



**COUNTY OF HENRICO
DEPARTMENT OF FINANCE
PURCHASING DIVISION
CONTRACT EXTRACT
NOTICE OF AWARD/RENEWAL**

DATE:	January 1, 2024
CONTRACT COMMODITY/SERVICE: <i>(include contracting entity if cooperative)</i>	Chemical Water Treatment, Quarterly Services and Emergency Repairs
CONTRACT NUMBER:	2459A
COMMODITY CODE:	885.94 and 885.95
CONTRACT PERIOD:	January 1, 2024 through December 31, 2024
RENEWAL OPTIONS:	3 remaining one-year renewal periods through 2027
USER DEPARTMENT:	All County
Contact Name:	Doug Gavin
Phone Number:	804-501-4230
Email Address:	gav@henrico.us
HENRICO COOPERATIVE TERMS INCLUDED:	Yes
SUPPLIER: Name:	Water Chemistry, Inc.
Address:	3404 Aerial Way Drive
City, State:	Roanoke, VA 24018
Contact Name:	Scott Russow
Phone Number:	703-328-1671
Email address:	scott.russow@waterchemistry.com
ORACLE SUPPLIER NUMBER:	123143
BUSINESS CATEGORY:	Small
PAYMENT TERMS:	Net 30
DELIVERY:	As needed and requested
FOB:	County of Henrico
BUYER: Name:	Jon Creger, VCA, VCO
Title:	Procurement Analyst II
Phone:	804-501-5664
Email:	Cre057@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.

Price Schedule for Contract 2459A
Chemical for Water Treatment, Service, Testing and Emergency Repairs for Piping and Water Treatment Systems

LOT A – Henrico County Service Locations

Item	Hourly Work Category	Unit Price Per Man Hour
1	Regular	\$90.00
2	Overtime	\$90.00
3	Holidays	\$90.00
Discount Percentage for replacement parts and/or components		10.00%

Item	Description	Unit	Unit Price
1	Legionella Culture Test	Each	\$245.00
2	Formula CL-2	Gallon	\$32.00

NOTE 1: Under System Type, Condenser NCD = Condenser with a Non-Chemical Device

NOTE 2: Under System Type, Condenser BD = Condenser with Dual Biocide Feed Option

Item #	Building	System Type	Service Frequency	Unit Price	Extended Price
1	Administration Building	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 - Chilled Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
		2 - Steam Boiler	Monthly	\$90.00	\$1,080.00
2	Administration Annex	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
		1 - Chilled Loop	Quarterly	\$6.00	\$24.00
3	Belmont Recreation Center	1 - PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
4	Central Automotive Maintenance	1 - Hot Loop	Quarterly	\$6.00	\$24.00
5	The Springs Recreation Center	1 - Chill Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
6	Courts Building	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 - Chilled Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
		3 - Steam Boiler	Monthly	\$130.00	\$1,560.00

		1 - SW Dual loop	Quarterly	\$6.00	\$24.00
		1 - NW Dual Loop	Quarterly	\$6.00	\$24.00
7	Cultural Arts Center	1 - Hot Loop	Quarterly	\$6.00	\$24.00
		1 - Chill Loop	Quarterly	\$6.00	\$24.00
8	Dabbs House - Bunker	1 - Hot Loop	Quarterly	\$6.00	\$24.00
9	Dorey Park Recreation Center	1- PG Chill Loop	Quarterly	\$6.00	\$24.00
10	Eastern Henrico Recreation Center	1 - PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
11	Eastern Government Center	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 - Chilled Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
12A	Old Fairfield Library	1 - Chill Loop	Quarterly	\$6.00	\$24.00
12B	Fairfield Library	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
13	Glen Allen Library	1 - Hot Loop	Quarterly	\$6.00	\$24.00
14	Henrico Theatre	1 - Chill Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
15	Human Services Building	1 - AI Boiler	Quarterly	\$6.00	\$24.00
16	Jail East	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 - Chill Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
17	Jail West	2 – Condenser BD	Monthly	\$160.00	\$1,920.00
		1 - Chilled Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
18	Juvenile Courts	1 - Hot Loop	Quarterly	\$6.00	\$24.00
19	Juvenile Detention	1 - Hot Loop	Quarterly	\$6.00	\$24.00
20	Libbie Mill Library	1 - Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 - Chill Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
21	Mental Health	1 - Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
		3 - Glycol Loop	Quarterly	\$6.00	\$24.00
22	North Park Library	1 - PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
23	Public Utilities Building	1 - Hot Loop	Quarterly	\$6.00	\$24.00
		1 - Glycol Chill Loop	Quarterly	\$6.00	\$24.00

