

TASK ORDER 11-11 STM

ENGINEERING SERVICES FOR THE RE-DESIGN, PERMITTING AND BID PHASE SERVICES FOR THE STORMWATER PUMP STATION AND OUTFALL SYSTEM FOR GEORGE STREET DRAINAGE AREA

This TASK ORDER 11-11 STM is issued under the terms and conditions of the MASTER AGREEMENT TO FURNISH GENERAL ENGINEERING SERVICES TO THE CITY OF KEY WEST ("AGREEMENT") between the City of Key West ("CITY") and CH2M HILL Engineers, Inc. ("ENGINEER") executed on September 18, 2007, which is incorporated herein by this reference.

A. SCOPE OF SERVICES

Specific services which the ENGINEER agrees to furnish are summarized on the attached statement entitled TASK ORDER 11-11 STM "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 September 18, 2007, 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. Work may be performed at any time as requested by the CITY within 12 months after the date of execution of this Task Order, at which time the Task Order will expire.

C. COMPENSATION

Compensation for TASK ORDER 11-11 STM, Tasks A will be on a lump sum fee basis as stipulated in Article 2, Paragraph 2.1 of the AGREEMENT. Compensation for Tasks B, C and all expenses will be on a Cost Reimbursable-Per Diem basis as stipulated in Article 2, Paragraph 2.2 of the AGREEMENT. The estimated compensation is shown on the attached statement entitled TASK ORDER 11-11 STM COMPENSATION.

D. ACCEPTANCE

By signature, the parties each accept the provisions of this TASK ORDER 11-11 STM, and authorize the ENGINEER 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 ten (10) days after execution of this authorization.

For CH2M HILL Engineers, INC.

For CITY OF KEY WEST

By: _____
Bill Beddow
South Florida Area Manager

By: _____
Jim Scholl
City Manager

Andrew H. Smyth, P.E.
Key West Office Manager

Dated the ____ day of _____, 20__

ATTEST: _____

TASK ORDER 11-11 STM
**ENGINEERING SERVICES FOR THE RE-DESIGN,
PERMITTING, AND BID PHASE SERVICES FOR THE
STORMWATER PUMP STATION AND OUTFALL SYSTEM
FOR GEORGE STREET DRAINAGE AREA**

SCOPE OF SERVICES

Project Description

The City of Key West (CITY) has received Federal Emergency Management Agency (FEMA) hazard mitigation grant program (HMGP) funding (HMGP DR-1609-110-R) to address stormwater flooding in the George Street basin area in Key West, Florida. There are multiple low lying areas within the existing gravity drainage system that flood during rain events. The CITY would like to construct a pump station that would alleviate flooding during these rain events. The pump station would be connected to the existing stormwater gravity system and would operate when stormwater reaches a predetermined elevation in the existing gravity system.

The new stormwater pump station includes an upstream sediment removal structure, a permanent stand-by generator elevated above the 100 year flood elevation, two (2) 120 foot injection wells and an emergency outfall system consisting of a force main and outfall.

As part of the grant the City was required to develop a Benefit Cost Analysis (BCA) of the project. FEMA has completed their review of the BCA and has determined that they would grant additional funding for the construction phase of the project.

During the design of the project the City and Monroe County School District (MCSD) met to discuss the installation of the emergency force main being routed through the Horace O'Byrant (HOB) school property as well as constructing the generator within the school property. Due to changes in the design and construction of the HOB project, the force main can no longer be routed through the school property.

The City is currently looking at a potential alternate route of the 30" emergency outfall pipe to be installed along Catherine Street, through the existing Leon Street easement and connecting to the outfall that has been previously designed and permitted. Additionally, the City intends to request an easement from MCSD to install the generator inside HOB property at the end of Ashby Street.

Since the required permits for this project have been issued by the regulatory agencies, the re-design of the emergency outfall pipe and generator locations will require a re-permitting effort. Also, FEMA requires a review of the revised documents prior to issuing the construction phase funding.

Purpose

The CITY has requested that the ENGINEER provide engineering services for the re-design, permitting and bid phase services for the stormwater pump station and outfall system for the George Street drainage basin.

