

CONSULTANT SERVICES AUTHORIZATION NO. 05
Palm Beach County Water Utilities Department
Contract for Consulting / Professional Services – Wastewater Engineering Services
Resolution # R2017-0813 Contract Dated: June 20, 2017

Project Title: Southern Region Water Reclamation Facility (SRWRF) – Blower Replacement and Design Build Criteria Report Preparation

WUD Project No.: 18-067

Consultant: Brown and Caldwell (Corporation)

Address: 1475 Centrepark Boulevard, Suite 210, West Palm Beach, Florida 33401

Budget Line Item No. 4011 – 721 - W010 - 6545

District No.: 5

This Consultant Services Authorization (CSA) provides for services related to the preparation of preliminary design and Design Build Criteria report for the replacement of blower capacity at SRWRF. The preliminary design will be incorporated into the Design Build Criteria report. PBCWUD intends to utilize one of its Design-Build (DB) General Contractors to complete the design and implement the project. Consequently, the Design Build Criteria report is intended to refine the concept and project requirements while preserving adequate flexibility for the DB contractor. An engineer's opinion of probable construction cost will be included as part of the report.

(See ATTACHMENT A for detailed scope of services)

The Contract provides for 26.00% SBE participation. This Consultant Services Authorization includes 14.86% overall participation. The cumulative SBE participation, including this authorization is 24.31 %.

1. Services completed by the Consultant to date: **See ATTACHMENT B.**
2. Consultant shall begin work upon receipt of Notice to Proceed correspondence.
3. The compensation to be paid to the Consultant for providing the requested services shall be:
 - A. Computation of time charges plus expenses, not to exceed \$ 137,906.29
 - B. Fixed price of \$ N/A
 - C. Total \$ 137,906.29

CONSULTANT SERVICES AUTHORIZATION NO. 05
Palm Beach County Water Utilities Department
Contract for Consulting / Professional Services – Wastewater Engineering Services
Resolution # R2017-0813 Contract Dated: June 20, 2017

Project Title: Southern Region Water Reclamation Facility (SRWRF) – Blower Replacement and Design Build Criteria Report Preparation

Project No. WUD: 18-067

4. This Authorization may be terminated by the County without cause or prior notice. In the event of termination not the fault of the Consultant, the Consultant shall be compensated for all services performed through the date of termination, together with reimbursable expenses (if applicable) then due.
5. SBE participation is included in **ATTACHMENT C** under this Authorization. The attached Schedule 1 defines the SBE applied to this Authorization and Schedule 2 establishes the SBE contribution from each Sub-Consultant (Letter of Intent to perform as an SBE).
6. This Authorization does not amend, change, or modify the Contract dated **June 20, 2017** which remains in full force and effect.
7. All Attachments to this Authorization are incorporated herein and made a part of this Consultant Services Authorization.

CONSULTANT SERVICES AUTHORIZATION NO. 05
Palm Beach County Water Utilities Department
Contract for Consulting / Professional Services – Wastewater Engineering Services
Resolution # R2017-0813 Contract Dated: June 20, 2017

Project Title: Southern Region Water Reclamation Facility (SRWRF) – Blower Replacement and Design Build Criteria Report Preparation

Project No. WUD: 18-067

IN WITNESS WHEREOF, this Authorization is accepted, subject to the terms, conditions and obligations of the aforementioned Contract.

PALM BEACH COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA

Sharon R. Bock, Clerk & Comptroller,
Palm Beach County

Palm Beach County,
Board of County Commissioners

ATTEST:

Signed: _____

Signed: _____
Melissa McKinlay, Mayor

Typed Name: _____
Deputy Clerk

Date _____ *JES*

Approved as to Form and Legal Sufficiency

CONSULTANT:

Signed: _____

(Signature)

Typed Name: _____
County Attorney

Albert Perez, Vice-President
(Name and Title)

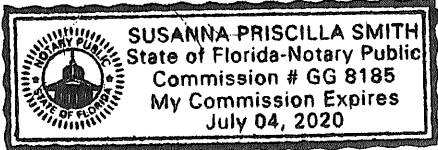
8-6-18
Date

STATE OF FLORIDA
COUNTY OF Palm Beach

The foregoing instrument was acknowledged before me this 6th day of August, 2018,

by Albert Perez as Vice President

for Brown and Caldwell



Susanna Priscilla Smith
(Signature of Notary Public - State of Florida)

(Print, Type, or Stamp Commissioned Name of Notary Public)

Personally Known OR Produced Identification _____ Type of Identification Produced _____

CERTIFICATE OF SECRETARY
OF
BROWN AND CALDWELL,
A CALIFORNIA CORPORATION

I, the undersigned, do hereby certify that:

1. I am the duly elected and acting Secretary of Brown and Caldwell, a California corporation, and am keeper of the corporate records and seal of said corporation.
2. At the annual meeting of the Board of Directors on February 1, 2018, the following resolution was adopted:

BE IT RESOLVED that appointment of the individuals, whose names appear on the attached list titled Brown and Caldwell Directors and Officers with Signature Authority - January 2018, to the offices indicated is approved and ratified effective January 1, 2018, unless otherwise indicated; and

BE IT FURTHER RESOLVED that said individuals are appointed to hold the office indicated at the pleasure of the Board of Directors of this corporation until the next annual meeting of the Board of Directors of this corporation or until his/her respective successor is elected or qualified, or until his/her earlier resignation; and

BE IT FURTHER RESOLVED that these individuals are authorized to financially commit the corporation in accordance with the Company procedures and policies within his/her respective area of responsibility or as stated in the Bylaws.

3. Albert Perez is a Vice President of Brown and Caldwell, is so identified in the February 1, 2018, resolution referenced above, and in that capacity, is duly authorized to financially commit the corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Corporation this 30th day of May, 2018.



SIGNED:

A handwritten signature in black ink, appearing to read "R. D. Goodson", written over a horizontal line.

