

PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS  
AGENDA ITEM SUMMARY

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Meeting Date: December 4, 2012

Consent  [X]  
Public Hearing  [ ]

Regular  [ ]

Department: Water Utilities Department

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I. EXECUTIVE BRIEF

**Motion and Title:** Staff recommends motion to approve: Consultant Services Authorization No. 8 for the Water Treatment Plant No. 2 (WTP 2) Filter Replacement in the amount of \$926,373 to the Water Plant and Water Resources Engineering Services Contract with Carollo Engineers, Inc. (R2011-0630).

**Summary:** On June 3, 2011, the Board of County Commissioners approved the Contract for Consulting/Professional Services with Carollo Engineers, inc. (R2011-0630). This Consultant Services Authorization will provide for design and permitting of the WTP 2 Filter Replacement. The existing steel fabricated filters were installed as a developer constructed water treatment facility in 1973 (Phase 1) and 1981 (Phase 2), and are nearing the end of their useful life. The replacement filters will be designed with concrete construction to house the filter media which will provide a longer useful life. The design will include the addition of backwash recovery to conserve water resources and reduce operating costs. The Small Business Enterprise (SBE) participation goal established by the SBE Ordinance (R2002-0064) is 15% overall. The Contract with Carollo Engineers, Inc. provides for SBE participation of 26% overall. This Authorization includes 29.58% overall participation. The cumulative SBE participation, including this Authorization, is 27.99% overall. Carollo Engineers, Inc. is a Palm Beach County company. (WUD Project No. 12-066) District 2 (JM)

**Background and Justification:** The existing 14 media filter units at WTP 2 are over 30 years old and are reaching the end of their useful life. The addition of filter washwater recovery has a payback of less than five (5) years and will conserve water resources. The scope of this project is the design of the replacement filters as well as the filter backwash water recovery system to meet the plant's permitted capacity of 16.4 mgd. The design will include provisions for a future expansion to 25 mgd.

**Attachments:**

1. Location Map
2. Two (2) Original Consultant Services Authorizations No. 8

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Recommended By:

  
Department Director

10/29/12  
Date

Approved By:

  
Assistant County Administrator

11-26-12  
Date

**II. FISCAL IMPACT ANALYSIS**

**A. Five Year Summary of Fiscal Impact:**

<b>Fiscal Years</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Capital Expenditures	<u>\$926,373.00</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
External Revenues	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Program Income (County)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
In-Kind Match County	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
CCRT Funds	<u>0</u>				
<b>NET FISCAL IMPACT</b>	<u><b>\$926,373.00</b></u>	<u><b>0</b></u>	<u><b>0</b></u>	<u><b>0</b></u>	<u><b>0</b></u>
 # ADDITIONAL FTE POSITIONS (Cumulative)	 <u>0</u>	 <u>0</u>	 <u>0</u>	 <u>0</u>	 <u>0</u>

**Budget Account No.:** Fund 4011 Dept 721 Unit W002 Object 6541

Is Item Included in Current Budget? Yes X No     

Reporting Category N/A

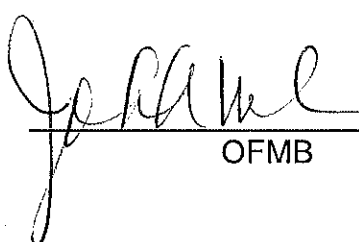
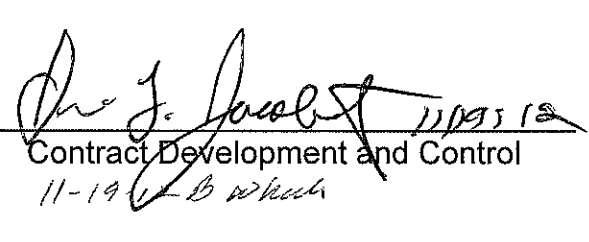
**B. Recommended Sources of Funds/Summary of Fiscal Impact:**

One (1) time operating expenditure from the user fees and balance brought forward

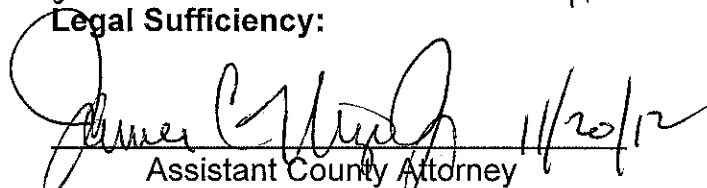
**C. Department Fiscal Review:** Delura M West

**III. REVIEW COMMENTS**

**A. OFMB Fiscal and/or Contract Development and Control Comments:**

 OFMB JD 11/1 PM 11-12	 Contract Development and Control 11-19 B. W. Koch
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**B. Legal Sufficiency:**

