

SMALL WATER METER TEST BENCH

EVENT NO. 5872

SPECIFICATIONS AND SPECIAL CONDITIONS

- 4.0 The purpose of these specifications is to describe requirements for a new, modular, small water meter test bench to be used by the City of Savannah's Water Resources Department. The test bench shall be multi-meter, double row, heavy duty quality and must employ the latest in design and process control technology and shall meet or exceed American Water Works Association (AWWA) recommendations, National Institute for Standards and Technology (NIST) Handbook 44 specifications, and International Standards Organization specifications.

The test bench specifications shall comply with AWWA, except in cases of conflict with these specifications contained herein. Any type or make of water meter test bench offered must have been manufactured and marketed in the U.S. for at least five (5) years and evidence will be required to indicate the name of locations where bench has established satisfactory services records. This information shall be provided on Attachment 1 and included with a bid in order to be further considered.

To submit pricing electronically for this event, enter pricing for each line item shown under the lines tab on the event summary. To enter pricing manually, complete the attached bid proposal form. Manually submitted bids must be submitted on the bid proposal forms contained in these specifications in order to be considered.

A pre-bid conference has been scheduled to be conducted at the Purchasing Office, City Hall, third floor, 2 East Bay Street, Savannah, Georgia 31401. This meeting will allow contractors to discuss the specifications and resolve any questions and/or misunderstandings that may arise with City staff. You are invited to attend.

- 4.1 Standard Specifications for Small Meter Test Bench
- 4.1.1 The small meter test bench shall meet all specifications applicable per AWWA. The test bench shall further be certified for conformance with National Sanitation Foundation American National Standards Institute Standard 61 by an ANSI accredited third party as required in Georgia rules for Safe Drinking Water Chapter 391-3-5-.04(8)b effective January 1, 1998. Parts and materials must meet standards for lead free compliance of the Safe Drinking Water Act.
 - 4.1.2 The small meter test bench shall have the capability to test all lengths and types of 5/8 inch to two inch (2") size meters with testing to a high standard of accuracy and repeatability.
 - 4.1.3 The small meter test bench shall have the capability to test ten (10) small 5/8 inch, 3/4 inch, one inch (1") meters at a time or five (5) small meters and three (3) 1.5 inch or two inch (2") meters at a time.
 - 4.1.4 Meters shall be mounted in parallel or in series.
 - 4.1.5 The small meter test bench shall be rated for a maximum of 150 PSI.

- 4.1.6 The small meter test bench shall be modular with the ability to add on in the future.
- 4.1.7 Bid shall contemplate costs associated with installation assistance and training.