24	Public Works Building	1 - Hot Loop	Quarterly	\$6.00	\$24.00
		1 - Chill Loop	Quarterly	\$6.00	\$24.00
25	Road Crew	1 - Hot Loop	Quarterly	\$6.00	\$24.00
26	Training Center	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 - Chill Loop	Quarterly	\$6.00	\$24.00
		1 - Hot Loop	Quarterly	\$6.00	\$24.00
27	Tuckahoe Area Library	1 - Hot Loop	Quarterly	\$6.00	\$24.00
		1 - Chill Loop	Quarterly	\$6.00	\$24.00
28	Tuckahoe Annex - Library HQ	1 - Hot Loop	Quarterly	\$6.00	\$24.00
29	Twin Hickory Library	1 - Hot Loop	Quarterly	\$6.00	\$24.00
30	Varina Area Library	1 - Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – Chill Loop	Quarterly	\$6.00	\$24.00

Total Treatment Price – General Services \$ 27,408.00 per year, \$6,852.00 per quarter.

Cooling Tower Data for 17 Tower Cells:

Water treatment disinfection services that include quarterly sump disinfection, and semi-annual Legionella bacteria testing

Quarter	Quantity	Item	Cost Each	Total
Q1	5	1 gallon Formula CL-2	\$32.00	\$160.00
	2	Hours labor for air inlets and sump disinfection	\$90.00	\$180.00
Q2	5	1 gallon Formula CL-2	\$32.00	\$160.00
	2	Hours labor for air inlets and sump disinfection	\$90.00	\$180.00
	15	Hours labor for sump- heater- float cleaning, and tower inspection	\$90.00	\$1,350.00
Q3	5	1 gallon Formula CL-2	\$32.00	\$160.00
	2	Hours labor for air inlets and sump disinfection	\$90.00	\$180.00
Q4	5	1 gallon Formula CL-2	\$32.00	\$160.00
	2	Hours labor for air inlets and sump disinfection	\$90.00	\$180.00
	15	Hours labor for sump- heater- float cleaning, and tower inspection	\$90.00	\$1,350.00

Annual Per Cell: \$4,060.00, Cost Per Month Per Cell: \$338.33

Monthly Cost for 17 Cells: \$5,751.61, Annual cost for 17 cells: \$69,019.32

Total Annual Cost for All Services: \$27,288.00 Treatment + \$69,019.32 for Tower Cells = \$96,307.32

LOT B – Henrico County Public School Service Locations

Item	Hourly Work Category	Unit Price Per Man Hour
1	Regular	\$90.00
2	Overtime	\$90.00

May 2020

3	Holidays	\$90.00
Discount Percentage for replacement parts and/or components		10.00%

Item	Description	Unit	Unit Price
1	Legionella Culture Test	Each	\$245.00
2	Formula CL-2	Gallon	\$32.00

NOTE 1: Under System Type, Condenser NCD = Condenser with a Non-Chemical Device

NOTE 2: Under System Type, Condenser BD = Condenser with Dual Biocide Feed Option