  
 Assistant County Attorney 11/20/12

**C. Other Department Review:**

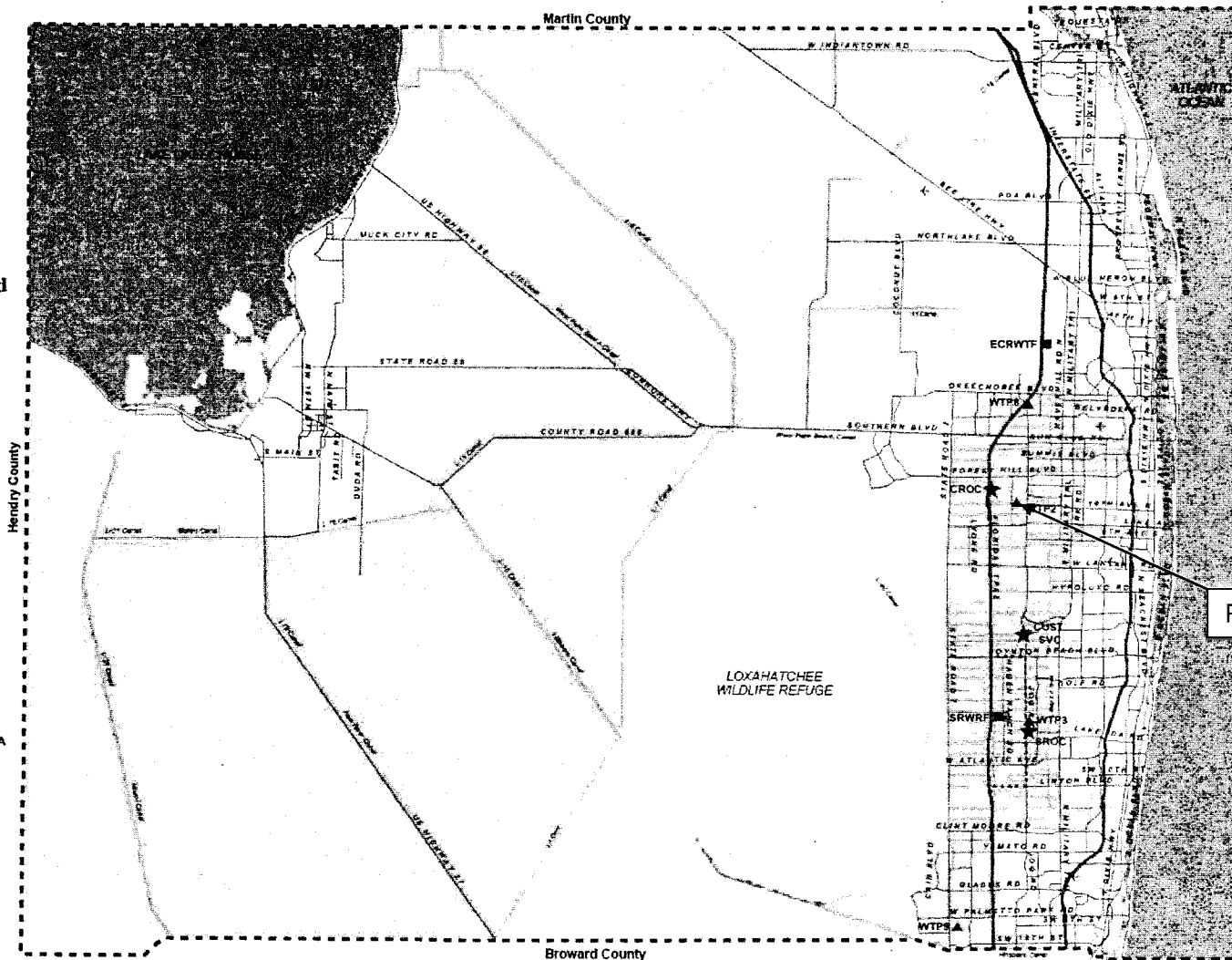
\_\_\_\_\_  
 Department Director

This summary is not to be used as a basis for payment.

ATTACHMENT D – LOCATION MAP



Palm Beach County  
Water Utilities  
Department  
Service Area (SA) and  
Major Facilities



Project Location

Legend

- P.B.C.W.U.D. SA
- - - MANDATORY RECLAIMED SA
- - - COUNTY LIMITS
- ★ Administration
- Water Reclamation Plant
- ▲ Water Treatment Plant
- ⊖ Wetlands



NOT TO SCALE

CONSULTANT SERVICES AUTHORIZATION NO. 8

Project No. WUD 12-066

Budget Line Item No. 4011-721-W002-6541

Project Title WTP 2 Filter Replacement Design

District No.: District 2

**THIS AUTHORIZATION # 8** to the Contract for Consulting/Professional Services dated 5/3/2011 with an effective date of 6/3/2011 (Resolution/Document R2011-0630), by and between Palm Beach County and the Consultant identified herein, is for the Consultant Services described in Item 3 of this Authorization. The Contract provides for 26% SBE participation overall. This Consultant Services Authorization includes 29.58% overall. The cumulative SBE participation, including this authorization is 27.99% overall. Additional authorization will be utilized to meet or exceed the stated overall participation goal.

1. CONSULTANT: Carollo Engineers, Inc.
2. ADDRESS: 8401 Lake Worth Rd., Suite 224, Lake Worth, FL 33467
3. Description of Services to be provided by the Consultant:  
Design, permit, and provide bidding assistance for new filters at Water Treatment Plant No. 2 which will replace the existing filters which are nearing the end of their useful life.  
  
**See EXHIBIT "A".**
4. Services completed by the Consultant to date:  
  
**See EXHIBIT "B" and "C".**
5. Consultant shall begin work promptly on the requested services.
6. 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 \$ NA
  - B. Fixed price of \$926,373

PROJECT NO. WUD 12-066

AUTHORIZATION NO. 8

7. 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.
8. EXCEPT AS HEREBY AMENDED, CHANGED OR MODIFIED, all other terms, conditions and obligations of the Contract dated 5/3/2011 with an effective date of 6/3/2011 remain in full force and effect.

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

**CONSULTANT:**

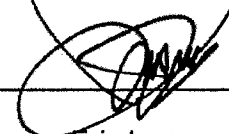
**PALM BEACH COUNTY**

FIRM: Carollo Engineers, Inc.

