

TASK ORDER 7-23

ENGINEERING SERVICES FOR THE SOUTH BAHAMA VILLAGE STORMWATER EVALUATION

This TASK ORDER 7-23 is issued under the terms and conditions of the AGREEMENT TO FURNISH GENERAL ENGINEERING SERVICES TO THE CITY OF KEY WEST ("AGREEMENT") between the City of Key West ("CITY") and Jacobs Engineering Group Inc. ("CONSULTANT") dated March 29, 2023 which is incorporated herein by this reference.

A. SCOPE OF SERVICES

Specific services which the CONSULTANT agrees to furnish are summarized on the attached statement entitled TASK ORDER 7-23 "SCOPE OF SERVICES." The "Scope of Services" defines the work effort anticipated for the Task Order.

This Task Order, when executed, shall be incorporated in and shall become an integral part of the March 29, 2023, Master Agreement.

B. TIME OF COMPLETION

Work under this Task Order will begin immediately following acceptance and completed expeditiously subject to coordination with the City of Key West staff.

C. COMPENSATION

Compensation for the labor portions of TASK ORDER 7-23, Tasks 1 and 2 will be on a lump sum fee basis as stipulated in Article 5, Paragraph 5.1.1 of the AGREEMENT. Compensation for subconsultants and all expenses will be on a Cost Reimbursable-Per Diem basis as stipulated in Article 5, Paragraph 5.1.2 of the AGREEMENT. The estimated compensation is shown on the attached statement entitled TASK ORDER 7-23 COMPENSATION.

D. ACCEPTANCE

By signature, the parties each accept the provisions of this TASK ORDER 7-23 and authorize the CONSULTANT to proceed at the direction of the CITY's representative in accordance with the "SCOPE OF SERVICES." Start date for this project will be no later than two (2) days after execution of this authorization.

For Jacobs Engineering Group Inc.

By:  11/2/2023

Diana F. Francois, P.E.
Manager of Projects

 11/2/2023

Elaine Tolon, P.E.
Key West Project Manager

For CITY OF KEY WEST

By: _____

Albert P. Childress
City Manager

Dated the _____ day of _____, 2023

ATTEST: _____

TASK ORDER 7-23

ENGINEERING SERVICES FOR THE SOUTH BAHAMA VILLAGE STORMWATER EVALUATION

SCOPE OF SERVICES

Project Background

The City of Key West (CITY) completed a comprehensive Stormwater Master Plan (SWMP) in 2012 which prioritized stormwater projects that could be implemented to address the City's stormwater management needs. The CITY is currently updating the SWMP to define future projects that include provisions for resiliency. The SWMP update is currently being finalized. The CITY requested that an additional area be evaluated by the CONSULTANT, the subbasins around two intersections in the southern Bahama Village neighborhood:

- Olivia and Emma Streets
- Thomas and Catherine Streets

Both intersections are at low elevation and are vulnerable to high tides. The Thomas and Catherine intersection is especially vulnerable where existing inlets are at less than 2 ft North American Vertical Datum of 1988. Pipes around the two intersection areas are also of small diameter.

Purpose

The objectives of the South Bahama Village Stormwater Evaluation are as follows:

- Identify new drainage elements to reduce flooding generated by rainfall (not storm surge)
- Develop conceptual design and cost estimates for the projects that could be funded for design in the future.
- Develop exhibits and text so this new project area can be added to the SWMP before it is finalized.

Scope of Services

The CONSULTANT previously prepared a list of recommended projects throughout the City for the update to the SWMP based on previously recommended projects, existing conditions, depth of flooding, and engineering judgment. Projects were grouped based on their proximity. The conceptual project elements included new inlets, pipes, gravity wells, water quality treatment boxes, pressurized well systems, and pump stations.

The analyses of the new projects located in the southern Bahama Village neighborhood will be as if another study area was included in the SWMP. The methods and general assumptions used in the SWMP will be applied in this task order. This includes using the same cost opinion assumptions (that is, unit costs) and phasing approach to implement the project as first a gravity system, then adding a pump station later. The CONSULTANT prepared conceptual construction cost opinions of the projects at Class 5 accuracy as defined by the American Association of Cost Engineers.