ROBERT D. GOODSON, Secretary

(SEAL)

**BROWN AND CALDWELL
A CALIFORNIA CORPORATION**

CORE OFFICERS

Richard M. D'Amato	Chief Executive Officer, President	1527 Cole Boulevard, Suite 300 Lakewood, CO 80401
Craig Goehring	Executive Chairman, Board of Directors	201 N. Civic Drive Walnut Creek, CA 94596
Sharon Stecker	Senior Vice President	2 Park Way, Suite 2A Upper Saddle River, NJ 07458
Amy E. Fairbank	Senior Vice President, Treasurer	1527 Cole Boulevard, Suite 300 Lakewood, CO 80401
Robert D. Goodson	Senior Vice President, Secretary	201 N. Civic Drive Walnut Creek, CA 94596

DIRECTORS

Craig Goehring	Executive Chairman, Board of Directors	201 N. Civic Drive Walnut Creek, CA 94596
Richard M. D'Amato	Chief Executive Officer, President	1527 Cole Boulevard, Suite 300 Lakewood, CO 80401
Sharon Stecker	Senior Vice President, Director	2 Park Way, Suite 2A Upper Saddle River, NJ 07458
Louis M. Miramontes	Director	201 N. Civic Drive Walnut Creek, CA 94596
Russell J. Harrison	Director	201 N. Civic Drive Walnut Creek, CA 94596
Charles W. Reese	Director	201 N. Civic Drive Walnut Creek, CA 94596

LIST OF ATTACHMENTS

CONSULTANT SERVICES AUTHORIZATION NO. 05
Palm Beach County Water Utilities Department
Contract for Consulting / Professional Services – Wastewater Engineering Services
Resolution # R2017-0813 Contract Dated: June 20, 2017

ATTACHMENT - A	Scope of Services
ATTACHMENT - B	Summary and Status of Authorizations
ATTACHMENT - C	SBE Schedule 1 and 2
ATTACHMENT - D	Project Schedule
ATTACHMENT - E	Budget Summary
ATTACHMENT - F	Summary of SBE/Minority Business Tracking
ATTACHMENT - G	Location Map

Revised 6-14-18

ATTACHMENT A

SCOPE OF SERVICES

Project No. WUD 18-067

Project Title: Southern Region Water Reclamation Facility (SRWRF) – Blower Replacement and Design Build Criteria Report Preparation

CONSULTANT shall perform:

INTRODUCTION

Palm Beach County (COUNTY) entered into an agreement entitled Contract for Engineering/ Professional Services - Palm Beach County Water Utilities Department Project No. WUD 17-002 (CONTRACT) with Brown and Caldwell (CONSULTANT) to provide engineering services in support of its wastewater system (Reference Document R2017-0813). This Consultant Service Authorization will be performed under that CONTRACT.

This Consultant Services Authorization (CSA) encompasses providing services related to the preparation of a preliminary engineering design and design build criteria report for the replacement of blower capacity at the Southern Region Water Reclamation Facility (SRWRF).

BACKGROUND

Process air at the SRWRF is delivered through three 400 hp multi-stage centrifugal blowers located in Blower Building No.1 and two 700 hp single-stage blowers manufactured by Turblex in Blower Building No.2. An assessment of blower facility improvement needs was conducted as part of the Phase II Improvements Planning Level Validation Task 2 and Task 3 – Improvements Evaluation Technical Memorandum (IETM) (August 8, 2016, Hazen & Sawyer). That assessment recommended reliability improvements to address frequently recurring maintenance requirements for one of the 400 hp multi-stage blowers (Blower No.3) in Blower Building No.1 and risks associated with deferred maintenance on the single-stage blowers (Turblex) in Blower Building No.2. Concerns with the Turblex blowers arise due to their proprietary and complex technologies and the challenges associated with the negotiation of a maintenance service agreement with terms that are acceptable to the COUNTY. To address these concerns, the study recommended replacement of Blower No.3 (in Blower Building No.1) with a larger (600 hp) multi-stage blower and addition of a similarly sized multistage blower in the spare slot in Blower Building No.2. Under this approach, the two 700 hp single-stage Turblex blowers would be retained for redundancy and, possibly, later replaced with multi-stage blowers sized to meet future capacity needs. This previously recommended approach is referred to below as the Baseline Approach.

At the request of the Water Utilities Department (WUD), this engineering evaluation will confirm the blower sizing, make preliminary selections, and consider a Modified Approach that similarly replaces Blower No.3 with a larger multi-stage blower and evaluates the options to add a fourth multi-stage blower in Blower Building No.1. The Modified Approach would provide four duty blowers, two 400 hp and two new multi-stage blowers in Blower Building No.1. Under this arrangement, the connected duty load in Blower Building No.1 will increase by 800 hp if implemented per the recommendations of the 2016 IETM. The feasibility of this alternative

Revised 6-14-18

approach will depend in large part on the capacity of the electrical system in Blower Building #1 to accommodate the increased electrical load.

Consequently, an assessment of electrical capacity expansion needed to support the proposed arrangements is required. This analysis consists of the following primary objectives:

1. Assess electrical requirements for implementation of the Baseline and Modified blower location alternatives.
2. Develop 30% preliminary design and associated design criteria for the recommended alternative to define the scope of project requirements to be designed and delivered by others. (See Task 3 below)

SPECIAL CONSIDERATIONS

1. The Baseline Approach defined in the August 2016 IETM will be relied upon for characterization alternative, subject to validation defined herein.
2. The Design Build Criteria Report will define project requirements at a 30% percent level of design as a basis for setting performance specifications for use in defining the design builder's scope and contractual performance requirements.
3. PBCWUD intends to utilize one of its Design-Build (DB) Contractors to complete the design and implement the project. Consequently, the design development is intended to refine the concept and project requirements while preserving adequate flexibility for the DB contractor. The DB Contractor will be the Engineer of Record.

SCOPE OF SERVICES

CONSULTANT shall perform the Engineering Scope of Services as described herein. The proposed services will include the following tasks, organized into two parts:

Part 1 – Establish Requirements and Select Recommended Approach

- Preliminary Activities and Project Management (Task 1)
- Confirm Process Requirements (Task 2)

Part 2 – Preliminary Engineering Definition of Recommended Alternative

- Prepare Design Build Criteria Report /Preliminary Design (Task 3)

PART 1 – ESTABLISH REQUIREMENTS AND SELECT RECOMMENDED APPROACH

The tasks included in this part will provide for verification of process requirements, and assessment of the adequacy of the space available for blower installation for the Baseline and Modified alternative locations. The selection of the recommended approach will be based on qualitative considerations.

