans and submitted as indicated above.

a. *Geotechnical Investigation*

The ENGINEER will retain the services of a Geotechnical Engineer to aid in the mast-arm foundation design. The Geotechnical Investigation will consist of exploration of the subsurface conditions of the intersections employing two (2), 30-foot deep Standard Penetration Test (SPT) borings. It is assumed that adequate right-of-way exists to execute the field work required by the truck mounted equipment. Selected soil samples will be tested for moisture content, organic content and percent fines. The test results will aid in classifying the soils in accordance with the Unified Soil Classification System (UCSC) and evaluating suitability. Determination of soil parameters (i.e., unit weight, friction angle and cohesion), an estimated wet season water table level and recommendations for drilled shaft construction for use in design of drilled shaft foundations. A brief written report which furnishes findings and recommendation will be provided.

b. *Supplemental Topographic Survey*

Supplemental survey data will be collected to directly support the proposed US Highway 1/ Ohio Avenue signalization improvements. The ENGINEER will provide supplemental topographic survey services necessary to support and facilitate contemplated signalization design and permitting activities associated with this project. This task will consist of the preparation of digital base map

topographic surveys in accordance with the Professional Land Surveyors in Chapter 5J-17, Florida Administrative Code, pursuant to the intent of the Florida Standards of Practice set forth by the Florida Board of Professional Surveyors in Section 472.027, Florida Statutes.

c. *FDOT Permitting*

To support the proposed signalization improvements, the ENGINEER shall prepare permit applications to the FDOT for submittal by the CITY. This will consist of all required evaluation, design, coordination, and follow-up work necessary to support permit application.

I. Landscape and Irrigation Plans:

1. Landscape Architectural Design – The ENGINEER will prepare detailed landscape planting plans for the project which will indicate the location of new plantings. These plans will also include a detailed plant list showing quantities, types, sizes, and specifications for new plantings. Planting details and specifications will also be included on separate sheets.

The ENGINEER will develop construction details necessary to support the relocation of the existing Indian Hills Golf Course monument sign. It is assumed that the proposed monument sign will follow the existing monument sign architecture and presentation.

2. Irrigation Design - The ENGINEER will provide irrigation construction documents based on current published agency design criteria. Irrigation Plans and details will be provided for an irrigation system designed to provide 100% irrigation coverage for all landscaped areas. The irrigation plan will outline head layout, mainline and lateral line layout, valve sizes and locations, pipe sleeving, controller and rain sensor type and location, source and/or point of connection, backflow prevention device, system operation calculations and schedules, detailed drawings and installation notes on the plans.

Also included in this task will be coordination to determine preferred equipment, installation detailing, and other factors that will affect the irrigation design and coordination for connecting to irrigation source and other equipment necessary.

J. Lighting Analysis and Plans:

The ENGINEER will prepare a roadway lighting design and construction documents for the installation of roadway lighting for the Ohio Avenue corridor within the project limits. The scope of work will include the following:

- a. Preparation of photometric plan, pole layout/ placement
- b. Coordination with franchise utility operators
- c. Preparation of construction details and notes

K. Construction Phase Assistance:

Construction phase assistance shall be submitted to the CITY under a supplemental amendment, if so requested, once the construction documents have been finalized and construction duration has been determined.

TIME OF PERFORMANCE:

Upon authorization to proceed by the CITY, final design documents are expected to take approximately seven (7) months from the Notice to Proceed (NTP).

30% Design Drawings	2 months following NTP
60% Design Drawings	4 months following NTP
90% Design Drawings	6 months following NTP
100% Design Drawings	7 months following NTP

All work will be completed no later than March 31, 2018.

EXHIBIT "B"

COMPENSATION

The CITY agrees to pay and the ENGINEER agrees to accept for services rendered pursuant to fees in accordance with the following:

- A. Professional Services Fee: The basic compensation mutually agreed upon by the ENGINEER and the CITY follows:

Lump Sum Tasks

<u>Task Description</u>	<u>Fee</u>
Topographic Design Survey	\$ 0
Roadway Analysis and Plans	\$ 34,380
Drainage Analysis and Plans	\$ 18,020
Permitting	\$ 7,425
Franchise Utility Coordination	\$ 3,475
Signing and Marking Plans	\$ 7,075
Signalization Plans	\$ 48,160
Landscape and Irrigation Plans	\$ 9,860
Lighting Analysis and Plans	\$ 7,480
<u>Grand Total</u>	<u>\$ 135,875</u>

Compensation will be computed at the hourly rates of

Project Manager	\$	165.00
Assistant Project Manager	\$	140.00
Senior Engineer	\$	125.00
Engineer	\$	105.00
Engineering Technician	\$	90.00
Draftsperson	\$	85.00
Registered Land Surveyor	\$	120.00
Survey Technician	\$	75.00
Survey Crew	\$	95.00
Secretary	\$	50.00