

## TASK ORDER

### ENGINEERING DESIGN, PERMITTING, AND BID PHASE FOR REPLACEMENT OF EFFLUENT PUMPS AT THE RICHARD A. HEYMAN ENVIRONMENTAL PROTECTION FACILITY

This TASK ORDER is issued under the terms and conditions of the MASTER AGREEMENT TO PROVIDE GENERAL ENGINEERING SERVICES TO THE CITY OF KEY WEST ("AGREEMENT") between the City of Key West ("CITY") and Jacobs Engineering Group, Inc. ("CONSULTANT") executed on March 29<sup>th</sup>, 2023.

A. SCOPE OF SERVICES

Specific services which the CONSULTANT agrees to furnish are summarized on the "Scope of Services". This Task Order, when executed, shall be incorporated in and shall become an integral part of the AGREEMENT.

B. TIME OF COMPLETION

Start date for this project will be no later than ten days after execution of this authorization. The duration of this TASK ORDER is estimated in sixty (60) weeks.

C. COMPENSATION

Compensation for Labor portion of Task A under TASK ORDER will be on a Lump Sum Basis as stipulated in Article 5, Paragraph 5.1.1 and Labor portion of Task B will be on a Cost Reimbursable (Time and Expenses) basis as stipulated in Article 5, Paragraph 5.1.2 of the AGREEMENT. Compensation for other direct charges will be on Cost Reimbursable basis as stipulated in Article 5, Paragraph 5.2 of the AGREEMENT. The estimated compensation is shown as Attachment A.

D. ACCEPTANCE

By signature, the parties each accept the provisions of this TASK ORDER and authorize the CONSULTANT to proceed at the direction of the CITY's representative in accordance with the "SCOPE OF SERVICES."

For Jacobs Engineering

For City of Key West

 4/23/2025

Jill J. Rankin  
Manager of Projects


Brain L. Barosso  
City Manager

 4/23/2025

Erik Jorgensen, P.E.  
Senior Project Manager

Dated the \_\_\_\_ day of \_\_\_\_\_, 2024.

ATTEST:

Reviewed for Legal Sufficiency:  
Kendal Harden 5/22/25 

## TASK ORDER

### ENGINEERING DESIGN SERVICES FOR REPLACEMENT OF EFFLUENT PUMPS AT THE RICHARD A. HEYMAN ENVIRONMENTAL PROTECTION FACILITY

#### SCOPE OF SERVICES

##### Background

The CITY owns and operates the Richard A. Heyman Environmental Protection Facility (RAHEPF) under Florida Department of Environmental Protection (FDEP) Domestic Wastewater Facility Permit FLA147222. The permit allows for only one method of reuse or disposal of treated water via deep well injection. This disposal method requires effluent pumping prior to discharge and as such the effluent pumps are critical to the operation of the facility. The RAHEPF has three existing effluent pumps, two installed in the early 1990's. The two older effluent pumps are scheduled to be replaced as planned under the CITY's asset management program to support the continued operation of the RAHEPF. In addition to pump replacement, associated discharge manifold piping will be replaced. The exposed portion of the discharge manifold installed at the same time as the effluent pumps and based on visual inspection needs to be replaced. Replacement of the exposed manifold is a part of the work of this project.

The CONSULTANT's proposed scope of work is to prepare construction documents for the removal and replacement of two effluent pumps and associated manifold as well as plans for temporary by-pass pumping to provide continued operation of the facility during construction. The Construction work will include the following:

1. Temporary by-pass pumping and piping.
2. Removal and replacement of two effluent discharge pumps.
3. Removal and replacement of the associated exposed discharge manifold and piping.
4. Replacement of associated electrical conductors needed to provide reliable operation.

##### Task A – Design Documents

###### ***Subtask A.1 –Project Kickoff and Site Visit***

The CONSULTANT will conduct an onsite kickoff meeting at the RAHEPF attended by the CONSULTANT's Project Manager and a Process Mechanical Engineer to complete field observation of existing conditions and to collect information from the field in support of the project.

During the kickoff meeting with the CITY, the scope of work and project schedule will be reviewed as well as an initial data request will be submitted to the CITY. The CONSULTANT will work with the operator of the RAHEPF to obtain flow data and process information needed to support the project.

