

SPECIFICATIONS
WATER METERS
FOR CAROLINE COUNTY,
VIRGINIA

BID OPENING

Date: February 15, 2012
At Two O'clock P.M. (2:00)

Caroline County
212 N. Main St.
Bowling Green, Virginia 22427
(804) 633-8030

CAROLINE COUNTY

TERMS AND CONDITIONS
TERMS AND CONDITIONS APPLY TO ALL BIDDERS

- 1) This bid is subject to the provisions of the Virginia Public Procurement Act, and any revisions thereto in effect at the time of this invitation for bid.
- 2) Employment discrimination by contractor prohibited: In the solicitation or awarding of contracts, Caroline County shall not discriminate because of race, religion, age, disability, color, sex or national origin of the bidder or offeror. Every contract in excess of ten thousand (10,000) dollars shall include the following provisions:
 - During the performance of this contract, the contractor agrees: (1) that the contractor will not discriminate against any employee or applicant for employment because of race, religion, age, disability, color, sex or national origin, except where religion, age, disability, sex, or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The contractor agrees to post in conspicuous places, available to all employees and applicants for employment, notices setting forth the provisions of this clause. (2) The contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that such contractors are an equal opportunity employer. (3) Notices, advertisements and solicitations placed in accordance with federal law, rule or regulations shall be deemed sufficient for the purpose of meeting the requirements of this section.
 - The Contractor will include the provisions of the following paragraphs in every subcontract or purchase order over ten thousand (10,000) dollars so that the provisions will be binding upon each subcontractor or vendor.
 - All bidders shall abide by applicable state and federal laws, including, but not limited to all provisions of the Americans with Disabilities Act. Each bidder agrees to hold Caroline County harmless regarding all claims in connection with the bidder's failure to comply with applicable laws and regulations.
- 3) Deliveries against this bid must be free of excise or transportation taxes.
- 4) All bids will be evaluated and awarded on net prices.
- 5) In case of default by the successful bidder, or failure to deliver the goods ordered by the time specified, Caroline County, after due notice (oral or in writing) may procure them from other sources and hold vendors responsible for any additional cost.
- 6) The signature on the face of this bid certifies that this bid is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a bid for the same materials, supplies, or equipment, and is in all respect fair and without collusion or fraud. I understand collusive bidding is a violation of the Virginia

Governmental Frauds Act and federal law and can result in fines, prison sentences, and civil damage awards. Vendor agrees to abide by all conditions of this bid and certify that he is authorized to sign this bid for the bidder.

- 7) This bid and any resulting purchase order/contract shall be governed in all respects, whether as to validity, construction, capacity, performance or otherwise by the laws of the Commonwealth of Virginia.
- 8) Modifications, additions, or change to the terms and conditions of this invitation for bid may be cause for rejection of bid.
- 9) Unit price must be shown for each item on this bid: extend each item and show total.
- 10) **Award:** Caroline County reserves the right to reject any or all proposals submitted, to waive any informality in the bid, to make an award on any or all of the items bid and to make an award to other than the low bidder in the best interest of Caroline County. In the event a contract is entered into as a result of this awarded RFP, it shall be for a base period of one year, and renewable each year for up to four (4) years.
- 11) **Responsibility for inspection:** Unless otherwise specified in the contract purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by Caroline County. Caroline County reserves the right to perform any of the inspections set forth in the specifications where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.
- 12) For good cause and as consideration for executing this contract, the bidder, acting herein by and through the person signing this bid on behalf of the bidder as duly authorized agent, hereby conveys, sells, assigns, and transfers to Caroline County all rights, title and interest in and to all causes of the action it may now or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods or service purchased or acquired by Caroline County.
- 13) I certify that by my signature on this bid, I have not offered or received any kickback from any other bidder, supplier, manufacturer, or subcontractor in connection with my bid against this solicitation. A kickback is defined as an inducement for the award of the contract, subcontract or order, payment, loan, advance, deposit or money, services or any thing of value in return for an agreement not to compete on a public contract.
- 14) **Use of Brand Names:** Unless otherwise provided in the invitation to bid, the name of a certain brand of manufacture named, it conveys the general style, type, character, and quality of the article desired, and any article which the public body in its sole discretion determines to be the equal of that specified, considering, quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted.

- 15)** Prices quoted must be firm for a period of up to one year, but no less than one hundred twenty (120) days from bid date, unless otherwise specified, and no bid may be withdrawn for a like period.
- 16)** Contractual claims, whether for money or other relief, shall be submitted in writing no later than sixty (60) days after final payment; however, written notice of the contract intention to file such a claim shall have been given at the time of occurrence upon which the claim is based. Claims shall be submitted to Caroline County at its address where they will be considered and written response rendered within thirty (30) days of receipt of such claim.

INVITATION FOR BIDS

1) RECEIPT OF BIDS

- A) Sealed bids will be received at the Caroline County Finance Office, 212 North Main Street, Bowling Green, Virginia 22427 until 2:00 p.m. on *Wednesday, February 15, 2012* for furnishing and delivery of water meters and accessories in accordance with the specifications set forth herein. Bids shall be delivered to the Finance Office in a sealed envelope showing the bid date and bid time on the outside of the envelope and identified as "WATER METER BID."

2) INTENT OF CONTRACT

- A) It is the intent of this invitation to procure water meters, Itron hand held unit, water meter boxes, meter setters and couplers, for the service demand in the Caroline County Public Utilities Department. All manufacturing and assembly procedures shall be accomplished in a neat and workmanlike manner and all goods furnished shall be new, of standard manufacture in current production and in common usage for the intended purpose.
- B) The manufacturers furnishing these goods shall be experienced in the design and construction of such products and shall furnish evidence, if required, of having supplied like equipment which has been in successful operation for a period of not less than five (5) years.
- C) The products shall include all items necessary for their intended use and where specific items are not mentioned, the manufacturer's standard specifications shall be used.
- D) These products shall conform to the Caroline County Water and Sewer Specifications.

3) TOTAL COST BID

- A) The bid shall include the cost of the water meters, Itron Hand held Unit with docking station and magnet mount antenna, water meter boxes, meter setters and couplers.

4) BID FORM

- A) The attached bid form shall be completed in its entirety according to the equipment bid. Bidder shall attach a separate sheet listing those specifications which he/she cannot meet and what deviation is offered.

5) INTERPRETATIONS AND REQUESTS FOR SUBSTITUTION

- A) Any bidder in doubt as to true meaning of any part of the Contract Documents may submit a written request to Caroline County for an interpretation. The bidder submitting the request will be responsible for its prompt and actual delivery. Any interpretation or approval will be made by addendum duly issued. A copy of such addendum will be mailed or delivered to each bidder receiving a set of such documents. Caroline County will not be responsible for any other explanations or interpretations of such documents which anyone presumes to make. No oral interpretations or approvals will be made.
- B) Submit every request for interpretation or substitutions regarding the work covered, in writing to the office of Katrina Price, Purchasing Agent, Caroline County, P.O. Box 447, Bowling Green, Virginia 22427 no later than Thursday, February 9th at 5:00p.m.

6) IRREGULAR PROPOSALS

- A) Proposals shall be considered irregular and may be rejected for any of the following reasons, unless otherwise provided by law.
- If the proposal furnished to the bidder by Caroline County is not used or altered.
 - If there are unauthorized additions or conditional bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite, or ambiguous as to its meaning.
 - If the bidder adds any provisions reserving the right to accept or reject any award, or to enter into a contract pursuant to an award.

7) WITHDRAWAL OR REVISION OF PROPOSALS

- A) A bidder may, without prejudice to himself, withdraw after it has been deposited with Caroline County, in writing or by telegram, before the time set for opening proposals. Telephonic communication shall not be accepted. After opening of bids, no proposals may be withdrawn by the bidder for a period of ninety (90) days or as otherwise specified or provided by law.
- B) Any bidder may modify his bid by telegraphic communication at any time prior to the scheduled time for the opening of proposals, provided such telegraphic communication is received by Caroline County prior to opening of proposals, and provided further, Caroline County is satisfied that a written confirmation of the telegraphic modification over the signature of the bidder was mailed prior to the

opening or proposals. The telegraphic communication should not reveal the bid price, but should provide the addition or subtraction or other modification so, until the sealed bid is opened. If written confirmation is not received within two (2) days after the scheduled time for opening proposals, no consideration will be given to the telegraphic modification.

8) METHOD OF AWARD

- A) Award of contract by the County will be to the lowest responsible and responsive bidder. Award will be made on either a total cost basis or lowest initial purchase price basis, whichever the County deems to be in its best interest.
- B) Consideration will also be given to delivery date, parts, and service capabilities and dealer facilities, analysis and comparison of equipment specifications, details and past experience of users of like equipment.
- C) Caroline County reserves the right to reject any and all bids and waive any and all formalities and the right to disregard all non-conforming or conditional bids or counter proposals. Caroline County reserves the right to reject any bid if investigation of such bidder fails to satisfy Caroline County that such bidder is properly qualified to carry out the obligations and to complete the work contemplated by the contract documents. Any or all proposals will be rejected if there is reason to believe collusion exists among the bidders.

9) BIDDER SERVICE FACILITIES

- A) Because the maintenance of this equipment in good operating condition, without protracted downtime for repairs is critical, repair parts and service must be adequate and readily available on short notice. The bidder shall state in his proposal the location of his service shop, parts depot, and serviceman.

10) EQUIPMENT TRAINING

- A) The successful bidder agrees to provide an appropriate training program for equipment operators and maintenance personnel; in sufficient scope to assure efficient and economical performance and maintenance of the equipment purchased.

11) EMERGENCY PARTS LIST

- A) The successful bidder shall supply a list of recommended emergency spare parts to be stocked by the County. This will indicate quantity, part number and description.

12) WARRANTY

A) Products shall be covered by manufacturer's warranty as outlined in water meter spec.

13) MANUFACTURER'S SPECIFICATIONS

A) A complete set of manufacturer's specifications and illustrated descriptions shall be furnished with the bid.

CAROLINE COUNTY BID PROPOSAL WATER METERS

<u>Item No.</u>	<u>Quantity</u>	<u>Item Description</u>	<u>Unit Cost</u>	<u>Extended Cost</u>
1)	[12]	1/2 X 5/8 Radio Read Water Meter	\$ _____	\$ _____
2)	[400]	5/8 X 3/4 Radio Read Water Meter	\$ _____	\$ _____
3)	[1]	2" positive Displacement Radio Read Water Meter	\$ _____	\$ _____
4)	[1]	2" Turbo Radio Read Meter	\$ _____	\$ _____
5)	[1]	Hand Held Radio Meter Reader with Docking Deck and Magnet Mount Antenna	\$ _____	\$ _____
6)	[50]	Meter Boxes	\$ _____	\$ _____
7)	[30]	Meter Setters	\$ _____	\$ _____
8)	[30]	Brass Couplers	\$ _____	\$ _____

TOTAL COST BID: \$ _____

Name of Bidder: _____

Address: _____

Signed By: _____

Title: _____

Print Name: _____

Date: _____

COLD WATER METERS SPECIFICATIONS

Positive Displacement Type 5/8" through 2"

General Description: Meters furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in meter manufacturing for the American market. Meters shall be new, first line quality, positive displacement type for cold water service. To optimize low flow accuracy and repeatability meters must be of the oscillating piston type. Multi-jet meters are not acceptable under this specification.

Meters shall comply with AWWA Standard C700 latest revision and the minimum specifications herein. They shall be designed for use with potable water below 120 degrees F.

Meters must be magnetically driven. Meters with stuffing boxes, spindles and packing glands will not be acceptable.

REGISTRATION ACCURACY: All meters shall meet the following flow requirements:

Size	Low Flow GPM @95%	Normal Flow GPM 98.5%-101.5%	Continuous Flow GPM
5/8"	<u>1/8</u>	1-20	15
3/4"	<u>1/2</u>	2-30	15
1"	<u>3/4</u>	3-50	25
1 1/2"	<u>1 1/2</u>	5-100	50
2"	<u>2</u>	8-160	80

MAIN CASES: The body's main case shall be of high quality copper alloy with raised markings to indicate the direction of flow and size. All cases shall have a minimum wall thickness of 1/8th of an inch. All 5/8" - 1" meter main cases shall include a bottom plate made of bronze, cast iron or plastic and held in place with stainless steel bolts with integral washer heads. All bottom plates shall be isolated from the potable water by a full rubber liner. All 1-1/2" - 2" meter main cases shall include a top plate made of bronze only.

Cases must be capable of withstanding working pressures of one hundred fifty (150) PSI. Thread protectors shall be supplied for the connection ends.

REGISTER HOUSINGS: Register housings shall be constructed of a suitable engineering polymer or bronze and provide full protection of the register assembly. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamper proof screws, or locking pin devices are acceptable.

MEASURING CHAMBERS: Measuring chambers shall be of the two-piece design and be made of a copper alloy containing not less than 85% copper or a suitable engineering polymer. The chamber shall be separate from the outer casing and so secured in the main case that the

accuracy of the meter will not be affected by any distortion of the case. All wear prone surfaces shall be reinforced with a nylon material.

All measuring chamber assemblies shall operate smoothly and be capable of sustaining long-term accuracy. All motion from the piston shall be transferred to the register via magnetic drive.

OSCILLATING PISTON MEASURING CHAMBER: Measuring chamber must be an oscillating piston design, no nutating disc allowed. Pistons shall be made of vulcanized hard rubber or a suitable engineering polymer with a specific gravity approximately equal to that of water.

Piston oscillations must not exceed the figure recommended in Table One (1) of AWWA Standards C700 latest revision for the size of meter being bid.

STRAINERS: All meters shall be provided with a strainer screen installed in the meter. Strainer screens shall be rigid, fit snugly, be easy to remove and have an effective straining area at least two times that of the main case inlet.

WARRANTIES: Meters shall be guaranteed to be free from defects in materials and workmanship for 12 months after installation or 18 months after shipment and to meet AWWA C700 new meter accuracy standards for a period of five years from the date of shipment, or registration as itemized below:

5/8" & 3/4"	750,000 U.S. gallons
1"	1,100,000 U.S. gallons
1 1/2"	1,600,000 U.S. gallons
2"	2,100,000 U.S. gallons

At the expiration of this period, meters shall be guaranteed to meet AWWA C700 repaired meter accuracy standards specified below:

5/8" & 3/4"	15 years from date of shipment or registered usage of 2,500,000 U.S. gallons
1"	15 years from date of shipment or registered usage of 3,250,000 U.S. gallons
1 1/2"	10 years from date of shipment or registered usage of 5,600,000 U.S. gallons
2"	10 years from date of shipment or registered usage of 10,400,000 U.S. gallons

1.2 Automated Meter Reading Registers for Positive Displacement Meters

GENERAL DESCRIPTION: Registers furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in the production of digital

encoder-based remote metering systems, utilizing a reed switch. The registers shall have the capability of providing meter information as described in the enclosed specification.

Specifications for the required cold-water meters can be found in separate specifications.

REGISTERS: Registers shall be of the digital encoder type and permanently sealed in a vacuum purged or dry air filled copper or stainless steel can. Systems utilizing generator pulses are not acceptable under this standard. Similar size, type and registration of registers shall be interchangeable. Registers shall be equipped with low flow indicators, faceplates must be stamped with date of manufacture and serial identity number and register must come with a lid. Registers shall read in (U.S. Gallons) (Cubic Feet) (Cubic Meters).

In order to assure reliability and repeatability, these registers shall utilize a **reed switch**. Switch closures are to occur at the frequency of one time per gallon, in order to maximize resolution.

ITRON PIT ERT 60W: Each meter will come with a proven Itron compatible pit ERT, programmed with Caroline County's Itron role call.

ITRON HAND HELD RADIO METER READER: FC-300 to complement the Vehicle Radio Read system Caroline County currently uses.

METER BOXES: Carlson Meter Box 18" HEF-D1800-DSB or Equivalent – Lid shall be a flush cover with plastic reader door and Touch Read Hole.

METER SETTERS: Ford VHH-72-7W-41-33 or Equivalent

BRASS COUPLERS: Ford C84-34 or Equivalent