Task 1 Alternative Analysis Bahama Village

The southern Bahama Village neighborhood is experiencing flooding at two intersections: Thomas and Catherine (near Nelson English Park); and Olivia and Emma (near Fredrick Douglass Gym). At the request of the CITY, this area will be added to the SWMP Update. The analysis and cost opinions will be developed similarly to the other SWMP projects.

- The CONSULTANT will prepare a draft PowerPoint presentation (PPTX) for the CITY about the South Bahama Village project and recommendations. The CITY will review a draft PPT and provide comments at one meeting.

Deliverables

The following deliverable will be provided under this Task:

- One review meeting with Key West. Agenda and meeting minutes will be prepared and delivered electronically.

Task 2 Planning Report Preparation

The CONSULTANT is preparing a final SWMP report under a separate task order. South Bahama Village will be added to the list of conceptual projects. Task 2 is for the effort to add the new information (text, figure, and tables). This task will include modifying the SWMP figures to include the new project.

Deliverables

There are no deliverables to be provided under Task 2. Results will be provided in the SWMP task order.

Assumptions

The following assumptions were used in the development of this Task Order

- The CITY evaluated and developed a draft Sea Level Rise Policy. The changes in policy may affect the nature of the projects to be developed or the criteria to use. The SWMP, Phase 2, incorporated the policy considerations.
- All deliverables will be electronic utilizing Adobe format (pdf), or another common Microsoft Office software format as noted in scope.
- Meetings will be held utilizing online resources (Microsoft Teams, or similar) for all or some of the attendees.
- The geographic extent of the SWMP updates will be limited to the main island of Key West and Stock Island, not including Navy facilities, or Fleming Key. The airport internal drainage will not be studied, only to the extent that it may affect CITY drainage. Stock Island was studied separately in 2011 by CH2M HILL (now Jacobs). No changes are known or anticipated for Stock Island.
- The location of stormwater facilities is available from literature and the CITY GIS.
- No new surveying is included in the SWMP update. Existing data from the CITY inventory or as-built drawings will be used for updating facility information. The accuracy of the GPS elevations may vary but will be about 0.5-foot or less. Detailed surveys are normally accurate to approximately 0.05 foot.
- The level-of-service for projects will be estimated on a relative basis. Projects will be ranked on relative improvements. It is assumed that there will be wide-spread flooding for storms that exceed a few inches in a day.
- No design work or state and county agency coordination is included in this Task Order. Recommendations for project design elements are to be based on the CONSULTANT's recent CITY experience and details of past work.
- Only existing land use shall be used in the hydrologic/hydraulic evaluation of the study area because of the City's mature development.
- Assumptions about ponding into lots/parcels will be made on each block included in the model.
- The evaluations will be based on the federal, state and local codes and standards in effect at the start of the project. Any changes in these codes may necessitate a change in scope.

- Cost opinions are based on Association for the Advancement of Cost Engineering Class 5 guidelines (no detailed design). No land costs shall be included in cost estimating for the project. It will be assumed that all linear drainage projects can be in City rights-of-way.
- Legal, easement, or plat survey or acquisitions will be the responsibility of CITY, it is assumed that the City will acquire an easement for proposed projects.
- No permitting or agency meeting is required.
- CONSULTANT will reasonably rely upon the accuracy, and completeness of any information/data provided by the CITY or other third parties.

Obligations of the CITY

To assist meeting schedule and budget estimates contained in this proposal, the CITY will provide the following:

- Available drawings and files.
- Prompt review and comment on all deliverables.
- Facilitate access to any required facilities.
- Attendance of key personnel at meeting as requested.
- CITY will assist in obtaining reports or drawings from past designs.

Additional Services

The CONSULTANT will, as directed, provide additional services that are related to the project but not included within this Scope of Services. These and other services can be provided, if desired by the CITY, as an amendment to the Task Order. Work will begin for the Additional Services after receipt of a written notice to proceed from the CITY.

Compensation

The estimated compensation for TASK ORDER NO. 7-23 Tasks C-A1 and D-A1 is \$8,632.00. Compensation listed by task and per diem rate is included as Attachment A.

