

WORK ORDER NUMBER 11
37TH STREET & INDIAN RIVER BOULEVARD INTERSECTION IMPROVEMENTS
Project Number: IRC-1910

This Work Order Number 11 is entered into as of this ___ day of _____, 2019, 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

The COUNTY desires to reconstruct the 37th Street and Indian River Boulevard intersection as to remove the acute intersection angle such that vehicular site lines are improved. Within the limits of the intersection improvement, additional auxiliary lanes consisting of dual northbound left turn and dual eastbound right turn lanes will be incorporated into the overall improvement. In addition, the intersection will be reconstructed with current standard mast-arm signalization components.

The County agrees to provide (in a timely manner) the following material, data, or services as required in connection with the work to be performed under this Agreement; all of which information the CONSULTANT may use and reasonably rely upon:

- A. Provide the CONSULTANT with a geotechnical investigations, traffic counts, preliminary data or reports available, existing location surveys, topographic surveys, and related documents required to complete the construction documents.
- B. Provide the CONSULTANT with all available drawings, right-of-way maps, and other documents in the possession of the County pertinent to the project.
- C. The County shall make provisions for the CONSULTANT to enter upon public and private property as required for the CONSULTANT to perform his services.
- D. The County will promptly execute all permit applications and provide application and review fees necessary to expedite the acquisition of any local, state or federal permits made necessary by the project.
- E. The County will pay for all permit fees.

The PROJECT LIMITS are projected to extend 1,600 feet along 37th Street and 2,250 feet along Indian River Boulevard for a total project length of 3,850 feet (0.73 miles).

A. Roadway Analysis and Plans:

Roadway set of plans shall consist of the following:

	60%	90%	100%
Cover Sheet	C	C	F
Summary of Pay Items	P	C	F
Typical Sections	C	C	F
Summary of Quantities & General Notes	P	C	F
Summary of Drainage Structures Sheets	P	C	F
Project Layout	C	C	F
Plan and Profile Sheets (40 scale)	C	C	F
Intersection Plan & Details	P	C	F
Special Details	P	C	F
Drainage Structure Sheets	P	C	F
Roadway Soil Survey	P	C	F
Cross Sections at 100 ft intervals	P	C	F
Stormwater Pollution Prevention Plans	P	C	F
Signage & Pavement Marking Plans (40 scale double plan)	C	C	F
Signalization Plans	P	C	F
Construction Cost Estimate and Quantities	C	C	F

Notes: P – Preliminary, C – Complete, but subject to change, F - Final

The plans will be prepared based upon English units. Design will be conducted in MicroStation and Geopak.

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. Plans shall include spot grades adequate to describe any proposed grading.
4. Match lines shall not be located within the limits of an intersection.

5. If applicable, soil boring information shall be plotted on cross sections with soil classification and high season water table.
6. All quantities shall reference FDOT Pay Item Numbers.
7. All details shall reference FDOT Index Numbers.
8. All specifications shall reference to County and/ or FDOT Specifications for Road and Bridge Construction. Any deviations are special specifications not included in FDOT Specifications are required in the Technical Specifications.
9. Initial, interim and Final Plan Submittal shall include the following:
 - i. Three (3) Sets of Signed and Sealed Plans.
 - ii. One (1) Opinion of Probable Construction Cost
 - iii. One (1) CD with drawings in PDF format.
 - iv. The CONSULTANT will provide construction documents and calculations in sufficient quantity as required by the various reviewing agencies.

B. Drainage analysis and Plans:

1. Perform drainage investigations and analysis necessary to prepare a design which will drain the project in accordance with the County, St Johns River Water Management District (SJRWMD) and Army Corps of Consultants (ACOE) design criteria. The work will include the analyses for 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 cross drains, floodplains, outfalls and adjacent storm water ponds. Determine groundwater elevations at intervals between the above-mentioned surface waters.
 - b. Design of Stormwater Management Facility
Design stormwater management facilities to meet requirements for stormwater quality treatment and attenuation. Develop proposed pond layout (shape, contours, slopes, etc.), perform routing calculations, and design the outlet control structure.
 - 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.

C. Jurisdictional Permitting:

The Consultant shall prepare permit applications for the St Johns River Water Management District (SJRWMD) and Army Corp of Consultants (ACOE) for submittal by the County. This will consist of all required evaluation, design, coordination, and follow-up work necessary to support permit applications. The County will review the permit applications as necessary. The Consultant shall assemble and be responsible for the final submittal.

The Consultant shall prepare permit sketches for submission by the County to ACOE and SJRWMD for dredge and fill activities, if necessary. The Consultant shall submit all permit sketches on 8.5" x 11" sheets. Sketches shall be neatly scaled, signed and sealed, and reproducible.

1. Environmental Resource Permitting/Section 404 Permitting

The Consultant will prepare and submit the joint Environmental Resource Permit (ERP) application package to the SJRWMD and the ACOE. The application includes the ERP standard forms and a compilation of supplemental materials such as permit sketches, Vegetation (FLUCFCS), soils, quadrangle and FEMA-FIRM maps.

The Consultant will coordinate on the behalf of the County with each agency identified in this task. This may include up to one (1) meeting with the agencies to discuss requests for additional information (RAI), and written responses to one (1) request for additional information (RAI) including plan modifications. This scope assumes that mitigation measures will not be necessary or required. This scope assumes that coordination with US Fish and Wildlife Service through the preparation of Biological Assessments or Biological Opinions will not be required.

Permit application submittals will be made subsequent to the 60% plan set submittal approval by the County.

D. Signing and Pavement Marking Plans:

Signing and Pavement Marking plans shall include: Preparation of the plan layout, quantities (including signing and pavement marking quantity) and tabulation of quantities. All 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. Plans will be included with the roadway plans and submitted as indicated above.

E. 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. Any utility permitting and relocation design required to accommodate the proposed improvements will be addressed as an additional service relative to this scope of work.

F. Signalization Plans:

Mast-arm traffic signal configurations at the 37th Street and Indian River Boulevard intersection will be designed to meet current County and FDOT standards. Luminaires will be provided on each mast arm pole. The pole analysis and design of the signal systems will be completed and submitted to County for review. Signalization plans will be included with the roadway plans and submitted as indicated above.

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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>
Roadway Analysis and Plans	\$ 89,135
Drainage Analysis and Plans	\$ 25,330
Erosion Control and SWPPP	\$ 7,750
Jurisdictional Permitting	\$ 23,540
Signing and Marking Plans	\$ 10,075
Utility Coordination	\$ 8,200
Signalization Plans	\$ 30,650
Project Total	\$ 194,680

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TIME SCHEDULE

Upon authorization to proceed by the COUNTY, final design documents are expected to take approximately nine (9) months from the Notice to Proceed (NTP).

NTP	Upon BOCC Approval
Phase II Submittal (60% Design Plans)	3 months following NTP
Phase III Submittal (90% Design Plans)	6 months following NTP
Phase IV Submittal (Final Design Plans)	9 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: _____
Bob Solari, Chairman

Title: Principal

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: _____
Dylan T. Reingold, County Attorney

Summary

Project Name

37th Street & Indian River Boulevard Intersection Project

Task Summary

Manhours for project

<i>Task</i>	<i>Principal</i>	<i>Senior Professional</i>	<i>Registered Professional</i>	<i>Professional 1</i>	<i>Designer</i>	<i>Support Staff</i>	<i>Remarks</i>
	\$225	\$200	\$145	\$110	\$130	\$60	
Design Analysis	2	54	56	0	24	12	
Roadway Plans	12	27	73	75	223	0	
Drainage Plans	10	15	80	86	129	0	
Permitting	4	38	56	20	28	18	
Utility Coordination	4	10	8	24	6	12	
Signing and Marking Plans	4	7	9	15.8	36.4	0	
Signalization Plans	8	39	80	15	60	0	
Total Hours =	44	190	362	235.8	506.4	42	
Labor Fee =	\$9,900	\$38,000	\$52,490	\$25,938	\$65,832	\$2,520	
Roadway Fee =	\$194,680						
Design Topo Fee =	By County						
Geotechnical Fee =	By County						
Total Fee =	\$194,680						