Task 1 – Preliminary Activities and Project Management

CONSULTANT shall perform the following activities:

- 1.1 Perform general project coordination and administration activities including correspondence with the COUNTY, quality management, progress reporting, two (2) monthly meetings, and invoicing.
- 1.2 Prepare and submit an information request log sheet within 3 days of notice to proceed.

Revised 6-14-18

COUNTY shall furnish readily available information prior to the kickoff meeting to facilitate initial review and clarifications during the meeting.

- 1.3 Prepare for and attend a project kickoff meeting. The kickoff meeting will be held at the SRWRF site. An inspection of the blower facilities by electrical and process mechanical disciplines will be conducted in coordination with the meeting.

Deliverables:

- Information request log
- Kick-off meeting agenda and minutes

Task 2 – Confirm Process Requirements

Task Objective: The purpose of this task is to assess air delivery system capacity requirements under minimum, average and maximum requirements relative to historical and potential future flow and organic loads.

Activities: Specific field investigation and related activities include:

- 2.1 Review and document historical flow, loadings and process air use for the past three years along with future projected loads and permit requirements, all as provided to the CONSULTANT by the COUNTY. The CONSULTANT will utilize data provided by the COUNTY to estimate a range of process aeration requirements for blower sizing.
- 2.2 Existing BioWin models of the plant will be reviewed and assessed relative to projected process aeration requirements. It is assumed herein that existing BioWin model runs are available for existing and future flow and loading conditions. Loading and flow data used in the prior models will be compared to the findings from Task 2.1, above. The addition of swing zones will be assessed to determine the impact on process air requirements for existing and future conditions. These analyses will provide a range of process aeration requirements for existing and future flows and loadings under the current process train arrangement with and without swing zones in the activated sludge unit process.
- 2.3 Assess adequacy of electrical service/substation transformer to support expanded power demand from each blower location alternative. Evaluate space requirement and adequacy of available space to accommodate the additional electrical gear required to support the addition of a fourth duty blower in Blower Building #1.
- 2.4 Develop qualitative considerations to assess the relative efficacy of the Baseline and Modified approaches that will serve as a basis for developing a recommended approach. Findings and considerations will be summarized in a PowerPoint presentation.
- 2.5 Prepare a Class V Opinion of Probable Construction Cost (OPCC) as defined by the Association for the Advancement of Cost Estimating (AACE) International for Baseline and Modified approaches.
- 2.6 Present findings of this analysis at a review meeting with WUD staff. This meeting will be used to discuss the approach selection considerations and develop agreement on the recommended blower expansion approach (Baseline vs. Modified). The recommended approach will be documented in the meeting summary.

Revised 6-14-18

Deliverables:

- PowerPoint presentation, meeting agenda and summary

PART 2 –PRELIMINARY ENGINEERING DEFINITION OF RECOMMENDED ALTERNATIVE

The task presented below will develop and document a Design Build Criteria Report / Preliminary Design for the recommended approach.

Task 3 – Prepare Design Build Criteria Report

Task Objective: Assess the recommended alternative and develop preliminary design drawings, technical memorandums for each discipline, and Class IV Cost Estimate which will be included in the Design Build Criteria Report. The Design Build Criteria Report will be utilized by one of PBCWUD's Design-Build (DB) General Contractors to complete the design and implement the project. Consequently, the design development is intended to refine the concept and project requirements while preserving adequate flexibility for the DB contractor. Specific activities include the following:

- 3.1 Select preferred alternative blower systems and develop blower design criteria.
- 3.2 Develop scope of electrical improvements required to support the recommended alternative. Determine air conditioning system improvements needed to handle the increased heat load. Prepare Electrical drawings at the preliminary design level for the selected alternative, including a technical memorandum summarizing the ancillary improvements and recommendations. Includes QA/QC reviews.
- 3.3 Develop scope of mechanical improvements required to support the recommended alternative. Prepare Mechanical plan view drawings at the preliminary design level for the selected alternative, process flow diagram showing the proposed blowers integrated into the existing process aeration system and a technical memorandum summarizing ancillary improvements and recommendations. Includes QA/QC reviews.
- 3.4 Develop scope of Instrumentation and Controls (I&C) improvements required to support the recommended alternative. Identify control system integration requirements for selected alternative. Prepare Instrumentation and Control drawings at the preliminary design level, Motor Control Center (MCC) layout drawing, Process and Instrumentation Diagram (P&ID) that shows existing with new/proposed integrated, and a technical memorandum summarizing controls description for the selected alternative and recommendations. Includes QA/QC Reviews.
- 3.5 Prepare a Class IV Opinion of Probable Construction Cost (OPCC) as defined by the Association for the Advancement of Cost Estimating (AACE) International for the estimated construction cost of the recommended blower / ancillary improvements.
- 3.6 Prepare a power point and present findings developed in Task 3 at a review meeting with WUD staff. Key findings will be included in the presentation and resulting recommendations will be documented. Meeting summary and the materials will be updated to reflect comment feedback received.
- 3.7 Prepare and submit Design Build Criteria Report. The report includes narrative of the

Revised 6-14-18

findings and recommendations for the replacement of the blowers and ancillary improvements, preliminary design drawings (electrical, mechanical and instrumentation and controls), blower cut sheets, layout and process flow diagram, preliminary calculations, and a Class IV Opinion of Probable Construction Cost. This will be the final project deliverable and will be developed with the intent of conveying design criteria and engineering concepts to the selected design-build team.