Item #	Building	System Type	Service Frequency	Unit Price	Extended Price
1	Deep Run HS	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – CC Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
		1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
2A	Freeman HS Field House	1 –Chilled Loop	Quarterly	\$6.00	\$24.00
2B	Freeman HS Gym	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
3	Glen Allen HS	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
4A	Godwin HS Field House	1 – Hot Loop	Quarterly	\$6.00	\$24.00
4B	Godwin HS Main	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
4C	Godwin HS Q Chiller	1 –Chilled Loop	Quarterly	\$6.00	\$24.00
5	Henrico HS	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
6	Hermitage HS	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
7	Highland Springs HS	1 – Hot Loop	Quarterly	\$6.00	\$24.00
		1 – EG Chill Loop	Quarterly	\$6.00	\$24.00

		1 – Condenser NCD	Monthly	\$210.00	\$2,520
8A	Oaks Complex (Formally HSHS and HSHS Gym)	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
8B	Oaks Complex (Formally HSHS and HSHS Gym)	1 – Chill Loop	Quarterly	\$6.00	\$24.00
8C	Advanced Career Education Complex (formally HSHS Vo Tech)	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – Chill Loop	Quarterly	\$6.00	\$24.00
9	J.R. Tucker HS	1 – EG Chill Loop	Quarterly	\$5.00	\$20.00
		1 – Hot Loop	Quarterly	\$5.00	\$20.00
		1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
10a	Varina HS Aud	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
10B	Varina HS Gym	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
10C	Varina HS Spec Center	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
11	Virginia Randolph HS	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – CC Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
12	Brookland MS Main	1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
13	Elko MS	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – Heat Pump Loop	Quarterly	\$6.00	\$24.00
14A	Fairfield MS	1 – Glycol Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
14B	Fairfield MS Gym	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
15	Holman MS	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00

		1 – Heat Pump Loop	Quarterly	\$6.00	\$24.00
16	Hungary Creek MS	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – Heat Pump Loop	Quarterly	\$6.00	\$24.00
17	Moody MS	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – Heat Pump Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
		1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
18	Pocahontas MS	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – Heat Pump Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
		1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
19A	Quioccasin MS	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
19B	Quioccasin MS office	1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
20	Rolfe MS	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
21	Short Pump MS Main	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
22	Tuckahoe MS	1 – Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
23	Wilder MS	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – Heat Pump Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
		1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
24	Ashe ES	1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
		1 – Dual Temp Loop	Quarterly	\$6.00	\$24.00

25	Baker ES	1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
26	Colonial Trail ES	1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
27	Donohoe ES	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
28	Donohoe ES Addition	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
29	Dumbarton ES	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
30	Echo Lake ES	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – Heat Pump Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
31	Fair Oaks ES	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – CC Loop	Quarterly	\$6.00	\$24.00
32	Gayton ES Main	1 – Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
33	Gayton ES Small	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
34	Glen Allen ES	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
35	Glen Lea ES	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – CC Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
36	Greenwood ES	1 – Chill Loop	Quarterly	\$6.00	\$24.00
		1 – PG Hot Loop	Quarterly	\$6.00	\$24.00
37	Harvie ES	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
38	Johnson ES	3 – Hot Loops	Quarterly	\$6.00	\$24.00
		3 – CC Loops	Quarterly	\$6.00	\$24.00
39	Kaechele ES	1 – Chill Loop	Quarterly	\$6.00	\$24.00