Scope of Services

The scope of services provided below addresses the work to be completed for the project; and includes Task A (Re-Design), Task B (Permitting) and Task C (Bid Phase Services). The scope of work for this project will result in the following deliverables:

- A complete set of signed and sealed construction drawings and specifications
- Updated construction cost estimates.
- Updated FEMA Benefit Cost Analysis (BCA)
- Copies of updated/revised permits.
- Bid Phase Services

Task A - Re-Design

The Engineer will provide data collection, field investigations, hydraulic modeling and evaluations sufficient to provide a detailed report to be used to meet the requirements of the FEMA grant.

A.1 Field Survey and Geotechnical

The Engineer shall retain a professional land surveyor to conduct a survey of the proposed alternate emergency pipeline route. The surveyor will provide a detailed route survey for the modified outfall piping which is assumed to start at the intersection of Ashby and Catherine Street, then along Catherine Street and north through the existing Leon Street easement and onto the City of Key West Police Station facility. The surveyor will obtain detailed information on the invert and size of the existing outfall. The surveying shall be based on a maximum of 600 feet.

The survey shall also show all physical features within and immediately adjacent to the street rights-of-way, as well as rights-of-way lines, easements and elevations of accessible storm water and sanitary sewers. All horizontal coordinates shall be in U.S. Survey feet and reflect a projection of grid coordinates in the State of Florida Plane coordinate System Transverse Mercator-West Zone, NAD 1983-1990. All vertical elevations shall be in feet referenced to NGVD 29.

An allowance of \$6,500 is included as part of this task to cover the cost of retaining a professional land surveyor.

The Engineer will also obtain the services of a geotechnical sub-consultant to conduct a geotechnical investigation along the proposed route. The investigation will include the installation of two (2) Standard Penetration Test (SPT) (ASTM D-1586) borings to twenty (20) feet below land surface (bls). The boring will not be terminated in very loose or deleterious material. Sieve analyses will be conducted on soil samples collected from split spoon samples taken from the borings.

The Engineer and geotechnical sub-consultant will prepare a geotechnical report documenting the results of the geotechnical field investigation. The report will include a

discussion of field procedures, boring logs, soil test data, and maps indicating the locations of all borings.

An allowance of \$5,000 is included as part of this task to cover the cost of retaining a geotechnical sub consultant.

Deliverables

- Four (4) signed and sealed copies of the topographic map for distribution to City staff and FEMA.
- Four (4) signed and sealed copies of the geotechnical report for distribution to City staff and FEMA.

A.2 Final Design (Re-Design)

During this subtask, the ENGINEER will finalize the design documents based on the proposed project modifications. At the end of this subtask the design documents will be considered complete and ready for bidding.

Specific work activities in this task are identified below:

- Finalize re-design including;
 - Design of Alternate Force Main route along Catherine Street, Leon Street easement, terminating at the previously design outfall at Jose Marti pond.
 - Relocation of elevated generator assumed to be within MCSD property, including retaining wall system and revised platform design.
 - Incorporation of previously designed stormwater infrastructure that has been constructed under a separate City project.
 - Prepare legal and technical specifications, contract documents, including Bid Form, Notice to Bidders, General and Supplemental Conditions, Bond Forms, etc.
- Prepare Revised Bid Documents
- Based on revised documents, prepare updated final construction cost estimate
- Conduct 90% review meeting and incorporate review comments from City into design documents, and submit final contract documents to the CITY

Deliverables

- Two (2) copies: Final construction cost estimate
- Eight (8) copies: Final Contract Documents, including drawings and specifications and one (1) CD of Contract Documents in PDF format for uploading to DemandStar.

A.3 Updated FEMA Engineering Report

During this subtask, the ENGINEER will update the existing Engineering Report that has been previously delivered to FEMA. The updated report will include the revised construction cost information and associated Benefit Cost Analysis (BCA) information to allow FEMA to determine the feasibility of the project. The BCA is the document FEMA utilizes to determine Phase II grant money for the construction of the project.

Deliverables

- Five (5) signed and sealed copies of the revised report and 1 electronic copy (PDF format).

