

COUNTY OF MONTGOMERY

PURCHASING DEPARTMENT
755 ROANOKE STREET, Suite 2C
CHRISTIANSBURG, VA 24073-3179
PHONE (540) 382-5784 | FAX: (540) 382-5783
Jeff Groseclose CPPB, Procurement Manager

INVITATION FOR BID # 24-01 issued August 31, 2023 ADDENDUM NUMBER 1

DATE: August 31, 2023
TITLE: Fire Hydrant Maintenance and Flow Testing

Amendments:

1. No further questions will be accepted after the issuance of this addendum.

Clarification:

1. **Question:** Are all 360 hydrants to be painted during the first year or just the hydrants that need painting?

Montgomery County Response: Yes all hydrants should be painted and tops to be color coded according to flow

2. **Question:** Hydrants to be painted: are the hydrants to be sand blasted or just wire brushed for cleaning?

Montgomery County Response: wire brushed

3. **Question:** On pp 3 of the RFP, it states that “... *residual pressure readings from another/different hydrant than that being flow tested is not required...*”. We interpret this type of residual pressure reading for flow testing to imply the flow test will be a “single hydrant” flow test. This is not how fire flow testing should be conducted per the AWWA M17 Manual on Fire Hydrants. We just want to make sure the flow testing is for a “single hydrant” style of test. Please clarify.

Montgomery County Response: Flow test must comply with AWWA standards

4. **Question:** There is no hydrant flow data collection procedure outlined in the RFP. Please detail the data that is expected to be collected from the field. (static pressure, residual pressure, estimation of gallons flowed and flow rate attained during test, etc.).

Montgomery County Response: Static pressure, residual pressure, flow rate attained during test and if isolation valve is visible.

5. Question: Can we get a map of all hydrant locations to see how spread out this work is.

Montgomery County Response: Yes. Please call 540-382-5784 for an electronic link to the map.

6. Question: What are the regular business hours?

Montgomery County Response: 8:00 to 4:30 Monday - Friday

7. Question: Is operating the lead valve part of the scope of work?

Montgomery County Response: Yes

8. Question: Can you supply the worksheets mentioned in the bid doc,

Montgomery County Response: See the worksheet included in this addendum

9. Can you provide us a copy of the maintenance and testing procedures outlined in the Public Service Authority Hydrant Inspection and Maintenance program so we can compare them to AWWA M17 and NFPSA291 respectively?

Montgomery County Response: See the Hydrant Inspection and Maintenance Program included in this addendum

ACKNOWLEDGE RECEIPT OF ADDENDUM # 1:

COMPANY/FIRM NAME AND ADDRESS:

_____ Zip Code _____

SUBMITTED BY:

NAME: _____
(print)

SIGNATURE: _____

TITLE: _____

DATE: _____

Telephone Number: (____) _____

Email: _____

FIRE HYDRANT MAINTENANCE AND FLOW WORKSHEET

FIRE HYDRANT ID #	<hr/>	NOTES:	<hr/>
DATE	<hr/>		<hr/>
CONDITION OF HYDRANT	<hr/>		<hr/>
GPM	<hr/>		<hr/>
STATIC PRESSURE	<hr/>		<hr/>
ISOLATION VALVE CONDITION	<hr/>		<hr/>

FIRE HYDRANT ID #	<hr/>	NOTES:	<hr/>
DATE	<hr/>		<hr/>
CONDITION OF HYDRANT	<hr/>		<hr/>
GPM	<hr/>		<hr/>
STATIC PRESSURE	<hr/>		<hr/>
ISOLATION VALVE CONDITION	<hr/>		<hr/>

FIRE HYDRANT ID #	<hr/>	NOTES:	<hr/>
DATE	<hr/>		<hr/>
CONDITION OF HYDRANT	<hr/>		<hr/>
GPM	<hr/>		<hr/>
STATIC PRESSURE	<hr/>		<hr/>
ISOLATION VALVE CONDITION	<hr/>		<hr/>

Montgomery County Public Service
Authority Hydrant Inspection and
Maintenance Program

Hydrant Inspection & Preliminary Maintenance Worksheet (1)

FH ID: _____
 Manufacturer: _____
 Model: _____

Casting Year: _____

<i>Inspection:</i>	Yes	No	Obstructions:
Hydrant is clear for 3' radius			
Hydrant is visible			
Hydrant is tagged with PSA tag			
Hydrant is tagged with recall repair tag			
Hydrant is intact (no cracks, holes, missing bolts, missing caps, etc.)			
Breakaway flange shows no damage			
Hydrant shows signs of use (wrench marks, missing paint, etc.)			
Leaks			
Map location correct			
Caps present and in good shape			
Chains firmly attached and in good shape			
Hydrant too low			
Hydrant too high			inches
Hydrant leaning			inches

<i>Preliminary Maintenance</i>		
Clear area / remove debris 3' around fire hydrant		
Threads, nozzles and gaskets:		
Remove all nozzle caps and clean and inspect threads		
Clean & lube threads using approved food grade lube		
Replace all gaskets		
Replace caps, note ease of operation -- tighten fully and back off slightly (prevent removal by hand).		
Note ease of valve operation		
Lubricate hydrant:		
Use manufacturer's recommendation if possible		
Determine zerk (grease) fitting, plug, or no external lube point		
Clean zerk fitting or oil cap / plug		
Zerk: Grease through zerk fitting using grease gun till refusal or showing of grease around zerk fitting		
Plug: Remove oil cap / plug, check level & fill if needed		
Use FDA approved food grade lubricants; Oil Research Inc. 151 Food Grease Lubricant, Mobil DTE FM 32 Oil, Mueller Co. A-51 hydrant lubricating oil, or approved equal		

Gate Valve, Runoff and Cross Connection Worksheet (2)

FH ID: _____

<i>Hydrant Gate Valve Checklist:</i>	
Valve visible and at proper grade	
Screw box top has cover	
Screw box has no cracks, misalignment, etc.	

<i>Hydrant Gate Valve Test:</i>	
Leaks found by listening with valve key (valve in on position)	
Valve operates properly	
Operating nut is fully open	
Close valve:	
Number of turns (count & list)	
Leaks found by listening with valve key	
Open valve	
Note ease of valve operation (smooth, difficult, uneven, etc.)	

<i>Runoff Checklist:</i>	
Hydrant must be dechlorinated if any circumstances exist that require dechlorination. These conditions include, but are not limited to, wetlands, streams, rivers or channels in the path of or downstream of the hydrant flow. Contractor will supply proper dechlorination equipment, and is responsible for any and all damage which may occur as the result of hydrant flowing.	
Dechlorination used	

Proper care must be taken to insure that property damage and inconvenience are kept to the least degree possible. Public safety must be maintained. When necessary, flow will be diverted via hoses to avoid public hazard or property damage, including to residences, buildings, gardens, etc. Any debris from hydrant discharge shall be swept or cleared from roads, streets, and drives.

Steps taken to avoid safety concerns / property damage:

<i>Cross Connections:</i>	
Hydrant test must be performed in a manner which insures that no contamination or cross connection occurs. If using a hose for discharge, do not allow the hose end to rest in water.	
Steps taken to avoid cross connections or contamination:	

Fire Flow Worksheet (3)

FH ID: _____ Test Date: _____ Weather: _____
 Test Time: _____ Test By: _____

FH Test Procedure / Checklist:

Hydrant can be safely flowed (use hose, de-chlor, etc. as needed)

Photograph hydrant & site prior to beginning test procedure

Gate Valve, Runoff and Cross Connection Worksheet completed

Check for leaks:

Ensure caps are secure, loosen 1 cap to vent air, slowly open hydrant till water is at cap then tighten cap; slowly open hydrant fully -- check for leaks, slowly close hydrant fully.

Leaks found?

Clear hydrant drain:

With caps secure, open hydrant no more than three turns. Close hydrant slowly. Repeat this procedure slowly to flush drain.

Completed?

Residual Hydrant Static Pressure Procedure:

Attach a pressure gauge (200 or 250 psi) to a proximate hydrant, open the valve slowly, venting air from the hydrant body through the gauge cap assembly -- close the assembly when air is vented and continue opening the valve; once pressure has stabilized, record pressure below.

Completed?

Offset distances & other considerations for selection of residual hydrant:

Flow Hydrant Static Pressure Procedure:

At flow hydrant, attach a pressure gauge to one outlet, open the valve (vent air as described above) and take reading; record pressure below.

Completed?

Flow Procedure:

Close the flow hydrant, and attach the diffuser capable of 2,500 gpm to the second outlet. Aim this carefully!

Completed?

Completely open flow hydrant, allow flow to stabilize, take & record flow reading below.

Take and record the pressure at the residual location; record below.

Closing Procedure:

Close flow hydrant slowly; avoid water hammer. Back off slightly (no more than 1/4 turn from hand tight). Remove diffuser & gauge. Do not replace caps till vacuum has equalized (test by hand over hole or flashlight); do not overtighten.

Completed?

Close the residual hydrant in the same manner.

Verify all hydrants are closed, not seeping or leaking, and are ready for service.

FH Test Data:

Static Pressure (psi)		Calculated Water Loss (gallons)	
Outlet Discharge (psi)		Residual Hydrant ID	
Outlet Discharge (gpm)		Residual Hydrant Static Pressure (psi)	
Test Duration (minutes)		Residual Hydrant Flow Test Pressure (psi)	

Dechlorination Type Used:

Maintenance Worksheet (4)

Prior to painting, any rust, loose paint, or excessive build-up of paint shall be removed via wire brush or scraper, as appropriate. Excessive dirt or dust shall be removed to prepare surface for painting. The hydrant body shall be painted with Safety Red paint, as shall caps and bonnet unless already painted to designate flow.

Fire Hydrant Surface Prepared

Fire Hydrant Painted

Caps and Bonnet Already Color Coded

Minor corrections (trimming, brush removal, etc.) performed at time of inspection:

Steps taken to clear around fire hydrant:

Comments:

Checklists are to be returned to the PSA offices daily. Valves which are difficult to operate, have bent stems or don't open & close fully shall be reported to the PSA offices immediately. Hydrants which are found to be inoperable during inspection must be marked with an "Out of Service" ring (supplied by PSA) installed behind the pumper nozzle cap, and shall be reported to the PSA offices immediately. In this case, the hydrant shall be marked as inoperable on the fire hydrant checklist, and it shall be noted on the checklist that an "Out of Service" ring has been placed upon the hydrant