		1 – Hot Loop	Quarterly	\$6.00	\$24.00
40	Laburnum ES	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – CC Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
41	Lakeside ES	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Dual Temp Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
42	Longdale ES	1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
		1 – Chill Loop	Quarterly	\$6.00	\$24.00
43	Newbridge	1 – Hot Loop	Quarterly	\$6.00	\$24.00
44	Nuckols Farm ES	1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Dual Temp Loop	Quarterly	\$6.00	\$24.00
45	Pemberton ES	1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
		2 – Steam Boilers	Monthly	\$90.00	\$1,080.00
46	Pinchbeck ES	1 – Hot Loop – Caf.	Quarterly	\$6.00	\$24.00
47	Ratcliffe ES	1 – EG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
48	Ridge ES	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – Dual Temp Loop	Quarterly	\$6.00	\$24.00
49	Rivers Edge ES	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – Heat Pump Loop	Quarterly	\$6.00	\$24.00
50	Sandston ES	1 – Condenser DB	Monthly	\$160.00	\$1,920.00
		1 – CC Loop	Quarterly	\$6.00	\$24.00
51	Seven Pines ES	1 – Hot Loop	Quarterly	\$6.00	\$24.00
52	Shady Grove ES	1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Dual Temp Loop	Quarterly	\$6.00	\$24.00

53	Short Pump ES	1 – Chilled Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
54	Skipwith ES	1 – Hot Loop	Quarterly	\$6.00	\$24.00
55	Springfield Park ES	1 – PG Chill Loop	Quarterly	\$6.00	\$24.00
		1 – Dual Temp Loop	Quarterly	\$6.00	\$24.00
56	Three Chopt ES	1 – Chilled Loop	Quarterly	\$6.00	\$24.00
57	Trevvett ES	1 – Condenser NCD	Monthly	\$210.00	\$2,520.00
		1 – CC Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
58	Tuckahoe ES	1 – Hot Loop	Quarterly	\$6.00	\$24.00
59	Twin Hickory ES	1 – Chilled Loop	Quarterly	\$6.00	\$24.00
		1 – Hot Loop	Quarterly	\$6.00	\$24.00
60	Ward ES	1 – PG Chilled Loop	Quarterly	\$6.00	\$24.00
		1 – Dual Temp Loop	Quarterly	\$6.00	\$24.00

Total Treatment Price – Schools \$ 66,016.00 per year, \$16,504.00 per quarter.

Cooling Tower Data for 36 Tower Cells:

Water treatment disinfection services that include quarterly sump disinfection, and semi-annual Legionella bacteria testing

Quarter	Quantity	Item	Cost Each	Total
Q1	5	1 gallon Formula CL-2	\$32.00	\$160.00
	2	Hours labor for air inlets and sump disinfection	\$90.00	\$180.00
Q2	5	1 gallon Formula CL-2	\$32.00	\$160.00
	2	Hours labor for air inlets and sump disinfection	\$90.00	\$180.00
	10	Hours labor for sump- heater- float cleaning, and tower inspection	\$90.00	\$900.00
Q3	5	1 gallon Formula CL-2	\$32.00	\$160.00
	2	Hours labor for air inlets and sump disinfection	\$90.00	\$180.00
Q4	5	1 gallon Formula CL-2	\$32.00	\$160.00
	2	Hours labor for air inlets and sump disinfection	\$90.00	\$180.00
	10	Hours labor for sump- heater- float cleaning, and tower inspection	\$90.00	\$900.00
				\$3160.00

Annual Total Per Cell: \$3,160.00, Cost Per Month Per Cell: \$263.33

Monthly Cost for 36 Cells: \$9,479.88, Annual cost for 36 cells: \$113,758.56

Total Annual Cost for All Services: \$66,016.00 Treatment + \$113,758.56 Tower Cells = \$179,774.66

A. General Requirements.

1. The Successful Bidder must be in the chemical industrial water treatment business and have substantial local service and engineering representation, in-house engineering facilities and representation to support their business in order to be considered for award of this Contract. This experience must include clients comparable to the County and HCPS and these clients must be referenced on Attachment C.
2. Successful Bidder will be responsible for Quarterly testing of all water systems mentioned in this IFB, providing and applying necessary chemicals to water systems to bring them to their acceptable levels, respectively and to provide reports with the quarterly invoices for documentation.
3. Successful Bidder shall provide cooling tower cleaning, disinfection and testing services to both the County and HCPS.
4. The Successful Bidder shall not sub-contract any portion of this contract without prior written approval by the County or HCPS. The Successful Bidder's technicians and helpers shall be directly employed and supervised by the Successful Bidder.
5. The Successful Bidder shall be responsible for obtaining all permits required to make repairs. The cost of the permit shall be the responsibility of the Successful Bidder.
6. The Successful Bidder shall furnish and provide inside delivery of preventative maintenance and repairs to all locations listed on the Unit Price Bid Sheet Price Schedule. Additional locations may be added during the contract term at unit prices detailed on the Unit Price Bid Sheet Price Schedule.
7. All maintenance and repairs shall be scheduled and coordinated with the authorized contact person provided for each location. The authorized contact names and contact information shall be provided to the Successful Bidder after contract is awarded.
8. The County and HCPS have a variety of Piping and Water Treatment Systems including but not limited to the following categories:
 - a. Hot Water Heating (HS/HR): Closed Loop
 - b. Chilled Water (CHS/CHR): Closed Loop
 - c. Open Loop Chilled Water – Thermal Storage (CHS/CHR): Hybrid
 - d. Chilled Water (CHS/CHR): Closed Loop – Ethylene Glycol
 - e. Dual Temperature Water (DTS/DTR): Closed Loop
 - f. Condenser Water, Closed Circuit (CWS/CWR): Closed Loop
 - g. Condenser Water, Open Circuit (CWS/CWR): Open Loop
 - h. Evaporative Condenser (CRS): Evap. Cooler
 - i. Closed Circuit Evaporative Cooler (CRS): Evap. Cooler
 - j. Steam System (LPS): Steam
9. The location, address, system type and service frequency can be found on the Unit Price Bid Sheet Price Schedule.

B. System Specifications.

1. Closed Loops:

- a. Manual feeding of chemicals into shot feeder and in turn into system in accordance with initial water evaluation and continuing test result requirements.
 - b. Feeding and Control Equipment: Five-gallon combination filters-feeders, quality equal to Neptune DEFC-5 Lansdale, PA Including steel shell with stainless basket, filter bag capable of 40 gpm with filter efficiency of 5 microns at 3 psi pressure drop and hand removable cap. Suitable for 150 psi and temperature to 200 degrees F.
 - c. Installation accessories including piping, fittings, shut off valves, drain valves, pressure gauges to measure pressure loss through filter and automatic flow control valve set as required.
2. Glycol System:
 - a. Neptune Glycol feed system-model G-50-1 with 50-gallon polyethylene tank with molded level graduation, lift off cover, steel agitator mounting column and suction drain valve.
 - b. Glycol Solution Tank-50 gallon polyethylene tank with molded level graduations lift-off cover, steel agitator mounting column, and suction drain valve.
 - c. Drum Mixer-Mechanical propeller type, direct drive agitator, type 304 stainless steel shaft, ¼ hp, 110 V, 1 Phase, 60 cycle motor totally enclosed, motor suitable for use with inhibited ethylene glycol.
3. Open Loop Systems – Cooling Towers/Evaporation Cooler Spray Water System Feeding and Control Equipment.
 - a. Conductivity Controller: Linear, temperature, compensated measurements directly in micromhos over full scale. One range of 0 to 5,000 micromhos shall be provided. Conductivity measurement displayed on a two inch, indicating meter with zero to gen scale. Power switch, set point adjustment, test button, calibration screw indicating lights and indicating meter front panel mounted for easy access. Controller to be insensitive to phase angle shifts and capable of operating with line voltage from 95 to 130 volts AC without affecting accuracy.
 - b. Sample stream piping assembly consisting of ¾" inlet and outlet shut off valves, flow switch, three (3) ¾" PVC chemical injection tees and on conductivity probe of PVC construction with a temperature compensating element in a quick disconnect fitting.
 - c. One (1) bleed-off piping assembly consisting of inlet shut off valve, y strainer, flush valve, throttling valve and zero psi differential brass solenoid valve suitable for outdoor service. Bleed-off piping assembly shall be sized to bleed twice the maximum design bleed-off rate of the system.
 - d. Three (3) chemical feed pumps, positive displacement type with ball type check valves, shall be provided for feed of (1) deposit and corrosion inhibitor and (2) different biocides. Feed rate shall be adjustable while pump is running and necessary polyethylene discharge tubing included.
 - e. Corporation stop and injection assembly with PVC diffuser tube and check valve for injecting chemicals into the recirculating line as needed.
 - f. Automatic dual biocide feed interlocked or incorporated with conductivity controller.
 - g. Panel for mounting equipment.
4. Open Loop Non Chemical Device (NDC) Treated Systems – Cooling Towers/Evaporation Cooler Spray Water System Control Equipment and Additional Services.
 - a. Equipment typical for this category includes Clearwater Dolphin, Evapco Pulse Pure, UV Based Systems, and Ozone. The vast majority of this equipment in service is Clearwater

Dolphin and Evapco Pulse Purge and the Successful Bidder must possess an OEM factory training certificate for operation and maintenance of each.

- b. Conductivity Controller: Linear, temperature, compensated measurements directly in micromhos over full scale. One range of 0 to 5,000 micromhos shall be provided. Conductivity measurement displayed on a two inch, indicating meter with zero to ten scale. Power switch, set point adjustment, test button, calibration screw indicating lights and indicating meter front panel mounted for easy access. Controller to be insensitive to phase angle shifts and capable of operating with line voltage from 95 to 130 volts AC without affecting accuracy.
- c. Additional services to include calibrations, adjustments and verification of outputs particular to each device based on manufacturer's recommendations or prevailing industrial standards for both on line and off line operation.

C. Technical Specifications.

- 1. Initial water analysis and recommendations – Successful Bidder is expected to visit and inspect all facilities in order to obtain water samples and review condition of equipment and feed systems at the beginning of the contract period.
- 2. The Successful Bidder shall provide the County and HCPS with quarterly water analysis reports on all closed loop systems and monthly water analysis reports on all evaporative systems for proper trending of the chemical water treatment program.
- 3. Chemicals used shall be compatible with system materials of construction and shall comply with all applicable EPA and regulatory agency standards.
- 4. The Successful Bidder shall supply a corrosion analysis report to the County and HCPS at the end of each quarter.
- 5. The test equipment used by the Successful Bidder to generate test results to the County and HCPS must be capable of monitoring corrosion inhibitor level PH, P & M alkalinity.
- 6. Work performed for the County shall take place during regular business hours of 8:00 a.m. to 4:30 p.m. unless otherwise scheduled by the County's Department of General Services.
- 7. Inspections for Jail East, Jail West and Juvenile Detention shall be made between 7:00 a.m. and 7:00 p.m. Monday through Friday. The Successful Bidder's personnel will be required to undergo a Sheriff's Office security clearance prior to working within the Jail facilities. A Sheriff's Office Contractor's badge will be issued upon completion of the security clearance and must to be worn at all times while working in the Jail facilities. Access to Jail East and Jail West will be coordinated with designated Sheriff's Office personnel assigned to those facilities.
- 8. Work performed for HCPS during regular school session shall take place from 7:00 a.m. to 4:00 p.m, Monday through Friday. Work performed for HCPS during summer session shall take place from 7:00 a.m. to 5:00 p.m., Monday through Thursday.

