

WORK ORDER NUMBER 31
66TH AVENUE AND 8TH STREET – TRAFFIC SIGNALIZATION
Project Number: IRC-2002

This Work Order Number 31 is entered into as of this ___ day of _____, 2020, pursuant to that certain Continuing Consulting Engineering Services Agreement for Professional Services entered into as of this 17th day of April, 2018 (collectively referred to as the “Agreement”), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida (“COUNTY”) and KIMLEY-HORN AND ASSOCIATES, INC. (“Consultant”).

The COUNTY has selected the Consultant to perform the professional services set forth on Exhibit A (Scope of Work), attached to this Work Order and made part hereof by this reference. The professional services will be performed by the Consultant for the fee schedule set forth in Exhibit B (Fee Schedule), attached to this Work Order and made a part hereof by this reference. The Consultant will perform the professional services within the timeframe more particularly set forth in Exhibit C (Time Schedule), attached to this Work Order and made a part hereof by this reference all in accordance with the terms and provisions set forth in the Agreement. Pursuant to paragraph 1.4 of the Agreement, nothing contained in any Work Order shall conflict with the terms of the Agreement and the terms of the Agreement shall be deemed to be incorporated in each individual Work Order as if fully set forth herein.

EXHIBIT A – SCOPE OF WORK

66th Avenue & 8th Street Signalization - Mast Arm Assembly

The COUNTY desires to improve the intersection by installation of a mast arm traffic signal, pedestrian crosswalks and curb ramps, including sidewalk ramps and landings, associated signage and miscellaneous pavement markings as needed. It is understood that the COUNTY will provide the geotechnical investigation findings necessary to support the foundation design calculations.

A. Topographic Design Survey:

The Consultant shall provide topographic design survey services necessary to support and facilitate contemplated 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 Florida Minimum Technical Standards set forth by the Florida Board of Professional Surveyors in Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

B. Geotechnical Investigation:

The geotechnical investigation will include four (4) Standard Penetration Test (SPT) borings to a depth of 35 feet using a procedure similar to the Standard Penetration Test outlined in ASTM D-1586. The SPT borings will be drilled at the four corners of the intersection in accessible locations as close as possible to the proposed mast arm foundations. The SPT borings will be sampled at 18-inch or 24-inch intervals to 10 feet deep and at 5-foot intervals below 10 feet. Each sample will be removed from the sampler in the field and then examined and visually classified by our crew chief. Representative portions will be sealed and packaged for transportation to our laboratory for further analysis as required. Water level observations will be made in the boreholes during the drilling operation. For the purposes of this proposal, we have assumed that maintenance-of-traffic (MOT) will not be required to perform the soil borings.

LABORATORY TESTING

Routine laboratory visual classification will be performed along with specific classification tests deemed necessary (i.e., sieve analysis, Atterberg limits and organic contents). All laboratory tests will be performed in general accordance with applicable ASTM standards.

ENGINEERING ANALYSIS AND REPORT

Engineering analysis of all data obtained will be made to evaluate general subsurface conditions, and to provide the soil parameters listed above for structural verification of the standard FDOT mast arm pole design.

C. Signalization Plans:

The COUNTY desires to prepare traffic signalization plans associated with the 66th Avenue/ 8th Street intersection. It is understood that the proposed signalization improvements will consist of a mast arm traffic signal assembly at the subject intersection which will be designed to meet current IRC and FDOT standards. The plans will include the design and layout of proposed signal poles, signal heads, video detection, conduit, and pull boxes.

The plans will include all call outs, controller timing chart, signal head details, sign details, controller notes, signal operating plan, overhead street name sign design details, pole schedules, tabulation of quantities. The set of plans will include the following sheets: key sheet; tabulation of quantities; general notes; plan sheet; sign work sheets (if necessary) and mast arm assemblies' data tables.