Deliverables:

- Design Build Criteria Report
- PowerPoint Presentation
- Review Meeting agendas and summary

ASSUMPTIONS

1. PBCWUD shall furnish a copy of its existing, functional BioWin model for use in the analysis. This effort does not include independent validation or calibration of the model.
2. PBCWUD will furnish record drawings, operating data and other available information deemed necessary to support the analysis.
3. PBCWUD will furnish existing Cad files of the blower system at SRWRF.
4. Expansion of Blower Building #1 will not be required. Consequently, it is assumed that site civil, structural and architectural discipline services will not be required and therefore fee budget has not been included for these disciplines.
5. The following items are not included in this scope of services:
 - Site Development Requirements
 - Legal Description of the Site
 - Survey and Subsurface Utility Investigations Concerning the Site
 - Design and Construction Schedule
 - Provisions for Utilities
 - Stormwater Retention and Disposal
 - Parking Requirements
 - Permitting Services
 - Services during Design Builder contracting, design, construction and start-up.
6. Preliminary designs are provided as a basis for a subsequent design-build procurement by PBCWUD, where a design-builder will validate the design and be afforded the flexibility to offer modifications or alternatives deemed necessary to meet PBCWUD's performance requirements.
7. PBCWUD will provide performance requirements to the design-builder under Contract with PBCWUD.

COUNTY'S RESPONSIBILITIES

1. Attend and participate in progress meetings, site visit, as necessary.
2. Furnish pertinent reports, data, drawings and other available information.

ATTACHMENT C

SCHEDULE 1

LIST OF PROPOSED SBE-M/WBE PARTICIPATION

PROJECT NAME OR BID NAME: SRWRF Blower Replacement and Design Build

PROJECT NO. OR BID NO.: 18-067

Criteria Report Preparation

NAME OF PRIME BIDDER: Brown and Caldwell (Corporation)

ADDRESS: 1475 Centrepark Blvd., Suite 210, West Palm Beach, FL 33401

CONTACT PERSON: Albert Perez, P.E. Vice-President

PHONE NO.: 561-684-3456

FAX NO.: 561-684-9902

BID OPENING DATE: N/A

USER DEPARTMENT: Water Utilities Department

THIS DOCUMENT IS TO BE COMPLETED BY THE PRIME CONSULTANT AND SUBMITTED WITH BID PACKET. PLEASE LIST THE NAME, CONTACT INFORMATION AND DOLLAR AMOUNT AND/OR PERCENTAGE OF WORK TO BE COMPLETED BY ALL SBE -M/WBE's ON THIS PROJECT. IF THE PRIME IS AN SBE-M/WBE, PLEASE ALSO LIST THE NAME, CONTACT INFORMATION AND DOLLAR AMOUNT AND/OR PERCENTAGE OF WORK TO BE COMPLETED BY THE PRIME ON THIS PROJECT. THE PRIME AFFIRMS THAT IT WILL MONITOR THE SBES LISTED TO ENSURE THE SBES PERFORM THE WORK WITH ITS OWN WORKFORCE.

Name, Address and Phone Number	(Check one or both Categories)		DOLLAR AMOUNT AND/OR PERCENTAGE OF WORK				
	<u>M/WBE</u>	<u>SBE</u>	Black	Hispanic	Women	Caucasian	Other (Please Specify)
	Minority Business	Small Business					
1. Smith Engineering Consultants, Inc. 2161 Palm Beach Lakes Blvd., Suite 312 West Palm Beach, FL 33409 Phone: 561-616-3911	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____	_____	_____	\$20,500	_____
2.	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____
3.	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____
4.	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____
5.	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____

(Please use additional sheets if necessary)

Total

\$20,500

Total Bid Price \$ 137,906.29

Total SBE-M/WBE Participation Dollar Amount and/or Percentage of Work 14.86%

I hereby certify that the above information accurate to the best of my knowledge:

Albert Perez, P.E.

Vice President

Print Name

Signature

Title

- NOTE:
1. The amount listed on this form for a SBE-M/WBE Prime or SubCONSULTANT must be supported by price or percentage listed on the signed Schedule 2 or signed proposal in order to be counted toward goal attainment.
 2. Firms may be certified by Palm Beach County as an SBE and/or M/WBE. If firms are certified as both an SBE and M/WBE, please indicate the dollar amount and/or percentage under the appropriate category.
 3. M/WBE information is being collected for tracking purposes only.

ATTACHMENT C

OSBA SCHEDULE 2 LETTER OF INTENT TO PERFORM AS AN SBE-M/WBE

This document must be completed by ALL SBE-M/WBE's and submitted with this bid packet. Specify in detail, the particular work items to be performed and the dollar amount and/or percentage for each work item. SBE credit will only be given for items which the SBE-M/WBE's is certified to perform. Failure to properly complete Schedule 2 will result in your SBE participation not being counted.

PROJECT NUMBER: 18-067 PROJECT NAME: Southern Region Water Reclamation Facility (SRWRF) Blower Capacity Replacement and SDesign Build Criteria Report Preparation

TO: Brown and Caldwell (Corporation)
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a - (check one or more, as applicable):

Small Business Enterprise Minority Business Enterprise _____

Black _____ Hispanic _____ Women _____ Caucasian Other (Please Specify) _____

Date of Palm Beach County Certification: 10-21-2015

The undersigned is prepared to perform the following described work in connection with the above project. Additional Sheets May Be Used As Necessary

Line Item/ Lot No.	Item Description	Qty/Units 1/ea	Unit Price	Total Price/ Percentage
<u>1</u>	<u>Electrical Engineering Services</u>	<u>1/ea</u>	<u>\$20,500</u>	<u>\$20,500/14.86%</u>

at the following price or percentage \$20,500.00
(SBE Prime or SubCONSULTANT's Quote)

and will enter into a formal agreement for work with you contingent upon your execution of a contract with Palm Beach County.

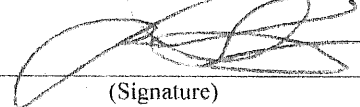
If undersigned intends to sub-subcontract any portion of this job to a certified SBE-M/WBE or a non-SBE subCONSULTANT, please list the name of that subCONSULTANT and the amount below.

Price or Percentage _____
(Name of SubCONSULTANT)

The Prime affirms that it will monitor the SBE-M/WBE listed to ensure the SBE-M/WBE perform the work with their own work force. The undersigned SBE-M/WBE Prime or SBE-M/WBE subCONSULTANT affirms that it has the resources necessary to perform the work listed without subcontracting to a non-certified SBE or any other certified SBE subCONSULTANTs except as noted above.

The undersigned subCONSULTANT understands that the provision of this form to Prime Bidder does not prevent SubCONSULTANT from providing quotations to other bidders.