Task B - Permitting

The ENGINEER will re-submit the revised design documents to the permitting agencies to obtain any required permit modifications and approvals required from the following State, Federal and Local agencies, as applicable:

- Environmental Resource Permit from the South Florida Water Management District (SFWMD).
- Dewatering Permit from the South Florida Water Management District (SFWMD).
- Construction Permit from US Army Corps of Engineers (USACE).
- ENGINEER will provide signed and sealed plans, specifications and calculations for each permit

An allowance of \$1,000 is included as part of this task to cover permit application fees.

Deliverables

- Two (2) copies: Final permit applications with attachments
- Two (2) copies of any correspondence letters to/from regulatory agencies.

Task C - Bid Phase Services

Bidding services are based on a Bid Period of 30 days. The ENGINEER will provide the following services to the CITY to assist in the bidding process:

- Provide copies of the contract documents and distribute such documents to the CITY
- Coordinate with CITY to provide contract documents to DemandStar for bidding.
- All direct communications with bidders on matters related to the technical aspects of the design will be handled directly by the ENGINEER.
- Coordinate and conduct one pre-bid meeting to familiarize each bidder with the scope of work and to answer any questions that may arise.

- Issue ADDENDA, if required
- Bids will be received, opened, and read aloud by the CITY at the designated time and location.
- Review and evaluate bids for compliance and completeness. The engineer will prepare an award letter for the CITY recommending the successful bidder.
- After award, the ENGINEER will distribute to the successful contractor six sets of contract documents for execution. The contractor will be directed to return the documents to the ENGINEER for compliance review of the bidding requirements. After the ENGINEER reviews the contract documents, these six sets of documents will be sent to the CITY for final review and signatures.
- Prepare conformed contract documents for use by CITY, ENGINEER, and Contractor during construction.

Bid services will be considered complete upon the ENGINEER's review and forwarding of the Contractors executed documents to the CITY, and submittal of conformed documents to the CITY.

Bid Phase Deliverables

- Two (2) copies of Pre-bid meeting minutes
- Two (2) copies of Recommendation of award letter
- Six (6) copies of Contract Documents for execution
- Four (4) copies of Conformed Contract Documents and one (1) set full size drawings

Assumptions

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

- Design, Permitting and bidding work on this project will be completed by the end of 2011.
- Meetings will be held in Key West and attended by up to two (2) consultant's staff, additional consultants staff may attend via conference call.
- Consultants and City's QC reviews will occur concurrently in order to meet schedule.
- The design 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.
- The design of the force main will be based on "open cut" construction. Design for directional drilling methods is not included in this scope of work.
- The design documents will be prepared for a single construction contract.
- No land costs shall be included in cost estimating for the project. It will be assumed that all projects can be located 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 from Monroe County School District for the stormwater pump station generator site.
- FDEP Class V well permits will be obtained by awarded construction contractor (Florida State licensed well driller)
- Consultant assumes permitting activities can be completed in 90 days. If major design changes are required based on revised permitting requirements additional funds may be required.
- The City will coordinate and implement all Public involvement and FEMA activities.
- Bid phase services are based on a 30 day bid period and assume up to three (3) addenda will be issued. All bid documents and addenda will be provided in electronic format for uploading to DemandStar by City.
- The contract will be awarded after the first bidding process. Re-bidding will be considered as an “Additional Service”.
- Any labor and expenses required to address construction claims, unforeseen subsurface considerations or additional construction time requested by the CONTRACTOR or OWNER will be considered as “Additional Services”.

Obligations of the CITY

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

- The CITY will provide all legal, easement, or plat survey and/or acquisitions required for additional property necessary to complete the project.
- Prompt review and comment on all deliverables. Review comments shall be submitted back to the Consultant within one week of deliverable.
- Facilitate access to any required facilities.
- Attendance of key personnel at meeting as requested.
- Obtain easement from Monroe County School District for stormwater pump station generator. A description of the legal easement will be provided by the surveyor under separate task.
- The City will coordinate and implement all Public involvement and FEMA activities.
- The CITY will be responsible for full-time resident observation.