Signed: 

Typed Name: Lyle Munce, P.E.

Title: Vice President

Signed: 

Typed Name: Eric Leveque, P.E.

Title: Senior Vice President

Date: October 10, 2012

Signed: \_\_\_\_\_

Typed Name: \_\_\_\_\_ 

Title: Chair Palm Beach County Board of County Commissioners

Date: \_\_\_\_\_

ATTEST:

  
(Signed)

**Carollo Engineers Inc. is a Delaware Corporation qualified to do business in the State of Florida. By corporate resolution, all shareholders, including Lyle Munce and Eric Leveque, are authorized to execute contracts relating to the firm's usual and customary engineering business on behalf of Carollo Engineers, Inc.**

## EXHIBIT A

### CONSULTANT SERVICE AUTHORIZATION NO. 8

#### PALM BEACH COUNTY WATER UTILITIES DEPARTMENT ENGINEERING/PROFESSIONAL SERVICES

#### SCOPE OF WORK

### INTRODUCTION

Palm Beach County (COUNTY) entered into an agreement entitled Contract for Engineering/ Professional Services - Palm Beach County Utilities Department Project No. WUD 11-001 (CONTRACT) with Carollo Engineers (CONSULTANT) to provide engineering services for various general activities on (Reference Document R2011-0630). This Consultant Service Authorization will be performed under that CONTRACT.

### BACKGROUND

COUNTY has requested that CONSULTANT design, permit, and bid a water treatment filter addition at WTP 2. These new dual media filters with reinforced concrete construction will replace the existing train 1 and 2 steel constructed filters (the filters associated with Precipitator Nos. 1 and 2). The filter addition will include backwash and transfer pumps, a filter air scour system, a washwater recovery basin and pump station, associated electrical and instrumentation, site and drainage improvements. The existing filters, ozone contact basin, ozone destruct building and 1 MG water storage tank will be demolished. The CONSULTANT has completed a pre-design study for the filter replacement.

### SCOPE OF SERVICES

CONSULTANT shall perform the engineering Scope of Services as described herein.

#### PRELIMINARY DESIGN, DESIGN FOR BIDDING, PERMITTING, AND BIDDING SERVICES

CONSULTANT shall perform the following engineering services for the preliminary design, intermediate design, design for bidding, permitting, and bidding services for the filter system replacement at Water Plant 2. It is the intention of this CSA to provide a complete and final set of contract documents suitable for permitting, and public advertisement and bidding for the construction of the proposed facilities.

The following engineering services have been based upon the direction provided by COUNTY staff, and the WTP 2 Filter Conceptual Plan report dated October 2012 on this proposed system. Assumptions include:

- The filters will be conventional dual media (sand/anthracite) filters. Initial capacity shall be 16.4 mgd. The filters and piping will be designed hydraulically to accommodate an ultimate filter capacity of 25 mgd through future filter rerating.

- Filters will receive flow from both trains 1 & 2 (effluent from Precipitator Nos. 1 and 2 including the softening bypass flow). Connection for future softener will be incorporated.
- The initial filter loading rate will be less than or equal to 4 gallons per minute per square feet, calculated with one filter out of service.
- The filters will be located east of well 2 and will include a bridge for access by the operators from softener no. 2 to the filters 1
- Filter transfer pumps will include VFD's or the existing water storage tanks will be equipped with standpipes.
- The existing storage tanks are at different elevations and fill valves will be installed to prevent overflow.
- The existing storage tanks will be equipped with discharge flow metering and control valves to allow equal detention time.
- A washwater recovery pond and pump station, with provisions for returning the recycled washwater to the influent of the precipitators is included.
- Demolition shall include the train 1 & train 2 filters, ozone destruct building & contactor, and miscellaneous piping and features in the area of construction.
- Construction of the filter structures will be reinforced concrete. Filter structure will be covered with openings for access, maintenance, and media change-out of the area above the filters. Lower portion of filter structure will be enclosed with hurricane hardened openings for access.
- Filter structure will include a clearwell, backwash and transfer pumping station, and a common wall air scour blower building.
- The electrical design will balance the new loads among the MCC building and hypochlorite building MCC so as to not overload the existing gear and to balance loads on each emergency generator.
- The instrumentation system will be designed with a new PLC for the filter building which will connect into the plant SCADA system.
- Relocation of chemical line as necessary to comply with the Groundwater Rule (4 log).
- Design of facilities shall include a construction phasing plan that will minimize shutdowns and typically allow 13 MGD of plant treatment flow (11.5 MGD softening train 2 plus 1.5 MGD bypass and blend) to be operational at all times.
- The site drainage system will be designed to accommodate existing and new facilities within the fenced area of the plant site. Drainage permitting support services with SFWMD and LWDD are included.
- CONSULTANT shall utilize existing record drawings. Subsurface or pothole information shall be used to verify critical information. This CSA assumes a maximum of 20 vacuum potholes will be performed.

### **Task 1 Preliminary Design**

This task addresses the requirements of the project. Work efforts for this task include the following:

- 1) Development of Project Design Criteria. The project design criteria and alternatives selection will be confirmed with COUNTY staff.
- 2) Preliminary Drawing Production. Preliminary drawings which illustrate each of the basic components of the project including the size, scale, location, dimensions, layout and character of each structure and/or facility will be created. These drawings shall include PID, electrical single line, site plan, yard piping, hydraulic profile, and major equipment.

- 3) Process Control System Narrative. A process system control narrative will be developed.
- 4) Geotechnical Investigation. A limited geotechnical report will be conducted identifying the soil conditions in the area of the proposed filters and recommendations necessary for foundation design and construction.
- 5) Survey. A survey of the impacted areas depicting all relevant topography features, existing structures, and utilities will be developed.
- 6) Permitting Investigation. A written description of permitting and code requirements will be provided.
- 7) Description of Materials and Equipment. A written description of materials and equipment to be incorporated into the project will be developed.
- 8) Construction Sequencing and Scheduling. Preliminary construction sequencing and schedule will be developed.
- 9) Opinion of Probable Cost. Preliminary opinion of probable construction cost will be developed.

It is anticipated that the preliminary engineering report will be used for Palm Beach County Health Department permitting.

## **Task 2 Design for Bidding**

After reviewing the Preliminary Design with COUNTY and incorporating changes or alterations directed by COUNTY, the CONSULTANT shall prepare and submit the Design for Bidding. The design will be phased in 30% (preliminary design), 60%, 90% and 100 % (bid documents). At the 30%, 60%, and 90% design levels review meetings will be held with COUNTY staff. CONSULTANT will respond in writing to the COUNTY review comments at 30%, 60% and 90% design. The documents shall include drawings, plans, and specifications that specifically describe the elements, details, components, materials, and other information necessary for construction of the Project (@ 30% 5 full size and 1 1/2 size drawings, @ 60% & 90% 5 full size and 1 1/2 size sets of drawings and six sets of specifications, @100% five full size and 1 half sized, and six sets of specifications (a pdf version of the final documents and CAD files on CD will also be provided)).

The Design for Bidding shall include the following:

- 1) General Design. General design covers index of drawings, location and vicinity maps, design data, scope of work, sequence of work, flow diagrams, hydraulic profile, and general conditions.
- 2) Civil Design. Civil design shall include the layout of the proposed facilities and associated outside piping, paving, grading, and drainage. Civil design shall include yard piping drawings showing plan and elevation of piping and identifying conflicts. (All elevations shall be in NAVD '88.). New structures will be constructed above the 100 year flood elevation. The civil design will include expansion of existing lakes and detention areas as necessary.
- 3) Architectural Design. Limited architectural design is anticipated for the filter structure only. Architectural design efforts shall be limited to those necessary to facilitate the building department permitting process.
- 4) Structural Design. Structural design of the building foundation, equipment supports, and associated structural components in accordance with the 2012 building code.



- 5) Mechanical Design. Mechanical design shall include the selection, design, and layout of new equipment and piping. It shall also include the design and document preparation for the removal and demolition of the identified facilities. It will include piping drawings showing plan and elevation information. Field inspections shall be performed to assure that equipment will fit and not impact other processes. The complete plant hydraulic gradeline drawings will be updated and included for the new filters and washwater recovery.
- 6) Electrical Design. Electrical design shall consist of the analysis of power utility service, determination of power requirements and electrical equipment placement, preparation of one-line diagrams, schematic diagrams, lighting, grounding, conduit/cable schedules, miscellaneous schedules, and specifications of all electrical equipment. The electrical drawings will provide a consolidated single line drawing of existing and proposed improvements for the existing MCC building and hypochlorite building.
- 7) Instrumentation and Control Design. Instrumentation and control design consists of development of specific control systems for the systems specified for the project and development of final process and instrumentation diagrams (P&ID's shall show the relationships of systems and subsystems to one another.) The diagrams will serve as process summaries for the interrelationship of equipment with instrumentation for the construction and control of the different processes. Instrumentation and control design shall be integrated with the existing control and SCADA system.

### **Task 3 Permitting Services**

This task provides for the preparation of necessary permit applications, meetings, and negotiation with regulatory agencies, and preparation of responses to requests for additional information. The Engineer shall prepare applications for permits as may be required and related to the project. Permit related work shall include furnishing data, drawings, and other information required by the regulatory agency. Permitting fees will be provided to the CONSULTANT from COUNTY. The permits necessary for the project could include the following:

1. FDEP/PBCHD Permit. Florida Department of Environmental Regulation (FDEP) will require a water treatment plant modification permit. This will be addressed through the Palm Beach County Health Department (PBCHD). Application for four-log virus treatment under the Federal Groundwater Rule will be included in this task.
2. Drainage Permit. The SFWMD, as well as a Lake Worth Drainage District.
3. EPA Permit. The U.S Environmental Protection Agency (EPA) may require a NPDES Stormwater Construction Notice of Intent application and preparation of a Stormwater Pollution Prevention Plan DERM Permit. The Palm Beach County Department of Environmental Resources Management (DERM) may require a permit for excavating stormwater retention areas, and the storage of chemicals.
4. Building Department Permit. The County's building permit process will require project approval during the design phase from various entities such as the site plan review committee, and fire and building departments prior to submittal for a building permit. Draft permit review will be completed prior to bidding. CONSULTANT will provide signed and sealed site plan drawings to COUNTY for COUNTY's use in seeking site plan permit review approval.

5. Palm Beach County Department of Environmental Resources (ERM). A pollution storage tank permit as well as a permit to modify a Zone 2 facility within a wellfield zone of influence may be required based upon the design of the facility. These permit applications will be completed as required.

#### **Task 4 Bidding Services**

1. Solicitation of Bids. COUNTY will advertise and receive bids.
2. Attend pre-bid meeting with site inspection.
3. Addenda. The CONSULTANT shall provide written response to COUNTY along with sketches and drawings to issue written addenda as appropriate to interpret, clarify, or expand the bidding documents.
4. Review of Bids. The CONSULTANT shall attend bid opening and offer an opinion of acceptability or unacceptability for lowest qualified bidder. Contractor qualifications to be evaluated by COUNTY.

#### **Services Not Included In Scope of Services**

- Physical subsurface investigation (pot-holing), any that may be required in addition to the twenty that have been included with the survey task. COUNTY will perform pot holing of critical areas and will provide information to CONSULTANT.
- Abstracted survey for use in site plan approval process.
- Prequalification of contractors.
- Services associated with bid protests that require action in accordance with the County's general bid protest requirements.
- Services associated with the rejection or re-bidding unless re-bidding is required as a result of CONSULTANT errors.
- Patent related dispute services.
- Litigation services.
- Permitting application fees.
- Additional services not otherwise provided for in this Scope of Services.

#### **Compensation**

Lump Sum - \$926,373

#### **M/WBE Participation**

As prescribed under Section 7.5 of the CONTRACT, SBE participation is included in Attachment C under this Authorization. The attached Schedule 1 defines the SBE participation.

ATTACHMENT – A	Budget Summary
ATTACHMENT – B	Project Schedule
ATTACHMENT – C	SBE Schedules 1 & 2
ATTACHMENT – D	Location Map

**ATTACHMENT A**

**Labor Classification and Hourly Rate**

Task Number	Task Description	Labor Classification	Partner In Charge	Senior Project Manager	Senior Process Specialist - Elec.	Senior Process Specialist - Struc.	Senior Process Specialist - Mech.	Senior Process Specialist - I&C	Project Engineer	Civil Engineer II	Lead Design Specialist	Technician	Senior Clerical	Total Labor Hours
1	<b>Preliminary Design</b>													
	<b>Preliminary Consultation</b>													
	<b>Conceptual Plan</b>													
	- Description of Treatment Facilities Components													0
	- Filter Criteria Development													0
	- Structures Evaluation													0
	- Transfer Pumping													0
	- Use of existing chemical system evaluation													0
	- Flow Control & Splitting Approach													0
	- Hydraulic Analysis/Profile													0
	- Backwash/washwater Recovery													0
	o Business Case Analysis													0
	- Siting & Demolition Evaluation													0
	- Permitting & Code Review/Considerations													0
	o PBCHD/FDEP													0
	o Surface Water Modifications													0
	o NPDES Permit													0
	o DRO Site Plan Modifications													0
	- Opinion of Probable Construction Cost													0
	- Record Dwg/Pot holing			2			4		4	8			4	22
	- Geotechnical Evaluation			2		8	4		4	8			4	30
	- Surveying			2			4		4	8			4	22
	- Operational Requirements- Process & Controls			2			8		8				4	22
	- Materials of Construction Selection			2		8	8		8	8			4	38
	- Auxiliary Power Redistribution			2			4		4				4	14
	- Construction Schedule			2		2	4		4	4			4	20
	- Construction Sequencing			2		4	8		8	8			4	34
	<b>Preliminary Document Production (30%)</b>													
	- Process Flow Diagrams													
	o Overall Treatment Process			2			8		12		2	8	2	34
	o Filter System			2			8		12		2	8	2	34
	o Backwash Pumps			2			8		12		2	8	2	34
	o Transfer Pumps			2			8		12		2	8	2	34
	o Blowers			2			8		12		2	8	2	34
	o Polymer			2			8		12		2	8	2	34
	o Hexametaphosphate			2			8		12		2	8	2	34
	o Chlorine			2			8		12		2	8	2	34
	o Ammonia			2			8		12		2	8	2	34
	o Washwater Recycle			2			8		12		2	8	2	34
	o Disinfection Schematic (4 log)			2			8		16		2	8	2	38
	o Sampling Pumps			2			8		12		2	8	2	34
	o Filter/Blower Structure Drain System			2			8		8		2	8	2	30
	- Existing Facilities Plans			2		4	16		16	8	12	16	2	76
	- Site Plans			2		4	16		24	40	8	24	2	120
	- Yard Piping Plans			2		2	16		24	40	8	24	2	116
	- Yard Paving & Grading/Drainage Plans			2			8		8	24	8	16	2	68
	- Building Plans			2		4	16		40	16	8	24	2	112