###### *Deliverables (issued electronically in .pdf format)*

1. Consultant will conduct the following meetings as well as prepare meeting agendas minutes:
  - a. Kickoff Meeting onsite at the RAHEPF.
2. A Request for Information (RFI) to gather the relevant information and other information discussed

during the kickoff meeting.

3. Baseline Project Schedule and Updated Project Schedule.

### ***Subtask A.2 – Intermediate Design Submittal***

The CONSULTANT will advance an intermediate set of drawings to submit to the CITY for review. The CONSULTANT will conduct a virtual design review workshop to obtain comments and input from the CITY.

#### *Deliverables (issued electronically in .pdf format)*

1. Consultant will conduct the following meetings as well as prepare meeting agendas minutes:
  - a. Virtual intermediate design submittal review meeting.
2. Intermediate design drawings.
3. Class 5 AACE International construction cost estimate.

### ***Subtask A.3 – Final Design Submittal***

The CONSULTANT will prepare pre-final design and incorporate the comments received on the intermediate submittal. This deliverable includes the preparation of required pre-final design drawings and technical specifications. The CONSULTANT will conduct a virtual design review meeting with the CITY to obtain comments and input on the pre-final submittal. Consultant has assumed comments on the pre-final submittal will be minor and only minor edits will be needed for submittal of the technical drawings and specifications for advertisement. The CONSULTANT will prepare a Class I Cost Estimate after final comments are obtained.

#### *Deliverables (issued electronically in .pdf format)*

1. Meeting agenda and design review meeting minutes for final submittal.
2. Pre-Final Design Drawings (11" x 17") and Technical Specifications.
3. Class 1 AACE International construction cost estimate.
4. Construction schedule in electronic format (PDF) and one hard copy.
5. Final Design Drawings and Technical Specifications for advertisement.

### ***Subtask A.4 – Permitting Assistance Services***

CONSULTANT will prepare and submit a minor permit modification to FDEP for Domestic Wastewater Treatment Permit No. FLA147222 and conduct a pre-application meeting with FDEP to inform FDEP of the planned replacement of the RAHEPF effluent pumps. The CONSULTANT will respond to FDEP Requests for Additional Information associated with the replacement of the effluent pumps.

#### *Deliverables (issued electronically in .pdf format)*

Permit application for minor permit modification, a pre-application meeting, and responses to additional information request from FDEP relevant to the replacement of the effluent pumps.

## **Task B – Bid Services and Services During Construction**

### ***Subtask B1 – Bid Services***

The CONSULTANT will provide engineering support to assist the CITY during bidding of the project. The services include attendance at a pre-bid meeting and responses to requests for information (RFI) and preparation of an addenda.

### ***Subtask B2 – Limited Construction Phase Engineering Services***

CONSULTANT will provide engineering support to assist the CITY during the construction of the project. The services include the review of submittals and requests for information (RFI), and preparation of record drawings, which are described in more detail below:

1. CONSULTANT'S project manager to attend one (1) pre-construction meeting.
2. CONSULTANT'S project manager to virtually attend construction progress meetings once a month.
3. Review of shop drawings and other data that the Contractor is required to submit. CONSULTANT shall review and approve or take other appropriate action upon Contractor's submittals such as shop drawings, product data and samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents. Reviews shall be completed within 14 calendar days after the package is transmitted electronically by the CITY to the CONSULTANT. It is assumed that the Contractor shall submit complete and timely shop drawings. This scope and fee assume a total of 8 submittals with 4 resubmittals.
4. Provide technical interpretations of the drawings, specifications, and Contract Documents, and evaluate requested deviations from the approved design or specification. This scope and fee assume a total of 12 requests for information (RFIs).
5. Review of Contractor's as-built drawings and preparation of Record Drawings.

The assumed construction duration is approximately 6 months.

*Deliverables (electronically, in pdf format):*

1. Consultants PM attends pre-bid meeting.
2. Responses to questions during bidding.
3. Consultants PM virtually attends pre-construction meeting and monthly construction progress meetings.
4. Responses to submittals and RFIs during construction.
5. Record Drawings.

## **Compensation**

Compensation for Labor portion of Task A in the amount of \$137,922 will be on a Lump Sum basis as stipulated in Article 5, Paragraph 5.1.1 of the Agreement and Labor portion of Task B in the amount of \$61,816 will be on a Cost Reimbursable (Time and Expenses) basis as stipulated in Article 5, Paragraph 5.1.2 of the AGREEMENT. Compensation for other direct charges will be on Cost Reimbursable basis as stipulated in Article 5, Paragraph 5.2 of the AGREEMENT. Estimated other direct charges include an allowance for permit fees up to \$750 and an allowance for reimbursement of travel expenses up to \$9,058. The breakdown of the total estimated compensation in the amount of \$209,546 is provided in Attachment A.

## Schedule

The design Phase may begin within ten days from the NTP. Periods of performance shown below are assumed to run consecutively, with the Kick-off meeting occurring within two weeks of receiving NTP.

Task Name	Task Start (wk)	Task End (wk)	Task Duration (wk)
<b>Task A – Design Documents</b>			
Subtask A.1 – Kickoff Meeting and Site Visit	1	3	3
Subtask A.2 – Intermediate Design Submittal	4	12	9
CITY review and CONSULTANT Review Meeting	13	14	1
Subtask A.3 (A) – Pre-Final Submittal	15	22	8
CITY review and CONSULTANT Review Meeting	23	24	1
Subtask A.3 (B) – Final Submittal	25	26	1
Subtask A.4 – Permitting	15	26	12
<b>Task B – Bid Services and Services During Construction</b>			
Subtask B.1 – Bid Services	30	33	4
Subtask B.2 – Limited Engineering Services During Construction	37	60	24

The estimated project duration includes approximately 26 weeks for preparation of plans and 28 weeks for bid services and limited engineering services during construction. Time for City processing and authorizations before and after authorization are assumed to be 8 weeks, resulting in a total estimated duration of 60 weeks.

## Assumptions

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

1. CONSULTANT will reasonably rely upon the accuracy, timeliness, and completeness of the information/data provided by the CITY or other third parties without independent verification. Additional effort by CONSULTANT due to invalid data or information provided by the CITY or others, may entitle CONSULTANT to additional compensation.
2. The project is a straightforward replacement in-kind of two effluent pumps with the same capacity as existing pumps. The CONSULTANT will assume that the current system is adequate for current and future needs and does not need to review pump sizing other than to satisfy current operating conditions.

The CONSULTANT will not perform a capacity assessment nor hydraulic modeling. Further, minimal instrumentation and control changes are anticipated as part of project delivery.

3. Existing electrical power and distribution system as well as variable frequency drives (VFDs) will not be replaced other than conduits and conductors originating from the VFD to field equipment.
4. Replacement of the discharge manifold under this phase of construction will be limited to exposed piping. No replacement of below grade piping is intended at this time. The need for survey and subsurface utility engineering can thus be excluded. These services can be added either through amendment or under a separate authorization.
5. The Contractor will be responsible for the design of the temporary by-pass system to allow for shutdown of the existing effluent pumps and discharge manifold. The CONSULTANT will prepare a performance specification for temporary by-pass pumping.
6. Existing utilities have been constructed in accordance with provided record documentation. Design of existing structures complied with governing codes at time of original design, not necessarily the current ones.
7. The design documents will be prepared for a single construction contract. Further, the CITY will construct the work under a single construction contract. If the City desire multiple solicitations for construction, this can be accomplished by amending this TO or issuing a separate authorization. If the CITY defers installation of an effluent pump to a later solicitation, there is a risk that available pumps suppliers and models could change resulting in a need to revise the design. The revision of plans under this circumstance is not included within the proposed scope of work.
8. CONSULTANT standard specifications will be used for this project. Technical specifications will follow the Construction Specifications Institute numbering system (Divisions 1- 49). CITY will provide the Division 0.
9. CITY will prepare front-end documents for advertisement. The CONSULTANT's submittal requirement is limited to technical plans and specifications. The CONSULTANT shall use a standard set of Division 1 specifications with minimal customization.
10. CITY will reproduce and distribute the contract bidding documents and addenda, maintain the plan holders list, tabulate bids, and make award recommendations.
11. The design, installation and construction of a temporary flow bypass is the Contractor's responsibility. CONSULTANT services will provide a conceptual design taking into consideration space constraints and temporary pipe routing.
12. In providing opinions of cost, financial analyses, economic feasibility projections, for the project, CONSULTANT has no control over cost or price of labor and materials; unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by operating personnel or third parties; and other economic and operational factors that may materially affect the ultimate project cost or schedule. Therefore, CONSULTANT makes no warranty that CITY's actual project costs, financial aspects, economic feasibility, will not vary from CONSULTANT'S opinions, analyses, projections, or estimates and the CONSULTANT shall have no liability for such variances.
13. The CITY will be responsible to provide full time on-site inspection during construction and start-up activities, prepare daily diaries and maintain document control for all construction documents. CONSULTANT will receive copies of these diaries. CITY shall be responsible for keeping submittal and RFI logs as well as preparation of construction progress meeting minutes.
14. The presence or duties of CONSULTANT personnel at a construction site, whether as onsite representatives or otherwise, do not make CONSULTANT or CONSULTANT'S personnel in any way responsible for those duties that belong to CITY and/or the construction contractors or other entities, and do not relieve the construction contractors or any other entity of their obligations, duties, and responsibilities, including, but not limited to, all construction methods, means, techniques, sequences,

and procedures necessary for coordinating and completing all portions of the construction work in accordance with the construction Contract Documents and any health or safety precautions required by such construction work.

15. CONSULTANT AND CONSULTANT'S personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions and have no duty for inspecting, noting, observing, correcting, or reporting on health or safety deficiencies of the construction contractor(s) or other entity or any other persons at the site except CONSULTANT'S own personnel.
16. The presence of CONSULTANT'S personnel at a construction site is for the purpose of providing to CITY a greater degree of confidence that the completed construction work will conform generally to the construction documents and that the integrity of the design concept as reflected in the construction documents has been implemented and preserved by the construction contractor(s). CONSULTANT neither guarantees the performance of the construction contractor(s) nor assumes responsibility for construction contractor's failure to perform work in accordance with the construction documents.

## **Exclusions from the Scope of Services**

The following are not included in the proposed scope of services and thus are excluded from this TO:

1. Survey services including topographic and sub-surface utility engineering (SUE).
2. CONSULTANT produced Operations and Maintenance manuals are not included in this scope of services.
3. Review of pay applications and change order requests are not included in this scope of work.
4. Construction Inspections are not included in this scope of work.
5. Environmental site assessments or environmental mitigation services are not included in this scope of work.

**ATTACHMENT A**  
**ESTIMATED LEVEL OF EFFORT**  
**ENGINEERING DESIGN, PERMITTING, AND BID PHASE FOR REPLACEMENT OF EFFLUENT PUMPS**  
**THE RICHARD A. HEYMAN ENVIRONMENTAL PROTECTION FACILITY**

	STAFF CLASSIFICATIONS					Total Hours	Fee
	Eng 7	Eng 5	Eng 4	Tech 4	Clerical/Office Support		
Tasks \ Rates	\$275.00	\$222.00	\$194.00	\$128.00	\$113.00		
Task A - Design Documents							
Subtask A1 - Project Kickoff/Site Visit/Data Request	26	12	36	0	2	76	\$ 17,024
Subtask A2 - Intermediate Submittal	38	58	112	136	4	348	\$ 62,914
Subtask A3 - Final Submittal	40	52	80	96	4	272	\$ 50,804
Subtask A4 - Permitting Assistance	20	0	4	0	8	32	\$ 7,180
Subtotal	124	122	232	232	18	728	\$ 137,922
Task B - Bid Services and Services During Construction							
Subtask B1 - Bid Services	12	12	20	0	6	50	\$ 10,522
Subtask B2 -Limited Engineering Support During Construction	26	86	98	26	24	260	\$ 51,294
Subtotal	38	98	118	26	30	310	\$ 61,816
Total Hours	162	220	350	258	48	1,038	
Labor Fee	\$ 44,550	\$ 48,840	\$ 67,900	\$ 33,024	\$ 5,424		\$ 199,738
Allowance for Permit Fees						\$	750
Allowance for Travel Expenses						\$	9,058
Total Esitmated Fee						\$	209,546