Smith Engineering Consultants, Inc.
Print name of
SBE-M/WBE Company

By: 
(Signature)

Larry M. Smith, P.E. / President
Print name/title of person executing on behalf
of SBE-M/WBE

Revised 7/2/2013

Date: 8-3-18

ATTACHMENT - D

PROJECT SCHEDULE

The completion dates for this work will be as follows (starting from CONSULTANT'S receipt of Notice-to-Proceed).

Engineering Services

Completion Date from Notice to Proceed

(Calendar Days)

Task 1: Preliminary Activities & project Management

Deliverable:

- Request for Information 5

Task 2: Confirm Process Requirements

Deliverable:

- Prepare and Present Findings to WUD 42

Task 3: Design Build Criteria Report

Deliverables:

- Prepare and Present Findings to WUD 98
- Prepare and Submit Design Build Criteria Report 112

ATTACHMENT - E
BUDGET SUMMARY

Palm Beach County Water Utilities Department
 Contract for Consulting/Professional Services - Wastewater Engineering Services Resolution#: R2017-0813 Contract Date: June 20, 2017
 Construction Services Authorization: 05
 Consultant: Brown and Caldwell (Corporation)
 Project Name: Souther Region Water Reclamation Facility (SRWRF) Blower Replacement and Design Build Criteria Report Preparation
 WUD Project No.: 18-067

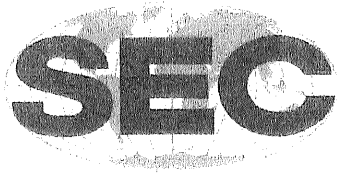
BUDGET SUMMARY

Task Number	Task Description	Vice- President	Supervising Engineer	Supervising Engineer	Supervising Engineer	Senior Engineer	Cost Estimator	Senior Engineer	Engineer 2	Project Administrator	Project Analyst	Engineer 1	Principal Engineer	Managing Engineer	Chief Engineer	Senior Designer	Principal Designer	Supervising Const. Engineer	Sr. Const. Engineer	Inspector 1	Total Hours	Total BC Labor	Sub-Consultant Services	Total Task Labor	
1	Preliminary Activities and Project Management	2	30	14	0	2	0	0	8	6	20	0	0	0	0	0	0	0	0	0	0	82	\$13,555.26		
1.1	Project Coordination	0	24	4	0	0	0	0	0	6	20	0	0	0	0	0	0	0	0	0	0	0	\$8,257.14		
1.2	Prepare and Submit Information Request Log Sheet	0	0	2	0	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	\$1,165.08		
1.3	Prepare for and attend Project Kickoff Meeting	2	6	8	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	\$4,133.04		
	Deliverable: Information request log , Kick off meeting agenda & minutes (Electrical Subconsultant - SEC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00		
	Subtotal Task 1																						\$3,300.12	\$16,855.38	
2	Confirm Process Requirements	4	8	31	16	72	24	0	54	4	0	0	0	0	0	0	0	0	0	0	213	\$33,800.13			
2.1	Review air flow data, projected load and permit requirements	0	0	2	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$1,584.66		
2.2	Review and Assess exit. BioWin Model	0	0	4	16	32	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	\$9,691.92		
2.3	Assess adequacy of electrical service to support expansion	0	0	5	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	\$1,537.41		
2.4	Assess the efficacy of Baseline and Modified Approaches	2	2	8	0	32	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	\$10,931.88		
2.5	Prepare Class V Cost Estimate of both Baseline and Modified Approaches	0	2	2	0	0	24	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	\$5,003.82		
2.6	Prepare and present findings to WUD staff ; QA/QC	2	4	10	0	0	0	0	10	4	0	0	0	0	0	0	0	0	0	0	0	0	\$5,050.44		
	Deliverable: Power point, meeting agenda & summary (Electrical Subconsultant - SEC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	\$6,000.24	
	Subtotal Task 2																							\$6,000.24	\$39,800.37
3	Design Build Criteria Report / Preliminary Design	10	24	92	8	24	24	80	170	24	0	0	0	0	0	0	0	0	0	0	456	\$69,300.90			
3.1	Select preferred alternative blower system and develop design criteria	4	0	20	8	24	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	\$14,533.80		
3.2	Develop scope of electrical improvements & 30% design, TM: QA/QC	0	4	12	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	\$4,693.90		
3.3	Develop scope of mechanical improvements & 30% design, TM: QA/QC	0	2	16	0	0	0	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	\$12,734.40		
3.4	Develop scope of I&C improvements & 30% design, TM: QA/QC	0	2	12	0	0	0	80	14	4	0	0	0	0	0	0	0	0	0	0	0	0	\$16,355.68		
3.5	Prepare Class IV Cost Estimate for recommended improvements	0	2	6	0	0	24	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	\$6,131.10		
3.6	Prepare and present findings to WUD staff	2	6	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	\$5,231.52		
3.7	Prepare and submit Design Build Criteria Report	4	8	16	0	0	0	0	20	16	0	0	0	0	0	0	0	0	0	0	0	0	\$9,720.60		
	Deliverable: Design Build Criteria Report, Power point, agenda and minutes (Electrical Subconsultant - SEC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	\$11,100.60	
	Subtotal Task 3																							\$11,100.60	\$80,401.50
	Labor Subtotal Hours	16	62	137	24	98	48	80	232	34	20	0	0	0	0	0	0	0	0	0					
	Labor Raw Costs	\$ 107.76	\$ 71.68	\$ 73.19	\$ 79.00	\$ 47.73	\$ 51.32	\$ 47.93	\$ 38.63	\$ 20.75	\$ 30.74	\$ 29.62	\$ 58.25	\$ 85.45	\$ 90.33	\$ 37.26	\$ 52.25	\$ 72.87	\$ 48.30	\$ 30.25					
	Labor Multiplier	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00					
	Labor SubTotal	\$ 5,173.44	\$ 13,332.48	\$ 30,081.09	\$ 5,688.00	\$ 14,032.62	\$ 7,390.08	\$ 11,503.20	\$ 25,494.48	\$ 2,116.50	\$ 1,844.40	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -					
	Labor Total																							\$ 116,656.29	
	Subconsultant Labor Total																							\$20,400.96	
	Subconsultant Multiplier																							1.00	
	Subconsultant Labor Sub-Total																							\$20,400.96	
	Reimbursables Subconsultant (See attached proposal from SEC)																							\$99.04	
	Reimbursables BC (See attached breakdown of reimbursables)																							\$750.00	
	Reimbursables Total																							\$849.04	
	Subconsultant Total (Labor & Reimbursables)																							\$20,600.00	
	BC Sub-Total (Labor & Reimbursables)																							\$117,406.29	
	PROJECT TOTAL																							\$137,906.29	

Breakdown of Travel Costs																					
	Flights (Coach)			Lodging			Food Per Diem			Car Rental			Gasoline					Mileage			Total Travel Cost
	Number of Flights	Cost of Flight	Total Cost	Nights	Daily Cost	Total Cost	Days	Daily Cost	Total Cost	Days	Daily Cost	Total Cost	Miles	Miles Per Gallon	Gallons	Dollars Per Gallon	Total Cost	Miles	Mileage Rate	Total Cost	
Task 001																					
Description: Travel to and from PBCWUD offices for 3 staff members for kick-off meeting and for other coordination meetings as required.	0		\$0.00	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	25	0.0	\$3.00	\$0.00	65.0	\$0.540	\$35.10	\$35.10
Totals For Task 001			\$0.00			\$0.00			\$0.00			\$0.00					\$0.00			\$35.10	\$35.10
Task 002																					
Description: Travel to PBCWUD offices. Two meetings: 1) coordination meeting(2 BC staff members) and 2) Power point presentation, review meeting with PBCWUD staff (3 BC staff members)	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	25	0.0	\$3.00	\$0.00	105.0	\$0.540	\$56.70	\$56.70
Totals For Task 002			\$0.00			\$0.00			\$0.00			\$0.00					\$0.00			\$56.70	\$56.70
Task 003																					
Description: Travel to PBCWUD offices. Two Meetings. One coordination meeting and onepower point presentation/review meeting with PBCWUD staff. Present Final Design Build Criteria Report.	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	25	0.0	\$3.00	\$0.00	105.0	\$0.540	\$56.70	\$56.70
Totals For Task 003			\$0.00			\$0.00			\$0.00			\$0.00					\$0.00			\$56.70	\$56.70
Totals for Task Order																		275	\$0.540	\$148.50	\$148.50

Other Direct Cost Roll-up Table

Reimbursable Items by Task			Task Number			Total Units	Cost
Item	unit	cost per unit	Task 1.0	Task 2.0	Task 3.0		
Printing and Mailing							
Black & White Copies (8.5x11)	each	\$0.10	40	80	120	240	\$24.00
Black & White Copies (11x17)	each	\$0.20	0	10	30	40	\$8.00
Binding Drill 3 Hole Screw Post	each	\$5.00	0	6	6	12	\$60.00
Color Copies (8.5x11)	each	\$1.00	40	80	120	240	\$240.00
Color Copies (11x17)	each	\$2.00	0	5	10	15	\$30.00
Blueline/Blackline Copies (22x34)	each	\$1.50	0	0	133	133	\$199.50
Mylar Plots	each	\$7.50	0	0	0	0	\$0.00
Fedex	each	\$20.00	0	0	2	2	\$40.00
Total Printing and Mailing Costs			\$44.00	\$130.00	\$427.50		\$601.50
Travel							
See Travel Cost Detail Table			\$35.10	\$56.70	\$56.70		\$148.50
Total Travel Costs			\$35.10	\$56.70	\$56.70		\$148.50
ODC's Totals			\$79.10	\$186.70	\$484.20		\$750.00



Smith Engineering Consultants, Inc.

July 26, 2018

Mr. Jorge A. Jaramillo, P.E.
Brown and Caldwell
1475 Centrepark Boulevard, Suite 210
West Palm Beach FL 33401

Re: PBC WUD SRWRF Blower Capacity Replacement Conceptual Engineering Report
Electrical Engineering Services Proposal

Dear Jorge:

Smith Engineering Consultants, Inc. (SEC) is pleased to provide this proposal for the above referenced project. We propose to provide the following scope of services:

Task 1 – Preliminary Activities and Project Management (Fee = \$3,300.12)

- 1.1 Perform general project coordination and administration activities. Attend two (2) project coordination meetings with Palm Beach County.
- 1.3 Prepare for and attend a project kickoff meeting and inspect blower facilities.

Task 2 – Confirm Process Requirements (Fee = \$6,000.24)

- 2.3 Assess adequacy of electrical service/substation transformer to support expanded power demand from each blower location alternative. Evaluate space requirement and adequacy of available space to accommodate the additional electrical gear required to support the addition of a fourth duty blower in Blower Building #1.
- 2.5 Assist in the preparation of a Class V Opinion of Probable Construction Cost (OPCC) as defined by the Association for the Advancement of Cost Estimating (ACE) International for Baseline and Modified approaches.
- 2.6 Assist in the preparation of a PowerPoint presentation, and attend a review meeting with WUD staff.

Task 3 – Blower Selection and Ancillary Improvements (Fee = \$11,100.60)

- 3.3 Assist with the identification of conceptual control system integration requirements for selected alternative.

2161 Palm Beach Lakes Blvd., Suite 312
West Palm Beach, FL 33409
(561) 616-3911 Fax (561) 616-3912

- 3.4 Develop scope of electrical improvements required to support the recommended alternative. Determine air conditioning system improvements needed to handle the increased heat load. Prepare Electrical drawings at the preliminary design level for the selected alternative, including a technical memorandum summarizing the ancillary improvements and recommendations.
- 3.7 Assist in the preparation of a Class IV Opinion of Probable Construction Cost (OPCC) as defined by the Association for the Advancement of Cost Estimating (AACE) International for the estimated construction cost of the recommended blower / ancillary improvements.
- 3.8 Assist in the preparation of a PowerPoint presentation, and attend a review meeting with WUD staff.
- 3.9 Assist in the preparation and submit Design Build Criteria Report (electrical part only). The report includes narrative of the findings and recommendations for the replacement of the blowers and ancillary improvements, preliminary design drawings (electrical, mechanical and instrumentation and controls), blower cut sheets, layout and process flow diagram, preliminary calculations, and a Class IV Opinion of Probable Construction Cost. This will be the final project deliverable and will be developed with the intent of conveying preliminary design requirements to the selected design-build team.

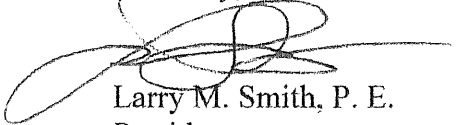
Misc. – Printing, etc. (Fee = \$99.04)

Deliverables:

- Design Build Criteria Report
- PowerPoint Presentation slides (including preliminary electrical layouts and single line diagram(s))

SEC shall perform the services defined in this scope of work for the lump sum fee of \$20,500. Thank you for using Smith Engineering Consultants as the source for these engineering services. We look forward to working with you on this project.

Sincerely,



Larry M. Smith, P. E.
President

Cost Breakdown
Smith Engineering Consultants, Inc.

BUDGET SUMMARY

Task Number	Task Description	Labor Classification and Hourly Rate						
		Principal \$50.00	Engineer \$41.67	Asst. Engineer \$31.67	Designer \$21.67	Clerical \$15.00	Total Labor	Sub Consultant Services
	SRWRF Blower Replacement Study							
1	Preliminary Activities and Project Management (Kickoff meeting and two coordination meetings)	12	12	0	0	0	3300.12	
2	Confirm Process Requirements	20	24	0	0	0	6000.24	
3	Blower Selection and Ancillary Improvements	24	60	0	0	0	11100.6	
	Subtotal	56	96	0	0	0		
	Labor Subtotal Hours	56	96	0	0	0		
	Labor Raw Costs	50	41.67	31.67	21.67	15		
	Labor Multiplier	3	3	3	3	3		
	Labor SubTotal	\$ 8,400.00	\$ 12,000.96	\$ -	\$ -	\$ -	\$ 20,400.96	\$0.00
							Misc.	\$99.04
	Subconsultant Labor Total							\$0.00
	Subconsultant Multiplier							1.1
	Subcontract Total							\$0.00
	Project Total						\$ 20,500.00	

ATTACHMENT - F

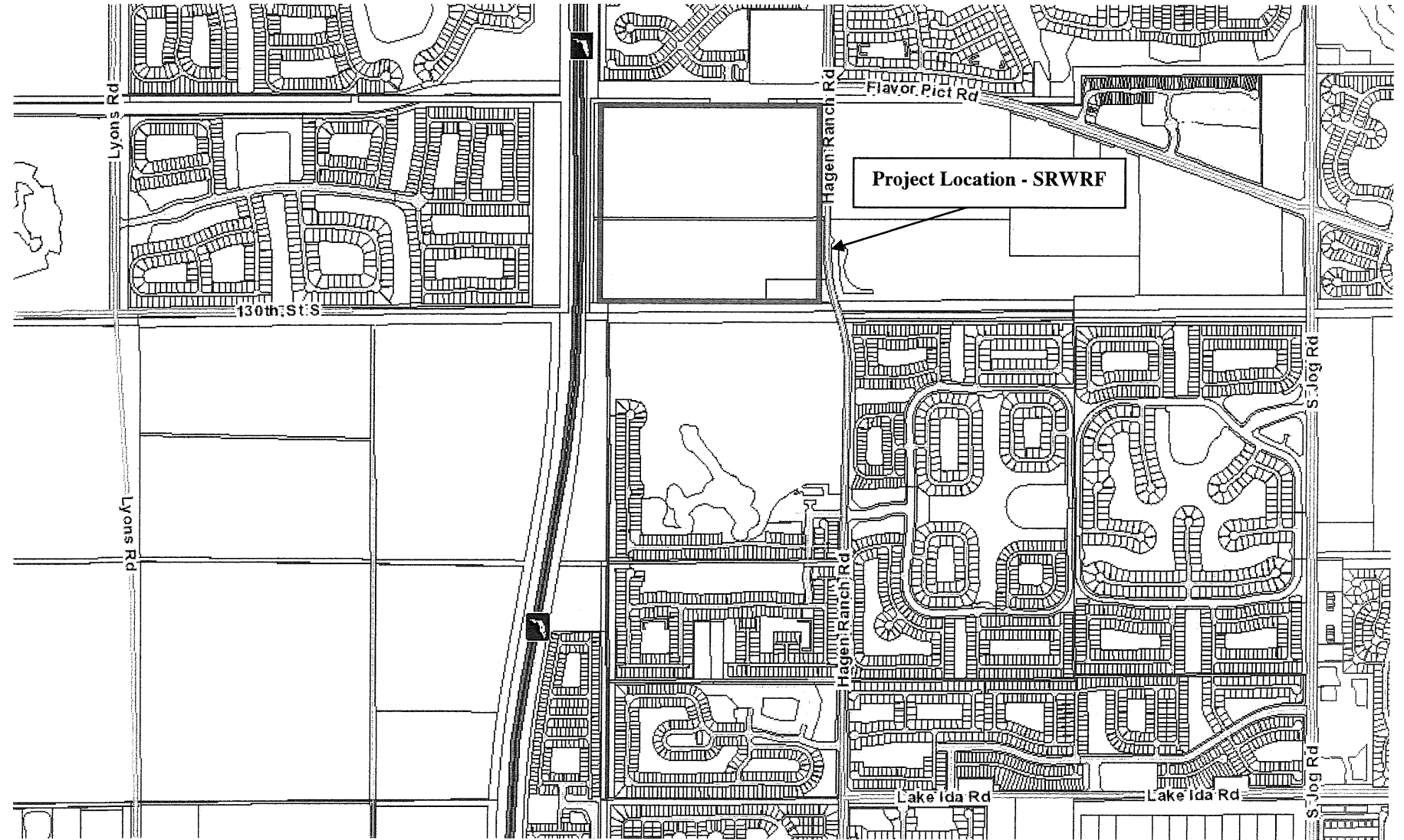
**Palm Beach County Water Utilities Department
Contract for Consulting / Professional Services–Wastewater Engineering Services
Resolution # R2017-0813 Contract Dated: June 20, 2017**