The set of plans shall consist of the following:

	40%	80%	100%
Cover Sheet	P	S	F
General Notes/ Legend	P	S	F
Tabulation of Quantities/ General	P	S	F
Roadway Plan Sheets	P	S	F
Signing & Pavement Marking Plans	P	S	F
Signalization and Pay Item Notes	P	S	F
Signalization Plans	P	S	F
Fiber Optic Plan	P	S	F
Standard Mast Arm Tabulation	P	S	F
Standard Mast Arm Assemblies Data Table	P	S	F
Sign Details	P	S	F
Construction Cost Estimate and Quantities	P	S	F

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

The final design plans will be prepared in accordance with the Indian River County and Florida Department of Transportation (FDOT) standards to provide all elements necessary to accommodate the scope of work. This effort will include at a minimum; Key Sheet, General Notes Sheet, Plan Sheets, Cross Section Sheets, Erosion Control Sheets, Signalization Sheets, Opinion of Probable Construction Cost and other detail sheets as necessary to produce the construction bid plans.

The following additional data shall be utilized for development of the plans:

1. The roadway plans sheets will be drawn at a scale of 1" = 40' prepared on 11" x 17" sheets.
2. Plan sheets shall depict existing 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.
3. Signing and Pavement Markings will be included within the Construction Documents. All signing and pavement markings are to be prepared in accordance with the latest design standards and practices (MUTCD), FDOT Standard Specifications, Indexes, and COUNTY standards.

4. Plans shall include spot grades adequate to describe any proposed grading.
5. Match lines shall not be located within the limits of an intersection.
6. If applicable, soil boring information shall be plotted on cross sections with soil classification and high season water table.
7. All quantities shall reference FDOT Pay Item Numbers.
8. All details shall reference FDOT Index Numbers, where applicable.
9. All specifications shall reference the FDOT Specifications for Road and Bridge Construction. Any deviations or special specifications not included in FDOT Specifications will be provided in the Technical Specifications.
10. Initial (40% completion), interim (80% completion) and Final Plan (100% completion) Submittal shall include the following:
 - i. Three (3) Sets Plans.
 - ii. One (1) Opinion of Probable Construction Cost
 - iii. One (1) CD with drawings in PDF format.

The Consultant will be responsible for producing an opinion of probable cost (OPC) estimate and reviewing and updating the OPC when scope changes occur and/or at designated milestones of the project. A Summary of Pay Items sheet shall be prepared with all required Initial (40%), Interim (80%) and Final Plan (100%) submittals. The Final Plans will be provided signed and sealed. The plans will be prepared based upon English units. The design will be conducted in MicroStation and Geopak. The Final Plans will be provided in Autodesk Civil 3D format.

D. 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.

E. Franchise Utility Coordination:

The Consultant will coordinate with franchise utility operators in the vicinity of the project such that the proposed construction activities can be developed to minimize impacts to existing utilities located within the project limits. Franchise utility adjustments, designed by the respective franchise utility, will be requested by the Consultant and reflected within the prepared construction documents.

The Consultant will coordinate with the electrical service provider relative to the location and infrastructure required to accommodate the proposed power supply location.

EXHIBIT B – FEE SCHEDULE

The COUNTY agrees to pay and the Consultant agrees to accept for services rendered pursuant to this Agreement fees inclusive of expenses in accordance with the following:

A. Professional Services Fee

The basic compensation mutually agreed upon by the Consultant and the COUNTY is as follows:

Lump Sum Components

<u>Task</u>	<u>Labor Fee</u>
Topographic Design Survey	\$ 5,400
Geotechnical Investigation	\$ 4,165
Signalization Plans	\$ 24,700
Signing and Marking Plans	\$ 12,280
Franchise Utility Coordination	\$ 8,100
Project Total	<u>\$ 54,645</u>

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EXHIBIT C – TIME SCHEDULE

Upon authorization to proceed by the COUNTY, final design documents are expected to take approximately six (6) months from the Notice to Proceed (NTP).

NTP	contingent upon BOCC approval
Initial Submittal (40% Design Drawings)	2 months following NTP
Interim Submittal (80% Design Drawings)	4 months following NTP
Final Submittal (100% Design Drawings)	6 months following NTP

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IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date first written above.

CONSULTANT:
KIMLEY-HORN AND ASSOCIATES,
INC.

BOARD OF COUNTY COMMISSIONERS
OF INDIAN RIVER COUNTY

By: _____
Brian Good, P.E.

By: _____
Susan Adams, Chairman

Title: _____
Senior Vice President

BCC Approved Date: _____

Attest: Jeffrey R. Smith, Clerk of Court and Comptroller

By: _____
Deputy Clerk

Approved: _____
Jason E. Brown, County Administrator

Approved as to form and legal sufficiency: _____
William K. DeBaal, Deputy County Attorney