



**COUNTY OF HENRICO  
DEPARTMENT OF FINANCE  
PURCHASING DIVISION**

**CONTRACT EXTRACT  
NOTICE OF RENEWAL**

DATE:	May 27, 2020
CONTRACT COMMODITY/SERVICE:	Water Meters & Fire Hydrant Meters
CONTRACT NUMBER:	1840A
COMMODITY CODE:	890.44
CONTRACT PERIOD:	June 1, 2020 through May 31, 2021
RENEWAL OPTIONS:	3 additional 1-year periods through 2024
USER DEPARTMENT:	Public Utilities
SUPPLIER:	Name Badger Meter, Inc.
	Address 4545 W. Brown Deer Rd. PO Box 245036
	City, State Milwaukee, WI 53224-9536
	Contact Name Paul Fecht
	Phone Number 804-357-20800
	Fax Number 414-371-8128
	Email address pfecht@badgermeter.com
ORACLE SUPPLIER NUMBER:	1811
BUSINESS CATEGORY:	Non-Swam
PAYMENT TERMS:	Net 30
DELIVERY:	30 days ARO
FOB:	County of Henrico
BUYER:	Name Kennedy Williams, VCA, VCO
	Title Procurement Analyst II
	Phone 804-501-5690
	Email WIL203@henrico.us

This contract is the result of a competitive solicitation issued by the Department of Finance, Purchasing Division. A requisition must be generated for all purchases made against this contract and the requisition must reference the contract number. Please see attached pricing sheet and scope of work.

**Price Schedule – Contract No. 1840A**

<b>Item Number</b>	<b>Description</b>	<b>Manufacturer</b>	<b>Model Number</b>	<b>Unit Price</b>
1	5/8" Meter with Itron Connection Cable	Badger Meter, Inc.	RCDL M25	\$69.55
2	1" Meter with Itron Connection Cable	Badger Meter, Inc.	RCDL M55	\$109.61
3	1 1/2" Meter with Itron Connection Cable	Badger Meter, Inc.	RCDL M120	\$306.24
4	2" Meter with Itron Connection Cable	Badger Meter, Inc.	RCDL M170	\$429.97
5	3" Compound Meter with Strainer and Itron Connection Cable	Badger Meter, Inc.	RCDL Compound Meter Series	\$2,362.05
6	4" Compound Meter with Strainer and Itron Connection Cable	Badger Meter, Inc.	RCDL Compound Meter Series	\$3,440.49
7	6" Compound Meter with Strainer and Itron Connection Cable	Badger Meter, Inc.	RCDL Compound Meter Series	\$4,761.26
8	3" Fire Hydrant Meter	Badger Meter, Inc.	RCDL Turbo 450 FHM	\$817.50

**Scope of Work**

A. **General Requirements**

1. Meter Specifications and Manufacturer Qualification:

- a. All meters shall be constructed in accordance with American Water Works Association, (AWWA) C700 latest revision "Standard Specification for Cold Water Meters – Displacement Type" and AWWA C701 latest revision "Standard Specification for Cold Water – Turbine Type meter for fire hydrant service." This specification shall prevail over any details in conflict with AWWA Specifications C700 and C701. Displacement meters may be oscillating-piston or nutating-disc. All meters bid shall comply with the guidelines set forth for lead levels and shall be constructed in accordance with the latest requirements and guidelines of the National Science Foundation, (NSF), American National Standards Institute, (ANSI) and Environmental Protection Agency, (EPA).
- b. Water meter manufacturers shall have a minimum of 10 years' experience with the manufacture and supply of similar type water meters to other utilities in the United States of America and have supplied a minimum of 500,000 displacement type water meters meeting the requirements of AWWA C700 and shall provide evidence of such if so requested.
- c. Meters shall be compatible with Itron Model 100W Electronic Recorder Transmitter, ERT-1300-403, 3 port.

## B. Specifications

### 1. Displacement Type Meters:

All meters shall have a non-corrosive outer case of bronze material.

The standard level of quality, service, and specification shall be as manufactured by Badger, Recordall Series, Model Numbers M25, M55, M120, M170 or an approved equal for the 5/8", 1", 1-1/2", and 2" meters.

#### a. Registers and Intermediate Gear Train:

1. Registers shall be of the LCD encoder type, straight reading in cubic feet. The encoders shall meet or exceed all applicable requirements of the latest revisions of AWWA Standard C707. The readings shall be digitally displayed and include a separate flow detector device. The registers shall have both underlined and non-underlined numbers. The underlined numbers represent the billable units. **Registers must be sent in 6 dial mode. The use of encoder units mounted external to the meter register will not be acceptable. The use of pulse type registers will not be acceptable.**

2. The intermediate gear train shall be built in the register. Reduction gears may be of brass or molded plastic construction. Actuating power shall be transmitted by means of a two-piece permanent magnet drive coupling.