AUTHORIZATION STATUS REPORT

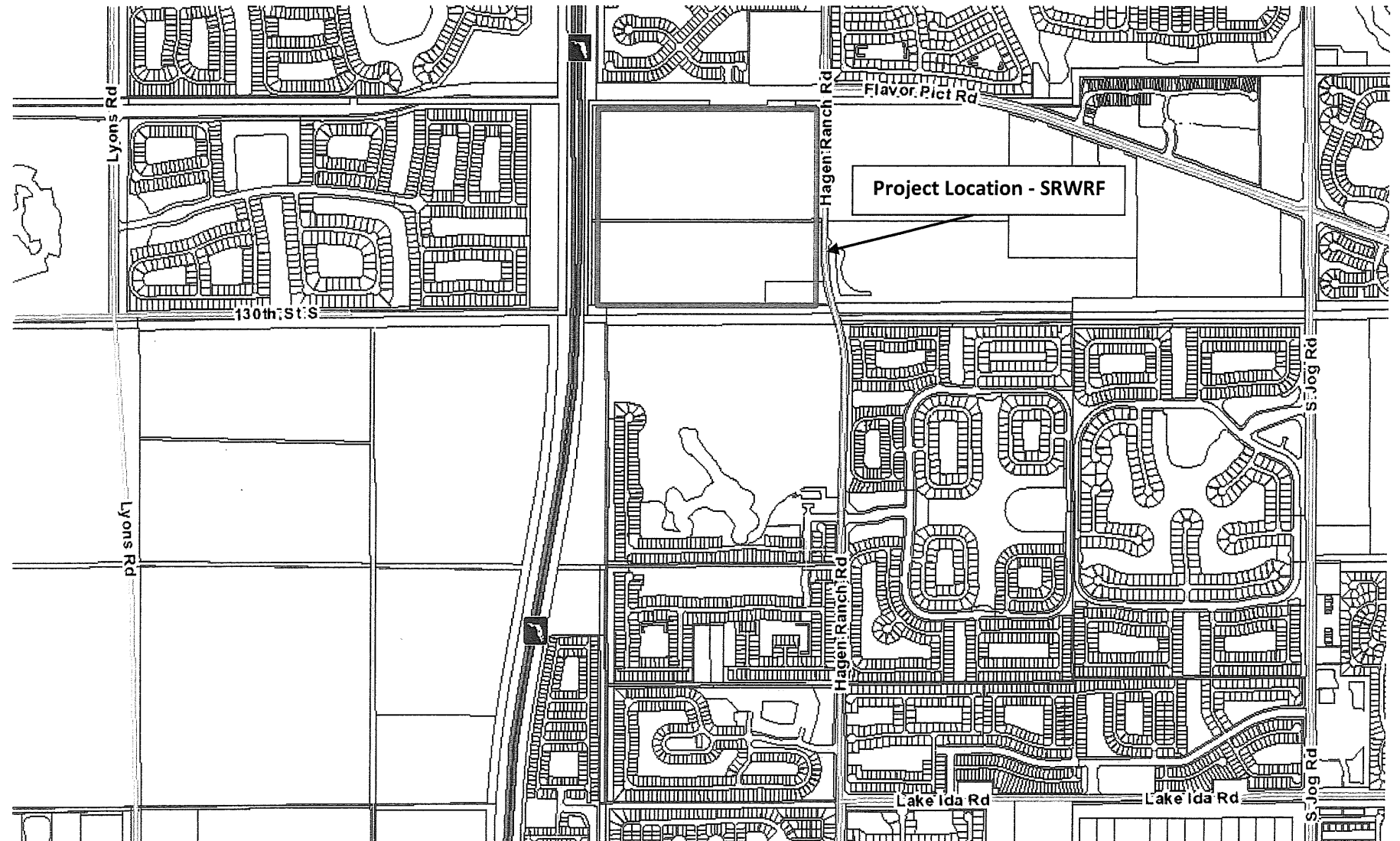
**SUMMARY OF
SBE-M/WBE MINORITY BUSINESS TRACKING**

Master Contract Goal: <u>26%</u> (%)	SBE
Current Proposal	
Value of Authorization No. <u>05</u>	\$137,906.29
Value of SBE-M/WBE Letters of Intent	\$20,500.00
Actual Percentage	<u>14.86</u> %
Signed/Approved Authorizations	
Total Value of Authorizations	\$434,237.04
Total Value of SBE-M/WBE Signed Subcontracts	\$118,596.44
Actual Percentage	<u>27.31</u> %
Signed/Approved Authorizations Plus Current Proposal	
Total Value of Authorizations	\$572,143.33
Total Value of Subcontracts & Letters of Intent	\$139,096.44
Actual Percentage	<u>24.31</u> %

ATTACHMENT – G
Location Map



ATTACHMENT - 2
Location Map



ATTACHMENT 3

Summary of Certificates

This report displays detailed Certificate of Insurance information for a selected Insured. Any items shown in red are deficient.

Monday, July 09, 2018

-

Insured: Brown and Caldwell

Insured ID: 17-002-PBC

Status: **Compliant**

ITS Account Number: **PLC2671**

Project(s): **Palm Beach County - Water Utilities**

Insurance Policy	Required	Provided	Override
<u>General Liability</u>			
Expiration: 5/31/2019			
General Aggregate:	\$500,000	\$2,000,000	
Products - Completed Operations Aggregate:	\$0	\$0	
Personal And Advertising Injury:	\$0	\$0	
Each Occurrence:	\$500,000	\$1,000,000	
Fire Damage:	\$0	\$0	
Medical Expense:	\$0	\$0	
<u>Automobile Liability</u>			
Expiration: 5/31/2019			
Combined Single Limit:	\$500,000	\$1,000,000	
	All Owned Autos	Any Auto not provided	X
	Hired Autos	not provided	X
	Non-Owned Autos	not provided	X
<u>Workers Compensation/Employers Liability</u>			
Expiration: 5/31/2019			
<u>Professional Liability</u>			
Expiration: 5/31/2019			
Each Occurrence:	\$3,000,000	\$3,000,000	
Aggregate Limit:	\$3,000,000	\$3,000,000	

Notifications (Show All)

The following letters were issued:

May 08 2018 - Renewal Letter

Do you have an updated Certificate? Click the button below to submit a Certificate.