D. Emergency Repair Services.

- 1. The Successful Bidder may be required to provide emergency repair service as needed and requested by the County or HCPS to replace worn or defective parts and or components. The Successful Bidder will obtain prior approval by the Building and Grounds Manager or his designee before proceeding with emergency repairs. Parts or components used must be of the same quality as the original manufacturer. If Successful Bidder is off site and a repair is required, Successful Bidder shall respond within four (4) hours after receiving the emergency call.
- 2. Since repair work cannot be predetermined bidders shall provide hourly rates for these repairs. Repairs not covered in the scope of work shall be estimated on a "time and materials" basis. Time & materials shall be defined as "a fixed rate per labor hour that includes overhead and profit, insurance, union pension fund or contributions, workmen's compensation, unemployment insurance social security, etc. with materials supplied at a discount off current list pricing".

3. Pricing for repairs shall be based on a firm fixed price. Repairs must be quoted and approved by a County or HCPS representative before work is to commence. If the Successful Bidder is unable to do the work, or the repairs cannot be scheduled in a timely manner, or the quoted pricing is not acceptable to the County or HCPS, the County or HCPS reserves the right to seek and award quoted work from other vendors.
4. The hourly rate shall start when the Successful Bidder arrives at the job site and end when the Successful Bidder leaves the County or HCPS site. The Successful Bidder can charge the hourly rate if traveling from one County or HCPS site to another.
5. Regular time for emergency services shall be from 8:00 a.m. – 4:30 p.m., Monday through Friday, unless otherwise authorized by the County.
6. Overtime for emergency services shall be work done at times other than the hours of 8:00 a.m. – 4:30 p.m.
7. Holiday rates go into effect on the major holidays observed by the Successful Bidder. Bidders shall indicate Holidays observed on the Bid Form.

E. Safety.

1. The Successful Bidder shall keep work areas in a safe condition and clean up daily after all work activities. The Successful Bidder shall also provide for any hazardous material storage facilities and disposal that may be required.
2. All buildings, appurtenances and finishing shall be protected by the Successful Bidder from damage which might be done or caused by work performed under the contract.
3. The Successful Bidder shall comply with and ensure that all its personnel comply with all current applicable local, state and federal policies, regulations and standards relating to safety and health. This will include by way of illustration and not limitation, the standards of the Virginia Occupational Safety and Health Administration for the General Industry and for the Construction Industry. The Successful Bidder shall provide or cause to be provided all technical expertise, qualified personnel, equipment, tools and material to safely accomplish the work specified to be performed by the Successful Bidder.
4. Any operations of the Successful Bidder determined to be hazardous by the County, shall be immediately discontinued by the Successful Bidder upon receipt of either written or oral notice by the County to discontinue such practice.
5. The Successful Bidder personnel and vehicles shall be easily identifiable.
6. Successful Bidder shall provide identification badges with company name and logo to their personnel and shall be visibly worn at all times while on County property.
7. Successful Bidder vehicles parked on County property must display company name/identification. The Successful Bidder shall comply with all traffic and parking regulations.
8. The Successful Bidder shall be responsible at all times for the actions and work of its personnel who shall observe and comply with all regulations while on County property; failure to observe such regulations will be grounds for removal from County property.

F. Pricing.

1. Quarterly Water Analysis reports on all closed loop systems and monthly water analysis reports on all evaporative systems must be included with quarterly invoices submitted by the Successful Bidder.

2. The Successful Bidders shall provide the PO number on all invoices and submit the following documentation with all invoices:
 - a. Copy of each inspection, maintenance or service report.
 - b. Copy of quotes provided for firm fixed pricing repairs including labor hours and materials used. Material pricing shall include the list price, discount percentage and discounted price.
3. The County and HCPS will check the Successful Bidder's invoices to verify all charges. If any discrepancy is discovered, the County and HCPS reserve the right to return the invoice to Successful Bidder to be corrected.
4. Invoices shall be sent to the following addresses:

County of Henrico, Buildings and Grounds
Send invoice to:

General Services Financial Division
P.O. Box 90775
Henrico, VA 23273-0775
Invoices may be sent electronically to
GSFINANCIAL@henrico.us

Henrico County Public Schools
Attn: Construction and Maintenance
PO Box 23120
Henrico, VA 23223