Design Analysis

Activity: Design Analysis

Task	Principal	Senior Professional	Registered Professional	Professional 1	Designer	Support Staff	Remarks
Contract File		2				2	
Project Coordination							
Geotech Sub-consultant							Provided by IRCO
Surveyor							Provided by IRCO
County Eng Dept		40	20			8	Four review submittals/ meetings
Cost Estimating		4	20		20		Cost est. conducted at 30%, 60%, 90% and Finals
Project Specifications and Quantities		4	12			2	
QC/QA	4						
Project Management		4					
Subtotal	4	54	52	0	20	12	

Rdwy Plans

Activity: Roadway Plans

Task	Principal	Senior Professional	Registered Professional	Professional 1	Designer	Support Staff	Remarks
Cover Sheet			2		4		
Typical Section and Notes			2	2	4		
Summary of Quantities Sheet			8	16	16		2 sheets
Plan/Profile Sheets							
<i>37th Street</i>		4	11	15	45		3 sheets at 25 hrs/sht
<i>Indian River Blvd</i>		5	15	20	60		5 sheets at 20 hrs/ sht
Horiz/Vert Control Sheet		4	8		12		
Cross Sections							
<i>37th Street</i>		3	9	12	36		100 ft Sections plus driveways (20) @ 3.0 hrs per
<i>Indian River Blvd</i>		3	8	10	30		100 ft Sections plus driveways (20) @ 2.5 hrs per
Miscellaneous Const. Details		4	10		16		1 sheet of details @ 30hrs/sht
QC/QA	12						
Project Management		4					
Subtotal	12	27	73	75	223	0	

Drainage Plans

Activity: Drainage Plans

Task	Principal	Senior Professional	Registered Professional	Professional 1	Designer	Support Staff	Remarks
Drainage Analysis							
37th Street		2	20	30	8		Includes cross drain design
Indian River Blvd			8	10	4		
Field Review		2	8	8			site visits
Stormwater Management Facility & Drainage Maps							
37th Street			18	8	12		1 stormwater facilities @ 40 hrs per
Indian River Blvd							
Summary of Drainage Structures			4		16		1 sheets at 20 hrs per sheet
Drainage Structure Sheets							
37th Street		2	7	10	29		12 structures at 4 hours per
Indian River Blvd							
Stormwater Pollution Prev. Plans							
37th Street		2	6	8	24		2 sheets at 10 hrs/sht
Indian River Blvd		3	9	12	36		3 sheets at 10 hrs/sht
QC/QA	10						
Project Management		4					
Subtotal	10	15	80	86	129	0	

Activity: Permitting

Task	Principal	Senior Professional	Registered Professional	Professional 1	Designer	Support Staff	Remarks
Pre-application Meetings							
	SJRWMD	8	8			2	
	USACE	8	8			2	
Preliminary Exhibits for Permit		2	4	2	8		
Permit Package							
	SJRWMD	2	8	4		4	ERP
	USACE	2	8	4		4	
Request for Information							
	SJRWMD	8	16	8	16	4	
	ACOE	4	4	2	4	2	
QC/QA							
Project Management	4						
		4					
Subtotal	4	38	56	20	28	18	

Permits Required

SJRWMD ERP
 ACOE - nationwide

Utilities

Activity: Utility Plans

Task	Principal	Senior Professional	Registered Professional	Professional 1	Designer	Support Staff	Remarks
Ex. Utility Reveiw			8	24		8	Coordination w/ Util Co.'s - Request as-built data
Electrical Service Provider Coordination Mtg		6			6	4	
QC/QA	4						
Project Management		4					
Subtotal	4	10	8	24	6	12	

Sign & Mark

Activity: Signing and Marking Plans

Task	Principal	Senior Professional	Registered Professional	Professional 1	Designer	Support Staff	Remarks
Field Inventory				4			
Plan Sheets (double plan)							
<i>37th Street</i>		1	4	4.8	14.4		2 sheets at 12 hrs/sht
<i>Indian River Blvd</i>		2	5	7	22		3 sheets at 12 hrs/ sht
QC/QA	4						
Project Management		4					
Subtotal	4	7	9	15.8	36.4	0	

Signalization

Activity: Signalization

Task	Principal	Senior Professional	Registered Professional	Professional 1	Designer	Support Staff	Remarks
37th Street & Indian River Blvd							
Mast-Arm Signalization Design		20	80		60		
Foundation Structural Design		15		15			
QC/QA	8						
Project Management		4					
Subtotal	8	39	80	15	60	0	