4.2 Detailed Specifications for Small Meter Test Bench

- 4.2.1 Safety: The small meter test bench shall be designed to minimize physical fatigue and shall have easy to operate controls to minimize operator errors. It shall be intrinsically safe and shall eliminate shock and explosive hazards from hydraulic conditions.
- 4.2.2 Frame: The small meter test bench shall be constructed of fabricated steel and welded in accordance to standard industry practices and certifications. The frame shall be capable of compressive and hydraulic forces equal to 15,000 pounds of pressure and shall have a total weight rating of 10,000 pounds without distortion or misalignment.
- 4.2.3 Coating: The small meter test bench shall be coated with polyester or equal. It shall have a minimum 20 years resistance to corrosion and shall be high impact resistant. All steel shall be fully sandblasted and treated with a rust proof primer prior to being coated for total bonding and shall not be touched by human hands within two (2) hours of drying. It shall be applied using the electrostatic method, then placed in an oven at 495 degrees F until fully bonded, after which the frame shall be electrostatically spark tested to detect defects.
- 4.2.4 Splash pans: The pans shall be stainless steel construction and extend full width and length of the test bench. The pans shall further be built from panels ten feet (10') or less to facilitate removal and cleaning and shall be drip free and shall be at a one inch (1") in ten feet (10') slope to the lowest point where a stainless steel nipple/drain will be welded for drain tie-in.
- 4.2.5 Closing and clamping devices: Shall utilize electric driven ball screw actuator to compress meters and spool spacers and shall be Warner or equal.
- 4.2.6 The devices shall be designed to hold pressures to 150 PSI and utilize electric driven ball screw actuator to compress meter and the spool spacers. Devices shall be Warner or equal.
- 4.2.7 The meters being tested shall be held in place with carrier bars sliding on stainless steel rails along the length of the bench. To minimize friction, a UHMW polyethylene outboard and glides shall be mounted to a solid brass center carrier bar.
- 4.2.8 The device shall use inter-changeable adaptors to allow various meter thread sizes and shall be set up with 90 durometer polyurethane gaskets for longevity.
- 4.2.9 The carrier bars shall be equipped with locator pins to align meters and prevent accidental misalignment and blowouts and shall utilize 1/4 inch O-rings and square groove technology on 1.5 inch and two inch (2") carrier bars.
- 4.2.10 All wet parts shall be brass and designed to hold pressures to 150 PSI.
- 4.2.11 The ball screw actuators shall be Warner or equal in a Nema-4 enclosure for intrinsic safety and water tight connections. It shall further have a 0.27 inch per second closing speed, a steady opening and closing speed, and have forward and reverse motion momentary industrial push button control.
- 4.2.12 Test spool assemblies shall be provided in all sizes relevant to test bench size parameters and dimension and they shall be constructed of Schedule 80 PVC pipe with quantity provided to allow the ability to test one meter and the sizes shall be 1.5 inch and two inch (2") spools with bronze oval flanged spacers.
- 4.2.13 Ball valves shall be full port, chrome plated with Teflon seat, three (3) piece stainless steel body

with a 150 PSI rating.

- 4.2.14 Electric ball valve actuators shall be Keystone, RCS, or equal and in Nema-4X enclosure with zinc plating, two (2) part polyurethane open/closed angle position indicator and with 90 degree operation from full open to full close in seven (7) seconds. A manual override hand wheel shall be provided along with torque switches, mechanical travel stops, internal heater, ball bearing 110 VAC motor with thermal protection. It shall be 30% duty cycle with a temperature range from negative four (-4) to 158 degrees F and have a life cycle of 100,000 operations minimum.
- 4.2.15 Flow measurement, record keeping station, automatic test quantity control, and control panel shall all be included.
- 4.2.16 Flow measurement shall utilize three (3) precision rotameters with low flow measurement of 0.25 to 1.5 GPM, medium flow measurement of 1.5 to 15 GPM, and high flow measurement of 15 to 60 GPM or 6 to 150 GPM.
- 4.2.17 The record keeping station shall be designed to cover motion operators and hold forms, pencils, etc., shall have a hinged lid, shall be with an angled writing surface with lip, and have stainless steel hardware and white Formica construction.
- 4.2.18 The test bench shall come with a dual stage shut-down system which includes: two (2) stage test quantity control with control panel and valves that partially close when level meets 97% of full test quantity, then fully closes at 100% (high flow tests) via an actuated ball valve. All 110 VAC connections must be enclosed in water tight conduit and boxes
- 4.2.19 The control panel shall be in a Nema-4 or 12 enclosure. It shall be gray enamel finish, Hoffman, E-Box, or equal, completely pre-wired to operate all test system functions, equipped with emergency stop and power on switch, industrial momentary and multi-position selector switches manufactured by Square D or equal, and come with flow rate instruments and batch controllers manufactured by Kistler-Ellis, or equal.

4.3 Gravimetric Package

- 4.3.1 A gravimetric scale system with one (1) year meter management software and shall include one cubic foot (1³) and ten cubic feet (10³) stainless steel duplex tanks, pumping system, controls and computer and printer. The system must have the AWWA test parameters pre-loaded for selection of the tests.