#### b. Marking:

The serial numbers of the meters shall be plainly stamped on both register box lid and case of all meters. All serial numbers should be readable when viewed from the top. Each meter shall have a bar code number label in addition to the serial number stamped on the meter. The bar code label shall be located on the bottom of the meter.

#### c. Strainers:

All meters shall have internal non-corrosive strainers.

#### d. External Bolts and Washers:

All external bolts and washers shall be of a non-corrosive material and easily removed from the main case after extended periods of service. No shear pin bolts will be allowed under this specification.

#### e. Connection:

Main case connections for 5/8" through 1" meters shall be threaded spuds. The 1 1/2" and 2" meters shall be 2 bolt oval flange style.

f. Automatic Meter Reading (AMR) Recorder Transmitter:

1. Successful Bidder shall provide meters with Itron Model 100W Electronic Recorder Transmitter, ERT-1300-403, 3 port, units which are compatible with the existing Henrico AMR system which uses Itron mobile collectors and handheld units. Successful Bidder shall provide each meter with an ERT mounting bracket to allow the ERT to be mounted on the meter body. Successful Bidders shall provide each meter with an Itron 60" long cable to allow the ERT unit to be separately field mounted in the meter box. Successful Bidder shall provide an Itron submersible cable between the meter register and the ERT unit Itron inline, cable connector to allow the meter and ERT to be disconnected in the field.
2. ERTs shall be shipped in the "off" mode and shall automatically change to the "on" mode when connected to the meter register by the inline cable connector.
3. Successful Bidder shall provide ERT units with through-the-lid mounting attachments to allow ERT units to be lid mounted.
4. Henrico County acknowledges that all ERT orders are final and shall be in full box quantities. These orders are subject to Itron lead times at the time of order.
5. Henrico County will return any malfunctioning ERT directly to Itron for testing, diagnosis, and warranty repair or replacement.

g. Manuals:

The Successful Bidder shall provide two copies of parts and maintenance manuals for all meters bid. Electronic (CD) type manuals are acceptable.

h. Required Vendor Information:

1. The Successful Bidder shall include with every shipment an inventory file that includes, but is not limited to, the following information:
  - a. Meter size
  - b. Meter model
  - c. Meter number
  - d. Manufacturers test data (low, medium, high)
  - e. Ship data
  - f. Warranty end dates

2. The Successful Bidder shall provide a new meter and ERT Excel inventory file that can be used by the Department of Public Utilities to automatically populate the meter billing system inventory log. The successful bidder shall make modifications as needed or requested to the file structure so that it is acceptable to the County. (See Sample Below)

<b>Data Field</b>	<b>Type</b>	<b>Length</b>	<b>Notes</b>
1.) Meter Number	Character	8	
2.) Manufacturer Serial Number	Character	25	May be the same as the meter number
3.) ERT ID Number	Number	8	
4.) ERT Model Number	Character	8	
5.) Purchase Date	Date	10	Format of MM/DD/YYYY
6.) Warranty End Date	Date	10	Format of MM/DD/YYYY
7.) Test data –low	Character	8	
8.) Test data –med	Character	8	
9.) Test data –high	Character	8	
10.) Meter Type	Character	8	Establish an alpha -numeric system that identifies Model - Can be stock code from Successful Bidder
11.) Meter Size	Number	3	58 for 5/8", 15 for 1.5", 01 for 1", 02 for 2", 03 for 3", etc.
12.) Manufacturer	Character	30	
13.) Units Read	Character	8	Hundred Cubic Feet, (CCF)
14.) Number of Dials	Number	6	

2. 3", 4" and 6" Compound Meters:

a. Additional Specifications:

1. The compound meters shall consist of a low flow positive displacement chamber and a turbine chamber for recording higher flows. All meters shall have a non-corrosive outer housing of bronze material. The standard level of quality, service and specification shall be as manufactured by Badger Recordall Compound Series Meter, or an approved equal for the 3", 4" and 6" compound meters.
2. The compound meters shall meet the requirements listed above for displacement meters, unless otherwise specified herein. LCD Registers and AMR Transmitters are required, as specified above.

b. Connections:

Main case connections for all compound meters shall be either 4 or 8 bolt round flange style, depending on meter size.

3. Fire Hydrant Meters:

a. Additional Specifications:

1. The Successful Bidder shall provide 3" turbine type meters for use as fire hydrant meter complete with internal check valve system or external check valve, gate valve and City of Richmond type male 2 ½" outlet coupling. Each Fire Hydrant meter shall be provided with carrying handles and mounting feet. Provide fire hydrant meter assemblies including the meter, valves and couplings which comply with NSF lead free requirement. The standard level of quality, service, and specification shall be as manufactured by Badger, Recordall Turbo Series, Model Number 450 FHM or an approved equal.
2. Meters shall comply with ANSI/AWWA Standard C701 class II and each meter will be tested for compliance. Testing shall be performed by the Successful Bidder at no cost to the County of Henrico. The Successful Bidder will ensure a Certification of Compliance is attached to each Fire Hydrant Meter prior to shipping. Certification of Compliance can be in the form of a test tag affixed to each meter detailing the test results. Fire Hydrant Meters shipped without a Certificate of Compliance will be rejected and returned at the Successful Bidders expense.
3. Meters shall be shipped to the County as a fully assembled unit complete with 3" Meter; 3" check valve, 3" gate valve, and City of Richmond type male 2 ½" outlet coupling.
4. The Successful Bidder shall provide each meter with a flow restriction plate or orifice to limit the maximum flow rate to approximately 600 Gallons Per Minute, (GPM).

b. Cases:

All meters shall have a non-corrosive outer case of bronze or cast aluminum and provided with carry handles. Register boxes and lids shall be made of bronze or a suitable synthetic polymer material.

c. Registers and Intermediate Gear Train:

1. Registers shall be of the LCD encoder type, straight reading in cubic feet. The readings shall be digitally displayed and include a separate flow detector device. The registers shall have both underlined and non-underlined numbers. The underlined numbers represent the billable units. **Registers must be sent in 6 dial mode. The use of encoder units mounted external to the meter register will not be acceptable.** Provide permanently sealed register incorporating a bayonet style locking mechanism with tamper prevention device.
2. The intermediate gear train shall be built in the register with reduction gears made of brass or molded plastic construction.
3. The register lens shall not fog, cloud or collect condensation on the inside. The register shall be designed to be tamper proof and the lens shall be heat-treated glass.

d. Marking:

The serial number shall be plainly stamped on the register box lid and case of all meters. All serial numbers shall be readable when viewed from the top.

e. External Bolts and Washers:

All external bolts and washers shall be of stainless steel or other non-corrosive material.

C. **Quality Control:**

1. All meters shall be factory pressure tested and tested for accuracy of registration at flow rates and test flow quantities in accordance with ANSI/AWWA C700.
2. The Successful Bidder shall provide certification indicating that each meter supplied to the County has been tested for accuracy of registration and complies with the accuracy and capacity requirements of ANSI/AWWA C700.
3. Henrico County acknowledges that technological advancements and product improvements are continuous. If the current meters are discontinued during this contract period, the Bidder shall provide Henrico County with at least 6 months' advance notice and provide the newest meter model that conforms to these specifications at a price that does not exceed the prices quoted with this contract.

D. **Warranty and Maintenance Program:**

1. The meters shall be guaranteed to perform to the following AWWA new meter accuracy standards from date of shipment or registered flow, whichever occurs first:
  - a. 5/8" - 5 years or 750,000 gallons
  - b. 1" - 5 years or 1.0 million gallons
  - c. 1 1/2" - 2 years or 1.6 million gallons.
  - d. 2" - 2 years or 2.1 million gallons
2. The meters shall be guaranteed to perform to the following AWWA repaired meter accuracy standards from date of shipment or registered flow, whichever occurs first:
  - a. 5/8" - 15 years or 2.5 million gallons
  - b. 1" - 15 years or 3.0 million gallons
  - c. 1 1/2" - 15 years or 5.6 million gallons.
  - d. 2" - 15 years or 10.4 million gallons
3. Registers for meters shall be guaranteed for a period of no less than 10 years from the date of shipment.

5. All meters returned for repairs shall be returned to the County with a detailed report for each unit which describes the cause of problem and the repairs made to the unit being returned. Any returned, repaired, or replaced meters shall be accompanied with an Excel Inventory File, as detailed in Paragraph I B 1 h (2) above. Meters shall be returned to the County within 90 days from the date they were sent to the Successful Bidder for repair.

E. **Delivery:**

1. Meters and Fire Hydrants will be shipped and delivered as a complete shipment; in accordance with the quantities indicated on the County of Henrico Purchase Order, partial orders or back orders are not acceptable.
2. The Successful Bidder shall notify the County, Department of Public Utilities within five business days prior to the actual delivery date. The point of contact for arranging deliveries shall be the Warehouse Manager who can be reached at 804-727-8780.
3. Deliveries shall be made within 30 days after receipt of order.
4. The Successful Bidder shall deliver the meters to the following location:

County of Henrico  
Department of Public Utilities  
10401 Woodman Road  
Glen Allen, VA 23060

F. **Invoicing:**

1. The meters shall be invoiced together and reference the Purchase Order number.
2. The Successful Bidder shall send invoices to the following address:

County of Henrico  
Department of Public Utilities  
Warehouse Manager  
10401 Woodman Road  
Glen Allen, VA 23060