	- Equipment/Facilities Demolition Plans		2		8	16		16	16	8	24	2	92
	- Process Instrumentation Diagrams (PIDs)		2			16		24	16	8	16	2	84
	- Single Line Diagrams		2			8		16	8	8	8	2	52
	- Specifications		2										
	o List of All Specifications		2		2	4		8	8			2	26
	o Draft Primary Equipment Specifications		2			16		40	24			4	86
	- Control Narrative		2			16		16	8			2	44
	- Draft Permitting Applications		2			8		16	16	4	16	8	70
	- 30 % Opinion of Probable Cost		2		4	8		24	24			4	66
	Monthly Meetings (2 months)		8		4	8		16	16			4	56
	Preliminary Design Workshop		6		6	8		4	6			4	34
	Project Management and Administration (2 hrs/wk)		18									2	20
	Quality Management	8	8	60	8	16	40	16	16			4	176
<b>2</b>	<b>Design for Bidding</b>												
	- Final Drawings Production												
	- 60%		8		16	80		80	80	80	240		584
	- 90%		8		16	80		80	80	80	240		584
	- 100%		8		16	80		80	40	60	80		364
	- Final Specifications		4		16	80		80	80			8	268
	- 100 % Opinion of Probable Cost		4		8	16		16	16			2	62
	- Final Permitting Applications		2			8		8	8			2	28
	o Response to Permitting RFIs/RFCs		2			24		24	24			4	76
	- Contract Front End Documents		2			16		8	8			2	36
	- Coordination with Equipment Suppliers		2			4		8				2	16
	Monthly Meetings (4 months)		16		4	16		16	16			2	70
	Project Management and Administration (2 hrs/wk)		32									2	34
	Quality Management	8	4	40	8	24	40	24	24			2	174
<b>3</b>	<b>Bidding Services</b>												
	- Bid Advertisement												0
	- Pre-bid Meeting		2			2		4				2	10
	- RFI/Addenda		2		2	8		16	16	8	16	8	76
	- Bid Review & Opinion of Acceptability		2			4		4	4			2	16
	Labor Subtotal hours	16	208	100	154	786	80	956	726	326	846	146	
	Labor Raw costs	\$75.00	\$72.12	\$58.84	\$64.04	\$55.96	\$60.86	\$45.00	\$32.59	\$56.00	\$30.00	\$26.00	
	labor Multiplier	3	3	3	3	3	3	3	3	3	3	3	
	Labor Subtotal	\$3,600	\$45,003	\$17,652	\$29,586	\$131,954	\$14,606	\$129,060	\$70,981	\$54,768	\$76,320	\$11,388	\$584,918
	<b>Labor Total</b>												
	SBA Subconsultant Labor Total (1)												\$274,050
	SBA Subconsultant Multiplier												1.1
	<b>SBA Subcontract Total</b>												\$301,455
	Other Direct Costs												\$40,000
	<b>Project Total</b>												\$926,373

(1) Hilliers, TKW, HWS, Testing Labs of the Palm Beaches

**ATTACHMENT - B**  
**PROJECT SCHEDULE**

The completion dates for this work will be as follows.

<u>Services</u>	<u>Completion Date</u>
	From Receipt of PBCWUD Supplied Project Information
Task 1 – Preliminary Design	2 months
Task 2 – Design for Bidding	5 months
Task 3 – Permitting Services	5 months
Task 4 – Bidding Services	8 months

**OTHER DIRECT COSTS**

**Reproduction**

	Unit Cost	Cost		Unit Cost	Cost
Drawings (222 est.)			Specifications (600 pgs)		
Preliminary (10 sets)	\$1/sht	\$ 2,220			
30% (10 sets)	\$1/sht	\$ 2,220	30% (10 sets)	\$0.12/pg	\$ 720
60% (10 sets)	\$1/sht	\$ 2,220	60% (10 sets)	\$0.12/pg	\$ 720
90% (10 sets)	\$1/sht	\$ 2,220	90% (10 sets)	\$0.12/pg	\$ 720
100% (10 sets)	\$1/sht	\$ 2,220	100% (10 sets)	\$0.12/pg	\$ 720
Permitting	\$1/sht	\$ 2,220	Report Production	\$0.12/pg	\$ 500

**Travel**

8 Out of Town Visits					
- Airline	\$600/tkt	\$ 4,800			
- Hotel (2 nights/per)	\$150/nt	\$ 2,400			
- Subsistence (/day)	\$75/day	\$ 1,600			
- Rental Car (incl. fuel/etc.)	\$100/day	\$ 1,600			
Local Staff Mileage (750 mi.)	\$0.5550	\$416			

**Groundwater Rule Compliance**

Analytical Chemicals & Testing	\$ 3,500	
Water Quality Testing Equip.	\$ 7,500	
Equipment Shipping/Handling	\$ 1,500	

TOTAL \$ 40,016.25

**ATTACHMENT C**

SCHEDULE #1

LIST OF PROPOSED SBE-M/WBE PRIME/SUBCONTRACTORS

PROJECT NAME: WTP 2 Filter Replacement Design PROJECT NUMBER: 12-066

NAME OF PRIME BIDDER Carollo Engineers, Inc. ADDRESS: 8401 Lake Worth, Florida 33467

CONTACT PERSON: Lyle Munce PHONE NO. 561/209-6004 FAX NO. 562/340-1403

BID OPENING DATE: NA DEPARTMENT Water Utilities

**PLEASE IDENTIFY ALL APPLICABLE CATEGORIES**

Name, Address and Telephone Number of Minority Contractor	(Check one or both Categories)					Dollar Amount		
	Minority Business	Small Business	Black	Hispanic	Women	Caucasian	Other (Please Specify)	
Hillers Electric Engineering, Inc. 23257 SR 7, Suite 100, Boca Raton, FL 33428	<input type="checkbox"/>	<input checked="" type="checkbox"/>						
			\$	\$154,000	\$		\$	
TKW Consulting, Inc. 5621 Banner Dr., Ft. Meyers, FL 3391	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
			\$	\$	\$ 75,000.00	\$	\$	
Heller – Weaver and Sheremeta, Inc. 310 SE 1 st Street, Suite 5, Delray Beach, FL 33483	<input type="checkbox"/>	<input checked="" type="checkbox"/>						
			\$29,550.00	\$	\$	\$	\$	
Testing Lab of the Palm Beaches 421 S H St., Lake Worth, FL 33460	<input type="checkbox"/>	<input checked="" type="checkbox"/>						
			\$	\$	\$	\$15,500	\$	
	<input type="checkbox"/>	<input type="checkbox"/>						
			\$	\$	\$	\$	\$	
PRIME CONTRACTOR TO COMPLETE:		TOTAL	\$29,550.00	\$154,000.00	\$ 75,000.00	\$ 15,500.00	\$	
BID PRICE: <u>\$926,373</u>		Total Value of SBE Participation:	<u>\$274,050</u>					