The features shall include a motion detection range setting unit, alarm to prevent over-flow, and the ability to run test sequence by time or volume with five selectable units of measure (gallons, cubic feet, cubic meters, imperial gallons and pounds with the ability to be modified). The system shall have the ability to further select test names or line names (i.e., Q-min or 0.5 inch line). Scale must zero after each test and tanks shall automatically drain after the test or hold the water in order to stack the test.

The system shall have a built in leak detection on the scale and a variable leak check after the test, shall allow selectable purging of one line or all lines based on the time which is operator adjustable, shall come with emergency stop or test abort shall be available in all phases and an auto compensating free-fall adjustment to stop test on target value. The control software must be upgradeable and the unit shall be set up for computer and or printer interface.

- 4.3.2 NIST approved class III weighing device manufactured by Weightronix, or equal, which shall be traceable to Handbook 44 specifications. The system accuracy shall be one-half of one percent (0.5%) and repeatable to one-tenth of one percent (0.1%).

4.4 Recycling System (Optional)

The recirculation system shall recycle the test water used on the test bench, maintain volume and pressure to test all the meters at the recommended AWWA Specifications, per Table 5-3 of the current edition

AWWA M6 Manual. Register housing shall meet AWWA specifications with lid securely pinned to housing.

The system shall include all related piping, valves, VFDs and a chlorination/filtration system, supply tank with supply and return pumps, upper meter housing shall be made of high-grade no lead water works bronze per AWWA specifications. Main meter housing shall be of high-grade no lead waterworks bronze per AWWA specifications with test plug. The external strainer shall be of high-grade no lead waterworks bronze or fabricated steel with fusion bonded epoxy coating.

Bolt type connections are required with flanges, bolts, and gaskets.

Optional: A pump control system for the scale that allows for pump speed adjustment before the test or during the test cycle, stopping of pump or pumps after a pre-determined amount of time with no use to prevent pump damage, opening the bypass valve if the controller does not sense water flow in a reasonable time to prevent dead-head conditions, and interface between the controller and with computer software to be controlled through the computer screen.

- 4.5 Vendor must be capable of providing full service for all items set forth in this bid specification.
- 4.6 Training will be scheduled through the Water Distribution Administrator and conducted at 706 Stiles Avenue, Savannah, Georgia.
- 4.7 Standard factory warranties will apply to all products furnished under this contract. The successful bidder(s) will personally visit the Water Distribution staff twice in the first year of operation under warranty for evaluation of testing procedure, repair, or replacement of unit. Successful bidder(s) must sign in with the Water Distribution Administrator during each visit.
- 4.8 Successful bidder(s) must supply a list of the meter test bench standard parts and where to purchase them as needed.
- 4.9 Prices quoted shall be F.O.B. Central Warehouse, 1100 W. Gwinnett Street Bldg. C, Savannah GA 31415 or F.O.B. Water Distribution, 706 Stiles Avenue, Savannah GA 31415.
- 4.10 Bid prices must remain firm for the duration of the contract.
- 4.11 All pricing shall include freight.
- 5.0 General Conditions
- 5.1 The bid response must include the following documents in this order:
 - Bid Proposal Form (as a cover sheet)
 - Exception Sheet
 - Non-Discrimination Statement
 - Proposed Schedule of DBE Participation
 - Other submittals as stated

All referenced documents must be completed and returned in their entirety to constitute a complete bid.

- 5.2 Original invoices should be sent to:

City of Savannah
Accounts Payable
P.O. Box 1027
Savannah, Georgia 31402

- 5.3 The vendor is responsible for determining and acknowledging any addenda issued in connection with this bid solicitation. All addenda issued for this event must be acknowledged in order for a bid to be considered.
- 5.4 To be awarded bids, vendors must be registered as suppliers on the City of Savannah's website at www.savannahga.gov.
- 5.5 This contract will be awarded to the vendor offering the lowest net price to the City, and meeting or exceeding all specifications herein.
- 5.6 The City of Savannah reserves the right to split the award of this contract if deemed advantageous to do so.