Schedule

An anticipated schedule for TASK ORDER NO. 7-23 is:

- Approximately 1 month to conduct the analyses after the Notice to Proceed. Notice to Proceed for TO 7-23 is assumed to be received in November 2023.
- Approximately 2 months to develop a draft report after the analysis.
- The CITY will review the draft report and provide CONSULTANT comments.
- The final report and presentation will be finished approximately 1 month after comments are received.

Attachment A

COMPENSATION

City of Key West - Task Order 7-23 South Bahama Village Stormwater Evaluation									
Role	Project Manager	Lead Design Engineer (FL PE), Engineer of Record, QC Reviewer	Jr/Mid Engineer	Jr/Mid Engineer	Total Hours	Labor Cost	Permitting Fee - Expense	Travel Expenses	Total Cost
Rate Category	Engineer 4	Engineer 6	Engineer 2	Engineer 3					
Billing Rate Year 2023	\$183.00	\$240.00	\$145.00	\$166.00					
	Hours	Hours	Hours	Hours					
Task 1: Alternative Analysis Bahama Village, South									
Retrieve SWMP Model and identify nodes/links in BV area	0	2	0	0	2	\$480.00		\$0.00	
Discuss possible projects at BV area on virtual meeting	1	1	1	1	4	\$734.00		\$0.00	
Develop 2 scenarios with tailwater at EL 2.7 (w/pump and w/o pump station)	0	2	32	4	38	\$5,784.00		\$0.00	
Cost estimates	0	0	4	2	6	\$912.00		\$0.00	
TASK 1 HOURS TOTAL	1	5	37	7	50				
TASK 1 TOTAL COST	\$183.00	\$1,200.00	\$5,365.00	\$1,162.00		\$7,910.00	\$0.00	\$0.00	\$7,910.00
Task 2 Planning Report Preparation									
Prepare Draft and Final Report Original Phase 2 -- No Change	0	0	0	0	0	\$0.00		\$0.00	
Discussion, Graphics and Tables for Bahama Village	4	8	4	2	18	\$3,564.00		\$0.00	
REMOVE Commission meeting attendance and presentation in Task Order 2-21 STM.						-\$3,574.00			
					0	\$0.00			
TASK 2 HOURS TOTAL	4	8	4	2	18				
TASK 2 TOTAL COST	\$732.00	\$1,920.00	\$580.00	\$332.00		-\$10.00	\$0.00	\$0.00	-\$10.00
Task : Project Management and Administration									
Manage Project Schedule and Financials	4	0	0	0	4	\$732.00		\$0.00	
Assume no travel to Commission Meeting					0			\$0.00	
TASK E HOURS TOTAL	4	0	0	0	4				
TASK E TOTAL COST	\$732.00	\$0.00	\$0.00	\$0.00		\$732.00	\$0.00	\$0.00	\$732.00
TASKS HOURS TOTAL	9	13	41	9	72				
TASKS TOTAL COST	\$1,647.00	\$3,120.00	\$5,945.00	\$1,494.00		\$8,632.00	\$0.00	\$0.00	\$8,632.00

Exhibit A**Hourly Fee Schedule****Company Name: Jacobs Engineering Group Inc. Date: March 23, 2023**

Title	Year 23	Year 24	Year 25
Principal, Special Business Consultant	\$315	\$324	\$334
Engineer 8	\$280	\$288	\$297
Engineer 7	\$259	\$267	\$275
Engineer 6	\$240	\$247	\$255
Engineer 5	\$209	\$215	\$222
Engineer 4	\$183	\$188	\$194
Engineer 3	\$166	\$171	\$176
Engineer 2	\$145	\$149	\$154
Engineer 1	\$117	\$120	\$124
Planner 1	\$110	\$113	\$117
Technician 6	\$174	\$179	\$184
Technician 5	\$158	\$162	\$167
Technician 4	\$120	\$124	\$128
Technician 3	\$106	\$109	\$112
Technician 2	\$101	\$104	\$107
Technician 1	\$91	\$94	\$97
Clerical	\$98	\$101	\$104
Administrative Assistant	\$109	\$113	\$116
Note: Rates applicable January 1 through December 31 for each year. Labor rates escalation at 3% per year			