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

SCHEDULE 2

LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONTRACTOR

PROJECT NO. WUD 12-066 PROJECT NAME: WTP 2 Filter Replacement Design

TO: Carollo Engineer  
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (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: January 27, 2009

The undersigned is prepared to perform the following described work in connection with the above project  
(Specify in detail, particular work items or parts thereof to be performed):

Line Item/Lot No.	Item Description	Qty / Units	Unit Price	Total Price
<u>NA</u>	<u>Electrical/I&amp;C Design</u>	_____	_____	<u>\$154,000</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Perform electrical and instrumentation and controls (I&C) design for the proposed filters at WTP 2.

at the following price  
\$ 154,000

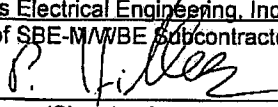
(Subcontractor's quote)

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

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subcontractor, the amount of any such subcontract must be stated: \$ 0.

The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

Hillers Electrical Engineering, Inc.  
(Print Name of SBE-M/WBE Subcontractor)

By:   
(Signature)

Paul Hillers  
(Print name/title of person executing on behalf of SBE-M/WBE Subcontractor)

Date: 10/10/12



SCHEDULE 2

LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONTRACTOR

PROJECT NO. WUD 12-066 PROJECT NAME: WTP 2 Filter Replacement Design

TO: Carollo Engineers  
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (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: October 25, 2010

The undersigned is prepared to perform the following described work in connection with the above project  
**(Specify in detail, particular work items or parts thereof to be performed):**

Line Item/Lot No.	Item Description	Qty / Units	Unit Price	Total Price
<u>NA</u>	<u>Survey Support</u>	_____	_____	<u>\$29,550.00</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Perform construction survey support services.

at the following price  
\$ twenty nine thousand five hundred and fifty (\$29,550.00)  
(Subcontractor's quote)

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

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subcontractor, the amount of any such subcontract must be stated: \$ 0.

The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

Heller – Weaver and Sheremeta, Inc.  
(Print Name of SBE-M/WBE Subcontractor)

By [Signature]  
(Signature)

Warren J. Rolle  
(Print name/title of person executing on behalf of SBE-M/WBE Subcontractor)

Date: 10/11/12

SCHEDULE 2

LETTER OF INTENT TO PERFORM AS AN SBE OR MWBE SUBCONTRACTOR

PROJECT NO. WUD 12-066 PROJECT NAME: WTP 2 Filter Replacement Design

TO: Carollo Engineers  
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (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: September 24, 2010

The undersigned is prepared to perform the following described work in connection with the above project  
**(Specify in detail, particular work items or parts thereof to be performed):**

Line Item/Lot No.	Item Description	Qty / Units	Unit Price	Total Price
<u>NA</u>	<u>Geotechnical Investigation</u>	_____	_____	<u>\$15,500</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Perform geotechnical investigation.

at the following price

\$ not to exceed \$15,500

(Subcontractor's quote)

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

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subcontractor, the amount of any such subcontract must be stated: \$ 0.

The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

Testing Lab of the Palm Beaches  
(Print Name of SBE-M/WBE Subcontractor)

By: Laurie Rogers  
(Signature)

Laurie Rogers  
(Print name/title of person executing on behalf of SBE-M/WBE Subcontractor)

Date: 10/10/12

**SCHEDULE 2**

**LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONTRACTOR**

PROJECT NO. WUD 12-066 PROJECT NAME: Water Treatment Plant No. 2 Filter Replacement Design

TO: Carollo Engineers  
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (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: State of Florida M/WBE – 2/21/2012

The undersigned is prepared to perform the following described work in connection with the above project  
**(Specify in detail, particular work items or parts thereof to be performed):**

Line Item/Lot No.	Item Description	Qty / Units	Unit Price	Total Price
<u>NA</u>	<u>Structural Design</u>	_____	_____	<u>\$75,000</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Perform structural design for the proposed filters at WTP 2.

at the following price  
Seventy Five Thousand Dollars (\$75,000)  
(Subcontractor's quote)

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

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subcontractor, the amount of any such subcontract must be stated: \$ 0.

The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

TKW Consulting Engineers, Inc.  
(Print Name of SBE-M/WBE Subcontractor)

By: James T. Lange  
(Signature)

James T. Lange, P.E. Structural Engineering Manager  
(Print name/title of person executing on behalf of SBE-M/WBE Subcontractor)