EXCEPTION SHEET

Event #5872

If the commodity(ies) and/or services proposed in the response to this bid is in anyway different from that contained in this proposal or bid, the bidder is responsible to clearly identify by specification section number, all such differences in the space provided below. Otherwise, it will be assumed that bidder's offer is in total compliance with all aspects of the proposal or bid.

Below are the exceptions to the stated specifications:

Date

Signature

Company

Title

BID PROPOSAL FORM

(SUBMIT AS THE COVER SHEET)

City of Savannah Purchasing Department
3rd Floor, City Hall
P. O. Box 1027
Savannah, Georgia 31402
ATTN: Purchasing Director

EVENT NUMBER: 5872

Business Location: (Check One)
 Chatham County
 City of Savannah
 Other

ALL BIDDERS MUST BE REGISTERED VENDORS ON THE CITY'S WEBSITE TO BE AWARDED AN EVENT. PLEASE REGISTER AT WWW.SAVANNAHGA.GOV.

MANUALLY SUBMITTED BIDS MUST BE SUBMITTED ON THIS BID PROPOSAL FORM IN ORDER TO BE CONSIDERED.

Name of Bidder: _____

Street Address: _____

City, State, Zip Code: _____

Phone: _____ Fax: _____

Email: _____

**DO YOU HAVE A BUSINESS TAX CERTIFICATE ISSUED IN THE STATE OF GEORGIA?
(CHECK ONE) YES: _____ NO: _____**

**FROM WHAT CITY/COUNTY _____
TAX CERTIFICATE #: _____ FED TAX ID #: _____**

**INDICATE LEGAL FORM OF OWNERSHIP OF BIDDER (STATISTICAL PURPOSES ONLY):
CHECK ONE: _____ CORPORATION _____ PARTNERSHIP
_____ INDIVIDUAL _____ OTHER (SPECIFY: _____)**

**INDICATE OWNERSHIP STATUS OF BIDDER
(CHECK ONE):**
_____ NON-MINORITY OWNED _____ ASIAN AMERICAN
_____ AFRICAN AMERICAN _____ AMERICAN INDIAN
_____ HISPANIC _____ OTHER MINORITY (describe) _____
_____ WOMAN (non-minority)

**Do you plan to subcontract any portion of this project? Yes _____ No _____
If yes, please complete the attached schedule of DBE participation. Also complete the schedule if you will be using any DBE suppliers.**

ADDENDA ACKNOWLEDGEMENT

My signature below confirms my receipt of all addenda issued for this proposal.

Signature

*This acknowledgement is separate from my signature on the fee proposal form. My signature on the fee proposal form will not be deemed as an acknowledgement of addenda.

THE UNDERSIGNED PROPOSES TO FURNISH THE FOLLOWING ITEMS IN STRICT CONFORMANCE TO THE BID SPECIFICATIONS AND BID INVITATION ISSUED BY THE CITY OF SAVANNAH FOR THIS BID. ANY EXCEPTIONS ARE CLEARLY MARKED IN THE ATTACHED COPY OF BID SPECIFICATIONS.

ITEM NO	DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	TOTAL
1	Test Bench	1 Each		
2	Gravimetric Scale System with Meter Software	1 Each		
3	Annual License with Computer and Printer	1 Year		
4	(Optional) Recycling Systems	1 Each		
5	(Optional) Booster Pump with Accessories	1 Each		
6	Installation	1 Lot		
7	Training	1 Lot		

TOTAL BID \$ _____

PAYMENT TERMS: PLEASE CHECK ONE AND FILL IN BLANKS

(Minimum of 10 working days must be allowed for discount to be considered in bid award)

___ Less ___ % ___ Days Prompt Payment Discount (if offered) (_____)

___ Net - 30 Days (no discount offered) - 0 -

TOTAL NET BID \$ _____

=====

HAVE YOU INCLUDED ATTACHMENT 1 PER SECTION 4.0? _____

I certify this bid complies with the General and Specific Specifications and Conditions issued by the City except as clearly marked in the attached copy.