Additional Services

The ENGINEER 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. Additional services may include, but are not limited to, the following:

- Additional design services if requested by the City
- Participation in any Public involvement or meetings.
- Additional permitting involving agencies other than the those listed under Task B
- Re-bidding any, or all, portions of this project including preparation of changes to the project because of causes external to performance of detailed design, such as changes in bid climate, equipment and material costs
- Construction Phase Services

Compensation

The estimated compensation for TASK ORDER 11-11 STM is shown on Attachment A entitled TASK ORDER 11-11 STM, COMPENSATION.

Attachment A
COMPENSATION

TASK ORDER 11-11 STM COMPENSATION

Engineering Services for the Re-design, Permitting and Bid Phase Services for the Stormwater Pump Station and Outfall System for the George Street Drainage Area

Task	Hours	Labor	Expenses	Total Cost
Task A - Design	308	\$35,552	\$13,000	\$48,552
Task B - Permitting	66	\$7,580	\$1,500	\$9,080
Task C - Bid Phase	102	\$11,762	\$500	\$12,262
Total	476	\$54,894	\$15,000	\$69,894

COMPENSATION BREAKDOWN

Task Order 11-11 STM

TASK NO.	TASK DESCRIPTION	HOURLY RATE	TOTAL HOURS	LABOR	EXPENSES	TOTAL COST
A Re-Design						
	Principal PM/Technologist	\$ 172.00	14	\$2,408		\$2,408
	Sr. Project Manager	\$ 158.00	12	\$1,896		\$1,896
	Project Manager	\$ 148.00	48	\$7,104		\$7,104
	Project Engineer	\$ 122.00	118	\$14,396		\$14,396
	Tech 5	\$ 103.00	20	\$2,060		\$2,060
	Tech 4	\$ 93.00	40	\$3,720		\$3,720
	Editor	\$ 84.00	24	\$2,016		\$2,016
	Sr. Project Assistant	\$ 63.00	24	\$1,512		\$1,512
	Clerical	\$ 55.00	8	\$440		\$440
	TRAVEL (1) - 2 Day trips to KWF				\$1,100	\$1,100
	SUB-CONSULTANT				\$11,500	\$11,500
	PRINTING/REPROGRAPHICS/SHIPPING				\$400	\$400
Hydraulic Evaluation and Report SUBTOTAL			308	\$35,552	\$13,000	\$48,552
B Permitting (T&M)						
	Principal PM/Technologist	\$ 172.00	10	\$1,720		\$1,720
	Sr. Project Manager	\$ 158.00	0	\$0		\$0
	Project Manager	\$ 148.00	6	\$888		\$888
	Project Engineer	\$ 122.00	26	\$3,172		\$3,172
	Tech 5	\$ 103.00	8	\$824		\$824
	Sr. Project Assistant	\$ 63.00	12	\$756		\$756
	Clerical	\$ 55.00	4	\$220		\$220
	PERMITTING FEES				\$1,000	\$1,000
	PRINTING/REPROGRAPHICS/SHIPPING				\$500	\$500
Detailed Design SUBTOTAL			66	\$7,580	\$1,500	\$9,080
C Bid Phase (T&M)						
	Principal PM/Technologist	\$ 172.00	10	\$1,720		\$1,720
	Project Manager	\$ 148.00	24	\$3,552		\$3,552
	Project Engineer	\$ 122.00	24	\$2,928		\$2,928
	Tech 5	\$ 103.00	14	\$1,442		\$1,442
	Technical Editor/Spec Processor	\$ 84.00	14	\$1,176		\$1,176
	Sr. Project Assistant	\$ 63.00	8	\$504		\$504
	Clerical	\$ 55.00	8	\$440		\$440
	PRINTING/REPROGRAPHICS/SHIPPING				\$500	\$500
Permitting SUBTOTAL			102	\$11,762	\$500	\$12,262
PROJECT TOTALS						
	TOTAL HOURS		476			
	TOTAL FEE ESTIMATE			\$54,894	\$15,000	\$69,894

Attachment B
SCHEDULE

City of Key West
 George Street Stormwater
 Project
 Estimated Project
 Schedule/Durations

Date: June 22, 2011