Date: 10/10/12

ATTACHMENT D – LOCATION MAP



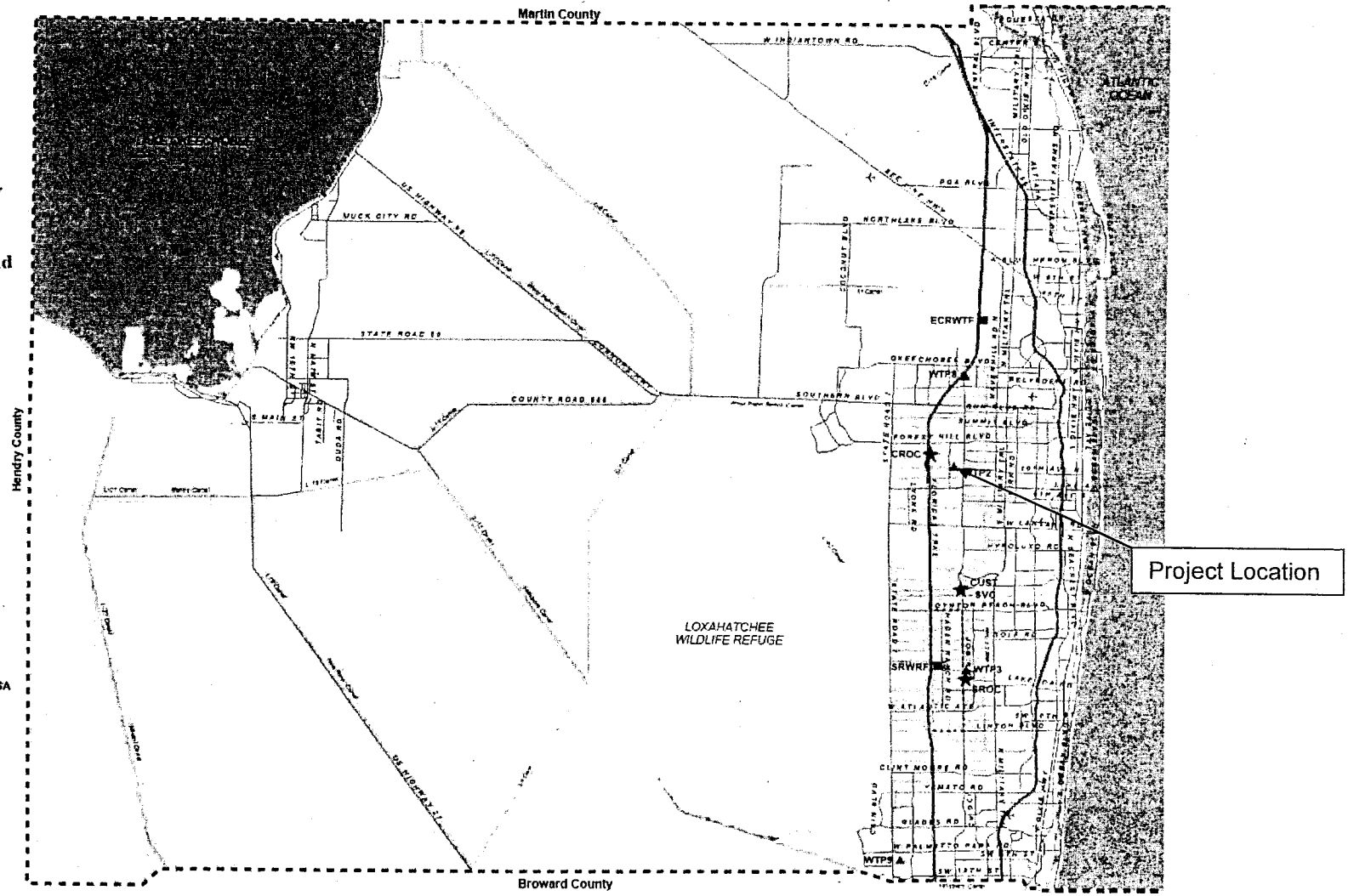
Palm Beach County  
Water Utilities  
Department  
Service Area (SA) and  
Major Facilities

Legend

- P.B.C.W.U.D. SA
- MANDATORY RECLAIMED SA
- - - - COUNTY LIMITS
- ★ Administration
- Water Reclamation Plant
- ▲ Water Treatment Plant
- ⊙ Wetlands



MAP TO SCALE



## EXHIBIT - B

### AUTHORIZATION STATUS REPORT

(CONTINUED)

SUMMARY AND STATUS OF  
REQUESTS FOR AUTHORIZATIONS

Auth. No.	Description	Status	Project Total Amount	Date Approved	WUD No. Assigned	Carollo Project No.
1	WTP 8 High Service Pump Evaluation	Approved	\$29,280	06/10/11	11-075	8684B.00
2	Distribution System Security Enhancement Program Pilot Test of Distribution System Security Monitoring Technologies	Approved	\$98,900	06/08/11	10-072	8645A.00
3	Water Masterplan Update	Approved	\$254,708	08/16/11	11-118	8558C.00
3.1	Water Masterplan Update – Supplement No. 1	Approved	\$15,001	03/14/12	11-118	8558C.00
4	Distribution System Blending Water Quality and Organoleptic Evaluation	Approved	\$36,029	08/29/11	11-142	8558D.00
5	WTP 3 Permeate Pipeline Replacement Engineering During Construction	Approved	\$85,270	04/27/12	11-074	8685A.20
6	WTP 2 Filter Replacement Conceptual Plan	Approved	\$96,657	06/27/12	12-066	8241B.00
7	Glades Region Water Master Plan	Approved	\$186,000	08/14/12	12-068	8558E.00
8	WTP 2 Filter Replacement Design	Pending	\$926,373	Pending	12-066	8241B.10
<b>Total</b>			<b>\$1,728,218</b>			

## EXHIBIT - C

### AUTHORIZATION STATUS REPORT

#### SUMMARY OF SMALL BUSINESS TRACKING SYSTEM

	Total	SBE
<b>Current Proposal</b>		
Value of Authorization No. 8	\$926,373	
Value of MWBE Letters of Intent	\$274,050	\$274,050
Actual Percentage	29.58	29.58
<b>Signed / Approved Authorizations</b>		
Total Value of Authorizations	\$801,845	
Total Value of MWBE Signed Subcontracts	\$209,801	\$209,801
Actual Percentage	26.16% ✓	26.16%
<b>Approved Authorizations Plus Current Proposal</b>		
Total Value of Authorizations	\$1,728,218	
Total Value of Subcontracts & Letters of Intent	\$483,851	\$483,851
Actual Percentage	27.99% ✓	27.99%
<b>GOAL</b>	26 %	