Please Print Name Authorization Signature Date

NON-DISCRIMINATION STATEMENT

The bidder certifies that:

- (1) No person shall be excluded from participation in, denied the benefit of, or otherwise discriminated against on the basis of race, color, national origin, or gender in connection with any bid submitted to the City of Savannah or the performance of any contract resulting therefrom;
- (2) That it is and shall be the policy of this company to provide equal opportunity to all business persons seeking to contract or otherwise interested in contracting with this company, including those companies owned and controlled by racial minorities, cultural minorities, and women;
- (3) In connection herewith, we acknowledge and warrant that this company has been made aware of, understands and agrees to take affirmative action to provide such companies with the maximum practicable opportunities to do business with this company;
- (4) That this promise of non-discrimination as made and set forth herein shall be continuing in nature and shall remain in full force and effect without interruption;
- (5) That the promises of non-discrimination as made and set forth herein shall be and are hereby deemed to be made as part of and incorporated by reference into any contract or portion thereof which this company may hereafter obtain and;
- (6) That the failure of this company to satisfactorily discharge any of the promises of non-discrimination as made and set forth herein shall constitute a material breach of contract entitling the City of Savannah to declare the contract in default and to exercise any and all applicable rights and remedies including but not limited to cancellation of the contract, termination of the contract, suspension and debarment from future contracting opportunities, and withholding and/or forfeiture of compensation due and owing on a contract.

Signature

Title

DBE SUBCONTRACTOR PAYMENT REPORT

Report No. _____

Contract #:	Contract Amount:	Date Form Submitted:	
Project Name:		Project Completion Date:	
Prime Contractor:		Period Ending:	Amt. Paid to Prime:
Contact Person:		Telephone#: ()	Fax#: ()

SUBCONTRACTING INFORMATION

TO BE SUBMITTED TO THE CITY OF SAVANNAH OFFICE OF BUSINESS OPPORTUNITY

DBE Subcontractor	Telephone #	Description of Work	Original Agreed Price	% of work Completed to Date	Amount Paid This Period	Amount Paid To Date

Total Amount Paid to Subcontractors to Date:

--

I certify that the information submitted in this report is in fact true and correct to the best of my knowledge

Signature:	Title:	Date:
-------------------	---------------	--------------

Note: The information provided herein is subject to verification by the Office of Business Opportunity.

**OFFICE OF BUSINESS OPPORTUNITY
SCHEDULE OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION¹**

EVENT NUMBER:		PROJECT TITLE:			
PRIME CONTRACTOR NAME:		ADDRESS:		PHONE:	FAX:
SUBCONTRACTOR NAME	ADDRESS and PHONE NUMBER	SERVICES/WORK TO BE PERFORMED	DBE? (Y/N)	SUB-CONTRACT AMT (% OF TOTAL BASE BID)	SUB-CONTRACT AMT (\$)
TOTAL BASE BID²					\$
TOTAL PROPOSED DBE SUBCONTRACTS²					\$
BIDDER'S PROPOSED DBE PARTICIPATION³					%

I hereby certify that the above is a true reflection of proposed subcontracts, and that said firms shall be contracted to work on the trades specified and/or supply materials and/or equipment for this project. I have included a properly executed letter of intent for each DBE firm mentioned in this schedule with our response.

Name and Title of Authorized Representative	Signature	Date
---	-----------	------

¹Form to be completed and signed by the bidder/offeror; Use additional sheets if necessary.

²To be provided only when the solicitation requires that the bidder/offeror include the dollar amount in its bid.

