



ISO 9001:2015 CERTIFIED

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

6500 N. Andrews Avenue • Fort Lauderdale, FL 33309 • Phone 954-776-1616

City of Key West

Design Services for Roadway Improvements

Caroline Street from

Simonton Street to Whitehead Street

Purpose and Objectives

The City of Key West proposes to implement roadway improvements on Caroline Street from Simonton Street to Whitehead Street. The desired improvements include milling and resurfacing of the existing pavement and sidewalk improvements to satisfy American with Disabilities Act (ADA) criteria and other applicable criteria and standards. Signing and pavement markings are proposed to generally maintain the existing roadway configuration as two (2) lanes undivided with parallel parking.

Scope of Work

The CONSULTANT will provide engineering services for the design of roadway improvements on Caroline Street from Simonton Street to Whitehead Street (approximately 978.91 linear feet (0.185 miles)). The desired improvements include milling and resurfacing of the existing pavement and sidewalk improvements to satisfy American with Disabilities Act (ADA) criteria and other applicable criteria and standards. Signing and pavement markings are proposed to generally maintain the existing roadway configuration as two (2) lanes undivided with parallel parking.

SURVEY SERVICES:

The City of Key West will provide a topographic survey and right-of-way delineation of the project area in electronic format (AutoCAD (.dwg) or MicroStation (.dgn)). A Digital Terrain Model (DTM) will be provided by the City.

ROADWAY ANALYSIS AND DESIGN:

Engineering design services for this project include design, analysis and agency coordination required to provide construction documents for the milling and resurfacing of approximately 978.91 linear feet (0.185 miles) of roadway on Caroline Street. Drainage improvements will include adjustments to existing drainage structures as may be necessary to maintain the existing drainage system and flow patterns. Sidewalk improvements will be designed to accommodate required ADA criteria and applicable design standards. Design analysis will evaluate the potential for adding bicycle lanes and the impact to sidewalks and parking. Bicycle lanes will be included in the design as determined to be desirable and feasible. Assistance with public notification of the proposed project will be provided through attendance and participation at one public information meeting.

SIGNING AND PAVEMENT MARKINGS:

The CONSULTANT shall prepare Signing and Pavement Marking Plans in accordance with all applicable manuals, guidelines, standards, handbooks, and procedures. Signing & Marking plan sheets will include all necessary information related to the project design elements and all associated reference files. Signing and pavement markings are proposed to generally maintain the existing roadway configuration as two (2) lanes undivided with parallel parking.

SIGNALIZATION:

There are existing traffic signals on Caroline Street at the intersections with Simonton Street and Duval Street. At Simonton Street the existing traffic signal is a diagonal span wire assembly supported on joint use Keys Energy Services concrete strain poles. At Duval Street the existing traffic signalization is post mounted assemblies supported on decorative pedestals located in four (4) corners of the intersection. The proposed roadway improvements are not anticipated to impact the existing traffic signals. No modification to the existing traffic signalization is anticipated. Signalization Plans analysis and design are not included in this Task Work Order Scope of Services.

LIGHTING:

Decorative lighting is proposed along Caroline Street that is consistent with decorative lighting on other portions of Caroline Street and surrounding roadways. To establish a lighting system that provides for adequate levels of illumination and uniformity it is anticipated that the lighting system will utilize light fixtures mounted on low level decorative poles supplemented by higher level cobra head fixtures mounted on Keys Electric Services poles. The Consultant will coordinate the analysis and design of the lighting system with Keys Electric Services. The CONSULTANT shall prepare Lighting Plans in accordance with all applicable manuals, guidelines, standards, handbooks, and procedures. Lighting plan sheets will include all necessary information related to the project design elements and all associated reference files.

LANDSCAPE AND IRRIGATION:

Landscape Plans analysis and design are not included in this Task Work Order Scope of Services.

UTILITIES:

The Consultant will identify existing utilities based on the survey provided by the City of Key West, as-built plans, records and redline markups provided by the City of Key West and Utility Agencies/Owners (UAO's). The Consultant will identify potential conflicts with the proposed plans and identified existing utilities and coordinate with the City of Key West and UAO's for necessary utility relocations. Relocation of existing utilities will be the responsibility of the City of Key West and/or UAO's as necessary and appropriate.

DESIGN STANDARDS:

The engineer shall prepare a complete set of construction plans following technical standards set forth in the Florida Department of Transportation (FDOT) design criteria set forth in the *Standard Specifications, Standard Plans*, and the *Manual of Uniform Minimum Standards for Design, Construction, and Maintenance of Standard Streets* (Florida Green Book). Additional criteria from the American Society of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets*, Federal Highway Administration (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)* and Institute of Traffic Engineers (ITE) *Traffic Engineering Handbook* may also be applicable.

DELIVERABLES:

The construction plans shall include the following:

- Roadway Typical Sections
- Roadway Plans / Details identifying areas of pavement to be resurfaced, ADA ramp and Sidewalk modifications and drainage modifications.
- Plans shall also include sidewalk restoration details and tree protection details
- Location and identification of utilities within the right of way area provided by the City of Key West
- Re-striping of roadway alignment (shown on signing and marking plan sheets)
- Standard Maintenance of Traffic narrative referencing applicable FDOT standard Indexes
- General Notes, Details, and specifications

Deliverables supplied to the CITY shall include the following:

- 30% Construction Plans and Cost Estimate
 - Two hard copies
 - One electronic file (PDF format)
- 60% Construction Plans and Cost Estimate
 - Two hard copies
 - One electronic file (PDF format)
- 90% Construction Plans and Cost Estimate
 - Two hard copies
 - One electronic file (PDF format)
- 100% Construction Plans and Cost Estimate
 - Two hard copies

- One electronic file (PDF format)
- Final “Approved for Construction” Plans and Cost Estimate
 - One original signed and sealed
 - One electronic file (PDF format)
- Final “Approved for Construction” Plans – one CD with Electronic files (MicroStation format)
- Final “Approved for Construction” Cost Estimate - One electronic file (Excel format)

Project Schedule and Staff Hours Estimate

This is a lump sum Task Work Order (TWO) with the exception of Lighting design services which will be invoiced on a Time and Materials (T&M) basis. The CONSULTANT agrees to begin work upon issuance of the TWO and complete all work tasks within twelve (12) months from NTP.

The CONSULTANT shall prepare and submit to the CLIENT monthly project invoice and progress reports. Project staff hours estimates are provided in **Exhibit A**.

1. ROADWAY ANALYSIS AND DESIGN (LS)..... \$ 87,805.00
2. SIGNING AND PAVEMENT MARKINGS (LS)..... \$ 14,245.00
3. LIGHTING (T&M)..... \$ 21,070.00
4. UTILITIES (LS)..... \$ 5,440.00

Total estimated fees \$128,560.00

(Including staff hours cost, proposed traffic data collection and other direct expenses)

Consultant:

City of Key West:

_____ Date: _____

_____ Date: _____

C. Bryan Wilson, PE
Practice Leader – Transportation
KCI TECHNOLOGIES INC



Patti McLauchlin
City Manager
City of Key West



Exhibit A - Staff Hours Estimate

Name of Project:	Design Services for Roadway Improvements- Caroline Street from Simonton Street to Whitehead Street										Consultant Name:	KCI Technologies, Inc.		
County:	Monroe										Consultant No.:	451900205.00		
FPN:	N/A										Date:	2/1/2022		
FAP No.:	N/A										Estimator:	SMK		
Staff Classification	Principal	Director	Senior Project Manger	Project Manager	Senior Associate	Associate 2	Associate 1	CADD Technician	Admin. Assistant	Field Crew Supervisor	Project Suveyor	SH By Activity	Salary Cost By Activity	Average Rate Per Task
	\$225.00	\$190.00	\$175.00	\$150.00	\$135.00	\$110.00	\$95.00	\$85.00	\$65.00	\$95.00	\$135.00			
Task 1. Roadway Analysis and Design	0	31	83	210	186	98	0	0	0	0	0	608	\$87,805	\$144.42
Task 2. Signing and Pavement Marking	0	4	12	33	33	18	0	0	0	0	0	100	\$14,245	\$142.45
Task 3. Lighting	0	6	19	49	49	24	0	0	0	0	0	147	\$21,070	\$143.33
Task 4. Landscape and Irrigation	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
Task 5. Utilities	0	2	6	13	12	4	0	0	0	0	0	37	\$5,440	\$147.03
Total Staff Hours	0	43	120	305	280	144	0	0	0	0	0	892		
Total Staff Cost	\$0.00	\$8,170.00	\$21,000.00	\$45,750.00	\$37,800.00	\$15,840.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$128,560.00	\$144.13

SALARY RELATED COSTS:	\$128,560.00
OVERHEAD: 0.000%	\$0.00
OPERATING MARGIN: 0.000%	\$0.00
FCCM (Facilities Capital Cost Money): 0.000%	\$0.00
EXPENSES: 0.000%	\$0.00
SUBTOTAL ESTIMATED FEE:	\$128,560.00
Subconsultant:	\$0.00
SUBTOTAL ESTIMATED FEE:	\$128,560.00
Traffic Data Collection	\$0.00
SUBTOTAL ESTIMATED FEE:	\$128,560.00
Other Direct Expenses	\$0.00
GRAND TOTAL ESTIMATED FEE:	\$128,560.00