³Total proposed DBE participation (\$) divided by bidder's total base bid (less any exclusions specifically mentioned in the solicitation), or total of all DBE Participation (%) if dollar amount is not required.

CONTRACTOR AFFIDAVIT AND AGREEMENT
Employment Eligibility Verification

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the City of Savannah has registered with and is participating in a federal work authorization program* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services pursuant to this contract with the City of Savannah, contractor will secure from such subcontractor(s) similar verification of compliance with O.C.G.A. 13-10-91 on the Subcontractor Affidavit provided in Rule 300-10-01-.08 or a substantially similar form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the City of Savannah at the time the subcontractor(s) is retained to perform such service.

EEV / Basic Pilot Program* User Identification Number

BY:

Contractor Name

Date

Signature of Authorized Officer or Agent

Printed Name of Authorized Officer or Agent

Title of Authorized Officer or Agent of Contractor

*As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is the "EEV / Basic Pilot Program" operated by the U. S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA).

Instructions for Completing Contractor Affidavit and Agreement Form

As required under Senate Bill 529 – “Georgia Security and Immigration Compliance Act” of 2006, O.C.G.A. Section 2, Article 3 13-10-91, public employers, their contractors and subcontractors are required to verify the work eligibility of all newly hired employees through an electronic federal work authorization program. The Georgia Department of Labor has added a new Chapter 300-10-1, entitled "Public Employers, Their Contractors and Subcontractors Required to Verify New Employee Work Eligibility Through a Federal Work Authorization Program," to the Rules and Regulations of the State of Georgia. (See website: http://www.dol.state.ga.us/pdf/rules/300_10_1.pdf.) The new rules designate the “Employment Eligibility Verification (EEV) Basic Pilot Program” operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security as the electronic federal work authorization program to be utilized for these purposes. The EEV/Basic Pilot Program can be accessed at: <https://everify.uscis.gov/enroll/StartPage.aspx?JS=YES>. Bidders shall comply with this new rule and submit with your bid the attached “Contractor Affidavit and Agreement.”

Affidavit Verifying Status for City of Savannah Benefit Application

By executing this affidavit under oath, as an applicant for a City of Savannah, Georgia Business License or Occupation Tax Certificate, Alcohol License, Taxi Permit, Contract or other public benefit as reference in O.C.G.A. Section 50-36-1, I am stating the following with respect to my bid for a City of Savannah contract for _____. [Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity]

1.) _____ I am a citizen of the United States.

OR

2.) _____ I am a legal permanent resident 18 years of age or older.

OR

3.) _____ I am an otherwise qualified alien (8 § USC 1641) or nonimmigrant under the Federal Immigration and Nationality Act (8 USC 1101 *et seq.*) 18 years of age or older and lawfully present in the United States.*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Signature of Applicant: _____ Date _____

Printed Name: _____

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE
____ DAY OF _____, 20____

* _____
Alien Registration number for non-citizens.

Notary Public
My Commission Expires:

***Instruction for Completing Systematic Alien Verification
for Entitlement (SAVE) Form***

O.C.G.A. § 50-36-1, requires Georgia's cities to comply with the federal **Systematic Alien Verification for Entitlements (SAVE) Program**. SAVE is a federal program used to verify that applicants for certain "public benefits" are legally present in the United States. Contracts with the City are considered "public benefits." Therefore, the successful bidder will be required to provide the Affidavit Verifying Status for City of Savannah Benefit Application prior to receiving any City contract. The affidavit is included as part of this bid package but is only required of the successful bidder.

Attachment 1

Any type or make of water meter test bench offered must have been manufactured and marketed in the U.S. for at least five (5) years and evidence will be required to indicate the name of locations where bench has established satisfactory services records. Attachment 1 must be completed and included with a bid to be further considered. Supplemental documents such as brochures, product specification sheets, etc. may be included with Attachment 1 if necessary.

Name of location:

How long has water meter test bench
been manufactured and marketed at this location:
