CHARLES TOWN UTILITY BOARD
AGENDA

WEDNESDAY, NOVEMBER 12, 2025

Special Meeting | **661 South George Street, Charles Town, WV 25414** | **4:00 PM**

CALL TO ORDER

1. **APPROVAL OF MINUTES**
   a. Approval of October 22, 2025 Regular Meeting Minutes
   UB Minutes 10.22.25.pdf

2. **PUBLIC COMMENT**
   This portion of the agenda is designed for members of the general public to share thoughts on items of interest in the community. By law, Board members may ask clarifying questions or discuss procedural matters but are not permitted to discuss the policy merits of any issue unless it is scheduled for discussion.

   The public is invited to attend this meeting in person or via webcast (www.ctubwv.com- Board Meeting - Meeting Agendas and Minutes 2025) or by accessing the following zoom link:

   https://us06web.zoom.us/j/82717835362?pwd=2GeXdaaqPq1VqONv8Wckf9OHKnBFxk.1

   Meeting ID: 827 1783 5362
   Passcode: 409180
   (301)715-8592

3. **UNFINISHED BUSINESS**
   a. Update on WV PSC Case 25-0263-W-C – West Virginia American Water Complaint Case- Possible Executive Session under the provision of W. VA Code 6-9a-4(b)(12) - To discuss any matter which, by express provision of federal law or state statute or rule of court is rendered confidential, or which is not considered a public record within the meaning of the freedom of information act as set forth in article one, chapter twenty-nine-b of the code.
   b. Ammonium Sensor Quote
   Ammonium Sensor Quote.pdf
   c. WVDEP Draft Letter on 2024 Integrated Water Quality and Assessment Report
   WVDEP Stream Assessment Priority Ltr.pdf

4. **NEW BUSINESS**
   a. Collection System Project Resolution No. 20 - WDA Payment No. 3, CIF Payment No. 13
      Resolution No. 20.pdf
   b. Summit Point Motorsports Park and Training Facility Grant Opportunity
      Summit Point Raceway - CTUB Nearby Utilities 10.27.25.pdf
   c. Capacity Improvement Fee Policy Amendment
      CIF Policy Amendment.pdf
   d. Water Plant Pilot Study for Membrane and GAC Filtration
      Pilot Study Proposal to CTUB.pdf
   e. Belt Press Building Enclosure
      Building Enclosure Quote.pdf
   f. Utility Manager Performance Evaluation Review and Contract Addendum

5. **MANAGER REPORTS**
   a. Utility Manager Report
      Utility Manager Report.pdf
      Tank Inspection Reports.pdf
      Revenue & Expense July 2025.pdf
      Revenue & Expense August 2025.pdf
   b. Chairman Report

6. **APPROVAL OF BILLS**
   a. November 12, 2025
      Board Report 11.12.25.pdf

7. **INFORMATION ONLY**
   a. Next Meeting - December 10, 2025 at 4:00 P.M.

8. **ADJOURNMENT**

CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

Approval of October 22, 2025 Regular Meeting Minutes

Attachments:

UB Minutes 10.22.25.pdf

Charles Town Utility Board
Regular Board Meeting
October 22, 2025

The Charles Town Utility Board held a regular meeting on October 22, 2025 at 4:00 P.M. Members of the Board present were Brent Manuel, Chairman; John Maxey, Vice Chairman; Heidi Parker, Board Member; and Patrick Kratovil, Board Member. Also present were Kristen Stolipher, Utility Manager; April Shultz, Assistant Utility Manager; Ashley Stottlemyer, Secretary; Robert Rodecker, Legal Counsel (Zoom) and County Commission Liaison, Commissioner Mike Mood.

Duke Pierson, Treasurer, was absent from the meeting.

CALL TO ORDER

The Chairman called the meeting to order at 4:00 P.M.

APPROVAL OF MINUTES

Approval of October 8, 2025 Regular Meeting Minutes

The Chairman called for changes or corrections to the October 8, 2025 regular meeting minutes.

Action: Motion made by Mrs. Parker, second by Mr. Maxey, the Board approved the October 8, 2025 regular meeting minutes as presented.

PUBLIC COMMENT

Public comment was received by Jacquelyn Milliron.

UNFINISHED BUSINESS

Update on WV PSC Case 25-0263-W-C - West Virginia American Water Complaint Case - Possible Executive Session under the provision of W. VA Code 6-9a-4(b)(12) - To discuss any matter which, by express provision of federal law or state statute or rule of court is rendered confidential, or which is not considered a public record within the meaning of the freedom of information act as set forth in article one, chapter twenty-nine-b of the code.

Mr. Rodecker had no updates to report.

Action: No action required by the Board.

Fox Glen Subdivision Sewer Extension

Alexis Davy from the Jefferson County Health Department briefed the Board on their support for extending public sewer to the Fox Glen Subdivision due to the generalized age of the system. She mentioned it is hard to quantify the number of failed septic systems in that area unless they are self-reported. Ms. Davy also provided in the short-term, the Health Department will be offering public health education to the area as well as grants to those with failing systems. The Board provided discussions.

Jennifer Wishmyer from Region 9 briefed the Board on potential funding options, most being initiated with a Preliminary Engineering Report. Ron Marcus reiterated his concerns from the last meeting of the failing systems in that area and expressed his interest for the Board to consider a collaboration to extend sewer services to Fox Glen. The Board provided discussions.

Mr. Maxey mentioned there is a bigger issue of septic systems throughout the County not just this subdivision and CTUB should properly plan for older subdivisions that may need assistance in the

future. He suggested having GDF include in the new plant design an option to accept septage. Mr. Kratovil suggested a more holistic approach of figuring out the scope of the problem before developing a plan. Mr. Maxey requested Mr. Stolipher draft a letter to WVDEP to prioritize Jefferson County on the contaminated waters list, as there are nine streams impaired by fecal coliform.

Action: **Motion made by Mr. Maxey, second by Mr. Kratovil, the Board unanimously approved directing staff to draft a letter to WVDEP requesting prioritization of their evaluation of the contamination problem in the Jefferson County.**

NEW BUSINESS

Hite Road Park Sewer Request

Jennifer Myers, Director of Parks and Recreation, presented one of their Capital Projects for FY2026 to bring public water and sewer infrastructure to James Hite Park located off of Hite Road, which backs up to Fox Glen subdivision. She expressed interest in working with CTUB if there was a potential for CTUB to serve that area in the future. The Board provided discussions.

Action: **No action required by the Board.**

Collection System Project – Resolution No. 18 – WDA Payment #2, CIF Payment #11

Mrs. Stolipher included the pay application for Resolution No. 18 – WDA Payment #2, CIF Payment #11, in the amount of $180,259.60 for work completed.

Action: **Motion made by Mrs. Parker, second by Mr. Kratovil, the Board unanimously approved Resolution No. 18 – WDA Payment #2, CIF Payment #11.**

Collection System Project Resolution No. 19 – CIF Payment #12

Mrs. Stolipher included the pay application for Resolution No. 19 – CIF Payment #12, in the amount of $28,028.96 for work completed. The Board provided discussions.

Action: **Motion made by Mrs. Parker, second by Mr. Maxey, the Board unanimously approved Resolution No. 19 – CIF Payment #12.**

Chlorine Room Modifications Project – Resolution No. 2

Mrs. Stolipher included the pay application for Resolution No. 2 in the amount of $178,733.25 for work completed.

Action: **Motion made by Mrs. Parker, second by Mr. Kratovil, the Board unanimously approved Resolution No. 2.**

WV-003 Sawgrass Drive – AT&T 4th Lease Amendment

Mrs. Stolipher included a copy of the 4th Lease Amendment for the AT&T equipment on the Locust Hill tank. Mr. Rodecker reviewed the agreement with no concerns.

Action: **Motion made by Mrs. Parker, second by Mr. Maxey, the Board unanimously approved the lease amendment for the Sawgrass Drive tank.**

Ammonium Sensor Quote

As discussed at a previous Board meeting, Mrs. Stolipher included quotes for Ammonium Sensors located at the influent and effluent at the Charles Town wastewater plant for a total of $41,287.98. Mr. Maxey requested further discussions with Chris Eckenrode from GDF before taking any action.

Action: **Motion made by Mr. Maxey, second by Mrs. Parker, the Board unanimously approved tabling discussions on the Ammonium Sensor quote until after further discussions with Mr. Eckenrode.**

Media Farms – Revised Alternate Mainline Extension Agreement

Mrs. Stolipher provided the Board previously approved the agreement, but the number of single-family homes has been increased from 42 to 45 units.

Action: **Motion made by Mrs. Parker, second by Mr. Maxey, the Board unanimously approved the revised Alternate Mainline Extension Agreement for Media Farms.**

MANAGER REPORTS

Utility Manager Report

Mrs. Stolipher provided she received the Consent Order Termination notification for the wastewater treatment plant improvements and provided an updated availability chart. She also mentioned the CIF first reading will be held on November 3rd and the second reading on November 17th. Mr. Maxey requested GDF's contract be emailed to the Board and he would like to review the Ammonia and BOD 2025 data. He also requested an agenda item at the next meeting to amend the current CIF policy to add language for an annual review of inflation data.

Action: **No action required by the Board.**

Chairman Report

The Chairman had nothing to report, but did thank the Board who attended the City Council meeting.

Action: **No action required by the Board.**

APPROVAL OF BILLS

October 22, 2025

Action: **Motion made by Mrs. Parker, second by Mr. Maxey, the Board unanimously approved the payment of the bills.**

ADJOURNMENT

There being no further business at this time, the Board adjourned the meeting.

Action: **Motion made by Mrs. Parker, second by Mr. Maxey, the Board unanimously approved to adjourn the meeting at 4:49 P.M.**

INFORMATION ONLY

The next meeting is scheduled for Wednesday, November 12, 2025 at 4:00 P.M. at 661 S. George Street.

Brent Manuel	Ashley Stottlemyer
Chairman	Secretary

CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

Update on WV PSC Case 25-0263-W-C – West Virginia American Water Complaint Case- Possible Executive Session under the provision of W. VA Code 6-9a-4(b)(12) - To discuss any matter which, by express provision of federal law or state statute or rule of court is rendered confidential, or which is not considered a public record within the meaning of the freedom of information act as set forth in article one, chapter twenty-nine-b of the code.

CHARLES TOWN UTILITY BOARD

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Ammonium Sensor Quote

Attachments:

Ammonium Sensor Quote.pdf

PumpMan Pittsburgh
3812 William Flynn Hwy, Building # 2
P.O. Box 199
Allison Park. PA 15101

Phone: 412-487-7140

Prepared By:Tim Tomasko Mobile: 412-977-0740 ttomasko@pumpmanpittsburgh.com

Quote #:Q2502594 Reference the Quote # when ordering
Date: Sep 24, 2025
Engineer:
Bid Date:
Costars:
Submittal Lead Time:
Spec. Section:
Equipment Lead Time: 2-4 Wks
Misc: YSI, Ammonium Probes w/Installation & Start-up
Valid For: 30 Days

To: Charles Town Utility Board
842 South George Street
Charles Town, WV 25414

Attention: Kristen Stolipher
Email: kristen@charlestownutilities.us
Fax:
Freight: Pre-Pay/Add
Project:

Manufacturer: YSI

PumpMan Quote • Q2502594 •

Line Item	Qty.	Equipment - Description - Details
1	2	YSI, System 2020MIQ/TC 2020 3G-H3 C6 Part # 470022Y System 2020 3G - 20 Channel Terminal/Controller 3 Current Outputs 3 Relay Outputs Power Supply 100-240 VAC USB Interface 5 available IQ Sensor Net Connections
2	2	YSI, Ammonium Probe Part # 107 072YK AmmoLyt Plus Ammonium probe complete with * Reference Electrode, * Ammonium Electrode * Potassium Electrode
3	2	YSI Air Compressor PN: 601401-1 YSI Air Compressor, 1-Channel, 115VAC CAB1-1
4	2	Xylem Analytics, Cleaning Head Assembly for IQ Sensors with 15 Meters of Tubing Part # 900107Y Cleaning Head Assembly for IQ Sensors with 15 Meters of Tubing
5	2	YSI, Sensor Connection Cable, IQ, 15 m, 49.2 ft Part # 480044Y Sensor Connection Cable, IQ, 15 m, 49.2 ft SACIQ-15.0
6	4	YSI, Adapter, Conduit, Stainless Steel Metric M16 male to 1/2" NPT female Part # 480053USY Adapter, Conduit, Stainless Steel

PumpMan Pittsburgh
3812 William Flynn Hwy, Building # 2
P.O. Box 199
Allison Park. PA 15101

Phone: 412-487-7140

Prepared By:Tim Tomasko Mobile: 412-977-0740 ttomasko@pumpmanpittsburgh.com

Quote #:Q2502594 Reference the Quote # when ordering
Date: Sep 24, 2025
Engineer:
Bid Date:
Costars:
Submittal Lead Time:
Spec. Section:
Equipment Lead Time: 2-4 Wks
Misc: YSI, Ammonium Probes w/Installation & Start-up
Valid For: 30 Days

To: Charles Town Utility Board
842 South George Street
Charles Town, WV 25414

Attention: Kristen Stolipher
Email: kristen@charlestownutilities.us
Fax:
Freight: Pre-Pay/Add
Project:

Manufacturer: YSI

PumpMan Quote • Q2502594 •

Line Item	Qty.	Equipment - Description - Details
		Metric M16 male to 1/2" NPT female
7	2	YSI, Single Sensor Floor Mounting Kit Part# 109304Y Supplied with: single sensor holder EH/U 170 SensoClean swing mounting EH/F 170-1,5 Vario floor mounting Pipe Plastic Sunshield Included

Manufacturer Quote #: **Proposal Total:** **$41,287.98**

"Unless specifically mentioned this quote does not include installation, freight, startup or any taxes."

Quote includes PumpMan
Installation & Start-up

Freight is Prepay Add - Est
Freight is $200

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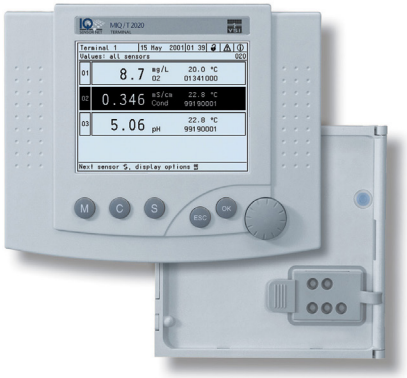

YSI IQ SensorNet 2020 3G

Continuous Water Quality Monitoring for Process Control

Powerful yet simple, the YSI **IQ SensorNet 2020 3G** is a modular water quality system for complete process control designed for wastewater. The 2020 3G network can accept additional sensors easily at any time and grow as your facility grows. Benefits include better network visibility and management, early detection of network failures, improved compliance with regulatory targets, and cost savings (energy, pump/blower maintenance, labor).

- 3-year instrument warranty
- User-replaceable cables and sensors. Many sensors provide ultrasonic cleaning.
- Centralized power supply along entire network; 2-wire cable provides power and communications
- Lightning protection along network
- 2020 3G provides tactile buttons; easily use while wearing gloves
- Modular expansion from 1 to 20 sensors; ability to extend network with additional modules
- Up to 48 output channels are possible
- LED status light
- Programmable access permission
- System redundancy if two terminals are used; use in one location or move from point to point

Building a system is easy...choose the IQ SensorNet 2020 3G, determine which modules are needed (control, communications, etc.), determine distances for cabling and select parameters.

Parameters:

Dissolved Oxygen (optical or electrochemical)
pH
ORP/Redox
Conductivity/Salinity
Temperature
Turbidity*
TSS (total suspended solids)*
Ammonium
Nitrate
Potassium
Sludge level
COD (chemical oxygen demand)*
TOC (total organic carbon)*
DOC (dissolved organic carbon share of TOC)*
SAC (spectral absorption coefficient)*
BOD (biochemical oxygen demand)*

* ultrasonic cleaning for sensors







YSI.com/IQSN2020

IQ SensorNet 2020 3G Terminal/Controller Specifications

Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE
Electromagnetic Compatibility	EN 61326, Class B; FCC Class A, EMC for indispensable operation
Integrated Lightning Protection	According to EN 61326 enhanced over-voltage protection for *entire system*, implemented in each component
Cable	2-wire with shield for power supply and communications; resistant to polarity reversal; comprehensive EMC shield control; cable topology within network can be in the form of a line, tree, star or multiple star
	Total cable length max. = 1000 m (3280 ft) without signal amplifying; with signal amplifying module MIQ/JBR add an additional 1000 m
Radio	Radio transmission Class 1 with a range of 100 m (328 ft); max 300 m (984 ft)
Module Coupling at Rear	Combined mechanical and electrical connection for rapid coupling to modules; no wiring required
USB Interface	USB-A (host)
Display	Graphic color display; resolution 320 x 240 pixels; visible area 114 x 86 mm (4.49 x 3.39 in); backlit
Control Keys/Buttons	5 operation keys: 3 master keys for Measurement (M), Calibration (C), Set/System settings (S)
	2 function keys for confirmation/switching menu OK (OK) and Escape (ESC)
	4 directional button for quick selection of software functions and input of alphanumeric values
Datalogger	MIQ/TC 2020 3G; data memory for up to 525,600 data sets
Electrical	Directly via the IQ SensorNet when coupled to an MIQ module
Temperature Conditions	Operating Temperature: -4 to 131 °F (-20 to 55 °C)
	Storage Temperature: -13 to 149 °F (-25 to 65 °C)
Enclosure	Material: ASA (Acrylonitrile-Styrol-Acryloesterpolymer)
	Rating: IP-66, equivalent to NEMA 4X (not suitable for conduit connection)
	Dimensions: 210 W x 170 H x 40 D mm (8.27 W x 6.69 H x 1.57 D in)
	Weight: 1.0 kg (2.2 lbs)
	Warranty: 3 years

IQ SensorNet 2020 3G Module (MIQ) Specifications

Module Coupling at Front	Combined mechanical and electrical connection for rapid docking and removal of the terminal and docking additional modules
Module Coupling at Rear	Combined mechanical and electrical connection for docking additional modules; a total of 3 modules as a stacked mounted unit
Cable Feeds	4 screw cable glands M 16 x 105
Terminal Connections	Screw terminal strips; terminal area for solid connectors 0.2 to 4.0 mm for flexible connectors 0.2 to 2.5 mm; accessible through cover
	Used for connecting sensors or as an input/output or for looping through/branching of the IQ SensorNet cable
Additional Functions	Two LEDs (yellow and red) for monitoring the operating voltage; lightning protection; connection resistant to reversed polarity; integrated local identity; integrated switchable terminal resistor (SN terminator)
Enclosure	Material: PC 20% GF (Polycarbonate with 20% fiberglass)
	Rating: IP-66, equivalent to NEMA 4X (not suitable for conduit connection)
	Dimensions: 144 W x 144 H x 52 D mm (5.67 W x 5.67 H x 2.05 D in)
	Weight: 1.0 kg (2.2 lbs)
	Warranty: 3 years

IQ SensorNet 2020 3G Ordering Information (order 2020 3G, modules, cables, sensors separately)

MIQ/TC 2020 3G Item #470 020Y	Central terminal/controller unit only. Required to be installed once at any point, remains in the system and cannot be removed. Operation mode is shown through status LED. Up to 20 sensors can be connected.
MIQ/TC 2020 3G-H3 Item #470 022Y	Multiparameter system consisting of 2020 3G, MIQ/CR3 (3 analog and 3 relays) and MIQ/PS (power supply). Up to 20 sensors can be connected.
MIQ/TC 2020 3G-H3 C6 Item #470 024Y	Multiparameter system consisting of 2020 3G, MIQ/C6 (6 analog outputs) and MIQ/PS (power supply). Up to 20 sensors can be connected.
MIQ/TC 2020 3G-MC3 Item #470 026Y	Multiparameter system consisting of 2020 3G, MIQ/MC3 and MIQ/PS (power supply). Up to 20 sensors can be connected.

YSI
1725 Brannum Lane, Yellow Springs, OH 45387
Tel +1 937.767.7241 800.897.4151 (US)
info@ysi.com
YSI.com

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a xylem brand



YSI Digital AmmoLyt® Ammonium/Potassium Sensor for the IQ SensorNet System

The AmmoLyt® is a rugged, online probe for measuring temperature, ammonium and potassium concentrations with Ion Selective Electrodes (ISEs) using reference electrodes for the most accurate wastewater process monitoring.

The AmmoLyt® probe is used within the IQ SensorNet system and can therefore be networked with other probes and parameters for a complete process monitoring and control system. It can measure and display the compensated ammonium concentration with optional display of potassium. There is a constant potential with the measuring electrode and the reference electrode. This tension is read as the measured value and prevents interferences.

The AmmoLyt® is the ideal probe for quantitative measurement of ammonium in a wastewater treatment plant. The efficient control of ammonium in wastewater relies on the ability to take measurements directly in the process. This direct ISE measuring technology is possible with the AmmoLyt® sensor, enabling optimization of a plant in respect to process efficiency and energy consumption.

Parameters:

Ammonium
Potassium
Temperature

- Single- or dual- measurement of ammonium and potassium; measurement of potassium provides automatic and dynamic compensation
- Individual, user-replaceable electrodes and reference
- AmmoLyt® reference system is very stable over long periods of time
- Analog or digital output of measurement with output modules (sold separately) for recording and control purposes
- Electrodes are recognized automatically
- Optional display of potassium
- 2-year warranty on the probe, 1-year on electrodes

The AmmoLyt® ISE sensor provides continuous data to help with operational improvement decisions.



AmmoLyt® Plus 700 IQ Technical Specifications

Parameter	Measuring Range	Resolution	
NH_4-N	0.1 to 100.0 mg/L	0.1 mg/L	
	1 to 1000 mg/L	1 mg/L	
NH_4	0.1 to 129.0 mg/L	0.1 mg/L	
	1 to 1290 mg/L	1 mg/L	
mV (Ammonium)	-2000 to 2000 mV	1 mV	
K	1 to 1000 mg/L	1 mg/L	
mV (Potassium)	-2000 to +2000 mV	1 mV	
Temperature	-5 to 60 °C (23 to 140 °F)	0.1 K	Accuracy ± 0.5 K

Operating & Compensation Range Temperature	0 to 40 °C (32 to 104 °F)
Storage Temperature	0 to 40 °C (32 to 104 °F)
Warranty	2 years on probe, 12 months on electrode
pH range	4 to 12 for Ammonium
Dimensions	Length 392 mm (15.43 in); diameter 40 mm (1.57 in)- not including protective hood; weight (without sensor cable)~ 670 g (1.5 lbs)
Certifications	CE, cETLus, EN, UL, CAN/CSA
Protection Class	Sensor with SACIQ cable connected: IP68
Pressure Resistance	0.2 bar (2.9 psi); maximum immersion depth = 2 meters
Electrical	Power Consumption: 0.2 W, Two wire shielded IQ cable provides power and communication
Materials	Housing: Stainless Steel 1.4571, POM (for electrode material see product manual)

AmmoLyt® Plus 700 Electrode Specifications

Electrode	NH_4	K, Ref
Measured at 20° C (68° F) and concentration change of..	10 to 100 mg/L, NH_4-N	5 to 50 mg/L, K
Response time T_{90}	< 3 min	< 3 min

AmmoLyt® Plus 700 IQ Sensor Ordering Information

107 070Y	AmmoLyt® Plus 700 IQ. Robust digital ammonium probe for the ion-selective measurement (in-situ) of ammonium and potassium, for use with the IQ SensorNet system. Order electrodes separately.
107 071YK	AmmoLyt® Plus 700 IQ. Robust digital ammonium probe for the ion-selective measurement (in-situ) of ammonium and potassium, for use with the IQ SensorNet system. VARiON® Ref and VARiON® Plus NH_4 included. VARiON Plus® K electrode sold separately.
107 072YK	AmmoLyt® Plus 700 IQ. Robust digital ammonium probe for the ion-selective measurement (in-situ) of ammonium and potassium, for use with the IQ SensorNet system. VARiON® Ref and VARiON® Plus NH_4 and VARiON Plus® K included.
107 042Y	VARiON® Ref. Reference electrode for mounting into VARiON®Plus 700 IQ, NitraLyt® Plus, AmmoLyt® Plus probe.
107 044Y	VARiON Plus NH_4. Ammonium electrode for VARiON Plus 700 IQ and AmmoLyt Plus, measuring range: 0.1 - 1000 mg/l NH_4-N.
107 046Y	VARiON Plus K. Potassium electrode for VARiON Plus 700 IQ and for AmmoLyt Plus, measuring range: 1 - 1000 mg/l K+.

Visit YSI.com/IQ for additional information on the entire IQ SensorNet system

YSI
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CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting **661 South George Street**
Charles Town, WV 25414

WVDEP Draft Letter on 2024 Integrated Water Quality and Assessment Report

Attachments:

WVDEP Stream Assessment Priority Ltr.pdf

Charles Town
Utility Board

661 S. George Street, Suite 101 Charles Town, WV 25414
Phone: (304) 725-2316 ♦ Fax: (304) 725-7150 ♦ Web: www.ctubwv.com

UTILITY BOARD

CHAIRMAN
City of Charles Town City Manager
Brent Manuel

VICE CHAIRMAN
John Maxey

TREASURER
Duke Pierson

SECRETARY
Ashley Stottlemyer

Board Member
Heidi Parker

Board Member
Patrick Kratovil

UTILITY MANAGER
Kristen Stolipher

October 31, 2025

WV Department of Environmental Protection
Division of Water and Waste Management
303(d) List – ATTN: Nick Murray
601 57th Street, S.E.
Charleston, WV 25304

Re: 2024 Draft Integrated Water Quality and Assessment Report

Dear Mr. Murray:

The Charles Town Utility Board (CTUB) has reviewed the 2024 Draft Integrated Water Quality and Assessment Report. CTUB respectfully requests that the West Virginia Department of Environmental Protection (WVDEP) prioritize continued and expanded monitoring and assessment of streams in Jefferson County, particularly those discharging to the Potomac River and Shenandoah River watersheds.

CTUB's operations depend on the long-term integrity of these watersheds, which serve as critical sources for drinking water and ecological balance in the Eastern Panhandle. Sustained and comprehensive stream evaluation is essential to identifying water quality trends, quantifying pollutant load reductions, and ensuring compliance with Clean Water Act requirements under Sections 303(d).

We encourage WVDEP to consider establishing or expanding monitoring within Jefferson County to improve data analysis and to guide effective water quality management across the Potomac and Shenandoah basins.

We appreciate WVDEP's continued leadership in safeguarding the state's surface waters and look forward to ongoing collaboration to ensure West Virginia's compliance with federal and state water quality objectives.

Please feel free to contact me at (304) 725-2316 or kstolipher@ctubwv.com with any questions.

Sincerely,

Kristen Stolipher
Utility Manager

DRAFT

CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

Collection System Project Resolution No. 20 - WDA Payment No. 3, CIF Payment No. 13

Attachments:

Resolution No. 20.pdf

CHARLES TOWN UTILITY BOARD
2022 COLLECTION SYSTEM PROJECT
(IJDC #2021S-2041 / CWSRF #C-544686)

RESOLUTION NO. 20
REQUEST FOR PAYMENT #20
(WDA EEGF GRANT PAYMENT #3, CIF PAYMENT #13)

RESOLUTION OF THE CHARLES TOWN UTILITY BOARD APPROVING INVOICES RELATING TO CONSTRUCTION AND OTHER SERVICES FOR THE COLLECTION SYSTEM SEWER PROJECT AND AUTHORIZING PAYMENT THEREOF,

WHEREAS, the Charles Town Utility Board (CTUB), has reviewed the invoices attached hereto and incorporated herein by reference relation to the Project funded in part by the Clean Water State Revolving Fund (CWSRF) and find as follows:

a.) That none of the items for which payment is proposed to be made has formed the basis for any disbursement theretofore made;

b.) Each item for which the payment is proposed to be paid is or was necessary in connection with the Project and constitutes a Cost of the project;

c.) Each of such costs has been otherwise properly incurred; and

d.) Payment for each of the items proposed is due and owing.

NOW, THEREFORE, BE IT RESOLVED by the Charles Town Utility Board as follows: There is hereby authorized and directed the payment of **"Contractor's Payment Application No. 08"** as follows.

Vendor	WDA EEGF Grant Funding	Capacity Improvement Fee (CIF) Fund Change Order No. 2	Total Approved for Payment
HRI, Inc.	$297,153.47	$2,070.40	$299,223.87
Total	**$297,153.47**	**$2,070.40**	**$299,223.87**

ADOPTED BY the City of Charles Town Utility Board, at the meeting held on the 12th day of November, 2025.

By: _____
Brent Manuel, Chairman

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

Contractor's Application for Payment No. 08

Application Period: 10/1/25 to 10/31/25		Application Date: 11/6/2025
To (Owner): Charles Town Utility Board	From (Contractor): HRI, Inc.	Via (Engineer): Rummel, Klepper & Kahl, LLP
Project: 2022 Collection System Project	Contract: 01	Via (Consultant): Gwin, Dobson & Foreman Engineers
Owner's Contract No.:	Contractor's Project No.: 10341291	Engineer's Project No.: 24054

Application For Payment

Change Order Summary

Approved Change Orders

Number	Additions	Deductions
1	$121,480.00	
2	$251,494.68	$10,422.36
TOTALS	$372,974.68	$10,422.36
NET CHANGE BY CHANGE ORDERS	**$362,552.32**	

1.	**ORIGINAL CONTRACT PRICE**			**$6,074,000.00**
2.	**Net change by Change Orders**			**$362,552.32**
3.	**Current Contract Price (Line 1 ± 2)**			**$6,436,552.32**
4.	**TOTAL COMPLETED AND STORED TO DATE**			
	(Column F total on Progress Estimates)			**$2,337,382.37**
5.	**RETAINAGE:**			
	a. 10% X	$2,047,046.62	**Work Completed**	**$204,704.66**
	b. 10% X	$290,335.75	**Stored Material**	**$29,033.58**
	c. Total Retainage (Line 5.a + Line 5.b)			**$233,738.24**
6.	**AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c)**			**$2,103,644.13**
7.	**LESS PREVIOUS PAYMENTS (Line 6 from prior Application)**			**$1,804,420.26**
8.	**AMOUNT DUE THIS APPLICATION**			**$299,223.87**
9.	**BALANCE TO FINISH, PLUS RETAINAGE**			
	(Column G total on Progress Estimates + Line 5.c above)			**$4,332,908.19**

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By:	Date:
Bill Sarraf	11/6/2025

Payment of: $ 299,223.87
(Line 8 or other - attach explanation of the other amount)

is recommended by: David Santelli (Engineer) 11/6/2025 (Date)

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____ Funding or Financing Entity (if applicable) _____ (Date)

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Progress Estimate - Unit Price Work **Contractor's Application**

For (Contract): 01													Application Number: 08			
Application Period: 10/1/25 to 10/31/25													Application Date: 11/6/2025			
A					B			C				D	E	F		
Item		Contract Information				Quantity			Payment				Materials Presently Stored (not in C)	Total Completed and Stored to Date (D+E)	% (F / B)	Balance to Finish (B - F)
Bid Item No.	Description	Bid Quantity	Units	Unit Price	Total Value of Item ($)	This Period	Previous to Date	To Date	This Period	Previous to Date	To Date					
1	Mobilization	1	LS	$272,980.00	$272,980.00		**0.96**	0.96		$262,060.80	$262,060.80			$262,060.80	96.0%	$10,919.20
2	Traffic Control	1	LS	$15,000.00	$15,000.00	**0.20**	**0.40**	0.60	$3,000.00	$6,000.00	$9,000.00			$9,000.00	60.0%	$6,000.00
3	Audio Visual Taping	1	LS	$5,200.00	$5,200.00		**1.00**	1.00		$5,200.00	$5,200.00			$5,200.00	100.0%	
4	**Erosion & Sediment Control**	**1**	**LS**	**$142,000.00**												
4a	Rock Construction Entrance	1	LS	$35,000.00	$35,000.00	**0.20**	**0.40**	0.60	$7,000.00	$14,000.00	$21,000.00			$21,000.00	60.0%	$14,000.00
4b	18" Silt Fence - 11th & Forest	1	LS	$12,000.00	$12,000.00											$12,000.00
4c	36" Silt Fence - Evitt's Run	1	LS	$16,000.00	$16,000.00		**1.00**	1.00		$16,000.00	$16,000.00			$16,000.00	100.0%	
4d	18" Silt Sock - Jett's Farm FM	1	LS	$14,000.00	$14,000.00		**1.00**	1.00		$14,000.00	$14,000.00			$14,000.00	100.0%	
4e	18" Silt Sock - 11th & Forest	1	LS	$12,000.00	$12,000.00											$12,000.00
4f	18" Silt Sock - Evitts Run	1	LS	$5,000.00	$5,000.00		**1.00**	1.00		$5,000.00	$5,000.00			$5,000.00	100.0%	
4g	Super Silt Fence - Evitt's Run	1	LS	$30,000.00	$30,000.00		**1.00**	1.00		$30,000.00	$30,000.00			$30,000.00	100.0%	
4h	18" Silt Sock - Burr East FM	1	LS	$8,000.00	$8,000.00	**1.00**		1.00	$8,000.00		$8,000.00			$8,000.00	100.0%	
4i	Silt Sacks	1	LS	$3,000.00	$3,000.00		**0.75**	0.75		$2,250.00	$2,250.00			$2,250.00	75.0%	$750.00
4j	Sediment Bags	1	LS	$7,000.00	$7,000.00		**0.75**	0.75		$5,250.00	$5,250.00			$5,250.00	75.0%	$1,750.00
5	**Burr East Pump Station Demolition**	**1**	**LS**	**$22,000.00**												
5a	Demo Existing Valve Vault	1	LS	$5,000.00	$5,000.00											$5,000.00
5b	Remove Existing Pumps & Piping	1	LS	$9,000.00	$9,000.00											$9,000.00
5c	Remove Existing Fencing	1	LS	$4,000.00	$4,000.00											$4,000.00
5d	Demo Concrete Pad	1	LS	$3,000.00	$3,000.00											$3,000.00
5e	Relocate Propane Tanks	1	LS	$1,000.00	$1,000.00											$1,000.00
6	**Moose Lodge Pump Station Demolition**	**1**	**LS**	**$22,000.00**												
6a	Demo Wet Well Top	1	LS	$4,500.00	$4,500.00											$4,500.00
6b	Remove Existing Pumps & Piping	1	LS	$8,500.00	$8,500.00											$8,500.00
6c	Demo 6" Yard Piping	1	LS	$5,000.00	$5,000.00											$5,000.00
6d	Demo Transfer Switch / Control Panel	1	LS	$2,000.00	$2,000.00											$2,000.00
6e	Remove Existng Grout Fillet	1	LS	$2,000.00	$2,000.00											$2,000.00
7	**Jetts Farm Pump Station Demolition**	**1**	**LS**	**$22,000.00**												
7a	Demo Junction Box / Vent	1	LS	$5,500.00	$5,500.00											$5,500.00
7b	Remove Existing Pumps & Piping	1	LS	$9,500.00	$9,500.00											$9,500.00
7c	Demo 6" Yard Piping	1	LS	$5,000.00	$5,000.00											$5,000.00
7d	Demo Transfer Switch / Control Panel	1	LS	$2,000.00	$2,000.00											$2,000.00
9	**Forrest Street Pump Station Demolition**	**1**	**LS**	**$33,000.00**												
9a	Demo Pump Station	1	LS	$15,000.00	$15,000.00											$15,000.00
9b	Remove Existing Pumps & Piping	1	LS	$9,000.00	$9,000.00											$9,000.00
9c	Demo 10"/12" Piping	1	LS	$9,000.00	$9,000.00											$9,000.00
10	**11th Ave Pump Station Demolition**	**1**	**LS**	**$33,000.00**												
10a	Demo Pump Station	1	LS	$14,000.00	$14,000.00											$14,000.00
10b	Remove Existing Pumps & Piping	1	LS	$10,000.00	$10,000.00											$10,000.00
10c	Demo 8"/2" Piping	1	LS	$9,000.00	$9,000.00											$9,000.00
11	**Burr East Pump Station**	**1**	**LS**	**$495,000.00**												
11a	Erosion & Sediment Control	1	LS	$6,000.00	$6,000.00											$6,000.00
11b	Seeding and Lanscaping	1	LS	$4,000.00	$4,000.00											$4,000.00
11c	Site Fencing	1	LS	$8,000.00	$8,000.00											$8,000.00
11d	Valve Vault	1	LS	$40,000.00	$40,000.00											$40,000.00
11e	Meter Vault	1	LS	$25,000.00	$25,000.00											$25,000.00
11f	Process Pipe	1	LS	$70,000.00	$70,000.00											$70,000.00
11g	Submersible Pumps	1	LS	$98,000.00	$98,000.00		**0.10**	0.10		$9,800.00	$9,800.00		$76,502.65	$86,302.65	88.1%	$11,697.35
11h	Pipe Painting	1	LS	$4,000.00	$4,000.00											$4,000.00
11i	Instrumentation	1	LS	$15,000.00	$15,000.00		**0.10**	0.10		$1,500.00	$1,500.00			$1,500.00	10.0%	$13,500.00
11j	Propane Tank Pad	1	LS	$5,000.00	$5,000.00											$5,000.00
11k	Wet Well Top Slab	1	LS	$15,000.00	$15,000.00											$15,000.00
11l	Wet Well Fillet	1	LS	$5,000.00	$5,000.00											$5,000.00
11m	Electrical Enclosure Pad	1	LS	$5,000.00	$5,000.00											$5,000.00
11n	Electrical	1	LS	$90,000.00	$90,000.00											$90,000.00
11o	Integration	1	LS	$105,000.00	$105,000.00		**0.10**	0.10		$10,500.00	$10,500.00			$10,500.00	10.0%	$94,500.00
12	**Moose Lodge Pump Station**	**1**	**LS**	**$305,000.00**												
12a	Erosion & Sediment Control	1	LS	$4,000.00	$4,000.00											$4,000.00
12b	Seeding and Lanscaping	1	LS	$4,000.00	$4,000.00											$4,000.00
12c	Meter Vault	1	LS	$16,000.00	$16,000.00											$16,000.00
12d	Bypass Pit	1	LS	$6,000.00	$6,000.00											$6,000.00
12e	Process Pipe	1	LS	$54,000.00	$54,000.00											$54,000.00
12f	Submersible Pumps	1	LS	$90,000.00	$90,000.00		**0.10**	0.10		$9,000.00	$9,000.00		$81,205.00	$90,205.00	100.2%	-$205.00
12g	Instrumentation	1	LS	$6,000.00	$6,000.00											$6,000.00
12h	Wet Well Top Slab	1	LS	$15,000.00	$15,000.00											$15,000.00

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Progress Estimate - Unit Price Work **Contractor's Application**

For (Contract): 01												Application Number: 08			
Application Period: 10/1/25 to 10/31/25												Application Date: 11/6/2025			
A					B			C			D	E	F		
Item		Contract Information				Quantity			Payment			Materials Presently Stored (not in C)	Total Completed and Stored to Date (D+E)	% (F / B)	Balance to Finish (B - F)
Bid Item No.	Description	Bid Quantity	Units	Unit Price	Total Value of Item ($)	This Period	Previous to Date	To Date	This Period	Previous to Date	To Date				
12i	Electrical	1	LS	$65,000.00	$65,000.00										$65,000.00
12j	Integration	1	LS	$45,000.00	$45,000.00										$45,000.00
13	**Jetts Farm Pump Station**	**1**	**LS**	**$335,000.00**											
13a	Erosion & Sediment Control	1	LS	$4,000.00	$4,000.00										$4,000.00
13b	Temporary Fence & Barrier	1	LS	$23,000.00	$23,000.00										$23,000.00
13c	Seeding & Landscaping	1	LS	$3,500.00	$3,500.00										$3,500.00
13d	Meter Vault	1	LS	$16,000.00	$16,000.00										$16,000.00
13e	Bypass Pit	1	LS	$6,000.00	$6,000.00										$6,000.00
13f	Process Pipe	1	LS	$73,500.00	$73,500.00										$73,500.00
13g	Submersible Pumps	1	LS	$102,000.00	$102,000.00		**0.10**	0.10		$10,200.00	$10,200.00	$62,111.25	$72,311.25	70.9%	$29,688.75
13h	Instrumentation	1	LS	$4,500.00	$4,500.00		**0.10**	0.10		$450.00	$450.00		$450.00	10.0%	$4,050.00
13i	Pipe Painting	1	LS	$1,500.00	$1,500.00										$1,500.00
13j	Electrical	1	LS	$58,000.00	$58,000.00										$58,000.00
13k	Integration	1	LS	$43,000.00	$43,000.00		**0.10**	0.10		$4,300.00	$4,300.00		$4,300.00	10.0%	$38,700.00
15	**Lakeland Pump Station**	**1**	**LS**	**$1,125,000.00**											
15a	Erosion & Sediment Control	1	LS	$8,000.00	$8,000.00										$8,000.00
15b	Strip / Spread Topsoil	1	LS	$7,000.00	$7,000.00										$7,000.00
15c	Site Grading	1	LS	$23,000.00	$23,000.00										$23,000.00
15d	Construction Entrance / Site Road	1	LS	$16,000.00	$16,000.00										$16,000.00
15e	Clearing & Grubbing	1	LS	$9,500.00	$9,500.00										$9,500.00
15f	Seeding & Landscaping	1	LS	$4,000.00	$4,000.00										$4,000.00
15g	Site Fencing	1	LS	$20,000.00	$20,000.00										$20,000.00
15h	Pump Station Wet Well Shoring / Excavation / Backfill	1	LS	$530,000.00	$530,000.00		**0.09**	0.09		$47,700.00	$47,700.00		$47,700.00	9.0%	$482,300.00
15i	Meter Vault	1	LS	$20,000.00	$20,000.00							$6,449.00	$6,449.00	32.2%	$13,551.00
15j	Process Pipe	1	LS	$141,000.00	$141,000.00										$141,000.00
15k	Submersible Pumps	1	LS	$15,000.00	$15,000.00		**0.01**	0.01		$150.00	$150.00		$150.00	1.0%	$14,850.00
15l	Instrumentation	1	LS	$7,000.00	$7,000.00										$7,000.00
15m	Pipe Painting	1	LS	$1,000.00	$1,000.00										$1,000.00
15n	Generator & Electrical Pads	1	LS	$8,500.00	$8,500.00										$8,500.00
15o	Electrical	1	LS	$135,000.00	$135,000.00		**0.10**	0.10		$13,500.00	$13,500.00		$13,500.00	10.0%	$121,500.00
15p	Integration	1	LS	$180,000.00	$180,000.00										$180,000.00
16	Grinder Pump 1	1	LS	$23,000.00	$23,000.00										$23,000.00
17	Grinder Pump 2	1	LS	$23,000.00	$23,000.00										$23,000.00
18	**Bypass Pump - Burr East Pump Station**	**1**	**LS**	**$45,000.00**											
18a	Set Up Bypass Pump & Piping	1	LS	$17,500.00	$17,500.00										$17,500.00
18b	Utilize Bypass Pump & Piping	1	LS	$25,000.00	$25,000.00										$25,000.00
18c	Remove Bypass Pump & Piping	1	LS	$2,500.00	$2,500.00										$2,500.00
19	**Bypass Pump - Jett's Farm Pump Station**	**1**	**LS**	**$36,000.00**											
19a	Set Up Bypass Pump & Piping	1	LS	$13,500.00	$13,500.00										$13,500.00
19b	Utilize Bypass Pump & Piping	1	LS	$20,000.00	$20,000.00										$20,000.00
19c	Remove Bypass Pump & Piping	1	LS	$2,500.00	$2,500.00										$2,500.00
20	**Bypass Pump - Samuel Street Pump Station**	**1**	**LS**	**$15,000.00**											
20a	Set Up Bypass Pump & Piping	1	LS	$5,500.00	$5,500.00		**1.00**	1.00		$5,500.00	$5,500.00		$5,500.00	100.0%	
20b	Utilize Bypass Pump & Piping	1	LS	$7,000.00	$7,000.00		**1.00**	1.00		$7,000.00	$7,000.00		$7,000.00	100.0%	
20c	Remove Bypass Pump & Piping	1	LS	$2,500.00	$2,500.00		**1.00**	1.00		$2,500.00	$2,500.00		$2,500.00	100.0%	
22	**Bypass Pump - Forest Ave Pump Station**	**1**	**LS**	**$13,000.00**											
22a	Set Up Bypass Pump & Piping	1	LS	$5,500.00	$5,500.00										$5,500.00
22b	Utilize Bypass Pump & Piping	1	LS	$5,500.00	$5,500.00										$5,500.00
22c	Remove Bypass Pump & Piping	1	LS	$2,000.00	$2,000.00										$2,000.00
23	**Bypass Pump - 11th Ave Pump Station**	**1**	**LS**	**$13,000.00**											
23a	Set Up Bypass Pump & Piping	1	LS	$5,500.00	$5,500.00										$5,500.00
23b	Utilize Bypass Pump & Piping	1	LS	$5,500.00	$5,500.00										$5,500.00
23c	Remove Bypass Pump & Piping	1	LS	$2,000.00	$2,000.00										$2,000.00
24	**Bypass Pump - Evitt's Run Interceptor**	**1**	**LS**	**$100,000.00**											
24a	Set Up Bypass Pump & Piping (multiple)	1	LS	$25,000.00	$25,000.00		**0.50**	0.50		$12,500.00	$12,500.00		$12,500.00	50.0%	$12,500.00
24b	Utilize Bypass Pump & Piping	1	LS	$50,000.00	$50,000.00		**0.50**	0.50		$25,000.00	$25,000.00		$25,000.00	50.0%	$25,000.00
24c	Remove Bypass Pump & Piping (multiple)	1	LS	$25,000.00	$25,000.00		**0.50**	0.50		$12,500.00	$12,500.00		$12,500.00	50.0%	$12,500.00
25	Pump & Haul - Moose Lodge Pump Station	1	LS	$48,000.00	$48,000.00										$48,000.00
26	Pump & Haul - Evitt's Run Interceptor	1	LS	$7,500.00	$7,500.00										$7,500.00
27	Pump & Haul - Magnolia Springs Pump Station	1	LS	$7,500.00	$7,500.00										$7,500.00
28	Pump & Haul - Clearance Drive Pump Station	1	LS	$7,500.00	$7,500.00										$7,500.00
29	4" SDR 35 Sewer	100	LF	$194.00	$19,400.00										$19,400.00

EJCDC® C-620 Contractor's Application for Payment
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Progress Estimate - Unit Price Work **Contractor's Application**

For (Contract): 01 | Application Number: 08

Application Period: 10/1/25 to 10/31/25 | Application Date: 11/6/2025

A					B			C			D	E	F		
Item		Contract Information				Quantity			Payment						
Bid Item No.	Description	Bid Quantity	Units	Unit Price	Total Value of Item ($)	This Period	Previous to Date	To Date	This Period	Previous to Date	To Date	Materials Presently Stored (not in C)	Total Completed and Stored to Date (D+E)	% (F / B)	Balance to Finish (B - F)
30	6" SDR 35 PVC Sewer (D<8')	20	LF	$92.00	$1,840.00										$1,840.00
31	8" SDR PVC Sewer (D<8')	1100	LF	$135.00	$148,500.00							$17,796.18	$17,796.18	12.0%	$130,703.82
32	8" SDR PVC Sewer (8<D<12')	200	LF	$192.00	$38,400.00							$5,567.52	$5,567.52	14.5%	$32,832.48
33	8" SDR PVC Sewer (D<12')	200	LF	$284.00	$56,800.00							$4,971.00	$4,971.00	8.8%	$51,829.00
34	10" SDR 35 PVC Sewer (D<8')	600	LF	$174.00	$104,400.00										$104,400.00
35	12" SDR PVC	80	LF	$235.00	$18,800.00		**21.00**	21.00		$4,935.00	$4,935.00		$4,935.00	26.3%	$13,865.00
36	30" SDR PVC	2000	LF	$305.00	$610,000.00	**328.25**	**1054.75**	1383.00	$100,116.25	$321,698.75	$421,815.00	$12,051.40	$433,866.40	71.1%	$176,133.60
37	6" C900 Class 165 PVC Force Main	2200	LF	$135.00	$297,000.00	**1023.00**	**2310.08**	3333.08	$138,105.00	$311,860.80	$449,965.80	$5,283.60	$455,249.40	153.3%	-$158,249.40
38	4" C900 Class 165 PVC Force Main	2800	LF	$115.00	$322,000.00	**134.50**	**2439.58**	2574.08	$15,467.50	$280,551.70	$296,019.20		$296,019.20	91.9%	$25,980.80
39	2" SDR 9 HDPE Force Main (Slip Line)	1400	LF	$55.00	$77,000.00										$77,000.00
40	1.5" SDR 9 IPS HDPE Force Main (Slip Line)	900	LF	$54.00	$48,600.00										$48,600.00
41	1.25" SDR 9 IPS HDPE for Main	1200	LF	$75.50	$90,600.00										$90,600.00
42	4' Diameter Manhole (up to 6')	20	EA	$8,500.00	$170,000.00	**1.00**	**10.00**	11.00	$8,500.00	$85,000.00	$93,500.00	$18,398.15	$111,898.15	65.8%	$58,101.85
43	4' Diameter Manhole Extension	50	VF	$650.00	$32,500.00	**0.50**	**14.75**	15.25	$325.00	$9,587.50	$9,912.50		$9,912.50	30.5%	$22,587.50
44	4' Diameter Doghouse Manhole (up to 6')	10	EA	$8,100.00	$81,000.00										$81,000.00
45	Manhole Frame and Cover - Highway	26	EA	$1,500.00	$39,000.00		**9.00**	9.00		$13,500.00	$13,500.00		$13,500.00	34.6%	$25,500.00
46	Manhole Frame and Cover - Watertight	5	EA	$1,700.00	$8,500.00	**1.00**	**5.00**	6.00	$1,700.00	$8,500.00	$10,200.00		$10,200.00	120.0%	-$1,700.00
47	Inside Drop Connection	10	EA	$1,500.00	$15,000.00		**1.00**	1.00		$1,500.00	$1,500.00		$1,500.00	10.0%	$13,500.00
48	Connect to Existing	10	EA	$2,000.00	$20,000.00		**1.00**	1.00		$2,000.00	$2,000.00		$2,000.00	10.0%	$18,000.00
49	Mainline Cleanout	5	EA	$4,300.00	$21,500.00										$21,500.00
50	Air Release Vacuum Combination Valve Assembly	4	EA	$12,500.00	$50,000.00	**1.00**	**1.00**	2.00	$12,500.00	$12,500.00	$25,000.00		$25,000.00	50.0%	$25,000.00
51	Flushing Valve	4	EA	$9,000.00	$36,000.00	**2.00**		2.00	$18,000.00		$18,000.00		$18,000.00	50.0%	$18,000.00
52	Burr East Force Main Connection	1	LS	$21,000.00	$21,000.00										$21,000.00
53	Jett's Farm Force Main Connection	1	LS	$11,000.00	$11,000.00										$11,000.00
54	Manhole Riser Extension	5	VF	$1,300.00	$6,500.00										$6,500.00
55	Internal Manhole Lining	90	VF	$100.00	$9,000.00										$9,000.00
56	6" SDR PVC Lateral	200	LF	$102.00	$20,400.00										$20,400.00
57	Reconnect Lateral Service Connection	16	EA	$1,400.00	$22,400.00										$22,400.00
58	8"x6" Wye	14	EA	$420.00	$5,880.00										$5,880.00
59	12" Steel Casing - (Open Cut)	200	LF	$200.00	$40,000.00										$40,000.00
60	16" Steel Casing - (Open Cut)	80	LF	$250.00	$20,000.00										$20,000.00
61	48" Steel Casing - (Open Cut)	80	LF	$1,600.00	$128,000.00										$128,000.00
62	Test Pit Excavation & Refill	7	EA	$5,000.00	$35,000.00		**1.00**	1.00		$5,000.00	$5,000.00		$5,000.00	14.3%	$30,000.00
63	Launching / Receiving Pit	7	EA	$9,000.00	$63,000.00		**1.00**	1.00		$9,000.00	$9,000.00		$9,000.00	14.3%	$54,000.00
64	Asphalt Trench Patch (Base)	80	TON	$400.00	$32,000.00	**66.37**	**70.57**	136.94	$26,548.00	$28,228.00	$54,776.00		$54,776.00	171.2%	-$22,776.00
65	Asphalt Trench Patch (Wearing)	60	TON	$350.00	$21,000.00	**69.85**	**34.01**	103.86	$24,447.50	$11,903.50	$36,351.00		$36,351.00	173.1%	-$15,351.00
66	Aggregate for Backfill	700	CY	$92.00	$64,400.00		**318.54**	318.54		$29,305.68	$29,305.68		$29,305.68	45.5%	$35,094.32
67	Flowable Fill	50	CY	$400.00	$20,000.00										$20,000.00
68	Remove Manhole	13	EA	$1,300.00	$16,900.00		**1.00**	1.00		$1,300.00	$1,300.00		$1,300.00	7.7%	$15,600.00
69	Concrete Curb Repair	10	LF	$200.00	$2,000.00										$2,000.00
70	Concrete Driveway Repair	10	CY	$1,800.00	$18,000.00										$18,000.00
71	Miscellaneous DIP Fittings	500	LB	$20.00	$10,000.00										$10,000.00
72	Class B Concrete	50	CY	$500.00	$25,000.00										$25,000.00
73	Shoring / Stabalization After Receiving / Launching Pit - Augustine Ave	1	LS	$10,000.00	$10,000.00	**1.00**		1.00	$10,000.00		$10,000.00		$10,000.00	100.0%	
	Change Orders														
CO-1	B&O Tax	1	LS	$121,480.00	$121,480.00										$121,480.00
CO-2-A	Evitts Run MH Upsize	1	LS	$20,704.00	$20,704.00	**0.10**	**0.65**	0.75	$2,070.40	$13,457.60	$15,528.00		$15,528.00	75.0%	$5,176.00
CO-2-B	Lakeland Place - 16th St Access Road	1	LS	$79,983.00	$79,983.00										$79,983.00
CO-2-C	Lakeland Place - ELB 5" Conduit	1420	LF	$71.00	$100,820.00										$100,820.00
CO-2-D	Davit Crane Credit	1	LS	-$10,422.36	-$10,422.36		**1.00**	1.00		-$10,422.36	-$10,422.36		-$10,422.36	100.0%	
CO-2-E	Lakeland Place - Potomac Edison	1	LS	$49,987.68	$49,987.68										$49,987.68
									$ -						
	Totals				**$6,436,552.32**				**$375,779.65**	**$1,671,266.97**	**$2,047,046.62**	**$290,335.75**	**$2,337,382.37**	36.3%	**$4,099,169.95**

EJCDC® C-620 Contractor's Application for Payment
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Stored Material Summary

Contractor's Application

For (Contract):	01	Application Number:	08
Application Period:	10/1/25 to 10/31/25	Application Date:	11/6/2025

A		B	C		D		E		F		G
					Stored Previously				Incorporated in Work		
Bid Item No.	Supplier Invoice No.	Submittal No. (with Specification Section No.)	Storage Location	Description of Materials or Equipment Stored	Application No. when Materials Placed in Storage	Amount ($)	Amount Stored this Month ($)	Subtotal Amount Completed and Stored to Date (D + E)	Date (Month/ Year)	Amount ($)	Materials Remaining in Storage ($) (D + E - F)
11g	27315		HRI Trailer	Burr East Grinder Pumps	4	$33,390.00		$33,390.00			$33,390.00
11g	28718		HRI Trailer	Burr East Grinder Pumps	4	$35,692.65		$35,692.65			$35,692.65
12f	27317		HRI Trailer	Jetts Farm Grinder Pumps	4	$38,700.00		$38,700.00			$38,700.00
12f	28503		HRI Trailer	Jetts Farm Grinder Pumps	4	$34,605.00		$34,605.00			$34,605.00
13g	27316		HRI Trailer	Moose Lodge Grinder Pumps	4	$33,300.00		$33,300.00			$33,300.00
13g	28504		HRI Trailer	Moose Lodge Grinder Pumps	4	$28,811.25		$28,811.25			$28,811.25
36	x122052		Evitts Run	30" PVC	5				7/2025		
36	x345362		Evitts Run	30" PVC	5	$6,450.20		$25,318.44	8/2025	$6,450.20	
36	x346372		Evitts Run	30" PVC	5	$25,318.44		$25,318.44	8/2025	$25,318.44	
36	x347299		Evitts Run	30" PVC	5	$25,318.44		$25,318.44	8/2025	$25,318.44	
36	x356214		Evitts Run	30" PVC	5	$25,318.44		$25,318.44	10/2025	$25,318.44	
42	886402		Evitts Run	Sanitary MH - APS16	5	$5,103.00		$5,103.00			$5,103.00
42	882498		Evitts Run	Sanitary MH	5	$41,139.40		$41,139.40	10/2025	$34,908.50	$6,230.90
42	880503		Evitts Run	Sanitary MH - APS27	5	$7,064.25		$7,064.25			$7,064.25
42	876403		Evitts Run	Sanitary MH	5	$4,623.00		$4,623.00	9/2025	$4,623.00	
36	x633532		Evitts Run	30" PVC	6	$25,318.44		$25,318.44	10/2025	$13,267.04	$12,051.40
37	x423369		Burr East	6" HDPE DR 11	6	$12,240.00		$12,240.00	10/2025	$6,956.40	$5,283.60
31	x569471		LP	8" Fusible C900	6	$17,796.18		$17,796.18			$17,796.18
32	x569471		LP	8" Fusible C900	6	$5,567.52		$5,567.52			$5,567.52
33	x569471		LP	8" Fusible C900	6	$4,971.00		$4,971.00			$4,971.00
11g	29342		HRI Trailer	Burr East Grinder Pumps	6	$7,420.00		$7,420.00			$7,420.00
12f	29341		HRI Trailer	Jetts Farm Grinder Pumps	6	$7,900.00		$7,900.00			$7,900.00
15i	895582		Evitts Run	LP Meter Vault	6	$6,449.00		$6,449.00			$6,449.00
				Totals		**$432,496.21**		**$451,364.45**		**$142,160.46**	**$290,335.75**

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American Iron and Steel (AIS) Qualifying and De Minimus Materials List

Note: This form must be updated and submitted with every pay estimate

DEMINIMIS COSTING WORKSHEET

Contract Name: CTUB 2022 Collection System Project — Date: 10/10/2025

Contract Price Incl. Change Orders:	$6,195,480.00
Estimated Costs of Materials Approx. 50% of Contract Amt:	$3,097,740.00
Allowable Total De Minimus Costs (5%):	$154,887.00
Total Cost of All De Minimus Items:	$662.40
Remaining Amount Allowed for Future De Minimus Items:	$154,224.60

Note 1: No Single De Minimus item can be more than 1% of the total material cost

No	Detailed Description and Manufacturer or Local Source of De Minimus	Quantity	Cost Per	Total Item Cost
1	Drop-In Anchors - 3/4"-10 SS	25	$18.73	$468.25
1	Threaded Rod 3/4"-10x6" 316SS	1	$194.15	$194.15
2				$0.00
3				$0.00
4				$0.00
6				$0.00
7				$0.00
8				$0.00
9				$0.00
10				$0.00
11				$0.00
12				$0.00

C2 - COLAS GROUP INTERNAL: Employees and partners who need to know.

Date: November 12, 2025

Charles Town Utility Board
2022 Sewer Collection System Project
Schedule B - Internal Purposes Only

A. COST OF PROJECT	APPROVED CONSTRUCTION BUDGET	Resolution No. 12 Request for Payment (RFP) #12 CWSRF # 5	Resolution No. 13 Request for Payment (RFP) # 13 CIF # 8	Resolution No. 14 Request for Payment (RFP) # 14 CIF # 9	Resolution No. 15 Request for Payment (RFP) #15 CWSRF # 6	Resolution No. 16 Request for Payment (RFP) # 16 CIF # 10	Resolution No. 17 Request for Payment (RFP) #17 EEGF Grant # 1	Resolution No. 18 Request for Payment (RFP) #18 EEGF Grant #2 CIF # 11	Resolution No. 19 Request for Payment (RFP) # 19 CIF # 12	Resolution No. 20 Request for Payment (RFP) #20 EEGF Grant #3 CIF # 13	BALANCE REMAINING
1 **CONSTRUCTION**											
a. Contract	$ 6,074,000.00	$ 506,828.03	$ -	$ -	$ 620,946.92	$ -	$ 278,099.71	$ 177,224.36	$ -	$ 297,153.47	$ 3,975,461.51
2 **CONSTRUCTION CONTINGENCY**											
a. Construction Contingency - (Note #1 &#7)	$ 303,684.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 303,684.00
b. B&O Tax Contingency (Note #3)	$ 121,480.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 121,480.00
c. Change Order No. 2 - (Note #7)	$ 90,264.64	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,035.24	$ -	$ 2,070.40	$ 85,159.00
3 **LEGAL SERVICES**											
a. Project Attorney - (Note #4)	$ 170,000.00	$ -	$ -	$ 2,957.50	$ -	$ 682.50	$ -	$ -	$ -	$ -	$ 20,013.91
4 **ACCOUNTING SERVICES**											
a. Project Account - CPA	$ 30,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,787.50
5 **ENGINEERING SERVICES**											
a. RK&K Engineering fees	$ 596,090.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,670.19
b. GDF Engineering (Construction Admin/RPR) - (Note #6)	$ 420,000.00	$ -	$ 32,559.03	$ 35,677.65	$ -	$ 34,055.35	$ -	$ -	$ 28,028.96	$ -	$ 201,781.22
6 **ADMINISTRATIVE SERVICES**											
a. Other Administrative Costs	$ 8,850.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,472.86
7 **LANDS/EASEMENTS**											
a. Easements	$ 50,600.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,275.00
b. R/W Agent - (Note #2)	$ 100,690.72	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
c. Permits - (Note #2)	$ 6,859.28	$ -	$ -	$ 1,550.00	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,139.28
d. Plats - (Note #2)	$ 14,120.00	$ -	$ -	$ 2,141.37	$ -	$ -	$ -	$ -	$ -	$ -	$ 79.63
8 Sub Total Line 1-7	**$ 7,986,638.64**	**$ 506,828.03**	**$ 32,559.03**	**$ 42,326.52**	**$ 620,946.92**	**$ 34,737.85**	**$ 278,099.71**	**$ 180,259.60**	**$ 28,028.96**	**$ 299,223.87**	**$ 4,729,004.10**
B. COST OF FINANCING											
9 Registrar Fees	$ 650.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10 Bond Counsel (S&J)	$ 40,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
11 Sub Total of Financing - Line 9-10	**$ 40,650.00**										**$ -**
12 Total Project Costs Line 8 + Line 11	**$ 8,027,288.64**	**$ 506,828.03**	**$ 32,559.03**	**$ 42,326.52**	**$ 620,946.92**	**$ 34,737.85**	**$ 278,099.71**	**$ 180,259.60**	**$ 28,028.96**	**$ 299,223.87**	**$ 4,729,004.10**

B. SOURCES OF FUNDS	APPROVED PROJECT FUNDING	Request for Payment (RFP) #12 CWSRF # 5	Request for Payment (RFP) # 13 CIF # 8	Request for Payment (RFP) # 14 CIF # 9	Request for Payment (RFP) #15 CWSRF # 6	Request for Payment (RFP) # 16 CIF # 10	Request for Payment (RFP) #17 EEGF # 1	Request for Payment (RFP) #18 EEGF Grant #2 CIF # 11	Request for Payment (RFP) # 19 CIF # 12	Request for Payment (RFP) #20 EEGF Grant #3 CIF # 13	BALANCE REMAINING
1 INTERNAL FUNDS											
a. Capacity Improvement Fees	$ 3,267,824.64	$ -	$ (32,559.03)	$ (42,326.52)	$ -	$ (34,737.85)	$ -	$ (3,035.24)	$ (28,028.96)	$ (2,070.40)	$ 2,108,728.59
b. CTUB Operating Fund	$ 121,480.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 121,480.00
1 Subtotal Internal Funds	**$ 3,389,304.64**	**$ -**	**$ (32,559.03)**	**$ (42,326.52)**	**$ -**	**$ (34,737.85)**	**$ -**	**$ (3,035.24)**	**$ (28,028.96)**	**$ (2,070.40)**	**$ 2,230,208.59**
2 GRANT FUNDS											
a. State Grant (EEGF)	$ 1,077,000.00	$ -	$ -	$ -	$ -	$ -	$ (278,099.71)	$ (177,224.36)	$ -	$ (297,153.47)	$ 324,522.46
b. Federal Grant (CWSRF) - "Green Grant"	$ 500,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 500,000.00
2 Subtotal Grant Funds	**$ 1,577,000.00**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ (278,099.71)**	**$ (177,224.36)**	**$ -**	**$ (297,153.47)**	**$ 824,522.46**
3 BOND ISSUE											
a. CWSRF Loan - (1%, 40 Year)	$ 2,844,984.00	$ (506,828.03)	$ -	$ -	$ (620,946.92)	$ -	$ -	$ -	$ -	$ -	$ 1,458,273.05
b. CWSRF Loan - (3%, 20 Year)	$ 216,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 216,000.00
3 Subtotal Bond Issue	**$ 3,060,984.00**	**$ (506,828.03)**	**$ -**	**$ -**	**$ (620,946.92)**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,674,273.05**
4 Total Sources of Funds Line 1-3	**$ 8,027,288.64**	**$ (506,828.03)**	**$ (32,559.03)**	**$ (42,326.52)**	**$ (620,946.92)**	**$ (34,737.85)**	**$ (278,099.71)**	**$ (180,259.60)**	**$ (28,028.96)**	**$ (299,223.87)**	**$ 4,729,004.10**

Note #1 - 12/10/2024 - The CWSRF loan in the amount of $216,016 was shown as $216,000 on the closing documentation. Per the State, the CWSRF loan and the total project costs line items on the Schedule B were reduced by $16.00 to correct the error.

Note #2 - 12/11/2024 - Line item R/W Agent was decreased by $1,444.28 to actual, line item Permits was decreased by $140.72, and the line item for Plats was increased by $1,585.00.

Note #3 - 6/11/2025 - Change Order No. 1 - Upon the denial of the B&O waiver request by the City of Charles Town and the City of Ranson, the CTUB Board approved the payment of the B&O taxes to both municipalities to be paid from internal funds.

Note #4 - 6/25/2025 - Amendment No. 2 was approved to increase project legal services by $30,000, not to exceed $170,000.

Note #5 -8/5/2025 - Line item Admin Costs was decreased by $1,150 and the line item for Plats was increased by $1,150.

Note #6 -8/13/2025 - GDF - Task Order for Additional Construction Admin Services approved increase of $120,000 for project engineering CA & RPR services, to be paid from Capacity

Note #7 - 10/8/2025 - Change Order No. 2 was approved in the amount of $241,072.32, $150,807.68 to be funded with the CWSRF - Green Grant from contingency, the remaining $90,264.64 will be a increase in total project costs and funded with

CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

Summit Point Motorsports Park and Training Facility Grant Opportunity

Attachments:

Summit Point Raceway - CTUB Nearby Utilities 10.27.25.pdf

CTUB NEARBY UTILITIES TO SUMMIT POINT RACEWAY

LOCUST HILL DEVELOPMENT

5.55 MILES

5.75 MILES

SUMMIT POINT RACEWAY PROPERTY

SPRUCEHILL NORTH DEVELOPMENT

N

Gravity
Forcemain
Watermain
PumpStation
Treatment Plant

0 0.38 0.75 1.5 Miles

CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

Capacity Improvement Fee Policy Amendment

Attachments:

CIF Policy Amendment.pdf

Charles Town Utility Board – Proposed Amendment to Capacity Improvement Fee Policy

November 12, 2025

Amendment: Annual Data Review Requirement
The Charles Town Utility Board (CTUB) affirms its ongoing commitment to ensuring that the Capacity Improvement Fee (CIF) remains fair, reasonable, and sufficient to fund the expansion of water and sewer infrastructure required by new development.

Beginning in **August 2026**, and each year thereafter, CTUB shall conduct an **annual review** to verify that the assumptions underlying the CIF remain accurate and relevant. The purpose of this review is to confirm that the fee continues to reflect the actual costs of growth-related infrastructure and that existing ratepayers are not subsidizing new development.

The annual review shall include examination of the following factors:

- **Inflation and construction costs** – changes in material and labor costs since the last evaluation;
- **Development trends** – number and type of new service connections and approved developments; and
- **Regulatory or financial conditions** – any changes affecting utility operations, capital project costs, or funding sources.

If the review indicates that inflation, growth, or other key assumptions have changed significantly, the **Board** may determine that a **full CIF evaluation** should be undertaken prior to the next scheduled review.

A summary of the findings shall be presented publicly at the Board's **August meeting** each year and made available on the CTUB website.

This amendment ensures that the CIF remains responsive to changing conditions while upholding CTUB's policy that growth should pay for growth, protecting existing customers from the costs of new development. The review is also intended to ensure fairness to new development; if trends indicate that the current CIF exceeds what is justified by actual costs or growth conditions, the Board may consider reducing the fee accordingly.

CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

Water Plant Pilot Study for Membrane and GAC Filtration

Attachments:

Pilot Study Proposal to CTUB.pdf

PROFESSIONAL ENGINEERING SERVICES PROPOSAL

CHARLES TOWN UTILITY BOARD

WATER TREATMENT PLANT
MEMBRANE AND GAC FILTRATION PILOT STUDY

NOVEMBER 2025

GD&F
GWIN
DOBSON &
FOREMAN
ENGINEERS

GD&F
GWIN
DOBSON &
FOREMAN
ENGINEERS

November 5, 2025

Kristen Stolipher, Utility General Manager
Charles Town Utility Board
661 South George Street, Suite 101
Charles Town, WV 25414

RE: Water Treatment Plant Membrane and GAC Filtration Pilot Study
Engineering Services Proposal (Task Order)

Dear Mrs. Stolipher:

Please find enclosed our professional engineering services cost proposal for the Water Treatment Plant Membrane and GAC Filtration Pilot Study.

GD&F has completed multiple pilot studies and has successfully designed and operated many membrane filtration water treatment facilities. Our design experience with granular activated carbon (GAC) involves the highest level of organics removal which is a critical part of the Pilot Study. We are completely familiar with all process and regulatory requirements.

We appreciate the opportunity to submit this proposal for your consideration. If you have any questions or require additional information, please do not hesitate to contact me at your convenience.

Respectfully submitted,
GWIN, DOBSON & FOREMAN, INC.

Christopher M. Eckenrode

Christopher Eckenrode, P.E.
Engineering Manager

Enclosures
CME/amb
Prop/2025/CTUB/WTPMem&GACFiltPilotStudy/EngrServ.doc
cc: File

PROFESSIONAL ENGINEERING SERVICES PROPOSAL

CHARLES TOWN UTILITY BOARD
WATER TREATMENT PLANT
MEMBRANE AND GAC FILTRATION PILOT STUDY

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	5.3	Calgon Granular Activated Carbon (GAC) - Manufacturer's Pilot Study Proposal and Frostburg Maryland Case Study	

Section 1
INTRODUCTION

The Charles Town Utility Board (CTUB) is considering updating the existing conventional water treatment facility with membrane filtration and Granular Activated Carbon (GAC) treatment systems. Prior to implementing a full-scale design, a pilot study is required from a state regulatory standpoint. This process consists of first submitting a protocol report to the West Virginia Bureau of Public Health (WVBPH). Once this protocol report is approved the pilot study can be conducted. Upon completion of the pilot study, a final report must be submitted to WVBPH for review and approval. The overall duration of this process generally takes about one (1) year.

Gwin, Dobson & Foreman, Inc. (GD&F) pioneered the full scale application of membrane filtration (MF) technology in Pennsylvania and West Virginia. No other engineering firm has planned, pilot tested, designed, constructed and operated more MF treatment systems. Our unmatched experience and technical expertise will be applied to the Charles Town pilot study. A summary of our MF plant design experience is shown in Section 3.

GD&F has been involved with the successful pilot testing of innovative treatment technology systems for over 20 years. Since then, numerous pilot systems have been tested such as spiral-wound nanofiltration/reverse osmosis, horizontal shell and tube ozone generation, submerged hollow-fiber microfiltration, pressure-driven micro and ultrafiltration, granular activated carbon and resin adsorption and ultraviolet disinfection systems.

Our recent piloting experience has been for the City of Cumberland (MD), Town of Moorefield (WV), Harpers Ferry Water Works (WV), Altoona Water Authority (PA) and State College Borough Water Authority (PA). Four (4) different membrane manufacturers and membrane system suppliers were successfully pilot tested for the Town of Moorefield on their Potomac River sources. Four (4) different hollow-fiber PVDF membrane modules were pilot tested at Altoona's Bellwood Water Treatment Facility. A single membrane and GAC manufacturer were selected by State College for two (2) different treatment plants. The GAC system targeted various organic contaminants such as Endocrine Disrupter Chemicals (EDCs) and Pharmaceuticals and Personal Care Products (PPCPs). Two (2) different membrane manufacturers and two (2) different types of GAC media were pilot tested at the City of Cumberland's Evitts Creek WTP.

Section 2
COST PROPOSAL

GD&F proposes to perform engineering services pertaining to the membrane and GAC pilot study per the following breakdown. Please note that the testing laboratory services and utilities to install the pilot study are not included in the price below. These variable expenses shall be separately paid by CTUB. Note that these testing and utility hookup costs are estimated to cost about $20,000.

1.	Pilot Study Protocol Report	$	5,000	
2.	Engineering Services During Study	$	15,000	
3.	Aria Filtra Membrane Pilot Unit/Final Report	$	25,630	(Direct Cost)
4.	Scinor Membrane Pilot Unit/Final Report	$	19,000	(Direct Cost)
5.	Calgon GAC Pilot Unit and Final Report	$	24,550	(Direct Cost)
6.	Pilot Study Final Report	$	7,500	
	Total GD&F Proposal:	**$**	**96,680**	

The total pilot study cost is based on a 3-4 month total pilot study duration with 3-months of water quality testing. The cost is based upon utilizing two (2) membrane manufacturers (Aria Filtra and Scinor) and one (1) GAC manufacturer (Calgon). If other or additional manufacturers are required, GD&F would respectfully request the right to increase our cost to cover the pilot unit rentals and report and additional engineering fees.

The engineering proposal does not include the following: acceptance delivery and placement of the pilot units, electrical and/or internet service to the pilot units, off-skid mechanical plumbing or instrumentation and dissembling of the pilot units. The Owner will be responsible for obtaining all sample bottles, acquiring samplings, preparing the bottles and chain-of-custody's and sending the samples to the certified laboratory. All in-house basic water quality sampling shall also be performed at the Owner's expense.

Section 3
PILOT STUDY AND MEMBRANE FILTRATION/GAC EXPERIENCE

3.1 Membrane Filtration Experience

GD&F has participated in many membrane pilot studies since 2001 in Pennsylvania and West Virginia. Since that time, twenty-three (23) successful pilot studies have been completed with seventeen (17) full-scale membrane water treatment facilities currently in production. GD&F has experience with the following membrane and membrane system manufacturers: Tricep, Doosan, Toray, H2O Innovation, Hydranautics, Scinor, Pall Corporation (now Aria Filtra), Evoqua (Memcor), GE/Zenon (Veolia) and Kruger. Membrane-type experience includes microfiltration, ultrafiltration, nanofiltration, reverse osmosis and membrane bio-reactors (MBRs) in the submerged and pressure-driven applications.

Based on GD&F's extensive membrane experience, we highly recommend that our clients only specify membrane modules that are manufactured via the Thermally Induced Phase Separation (TIPS) process. Modules which are manufactured via the Non-Solvent Induced Phase Separation (NIPS) process have been known to fail prematurely and often require frequent pinning of membrane fibers. These NIPS membranes and/or the potting material, which bonds the fibers together, are not as oxidant tolerant as a TIPS membrane.

3.2 GAC Treatment Experience

GD&F has successfully pilot tested GAC for two (2) different treatment facilities for the State College Borough Water Authority as well as the City of Cumberland, Maryland. The Nixon-Kocher and Woodside pilot studies were performed on both true groundwater wells and surface water sources. GD&F has been intensely involved in selecting the proper GAC media which is generally in the form of bituminous coal or coconut shell based, both of which were pilot tested. GD&F also has experience with pilot testing synthetic resins which are specifically formulated to target removal of various inorganic compounds, such as hexavalent chromium. We have experience working with both Evoqua and Calgon, which are among the leaders in the GAC industry. The full-scale Nixon-Kocher water treatment plant features a membrane and GAC treatment system which has been online for over two (2) years. GD&F is currently designing two (2) new GAC treatment systems, one (1) for general organics reduction and the other specific to PFAS removal.

3.3 Regulatory Experience

GD&F has significant experience working with WVBPH on the piloting, design, construction, start-up and operations of membrane water treatment facilities. GD&F has successfully piloted, constructed and placed into operation the following membrane plants in West Virginia: Berkeley County Public Service Water District, Moundsville Water Board, Town of Moorefield, ATK Rocket Center (Northrop Grumman) and Harpers Ferry Water Works. GD&F has worked with WVBPH on various occasions to discuss new pilot study techniques, aid in the specifying and comparison of membrane manufacturers and recommending permitting changes. Our proven success in the membrane industry often results in minimal and minor Sanitary Survey comments and less Department violations.

3.4 Hands-on Experience

GD&F is set apart from other design engineers due to our hands-on membrane experience which can be verified by current water system operators. GD&F participates in meetings and onsite evaluations with the operators throughout the planning, piloting, design, construction, start-up and operational stages. We utilize the pilot study phase to help explain proper membrane operations to the operators which provides a sense of security and confidence. Through the design stage, various items such as accessibility, functionality, redundancy, etc., are examined to ensure that the operators can properly operate and maintain the facility.

During the construction phase, GD&F implements various QA/QC measures requiring several meetings with the contractor and membrane supplier to discuss what is expected in terms of equipment storage, scheduling, installation, controls, mechanical layout, instrumentation and electrical items. GD&F also participates in the required minimum 72-hour continuous start-up test of the equipment to verify proper system functionality prior to placing the plant online. During this time the comprehensive plant sequence of controls is tested and de-bugged.

Unlike most engineers, we remain heavily involved throughout the entire operational life of the membrane system. GD&F routinely makes site visits to verify cleaning techniques, diagnose operational issues, assist with reporting updates and answer any questions posed by the operators.

3.5 References

Owner: Northrop Grumman Corporation
Contact: Les Mull
Position: Manager EHS Engineering
Phone: (304) 726-5425

Owner: Berkeley County Public Service Water District
Contact: Steve De Ridder
Position: Superintendent of Operations
Phone: (304) 267-4600 ext. 103

Owner: Town of Moorefield
Contact: Lucas Gagnon
Position: Engineer
Phone: (304) 530-6142

Owner: State College Borough Water Authority
Contact: Brian C. Heiser
Position: Executive Director
Phone: (814) 238-6766

Owner: Altoona Water Authority
Contact: Mark A. Perry
Position: General Manager
Phone: (814) 949-2222 ext. 2007

Owner: Bear Valley Joint Authority
Contact: Doug Westover
Position: General Manager
Phone: (717) 369-2828

Owner: Brookville Municipal Authority
Contact: Aaron Haines
Position: Commissioner
Phone: (814) 849-7941

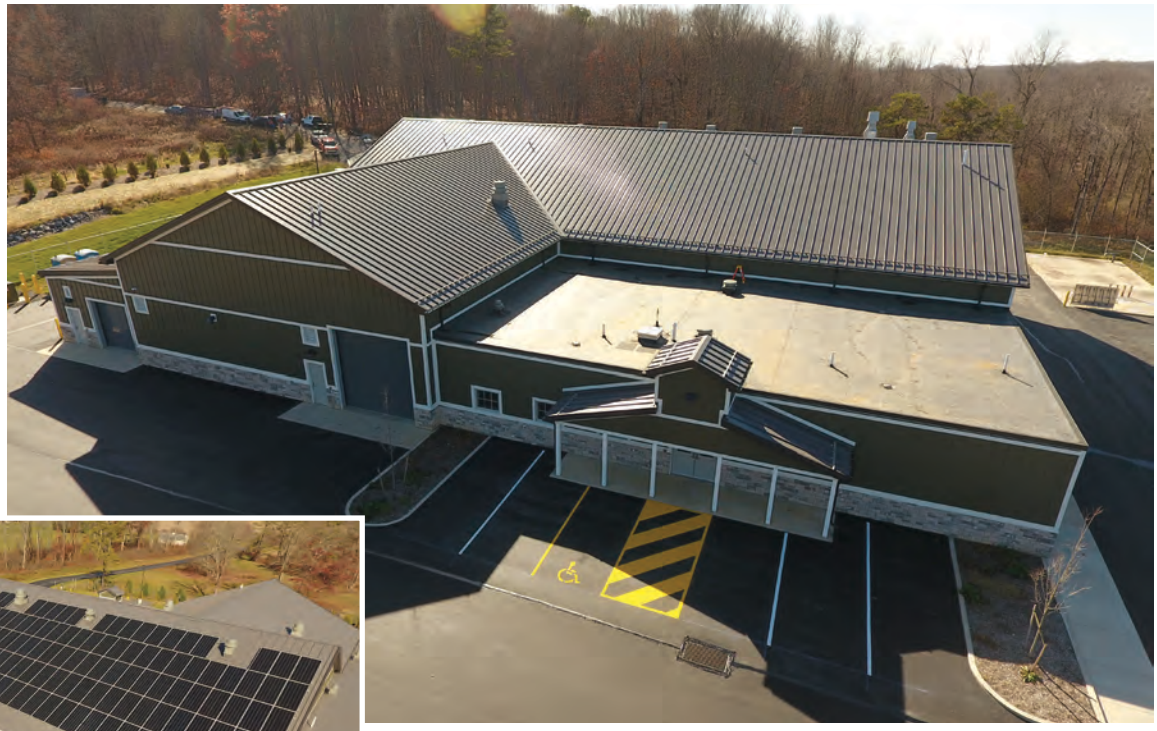
Owner: Clearfield Municipal Authority
Contact: Rich Lopez
Position: Manager
Phone: (814) 765-9609

3.6 Project Summaries (following pages)

Nixon-Kocher Advanced Water Treatment Facility

Client: State College Borough Water Authority, Centre County, PA

Year: 2022 Cost: $25,000,000





Gwin, Dobson & Foreman designed one of the state's most advanced water treatment plants for the State College Borough Water Authority. The Authority chose to provide multiple barrier protection of the Nixon and Kocher well fields for potential contaminants such as pathogens, bacteriological impacts and agricultural-related pesticides/herbicides.

After extensive pilot testing, GD&F designed a 3.5 MGD treatment plant with advanced technologies including membrane filtration for sub-micron particle removal, granulated activated carbon for organic compounds and ultraviolet disinfection as an additional pathogen barrier.

The facility, expandable to 5.0 MGD, will serve the largest customer zone in the North Atherton Street-Ferguson Township area. The $25 million project included the following project elements:

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Nixon-Kocher Advanced Water Treatment Facility

Client: State College Borough Water Authority,
Centre County, PA

Year: 2022 Cost: $25,000,000

- Unit operations include new well pumps, (6) cartridge membrane filtration, granulated activated carbon system ultraviolet disinfection, chlorination, mechanical equipment and piping systems and all related building-architectural systems.
- The SCADA system operates and monitors the treatment process. The facility is designed with solar panels to offset energy consumption.
- The UV disinfection system provides for enhanced inactivation of pathogens with the potential for a future advanced oxidation process for emerging contaminants.
- The building structure was designed with vibrated aggregate piers for marginal in-situ soil conditions. A unique architectural design is compatible with the rural, agricultural setting.
- A Phase II environmental assessment with extensive soil sampling and testing was performed along an abandoned railroad corridor.

GD&F performed pilot testing, project planning, engineering, design, bidding, construction administration, construction inspection and system start-up/commissioning services. The project was completed with a minimum of change orders which reflected a cost-effective and constructable design.

Project financing was provided by a Pennvest low-interest loan for the entire project cost.







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Harpers Ferry Water Treatment Facility Modifications

Client: Town of Harpers Ferry
Jefferson County, WV
Year: 2022 Cost: $6,300,000





The historic town of Harpers Ferry, WV selected Gwin, Dobson & Foreman to provide engineering services for improvements to its aged water treatment plant. GD&F designed a technically advanced membrane filtration process for enhanced pathogen removal according to current WVDEP and USEPA filtration regulations. The 0.5 MGD treatment plant included the following project elements:

- Elk Run stream intake structure including new wet well, raw water pumping system and transmission main.
- Pretreatment facilities including retrofit of existing settling tank with flocculation and coagulation components, chain-and-scraper solids collection system and overflow weirs.
- Chemical feed equipment and storage system including gas chlorination system.
- Membrane filtration process for sub-micron particle removal and enhanced pathogen removal to achieve EPA Long Term II filtration criteria. The cartridge system contains two (2) module racks designed for treatment rates of 38 gallons per square foot per day (GFD).
- Finish water pumping system and 120,000 gallon above-ground clearwell tank for increased contact time for required 1-log pathogen deactivation.
- GD&F designed water distribution system improvements including replacement of 20,000 LF of deficient water mains and an AMR water meter system replacement. This $7.5 million project will be completed when project funds are secured.

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Harpers Ferry Water Treatment Facility Modifications

Client: Town of Harpers Ferry
Jefferson County, WV

Year: 2022 Cost: $6,300,000







GD&F provided pilot testing, planning, engineering, design, funding, construction administration and inspection and system start-up services. Funding was secured using a low-interest loan from the USDA Rural Utilities Service. The project was successfully completed on-budget.

The water treatment project will provide a safe and dependable drinking water supply for the greater Harpers Ferry area for many years to come.

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Nixon-Kocher Well Field – Membrane Filtration & Granulated Activation Carbon (GAC) Pilot Plant Testing

Client: **State College Borough Water Authority**

Centre County, PA

Year: **2017** Cost: **$25 million**







The State College Borough Water Authority operates a water supply system serving the greater University Park area, home to Penn State University. To provide additional filtered water capacity, the Authority initiated planning of a new 5.0 MGD water treatment plant at the Nixon-Kocher well field. Long time consultant, Gwin, Dobson & Foreman, was tasked with designing a treatment facility for enhanced particle removal and to address emerging contaminants from a karst aquifer in an agricultural setting.

GD&F successfully pilot tested an advanced treatment process using micro/ultrafiltration, granulated activated carbon and ultraviolet disinfection. GD&F was responsible for preparation of pilot testing protocol, coordination with equipment suppliers, erection and connection of test equipment and instrumentation, ongoing system monitoring and sampling, data compilation and analysis and final report. Pilot test results and reports were approved by the DEP Northcentral Region - Safe Drinking Water Program.

Final design resulting from pilot testing work included new submersible well pumps, chemical feed and storage facilities, membrane filtration system, GAC facilities and ultraviolet disinfection (compatible with a future advanced oxidation [AO] process). Facility improvements are scheduled for completion in 2021 at a total project cost of $25 million.

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PROJECT SUMMARY

Bellwood Water Treatment Plant Membrane Filtration Pilot Plant Testing

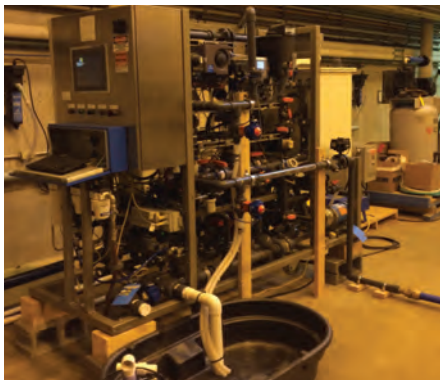
Client: Altoona Water Authority

Blair County., PA

Year: 2018 Cost: $8.5 million







The Altoona Water Authority operates the Bellwood Water Treatment Facility as part of its regional water supply and distribution system. With a capacity of 5.0 MGD, the plant includes pre-oxidation (ozone gas), rapid mixing, flocculation and traveling bridge, dual media filters.

The plant treats water from Bellwood Reservoir that is subject to seasonal levels of high manganese and turbidity. To improve finish water quality and facility operations, Authority consultant Gwin, Dobson & Foreman, successfully pilot tested four (4) membrane filtration systems for enhanced particle removal and reduced manganese levels. GD&F was responsible for preparation of pilot testing protocol, coordination with equipment suppliers, erection and connection of test equipment and instrumentation, ongoing system monitoring and sampling, data compilation and analysis and final report. Pilot test results and reports were approved by the DEP Southcentral Region - Safe Drinking Water Program.

Final design resulting from pilot testing work included new chemical feed and storage facilities, on-site ozone gas generation system (liquid oxygen), retrofitting existing filtration area for membrane filtration system, new instrumentation devices and SCADA system, and various electrical and mechanical equipment upgrades. Facility improvements are scheduled for completion in 2020 at a total project cost of $8.5 million.

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Fort Loudoun Membrane Filtration Water Treatment Facility

Client: Bear Valley Joint Authority

Peters Township, Franklin County, PA

Year: 2017 Cost: $11,500,000



The Bear Valley Joint Authority selected GD&F to design a new water treatment plant for its Fort Loudoun well fields. The new 1.0 MGD plant is technologically advanced with a high degree of operational reliability. The project included the following major systems:

- Fully integrated coagulation and flocculation processes for pretreatment of high-turbidity well source. Coagulation and oxidation processes are designed for full system redundancy at a peak hydraulic rate of 2.0 MGD. Rapid mixing achieved by static helicoidal mixing elements with single-stage flocculation using variable-speed mechanical mixers (axial flow, hydrofoil type) and baffled inlets
- Two (2) rectangular sedimentation tanks with mechanical sludge collectors designed for a four (4) hour detention period
- Membrane filtration system consists of Pall Corporation ARIA Model AP-6 membrane cartridge technology (2 skids, 1.0 MGD each). The microfiltration (MF) system has capability for achieving 4-log pathogen removal with finish water turbidity of 0.01-0.02 NTU and 98% MF recovery
- The plant also includes an extensive chemical feed system (sodium hypochlorite, sodium permanganate, caustic soda, coagulant, fluoride and corrosion inhibitor), baffled clearwell (designed for 3-log inactivation), filtrate waste storage/recycle tank and waste solids drying beds
- Two (2) ultraviolet disinfection units for pathogen deactivation with a capacity of 1.0 MGD each
- Finish water pumping consists of two (2) vertical turbine finish water pumps
- Development of five (5) new groundwater sources

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Fort Loudoun Membrane Filtration Water Treatment Facility

Client: Bear Valley Joint Authority

Peters Township, Franklin County, PA

Year: 2017 Cost: $11,500,000





- Design of control building including chemical feed and storage systems, mechanical and process piping systems, MF “clean-in-place” chemical cleaning system, hot-water boiler system (for MF make-up cleaning water), control room/laboratory, conference rooms, and offices
- Supervisory Control and Data Acquisition (SCADA) system for operation, control and monitoring the MF equipment and related process and equipment systems
- Electrical work, lighting systems, power wiring, telemetry system and emergency generator
- Advanced Metering Infrastructure (AMI) system with mobile receivers including installation of 4,200 magnetic water meters with AMI-compatible technology

Although one of the most advanced plants in the region, the microfiltration system is one of the easiest to operate and maintain. The project was financed by a low interest Pennvest loan and a grant from the PA H2O program. GDF provided all planning, design and construction phase services for the project.

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North Fork Creek Water Treatment Facility

Client: **Brookville Municipal Authority, Jefferson County, PA**

Completed: **2011** Cost: **$12,500,000**









The Brookville Municipal Authority selected Gwin, Dobson & Foreman to design a new water treatment plant for its North Fork Creek reservoir source. The new 1.5 MGD plant is technologically advanced and highly reliable.

The original Brookville plant was constructed in 1911. In recent years, the plant experienced difficulty in meeting newer water quality requirements for pathogen reduction, particle removal, disinfection byproducts and algae control. Based on extensive pilot testing, GD&F designed a membrane filtration system with sedimentation and ultraviolet disinfection to comply with the Stage 2-DBP and LT2 Enhanced Surface Water Treatment Rules.

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North Fork Creek Water Treatment Facility

Client: **Brookville Municipal Authority, Jefferson County, PA**

Completed: **2011** Cost: **$12,500,000**

The project included the following elements:

- New reinforced concrete intake structure including two 12-inch diameter intake screens (with air purge system), two 50 HP, 1,565 GPM vertical turbine, raw water pumps and wet well.
- Fully integrated flocculation and sedimentation system for pretreatment of reservoir water. Coagulation and oxidation processes are designed for full system redundancy at a peak hydraulic rate of 2.25 MGD.
- Rapid mixing by static helicoidal mixing elements, flocculation by mechanical mixers (axial flow, hydrofoil type), baffled inlet and rectangular sedimentation tanks with mechanical sludge collectors.
- Membrane Filtration (MF) System consists of Pall Corporation ARIA Model AP-6 membrane cartridge technology (3 skids, 1.0 MGD each). The microfiltration (MF) system achieves 6-log removal of protozoans with finish water turbidity of 0.01-0.02 NTU and 95% MF recovery.
- An extensive chemical feed system (sodium permanganate, SternPAC, gas chlorine, caustic soda, corrosion inhibitor, soda ash, powdered activated carbon, fluoride), baffled clearwell (sized for 3-log inactivation), filtrate waste storage/recycle tank, sludge drying beds, finish water pumping (centrifugal) and constructed wetlands for clarification of system wastewater. Ultraviolet disinfection system for pathogen deactivation and DBP control. Finish water pumps consist of two (2) 100 HP, 1,565 GPM vertical turbine, finish water pumps.
- Development of new groundwater sources (480 GPM) for use as a supplemental water supply during drought conditions.
- Design of control building including chemical feed and storage systems, mechanical and process piping systems, MF “clean-in-place” chemical cleaning system, hot-water boiler system (for MF make-up cleaning water), control room/laboratory, conference rooms, garage and offices.
- Sophisticated computer instrumentation, control and monitoring system for MF and plant operation.
- Electrical work, lighting systems, power wiring and telemetry system. The existing 500 KW emergency generator was relocated from the existing plant. A new primary power source was extended to the site.
- The project was financed by a low interest Pennvest loan and a grant from the PA H_2O program. GD&F provided all planning, design and construction phase services for the project.

Although one of the most advanced plants in the region, the microfiltration system is one of the easiest to operate and maintain. Labor time at the plant has decreased dramatically due to the ease of operation and ability to function in either a “batch” or “continuous” operating mode.

PROJECT SUMMARY

Potomac River Water Treatment Facility

Client: **Berkeley County (WV) Public Service Water District**

Completed: **2009** Cost: **$18,500,000**





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Gwin, Dobson & Foreman designed one of the state's most technologically advanced water treatment plants for the Berkeley County Public Service Water District. Located in the fast growing eastern West Virginia Panhandle, the District serves more than 18,000 customers in suburban Martinsburg.

Potomac River Water Treatment Facility

Client: Berkeley County (WV) Public Service Water District

Completed: 2009 Cost: $18,500,000

The plant ensures the Water District's future compliance with the USEPA Long Term 2 Enhanced Surface Water Treatment Rule and Stage 2 Disinfection Byproducts Rule.

The $18.5 million project included the following unique elements:

- The plant uses advanced treatment technology for enhanced particle removal; control of disinfection byproducts; taste, odor and color control; and pathogen removal/inactivation.
- The Potomac River water source has seasonal high levels of total organic carbon and turbidity. Pretreatment in the form of enhanced coagulation serves to reduce TOC and turbidity levels before membrane filtration.
- Unit operations include coagulation, flocculation, sedimentation; submerged membrane filtration, ultraviolet disinfection, waste holding lagoons, chlorination, chemical feed systems and clearwell capacity for contact time. All systems were pilot tested to verify process design assumptions.
- A state-of-the-art instrumentation and control system operates and monitors the treatment process. The operator-friendly system allows for maximum treatment flexibility.
- The UV disinfection system provides "log-removal credit" under the USEPA Long Term 2 Enhanced Surface Water Treatment Rule for inactivation of pathogens such as *giardia* and *cryptosporidium.*

GD&F performed pilot testing, planning, engineering, design, bidding, construction administration, construction inspection and system start-up/ commissioning services. The project was completed under both the construction and engineering budgets.

The project will provide a dependable and safe drinking water supply for greater Berkeley County for many years to come.

Project Summary

Project: Moundsville Water Treatment Facility

Client: City of Moundsville Water Board
Marshall County, WV

Year Completed: 2008

Project Cost: $18,500,000

Gwin, Dobson & Foreman, Inc. designed the state's most technologically advanced water treatment plant for the City of Moundsville Water Board. The existing well supply contains extraordinarily high levels of manganese along with extreme water hardness. Additional concerns were the direct influence of surface water from the adjacent Ohio River.



The $18.5 million project included the following unique elements:

- The plant uses advanced treatment technology for control of iron, manganese, disinfection byproducts, taste, odor, color, hardness, bacteria and pathogens
- Unit operations include ozonation (for pretreatment oxidation, pathogen deactivation); coagulation and flocculation (for chemical conditioning); multi-media/automatic backwash filtration system (for particle separation) and high-pressure nanofiltration (for hardness removal and submicron particle separation). All systems were pilot tested over several months to verify treatment assumptions
- The high pressure nanofiltration system also provides "log-removal credit" under the USEPA Long Term (2) Enhanced Surface Water Treatment Rule for inactivation of pathogens such as *giardia* and *cryptosporidium*
- The plant is supported by a micro-pile foundation system and a rock lined embankment above the 100-year, Ohio River flood plain

Project funding was provided by loans from USDA Rural Utilities Service and West Virginia Water Development Authority and grants from the USEPA STAG program and WVDEP. The project serves 4,500 customers in the City and Public Service Districts No. 3 & 4.

Extending over a 10-year period, GD&F performed pilot testing, planning, engineering, design, bidding, construction administration, construction inspection, funding applications and system start-up/commissioning services. The project will provide a dependable drinking water supply for the City and greater Marshall County area for many years.

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Moose Creek Membrane Filtration Water Treatment Facility

Client: **Clearfield Municipal Authority, Clearfield County, PA**

Completed: **2010** Cost: **$6,500,000**





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The Clearfield Municipal Authority maintains a water supply dam on Moose Creek. Because of regulatory non-compliance, the water authority deactivated this unfiltered water source in 1990. To provide a supplementary water source for its service area (14,000 population), the authority used its long standing consulting engineer, Gwin, Dobson & Foreman to design a filtration system using the best available technology. The resulting membrane treatment system is one of the largest plants to employ microfiltration in the northcentral region of Pennsylvania.

Moose Creek Membrane Filtration Water Treatment Facility

Client: **Clearfield Municipal Authority, Clearfield County, PA**

Completed: **2010** Cost: **$6,500,000**

The project included the following:

- Extensive pilot testing of membrane filtration system of a Pall Corporation ARIA Model AP-3 membrane cartridge technology.
- The microfiltration (MF) system achieves 6-log removal of protozoans (*giardia* and *cryptosporidium)*, filtrate turbidity less than 0.1 NTU and 95% MF system recovery.
- The membrane filtration process has a module capacity of 1 mgd. The plant also includes an extensive chemical feed system (potassium permanganate, liquid chlorine, caustic soda, corrosion inhibitor and fluoride), baffled clearwell (sized for 3-log inactivation), filtrate waste storage/recycle tank, sludge drying beds and finish water pumping system.
- Blending and treatment of groundwater from Moose Creek Well No. 3 including oxidation, microfiltration and the off-gassing of residual hydrogen sulfide.
- The plant employs an ultraviolet disinfection system for pathogen deactivation and DBP control.
- Design of control building including chemical feed and storage systems, mechanical and process piping systems, MF “clean-in-place” chemical cleaning system, hot-water boiler system (for MF make-up cleaning water), control room and laboratory.
- Sophisticated computer instrumentation, control and monitoring system for MF operation.
- Electrical work, lighting systems, power wiring and standby power system.

GD&F also provided all construction administration, inspection and Pennvest documentation. Although a sophisticated water treatment system, the microfiltration process is one of the easiest to operate and maintain. The water authority expressed complete satisfaction with the function and workmanship of the project.

Mansfield University Water Treatment Facility

Client: **Mansfield University, Richland Township, Tioga County, PA**

Cost: **$6,000,000**





The Mansfield University water system serves a 3,600-person campus community in northern Pennsylvania. A reservoir located on Corey Creek and two water wells serve as the water supply. A filtration plant, built in 1937, could no longer comply with Safe Drinking Water Act regulations because of numerous process deficiencies. The groundwater wells were designated Groundwater Under the Direct Influence (GUDI) of surface water, thus requiring filtration. Mansfield University turned to GD&F to design a cost effective but technologically advanced treatment facility.

The project included the following elements:

- Extensive pilot testing of membrane filtration, using a Pall Corporation ARIA microfiltration cartridge filter system with a capacity of 288,000 gallons per day
- A microfiltration (MF) system, which is capable of achieving 6-log removal of pathogens (giardia and cryptosporidium), filtration turbidity less than 0.05 NTU and 95% MF system recovery

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Mansfield University Water Treatment Facility

Client: **Mansfield University, Richland Township, Tioga County, PA**

Cost: **$6,000,000**

- The process includes pretreatment chemical conditioning (pre-chlorination, coagulation, oxidation, pH adjustment), two-stage flocculation, sedimentation, microfiltration and finish water chemical addition (post-chlorination, pH adjustment, corrosion inhibitor)

- Control building houses chemical feed and storage systems, mechanical and process piping systems, MF "clean-in-place" chemical cleaning system, hot-water boiler system (for MF make-up cleaning water), control room, waste holding tank, baffled clearwell, disinfection and metering equipment

- Sophisticated computer instrumentation, control and monitoring system for MF operation

- Electrical work, lighting systems, power wiring and standby power generation system

- Two new water storage tanks with capacities of 0.165 MG and 1.0 MG water storage tanks (bolted, stainless steel)

The project was constructed under PA Department of General Services guidelines. Bids received for 4 prime contracts were almost identical to GDF's estimate for the project. Construction was completed on-time and well under budget. Total change orders on the project amounted to 1.5% of the total construction cost.

Village of Ulster Membrane Filtration Water Treatment Facility

Client: Ulster Township Municipal Authority, Bradford County, PA

Completed: 2010 Cost: $3,000,000



The Ulster water system serves a rural, northern Pennsylvania community. With 183 customers, the system supply is a series of shallow groundwater wells located in the Susquehanna River aquifer. The PADEP determined that the well field was under the direct influence of surface water and required filtration.

Wanting to use the latest water filtration techniques, the Ulster Township Municipal Authority hired Gwin, Dobson & Foreman to design the system upgrade. The resulting membrane treatment system is one of the first plants to employ microfiltration in the northeast region of Pennsylvania.

The project included the following elements:

- Extensive pilot testing of membrane filtration system of a Pall Corporation ARIA Model AP-3 cartridge filter system

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Village of Ulster Membrane Filtration Water Treatment Facility

Client: Ulster Township Municipal Authority, Bradford County, PA

Completed: 2010 Cost: $3,000,000

- The microfiltration (MF) system achieves 6-log removal of pathogens (giardia and cryptosporidium), filtrate turbidity less than 0.1 NTU and 95% MF system recovery
- The process includes prechlorination, coagulation, microfiltration and post-chlorination with a 145,000 gallon per day plant capacity
- Design of control building including chemical feed and storage systems, mechanical and process piping systems, MF “clean-in-place” chemical cleaning system, hot-water boiler system (for MF make-up cleaning water), control room, open waste holding/recycle tank, baffled clearwell, disinfection, metering equipment and sludge drying beds
- Sophisticated computer instrumentation, control and monitoring system for MF operation
- Electrical work, lighting systems, power wiring and standby power system

Project Summary

Project: Raystown Branch-Juniata River Microfiltration Water Treatment Facility

Client: Saxton Borough Municipal Authority Bedford Co., PA

Year Completed: 2005

Project Cost: $2,700,000

The Saxton water system, which serves 767 customers in northern Bedford County, PA, has a water supply intake on the Raystown Branch of the Juniata River and Putts Hollow Reservoir. The water authority previously operated an aged water filtration system prone to breakdown and water quality violations.





The Authority hired Gwin, Dobson & Foreman, Inc. to design a filtration system using the best available technology. The resulting membrane treatment system is one of the first plants to employ microfiltration in the Pennsylvania southcentral region. The project included the following elements:

- Extensive three month pilot testing of membrane filtration system of a Pall Corporation ARIA Model AP-3 technology
- The microfiltration (MF) system achieves 6-log removal of protozones like giardia and cryptospordium, filtrate turbidity less than 0.1 NTU and 95% MF system recovery
- The process includes prechlorination, coagulation, microfiltration and post chlorination system with a 300,000 gallon per day plant capacity
- Design of control building including chemical feed and storage systems, mechanical and process piping systems, MF "clean-in-place" chemical cleaning system, hot-water boiler system (for MF make-up cleaning water), control room, open waste holding/recycle tank, clearwell, disinfection, metering equipment and sludge drying beds
- Sophisticated computer instrumentation, control and monitoring system for MF operation
- Electrical work, lighting systems, power wiring and standby power system

GD&F also provided all construction administration, inspection and PennVEST documentation. Not only is it one of the most sophisticated water treatment plants in southcentral Pennsylvania, the microfiltration system is one of the easiest to operate and maintain. The water authority expressed complete satisfaction with the function and workmanship of the project.

GD&F
GWIN DOBSON & FOREMAN INC
CONSULTING ENGINEERS

Project Summary

Project: Robinson Run Microfiltration Water Treatment Facility

Client: Alexandria Borough Water Authority Huntingdon Co., PA

Year Completed: 2005

Project Cost: $1,700,000

The Alexandria water system, serving 950 water customers in Huntingdon County, PA has a water supply intake on Robinson Run. The water authority's existing water filtration system was prone to breakdown and water quality violations. The Authority hired Gwin, Dobson & Foreman, Inc. to design a filtration system using the best available technology. The resulting membrane treatment system is one of the first plants in the southcentral region of Pennsylvania to employ microfiltration.



The project included the following work elements:

- Extensive six month pilot testing of membrane filtration system of a Pall Corporation ARIA Model AP-3 technology.
- The microfiltration (MF) system achieves 6-log removal of protozoans like giardia and cryptosporidium, with filtrate turbidity less than 0.1 NTU and 95% MF system recovery.
- Process included a 188,000 GPD capacity prechlorination, coagulation, microfiltration and post chlorination system.
- Design of control building included chemical feed and storage systems, mechanical and process piping systems, MF "clean-in-place" chemical cleaning system, hot-water boiler system (for MF make-up cleaning water), control room, open waste holding/recycle tank, clearwell, disinfection, metering equipment and sludge drying beds.
- Sophisticated computer instrumentation, control and monitoring system for MF system operation.
- Electrical work, lighting system, power wiring and standby power system.
- The project included a 100,000 gallon finish water storage tank of bolted, stainless steel construction.

GD&F also provided all construction administration, inspection and PennVEST documentation. Although one of the most sophisticated water treatment plants in southcentral Pennsylvania, the microfiltration system is one of the easiest to operate and maintain. The water authority expressed complete satisfaction with the function and workmanship of the project.

GD&F

GWIN DOBSON & FOREMAN INC

CONSULTING ENGINEERS

Project Summary

Project: Hockenberry Run Membrane Water Treatment Facility

Client: Irvona Municipal Authority, Clearfield Co., PA

Year Completed: 2004

Project Cost: $1,750,000

Irvona Borough, a rural community in southern Clearfield County, PA, has a small intake reservoir and wellfield on Hockenberry Run. Under a state mandate to upgrade treatment, the Borough authorized Gwin, Dobson & Foreman, Inc. to design a filtration system using the best available technology. The resulting membrane treatment system is one of the first plants to employ microfiltration in the north-central region of Pennsylvania.



The project included the following work elements:

- Extensive six month pilot testing of membrane filtration system using Pall Corporation ARIA Model AP-3 technology
- The microfiltration (MF) system is capable of a 6-log removal of protozoans like giardia and cryptosporidium, filtrate turbidity less than 0.1 NTU and MF system recovery of 95%
- Design of control building including chemical feed and storage systems, mechanical and process piping systems, MF "clean-in-place" chemical cleaning system, hot-water boiler system (for MF make-up cleaning water), control room, clearwell, disinfection, metering equipment and sludge drying beds
- Sophisticated computer instrumentation, control and monitoring system for MF treatment operation
- Electrical work, lighting systems, power wiring and standby power system
- The project included a waterline extension to the village of Bruin and system interconnections

GD&F also provided all construction administration and inspection services in addition to processing the PennVEST and CDBG grant/loan financing. The project was successfully completed on-time and under budget. Although one of the most sophisticated water treatment plants in central Pennsylvania, the MF system is one of the easiest to operate and maintain.

GD&F

GWIN DOBSON & FOREMAN INC

CONSULTING ENGINEERS

PROJECT SUMMARY

Project: ROGUES HARBOR RUN MEMBRANE WATER TREATMENT FACILITY

Client: WESTOVER MUNICIPAL AUTHORITY CLEARFIELD CO., PA

Year Completed: 2003

Project Cost: $1,750,000

Westover Borough, a rural community in southern Clearfield County, PA, has a small intake reservoir on Rogues Harbor Run. Under a state mandate to upgrade treatment, the Borough authorized Gwin, Dobson & Foreman, Inc. to design a filtration system using the best available technology. The resulting membrane treatment system is the first plant to employ microfiltration in the northcentral region of Pennsylvania.



The project included the following work elements:

- Extensive six month pilot testing of membrane filtration system using Pall Corporation ARIA Model AP-3 technology
  - The microfiltration (MF) system is capable of a 6-log removal of protozoans like *giardia* and *cryptosporidium*, filtrate turbidity less than 0.1 NTU and MF system recovery of 95%
- Design of control building including chemical feed and storage systems, mechanical and process piping systems, MF "clean-in-place" chemical cleaning system, hot-water boiler system (for MF make-up cleaning water), control room, clearwell and disinfection and metering equipment
- Sophisticated computer instrumentation, control and monitoring system for MF treatment operation
- Electrical work, lighting systems, power wiring and standby power system
- Systemwide meter replacement project using radio-read technology
- Pumping system using submersible pump technology in a restricted pipe gallery/clearwell

GD&F also provided all construction administration and inspection services in addition to processing the PennVEST and CDBG grant/loan financing. The project was successfully completed on-time and under budget. Although one of the most sophisticated water treatment processes in central Pennsylvania, the MF system is one of the easiest to operate and maintain.

GD&F

GWIN DOBSON & FOREMAN INC

CONSULTING ENGINEERS

Section 4
PILOTING CONSIDERATIONS

Based on GD&F's previous experience, we recommend that consideration be given to the following critical items during the pilot study process:

Equipment Manufacturers

First and foremost is the selected equipment manufacturers in which to pilot. CTUB will need to determine who they wish to pilot test for both the membrane and granulated activated carbon (GAC) systems. WVBPH requires that all specified membrane manufacturers in a full-scale design conduct an approved pilot study. In other words, WVBPH will not permit the use of a full-scale membrane system until a successful pilot study has been demonstrated. WVBPH does not require more than one (1) manufacturer to be pilot tested. The main reasons for piloting more than one (1) membrane manufacturer include:

- To promote competitive bidding
- Possibility of manufacturer failure during pilot test
- Project funding typically requires listing two (2) or more manufacturers in the specifications
- Lack of knowledge or experience with a dependable manufacturer

Pre-Treatment

Pre-treatment of the raw water is key to the operation, maintenance and longevity of the membrane and GAC system. Our experience has proven that a properly designed pre-treatment system is essential to a well-functioning membrane system. Various pre-treatment systems such as screening, ozonation, coagulation, oxidation, rapid mixing, flocculation, sedimentation/clarification, dissolved air flotation, etc., have been implemented into GD&F designs prior to membrane filtration. This reduction of the particulate loading onto the membrane units results in higher recovery rates, less frequent cleanings, lower operating TMPs and extends the overall life of the modules. Utilization of membranes prior to the GAC system results in minimal particulate loadings on the GAC media which extend media life and efficiency and reduces head loss.

Conservative Flux Rate

The design membrane and GAC system flux rate is critical to the overall successful operation and maintenance of the systems. Unlike other engineers, GD&F takes a conservative approach to the average and maximum design flux rates. Our experience indicates that lower flux rates result in improved system performance, enhanced water quality and prolongs the life of the membrane modules and GAC media.

Granulated Activated Carbon (GAC) System

GAC should be piloted simultaneously with membrane filtration if future membranes are desired. This is suggested because the organic breakthrough and headloss through a GAC vessel is directly associated with the incoming particulate loading. Our experience indicates that conventional filtration passes more suspended solids and organics compared to a membrane, thus the life of the GAC media can be extended with upfront membrane filtration.

Coconut shell-based GAC media is not recommended for high concentrations of TOC/DOC. Due to their fine pore-size distribution, they would become saturated much more quickly than anthracite-based media. Additionally, coconut shell-based media is generally not as readily available and the cost tends to be much higher.

In the full-scale system design, acid washed GAC media is recommended. This is because the pH of the water will increase through the GAC media, especially with virgin carbon. Also, the presence of carbon fines will result in elevated turbidity during start-up. Both of these factors often require significant backwashing of the filters during start-up and/or regeneration.

Pilot Study Duration

GD&F suggests that the pilot study duration be a minimum of 3-months and run until organic breakthrough and/or saturation of the GAC media bed has occurred. This will enable the full-scale design to be optimized in terms of flux rate and GAC media replacement costs.

TOC Removal Expectations

The anticipated Total Organic Carbon (TOC) removal percentages through the GAC contactors should range from 15-85%. We anticipate 50-85% TOC reduction in the warmer summer months and 15-50% removal during the winter months. This is due to the biological activity within the GAC contactors which will remove the dissolved organic carbon (DOC). Biological activity decreases or slows down as temperatures decrease.

DBP Formation Potential

It is critical that the pilot study consider disinfection byproduct (DBP) formation potential. Given the formation potential and disinfection byproduct results from the pilot study, it may be worth considering eliminating the current chloramination process. If it is determined during that study that much lower finish water chlorine residuals are now required due to the increased suspended solids removal with the membrane system and given the large TOC reduction through the GAC system, the chloramination process may no longer be necessary. If chloramination is still required, the chlorine and ammonia usages are expected to decrease significantly with the addition of membranes and GAC.

Full-Scale Design Considerations

As a means to reduce future operation and maintenance costs, the full-scale GAC design should consider blending of GAC effluent water. It may not be feasible to treat all CTUB water with GAC year-round. After review of the percent organic removal results from the pilot study, it can be determined if it is worthwhile to blend GAC effluent with membrane effluent, especially during low TOC periods. This would require a GAC bypass line and/or blending tank with flow monitoring and control.

In the full-scale design, it is recommended that fresh virgin carbon be made available in the contactors during the summer and fall months when the highest raw water TOC levels are encountered. This will help ensure optimal TOC reduction which will lead to a decrease in disinfection byproduct formation.

GD&F believes that equipment and process unit redundancy are critical to any successful water treatment facility. We provide redundancy throughout the treatment facility design including but not limited to: pumps, mixers, air preparation systems, tankage, treatment units, chemical feed pumps, power supplies and PLCs. This enables the facility to maintain water service production at the plant design capacity in the event of a major equipment failure. The following redundant equipment items are typically provided on a membrane filtration system: feed pump, strainer, module rack, air compressor/dryer, backwash pump, CIP pump(s), CIP chemical feed pumps and PLC. We recommend that both the pilot study and full-scale GAC systems feature either a lead/lag design, meaning that the membrane effluent water should enter one GAC contactor and then enter a second contactor, or provisions for a fully redundant contactor. This provides redundancy in terms of organic removal in that as the lead contactor becomes saturated, the lag or redundant contactor can still provide adequate contaminate removal. Also, this allows for a saturated vessel to be taken offline while the media is exchanged.

Section 5
ATTACHMENTS

5.1 Aria Filtra Membrane Filtration Pilot Study Proposal

5.2 Scinor Membrane Filtration Pilot Study Proposal

5.3 Calgon Granular Activated Carbon (GAC) Filtration Pilot Study Proposal

5.4 GD&F Water Solutions Brochure

5.1 ARIA FILTRA MEMBRANE FILTRATION PILOT STUDY PROPOSAL

ariaFILTRA

Pilot Study Proposal

Aria™ Membrane Filtration System

CHARLES TOWN UTILITY BOARD

1998

CHARLES TOWN UTILITY BOARD

Hollow-Fiber Membrane PILOT TESTING PROGRAM



Date: 2025/10/01
Revision: 0
Author: D. Glovinsky

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PROPRIETARY & CONFIDENTIAL

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4. Project Schedule

Attachment A – Pilot Unit Description

Attachment B – Equipment Rental Agreement & Standard General Terms and Conditions of Lease

Attachment C – Drawings

Attachment D – Pilot Protocol (If provided by Aria Filtra)

1. Project Abstract

Problem Statement:

- Gwin, Dobson & Foreman are evaluating the use of hollow-fiber membrane treatment at a WTP location in Charles Town, West Virginia. The pilot is projected to receive water from an existing source, which will then be pumped to a single-module membrane filtration skid to evaluate concept, treatment objectives and finished water quality.

Pilot Plan Summary:

- Establish and document design parameters for flux, recovery and chemical cleaning.
- Demonstrate the proposed membrane system will provide final effluent quality meeting parameters during all raw water quality conditions.
- The membrane system must be capable of providing pathogen removal, disinfection by-product precursor removal, suspended solid removal and turbidity removal in accordance with the US EPA LT2 Surface Water Treatment Rule and Disinfection/Disinfection By-Product Rule.
- Demonstrate membrane flux rates return to initial levels after two months of use with standard cleaning methods.
- Document the waste loading from the membrane system.
- Document the membrane system effectiveness at minimum and maximum influent pressures.

Aria Filtra is pleased to offer piloting equipment and services to support the pilot study objectives outlined above. Equipment has been selected based on information provided regarding the source water, the available process flow and site conditions related to climate, storage, waste handling, etc. Aria Filtra intends to operate a pilot of the ***HFMF*** process for the purpose of process validation and definition of MF operating parameters to allow Aria Filtra to provide project scope definition, preliminary equipment selection, equipment pricing and estimated operating costs.

Aria Filtra's equipment & service scope of supply is outlined in Section 3 of this proposal. A project schedule is included in Section 4. If this information is not consistent with the project requirements established by the Owner or Engineer, please let us know so that we can issue a revised proposal.

Aria Filtra pledges support of this program for the scheduled pilot study duration outlined in Section 4 of this proposal based on the expectation that Aria Filtra will be included in the RFP for this and subsequent projects as an approved manufacturer using the data and conclusions from this pilot. Should it become evident that this is not the case, Aria Filtra reserves the right to withdraw the pilot equipment from this program at any time.

2. Aria Filtra Offering

Item	Price
Freight Charges to Project Site to/from Aria Filtra Factory or other Aria Filtra designated location (Estimated)	$9,875.
Deployment Services: Startup and commissioning of Aria Filtra supplied equipment. Training: On-site Owner/Engineer staff	Included in Flat fees
Flat rate piloting fee for the period of 3 month	$15,755.
Total for A 3- Month Pilot Period	**$25,630.**
Monthly piloting fee (each additional month after 3 months)	$5,250.

Validity
Pricing is valid for a period of 30 days from date of proposal. If a formal purchase order is not received within the 30-day period, both the pricing and delivery schedule are subject to review and adjustment.

Taxes
No taxes are included in the proposal price. Any taxes of any type are for the account of the Purchaser.

3. Scope of Supply

3.1 Scope Summary Table

Item Description	By Aria Filtra	By OTHERS
Selection of MF Piloting skid	X	
Development of Pilot Study Protocol		X
Selection and optimization of MF operating parameters (flux, flux maintenance and cleaning protocols). This includes ongoing adjustments during the optimization period or as needed throughout the pilot period.	X	
Pretreatment selection and design		X[1]
Aria Filtra Membrane Filtration Pilot Unit	X	
Membrane Filtration Module(s)	X	
Feed and Filtrate Turbidity Meters, HACH TU 5300	X	
Air Compressor (if required)	X	
CIP/EFM Hot water system	X	
Cleaning Chemicals for EFM/CIP		X
Start-up assistance and training	X	
Utility supply and plumbing and electrical connections (as required)		X
Dedicated Analog phone line or internet connection for remote monitoring		X[2]
Electronic data collection during piloting period	X	
Maintenance & cleaning activities	X[3]	
Unloading of pilot equipment[4]		X
Unpacking and repacking of pilot unit	X	
Daily site monitoring and manual data collection (per Pilot Protocol)		X
Weekly transmission of manually recorded data (if required)		X
Required water sample analyses		X
Final pilot report	X	

1. Aria Filtra reserves the right to review and approve pretreatment processes due to the direct impact of these processes on MF equipment integrity and performance.

2. Aria Filtra will provide a cellular modem if internet or phone access is not available. To be coordinated before Pilot deployment.

3. Under some circumstances, Owner's staff may perform maintenance and cleaning or provide assistance as needed.

4. Unloading/Loading will require a suitable forklift or crane, depending on equipment selected for pilot study.

3.2 Equipment Description

The proposed pilot unit is a self-contained, complete system, which requires a process inlet at pressure and delivers filtered product to either a holding tank or directly forward to a discharge header. Included in the system is a PLC/PC based control, data logging and remote monitoring system, which is programmed to automatically control all aspects of the process, with the exception of Clean In-Place (CIP). The unit is designed to handle flows up to 25 gpm depending on feed water quality.

Aria Filtra's pilot units are equipped with our remote-monitoring feature. With this feature, Aria Filtra scientists have access to multiple operating parameters via modem connection to the pilot unit's computer. The computer will monitor and record trans-membrane pressure, flow rate and turbidity for performance assessments. In addition, the computer will monitor operating temperature, pressure, and other parameters useful for optimizing operation. Please refer to the details below and the attached Pilot Unit Description.

Single Module Fully Automated MF system

Physical Description:

Dimensions (inches)
Length: 288"
Width: 96"
Height: 108"

Weight
Pilot Container: 10,000 Lbs.

Electrical Utilities Required
100 Amps @ 230 VAC, 60 Hz. 1 Ph
Note: Follow all national and local electrical code standards for electrical installation.



Capacity
Maximum Flow rate – 15-40 gpm
Maximum Feed Connection Pressure – 40 psi
Maximum Filtrate Delivery Pressure (at connection) – 5 psi

Piping Connections
Raw water 1.5" NPT
Filtrate water 1.5" NPT
Backwash without chemicals 2" NPT
Backwash with chemicals 2" NPT

3.3 Pilot Start-up and Staff Training

After unit delivery, an Aria Filtra field engineer will be on site to optimize system parameters and to provide operator training. The initial Clean-In-Place (CIP) procedure will be performed by Aria Filtra. At that time, the procedure

can be demonstrated to operators so that it is possible that subsequent cleanings can be performed without Aria Filtra supervision. If that option is chosen, Aria Filtra will fully coordinate and plan such procedures in advance, as well as provide remote support via phone and modem connection.

3.4 Pilot Engineering Support

An Aria Filtra Pilot Engineer or Pilot Manager will be assigned to each project. The Pilot Engineer will be the focal point for project communications between the owner or owner's representatives and Aria Filtra staff. The Aria Filtra Pilot Engineer is responsible for implementing any changes to Aria Filtra Pilot Skid operating setpoints. No changes to Aria Filtra equipment is authorized without the knowledge of the Aria Filtra Pilot Engineer. The following items are requirements for all pilot projects:

1. The Aria Filtra Pilot Engineer will have physical access to the Aria Filtra pilot equipment at all reasonable hours and at any time where immediate servicing of the unit is required.
2. Aria Filtra will have electronic access to the Aria Filtra piloting equipment at all times.
3. Although the owner or owner's representative may be provided electronic access to the Aria Filtra PLC and data historian, no changes to the Aria Filtra software and/or data shall be made without explicit written instructions from the Aria Filtra Pilot Engineer.

4. Project Schedule

The following schedule has been developed based on the information we have been provided. Upon receipt and acknowledgement of a signed Pilot Rental Agreement the project schedule will be reviewed and if adjusted if necessary.

Proposed Schedule:

Milestone	Requested Schedule
Acknowledgement of Purchase Order	Typically, **1 to 3** business days after receipt of signed rental agreement
Submittal of pilot equipment documentation (GA, weights, electrical data & installation instructions).	**5** business days from acknowledgement of rental agreement
Equipment ready to ship	**10** business days after acknowledgement of rental agreement
Equipment delivery to site	**5** days after release for shipment
Installation Completed (by others)	Typically, **1** week after equipment delivery
Commissioning Complete	Typically, **1** week after equipment installation complete
Optimization period	**4** weeks after Commissioning Complete
Design Run Duration	**30 days**
# of Design Runs	**2**
Validation Run Duration	**15 days**
# of Validation Runs	**1**

Attachment A – Pilot Unit Description

Aria Filtra Aria® Single Module Pilot Test Rig

SYSTEM DESCRIPTION

The Aria® pilot test rig is designed to demonstrate the efficiency and performance of Aria Filtra's process design using Microza® microfiltration modules (with hollow fiber membranes) in water treatment applications. The test rig will run a 6" diameter module (2m long). The data collected from testing will be used for full-scale system design being that the test rig is similar in process and operation. Refer to the flow schematic P&ID (Process and Instrument Diagram) for more information. The pilot unit is a lightweight, self-contained package built on a SST frame. It is designed to roll on casters and fit through a standard doorway (without the module installed.) The unit is equipped with calibrated (NIST traceable) instrumentation.

The pilot test rig is connected to a pressurized feed water supply and delivers filtered product (filtrate) to a tank or other downstream location as determined by the customer or engineering firm. This single module pilot unit should be supplied with at least a minimum feed flow rate of 20 to 25 gpm. However, higher flow rates can be achieved depending on module selection and water quality. The initial flow rates and other parameters are determined by past experience and typically are adjusted during the startup and optimization phase of testing.

The pilot test rig is automated and programmed to control all aspects of filter operation while providing information on process variables and alarm conditions if needed. The unit requires very little operator intervention. The control system uses both a PLC (Programmable Logic Controller) for machine I/O (Input/Output) control and an Industrial PC based OIC (Operator Interface Control). The OIC is a state-of-the-art controller with Process and Parameter displays. It performs real-time data logging and trending with visible display graphs. It includes a built-in modem for remote monitoring via a basic telephone connection. The operator has access to the display screens and data using the touchscreen feature of the OIC, or the keyboard and mouse.

The main operating mode is Filtration, but in order to maintain the module and system performance, certain process cycles are initiated for cleaning. AS (Air Scrub) is used to gently shake the module fibers along with RF (Reverse Filtration) or FL (Forward Flush), which backflushes water to drain. Periodic EFM (Enhanced Flux Maintenance) cycles circulate heated and treated water through the module. In some cases, pre-treatment may be required to bring contaminants out of solution in order for filtration to be effective. Over time, periodic maintenance may also be required such as CIP (Clean In Place), which is operator-initiated but with computer-aided steps.

The process parameters, trend graphs, and cumulative data all help determine the system performance and aid in its optimization. Some of the key parameters are TMP (Trans-Membrane Pressure), flow rates, pressures, temperature, turbidity, and air scrub settings for pressure, flow and duration. An automated IT (Integrity Test), using regulated air pressure, can be initiated to confirm the integrity of the module fibers. With remote monitoring, Aria Filtra engineers will have access to view the pilot rig in operation and advise if process changes are needed. Aria Filtra's ongoing research with the Pilot Test Rig program may result in machine or process design changes.

COMPONENT DESCRIPTION

Filter Modules:

Aria Filtra supplies Microza® microfiltration modules using fibers in the microfiltration class:

Hollow fiber PVDF membranes, 0.1 micron pore size, Max TMP (trans-membrane pressure) 35-40 psid. pH range 1-10 (operational), PVC housing with NBR O-rings and gaskets, membrane fibers are epoxy resin potted.

Pre-Filter:

Depending on design the pilot test rig may use one of three pre-filters or a combination:

304 SST bag filter housing with 400-micron polyester mesh bag filter
Hayward PVC basket strainer and housing
Automatic strainer with PLC or local control

Feed Tank:

30-gallon capacity, polyethylene, flat bottom, removable top with perforated strainer on the discharge. An actuated flow control valve controls filling. Earlier models used a mechanical float valve or an on/off automated valve. The tank includes an overflow and recirculation line.

RF (Reverse Filtration) Tank:

30 Gallon polyethylene, flat bottom, sealed but removable top. An actuated valve controls the filling. Earlier models use a mechanical float valve. This tank uses a vent filter and overflow with trap to maintain the integrity of the stored Filtrate.

Chlorine Tank & Chemical Feed Pump:

Blue White NOIR pump model T1506N (integrated with 7 Gallon Storage vessel), maximum flow rate - 3.1 oz. per minute. Other chemical injection units are available.

Piping:

Process: Schedule 80, PVC, solvent welded or threaded

- 1-1/2" for Feed, Filtrate, etc.
- Some 1" and/or ¾" for recirculation, venting, and drains
- 2" or 3" for main drain

Air supply: ½" SST fittings, and 3/8" OD tubing for valves and instruments.

Pumps:

Pump (Feed and RF): Goulds 1ST 1G5A2-RATED FOR 41GPM@100FT, centrifugal, 304 SST, with 1 X 1.25" NPT connections, 6" Impeller

Motors: Franklin 2.0 Hp or 3.0 Hp, 3500 rpm, 208/230/460V, 60 Hz, 1Ph. (Note: Earlier rigs had 1-1/2 Hp motors.)

VFD: Allen Bradley 160S-AA08 NSF 1P1 variable frequency drive.

Valves:

Hand valves 1" and larger:

Keystone (Fig 999), typically 1.5" butterfly-type, 150PSI, 10 position handle, Cast Iron body, 316 stainless disk, Wafer mount, EPDM seat and seals.

George Fischer, typically 105 psi, solvent weld, PVC/EPDM

Hand valves smaller than 1": ASAHI True Union PVC w/EPDM Seal surfaces.

Automated valves:

Keystone (Fig 770) typically 1.5" butterfly, 150PSI, Spring Return, Cast Iron body, 316 stainless disk, wafer mount, EPDM seat and seals

Air Solenoid Valves:

Numatics FlexiBlok Series 22 modular solenoid system. Number of solenoids depends on test rig but typically there are 6-8 solenoids including spares. 24VDC, 0-120psi.

Instrumentation:

Tank Level Transmitters: Foxboro pressure transmitter #IGP10-A22C1F, with local display, 0-30 psi, 4-20 mA, 0.5" FPT connection. (Note: Earlier rigs used Turck level probes.)

Pressure Transmitters (for Feed, Filtrate, Excess Recirculation, Module Inlet): Foxboro #IGP10-A22D1F; 0-300 psi, 4-20 mA, 0.5" FPT connection.

Temperature Transmitters – Pyromation R1T185L3-S4C: RTD, 4-20mA, 0-200 deg. F.

Flowmeters: Rosemount #8711TSA015UG1 (Note: Earlier rigs used Burkert 426 522 G Paddlewheel type.)

Turbidimeters: Hach 1720D and/or Hach 660 LaserTrac. (Note: Earlier rigs used 1720C.)

Particle Counter(s): Optional. Pacific Scientific, Met One PCX, 4 channel

Air Preparation:

General Pneumatics GMD-5 Automatic Desiccant Dryer
General Pneumatics GEN OM 9520 AF Coalescing Filter
General Pneumatics GEN OM9220 PF Particulate Filter
Numatics FlexiBlok 22 Series Regulators, pressure switch and final filter

Controls:

PLC:	Allen Bradley SLC500 PLC w/ 5/05 E-Net Processor running RSLogix 500
OIC/PC:	Allen Bradley 6181 Industrial PC Interface running RSView 32
Enclosure:	Hoffmann NEMA-4X, UL approved

PHYSICAL DESCRIPTION

Footprint Sizes (approximate):

Test Rig:	Operational	96" L x 34" W x 125" H on casters 109" L x 46" W x 128" H on skid
	Move-in (w/o module)	96" L x 34" W x 81" H on casters 109" L x 46" W x 84" H on skid
	Crated for shipping	110" L x 47" W x 87" H

Note: Casters are removable.

Air Compressor: 30" x 36" x 70"H

Weights (approximate):

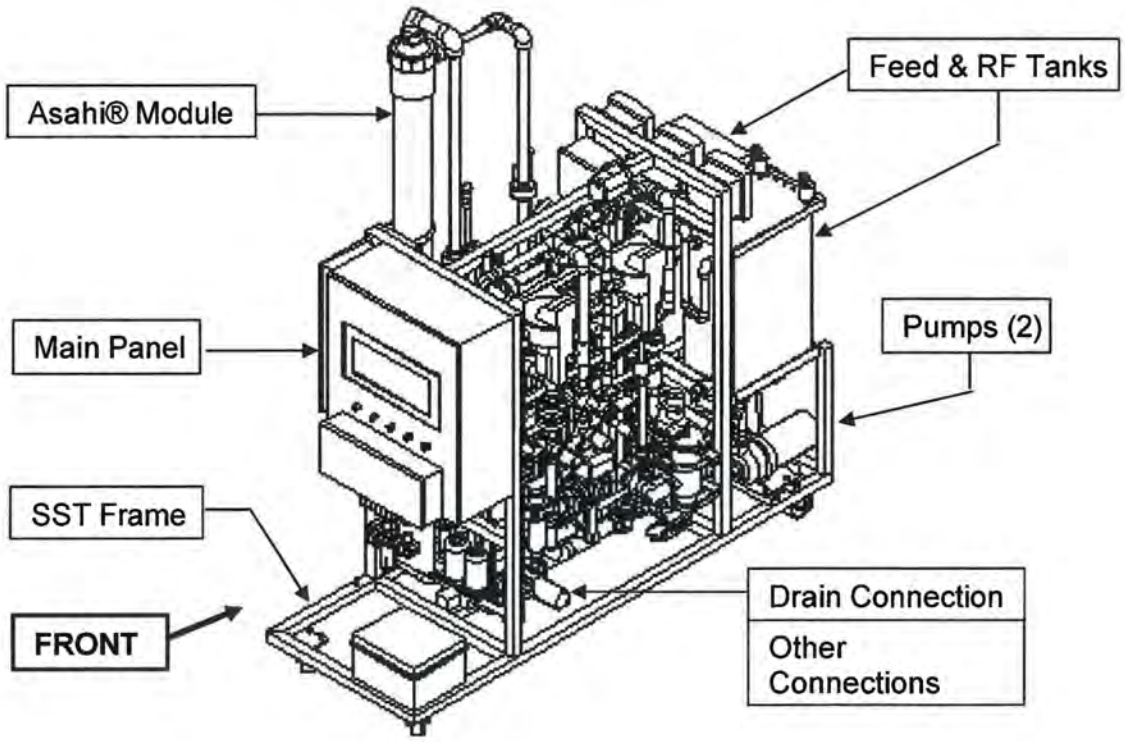
Pilot Test Rig:	1,700 lbs.
Air Compressor:	700 lbs

Module Flow Capacities:

Note: Flow rates are dependent on source water quality and module membrane type.

6" MF Module: 10-45 gpm

Aria Filtra Aria® Pilot Test Rig View (LGV and USV Single Module Units):



INTERCONNECTION AND UTILITY REQUIREMENTS

The following tables estimate the utility requirements for the pilot test rig. Note: The actual values and fit-up may vary in these tables depending on the final equipment configuration.

CONNECTIONS

Process	Qty	Rate	Fit-up	Notes
Feed	1	6" module: Min. 25 gpm	1-1/2" NPT Sch 80 PVC	Feed may utilize optional lift pump -- non-pressurized water sources
Filtrate Forward	1	6" module 11 – 22.5 gpm	1-1/2" NPT Sch 80 PVC	
Drain	1	36 gpm max. instantaneous	2" or 3" NPT or Straight Pipe	Fit-up may vary
Air	1	15 SCFM instantaneous, @ 90 psig.	½" FNPT	Instrument grade per ISA RP 7.7 Auto-drier on-skid consumes ~ 10%

ELECTRICAL

Machine	Phase	Volts (nominal) / Hz	Amps / KVA	Notes
Test Rig	1	208 or 230 VAC / 60 Hz	30A	Frame must be earth grounded
Air Compressor	1	208 or 230 VAC / 60 Hz	30A	Separate from Test Rig and Fused
Lift Pump	1	115 or 230 VAC / 60 Hz	13.8 or 6.9A	¾ HP (typical)
Sump Pump	1	115 VAC / 60 Hz	9.8A	½ HP (typical)
Transformer (step-down)	3 to 1 1 to 1	460 to 230 VAC / 60 Hz	15 KVA 30 KVA	Test Rig or Compressor Both loads combined

CHEMICAL (* Application Specific)

Name	Initial Qty	Usage	Chemical	Notes
Distilled Water	4 gal	As needed	H_2O	Used for instrument calibrations
Sodium Hypochlorite *	8 gal	As needed	NaOCl	Household Bleach 5-6% solution
Sodium Hydroxide *	15# or 6 gal	Dry: 2 to 4 lbs./month Liquid: 1 to 2 gal./month	NaOH	Caustic 25% solution
Citric Acid *	24# or 9 gal	Dry: 4 to 8 lbs./month Liquid: 1.5 to 3.0 gal./month	$H_3C_6H_5O_7$	Acid 25% solution

Attachment B – Equipment Rental Agreement & Standard General Terms and Conditions of Lease

ariaFILTRA

EQUIPMENT RENTAL AGREEMENT

This Equipment Rental Agreement (this "Agreement"), dated as of the __1st__ day of __October__, 2025_, by and between Trojan Technologies, a New York corporation, located at 839 State Route 13, Cortland, NY 13045-5630 ("Owner") and "Gwin, Dobson & Foreman Inc.", having its principal place of business at _ 3121 Fairway Drive Altoona, PA 16602__ ("Renter"). Owner and Renter are collectively referred to herein as the "Parties" and individually as a "Party".

The Parties, for the consideration hereafter named, agree as follows:

1. **Equipment.** Subject to the Terms and Conditions of Lease, attached hereto and incorporated by reference (the "terms"), Owner hereby rents to Renter all of the equipment named and identified in the following List of Equipment (the "Equipment"), for use at the designated location and at such rental rate for the rental period as is therein stated.

LIST OF EQUIPMENT

Description of Equipment	Rental Period	Equipment Model Number	Rental Charge Per Month ($USD)	Total Price
Aria Filtra membrane pilot testing equipment	~3 Months	TBD_	$5,251.67	$15,755.
Freight	N/A	N/A	N/A	$9,875.
			TOTAL	$25,630.

2. **Proposal.** This Agreement pertains to and incorporates Owner's Proposal number OPP-_ **OPP1755732**__ Rev. 0_ dated _October 1, _, 2025_ (the "Proposal").

3. **Address for Rental Charge Payments.** Rental Charges shall be paid to Owner, without notice, setoff or deduction, in advance on the first day of each month, in U.S. Dollars at the rate set forth above, to the following address or financial institution:

USPS Mail or Courier:
Trojan Technologies Corp
P.O. Box 5630, 839 State Route 13
Cortland, New York 13045-5630

Wire Transfers:
Bank Name: Bank of America N.A.
Bank Address: 1401 Elm Street
2nd Floor
Dallas, TX. 75202
ABA (ACH): 071923284
ABA (Wires): 026009593
SWIFT Code: BOFAUS3N
Account Number: 8765529762
Account Name: Trojan Technologies Corp.

4. **Notices**. All notices permitted or required in connection with this Agreement shall be in writing and shall deemed given (i) if mailed by certified mail, return receipt requested, three business days after dispatch; (ii) if delivered to a recognized overnight express mail service or carrier for next day delivery, on the first business day after dispatch; (iii) if delivered on a business day by personal delivery or electronic or facsimile transmission, with "hardcopy" original to follow as provided in clause (i), (ii) or (iii) above, on the same day as delivered, otherwise on the next business day; in each case, addressed as follows (or to such other address as either Party may notify the other Party in writing):

if to Owner, to:	Trojan Technologies Group, ULC 2030 Gore Road London, ON N5V-4T7 Attention: [Legal Department]
with a copy to:	Trojan Technologies Corporation 839 NY State Route 13 P.O. Box 5630, Cortland, NY 13045 Attention: [ ]
if to Renter to:	[ ]

5. **Corporate Authority.** The Parties hereto covenant and warrant that the persons executing this Agreement on their behalf have been duly authorized to do so, and this Agreement constitutes a valid and binding obligation of the Parties hereto. The Renter will, if requested by Owner, provide to Owner, Certificates of Authority naming the officers of the Renter who have the authority to execute this Agreement.

IN WITNESS WHEREOF, the parties by their duly authorized officers or representatives have executed this Agreement on the dates set forth below.

Owner	**Renter**
Trojan Technologies Corporation	_____
By: _____ (Signature)	By: _____ (Signature of Authorized Principal or Officer)
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____

Standard General Terms and Conditions of Lease

1. **Generally.** These terms and conditions stated below (these "terms") shall apply to your rental from Trojan Technologies Corporation or its subsidiaries ("Owner") of certain equipment (the "Equipment"). These terms together with the Rental Agreement or Purchase Order by and between Owner and you ("Renter"), constitute a contract between the parties therein named which contract is hereafter referred to as this "Agreement". Any additional or different terms proposed by Renter are specifically rejected.

2. **Rental Period. Unless otherwise noted in the Owner's proposal, the rental period shall begin when the Equipment departs the Owner's facility and shall end when the Equipment arrives at the Owner's facility after completion of rental.** The Rental Period shall cover all time consumed in transporting the Equipment, including the date of delivery to a public carrier for transit to Renter and upon return of the Equipment, the date of legal delivery by such carrier to Owner, or if no public carrier is used, shall include the date upon which transit to Renter begins and the date upon which transit from Renter ends at Owner's unloading point.

3. **Delivery. Unless otherwise noted in the Owner's proposal,** delivery of the Equipment is FCA (Owner's facility) Incoterms 2020; claims for damages to the Equipment in shipment must be made directly to the freight carrier. All transportation charges for delivery of the Equipment to Renter's Location are to be paid by Renter. All rigging, drayage charges, structural alterations, rental of heavy equipment and/or other expense necessary to place the Equipment at the Location are to be promptly paid by Renter.

4. **Installation.** Renter agrees to pay for the actual installation of the Equipment at Renter's Location. Renter shall make available and agrees to pay for all costs associated with providing a suitable place of installation and necessary power and utilities required for operating the Equipment as defined in the manual or instructions. All supplies consumed or required by the Equipment shall be furnished and paid for by Renter.

5. **Inspection; Conclusive Presumptions.** Renter shall inspect the Equipment within three (3) business days after receipt thereof. Unless Renter gives written notice to Owner within said period of time, specifying any defect in or other proper objection to the Equipment, Renter agrees that it shall be conclusively presumed, as between Owner and Renter, that Renter has fully inspected and acknowledged that the Equipment is in good condition and repair, and that Renter is satisfied with and has accepted the Equipment in such condition and repair.

6. **Rental Charges.** Renter shall pay the Rental Charges for the entire Rental Period on each article of Equipment, without notice, setoff, or deduction, in advance on the first day of each month, in U.S. Dollars at the rate set forth in this Agreement and in accordance with the following:

   (a) Monthly Rental Rates shall not be subject to any deductions on account of any non- working time in the month unless the equipment is inoperable for more than three (3) days not due to the fault of Renter. The amount of Rental Charges payable for any fraction of a month at the beginning or end of the Rental Period shall be the monthly rental rate, prorated according to the number of calendar days in such fraction.

   (b) Daily Rental Rates shall not be subject to deductions for any non-working time in the day and shall be paid for each calendar day in the month.

(c) Unless otherwise specified in the Owner's proposal, payment terms are NET 30 days. All late payments shall be subject to any costs of collection. Any payments past due for more than thirty (30) days shall bear interest at the rate of 1½% per month, or the maximum legal rate allowed by applicable law, whichever is lower, calculated from the date when such payment was due until paid, and on any other sum for breach of this Agreement, from the date of the breach.

7. **Security Deposit.** Any security deposit paid by renter to Owner is paid to guarantee Renter's full and faithful performance of all terms, conditions, and provisions of this Agreement and for any damages caused by Renter or Renter's agents to the Equipment. Owner may use part or all of the security deposit to repair any damage to Equipment caused by Renter or Renter's agents. However, Owner is not just limited to the security deposit amount and Renter remains liable for any balance. Renter shall not apply or deduct any portion of any security deposit from the last or any month's rent. Renter shall not use or apply any such security deposit at any time in lieu of payment of rent. If Renter breaches any terms or conditions of this Agreement, Renter shall forfeit any deposit, as permitted by law. If Renter shall so perform, an equal sum shall be repaid without interest to Renter at the termination of this Agreement.

8. **Fees, Assessments, and Taxes Paid by Renter.** Renter shall pay all license fees, assessments, and sales, use, property and excise, and other taxes or hereafter imposed, and relating to Renter's use or possession of the Equipment.

9. **Repair, Maintenance, and Operation of the Equipment.**

(a) Renter shall use the Equipment in accordance with its specifications and for its designated use and shall comply with all requirements contained in this Agreement and any additional documentation delivered by Owner to Renter with respect to the Equipment. Renter shall ensure that the Equipment is not subjected to careless, unusually, or needlessly rough usage.

(b) Renter shall, at its sole cost and expense, perform all routine maintenance in accordance with the Proposal throughout the Rental Period.

(c) Subject to Sections 9(b) and 13, Owner shall maintain the Equipment in good working condition and in good repair, ordinary wear and tear resulting from proper use excepted.

(d) Renter shall not modify or alter the Equipment or remove, alter, disfigure or cover up any numbering, lettering, or insignia displayed upon the Equipment. In the event of any modifications or alterations, Renter will be responsible for all reasonable costs of Owner in restoring the Equipment to its normal condition.

10. **Location and Ownership of the Equipment.**

(a) The Equipment shall, at all times, be the sole and exclusive property of Owner. Renter shall have no right or property interest therein, except for the right to use the Equipment in the normal operation of its business at the Location, or as otherwise provided herein. The Equipment is and shall remain personal property even if installed in or attached to real property. Owner shall be permitted to display notice of its ownership on the Equipment by means of a suitable stencil, label or plaque affixed thereto.

(b) Renter shall keep the Equipment separate from its own equipment and shall mark it to indicate that it is the property of Owner. Renter shall give Owner immediate notice in the event that any of said equipment is levied upon or is about to become liable or is threatened with seizure, and Renter shall indemnify Owner against all loss and damages caused by such action.

11. **Default; Remedies.** A default shall be deemed to have occurred hereunder upon the occurrence of any of the following (each, an "**Event of Default**") (i) non-payment of Rental Charges when due; (ii) non-payment when due of any other payment hereunder, (iii) default in the payment when due of any amounts to Owner or any affiliate of Owner arising independently of this Agreement; (iv) failure to maintain, use or operate the Equipment in compliance with this Agreement or applicable law; (v) failure to obtain, maintain and comply with all of the insurance coverages required under this Agreement; (vi) any transfer or

encumbrance of the Equipment, or the existence of any lien on the Equipment; (vii) the commencement of any bankruptcy, insolvency, receivership or similar proceeding by or against Renter or any of its properties or business (unless, if involuntary, the proceeding is dismissed within sixty (60) days of the filing thereof) or the rejection of this Agreement in any such proceeding; (viii) the failure by Renter generally to pay its debts as they become due or its admission in writing of its inability to pay the same; (ix) Renter shall cease to do business as a going concern, liquidate, or dissolve; (x) Renter shall sell, transfer, or otherwise dispose of all or substantially all of its assets or property; or (xi) Renter shall default in the performance of any other covenant herein and such default shall continue for five days after written notice hereof to Renter by Owner. Upon the Occurrence of an Event of Default, Owner shall have the right to exercise any one or more of the following remedies:

(a) To declare the entire amount of Rental Charges hereunder immediately due and payable as to any or all items of the Equipment, without notice or demand to Renter;

(b) To sue for and recover all Rental Charges, and other payments, then accrued or thereafter accruing, with respect to any or all items of the Equipment.

(c) To take possession of any or all items of the Equipment without demand, notice, or legal process, wherever they may be located. Renter hereby waives any and all damages occasioned by such taking of possession. Any said taking of possession shall not constitute a termination of this Agreement as to any or all items of Equipment unless Owner expressly so notifies Renter in writing. If Renter denies or interferes with Owner's right of entry, removal and possession, Owner may enforce said right in a court of law and in such proceeding the only matter to be considered shall be the right of entry, possession and removal. In any undertaking required pursuant to such an enforcement, the levying officer as authorized shall promptly deliver possession of the Equipment to Owner and Renter shall be liable for all costs including reasonable attorneys' fees.

(d) To terminate this Agreement as to any or all items of Equipment; and/or

(e) To pursue any other remedy at law or in equity.

Notwithstanding any repossession, or any other action which Owner may take, Renter shall be and remain liable for the full performance of all obligations on the part of Renter to be performed under this Agreement. All remedies of Owner are cumulative, and may be exercised concurrently or separately, and the exercise of any one remedy shall not be deemed to be an election of such remedy or to preclude the exercise of any other remedy. Renter shall pay Owner all costs and expenses, including reasonable attorneys' fees, incurred by Owner in exercising any of its rights or remedies hereunder or enforcing any of the terms, conditions, or provisions hereof.

12. **Quiet Possession and Inspection**. Owner hereby covenants with Renter that Renter shall quietly possess the Equipment subject to and in accordance with the provisions of this Agreement so long as there is no Event of Default hereunder; provided, however, that Owner or its designated agent may, at any and all reasonable times during business hours, enter Renter's Location for the purposes of inspecting the Equipment and the manner in which it is being used, and upon prior written notice, audit Renter's records retained in connection with this Agreement to confirm compliance with the terms of this Agreement.

13. **Damage and Loss.**

(e) Damaged Equipment

1. Renter assumes and shall bear the entire risk of damage to the Equipment from any cause, except damage in the possession of the Shipper, during the term of the Lease. Unless pre-existing damage is reported to Owner within three (3) business days after Renter takes possession of the Equipment, it is assumed any damage to the Equipment occurred during the Term of the Lease. If there is a dispute between Owner and Renter as to whether damage occurred in possession of the Shipper, the equipment shall be sent to an external repair facility. The opinion of the repair facility, as to the cause of the damage, shall be binding on the parties.

2. In the event of damage, Owner shall choose the repair method and venue, within reason. If Owner chooses an external venue for repair, Renter is responsible for the total cost of repair, if commercially reasonable. Owner may elect to repair the Equipment in-house. In these cases, Renter shall be responsible for Owner's reasonable expenses for parts and labor.

(f) Loss of Equipment

1. Renter assumes and shall bear the entire risk of loss of the Equipment from any cause during the term of the Lease.

2. In the event that the Equipment is reported by Renter to be lost or stolen during the term of the Lease, Renter is liable to Owner for the replacement value of the Equipment.

14. **Insurance.**

(a) Renter shall, for the longer of (i) the Rental Period or (ii) the period in which the Equipment is at the Location of Renter or in route to Owner's premises, maintain: (i) Commercial General & Products Liability (written on ISO occurrence based form) with a bodily injury and property damage combined single limit in the amount of $1,000,000 per occurrence (or such higher amounts as may be required in order to obtain the umbrella liability coverage described below); (ii) Commercial Umbrella Liability in the amount of $5,000,000 per occurrence; and (iii) Broad Form Property Insurance for the full replacement value of the Equipment. Owner shall be named as additional insured on the foregoing liability policies and loss payee on the foregoing property policies. Each of the above-mentioned policies shall contain waivers of the insurer's subrogation rights against Owner. Insurance companies used for the above policies must have an A.M. Best rating of A- or better.

(b) Prior to the delivery of the Equipment to Renter, Renter shall deliver to Owner a current certificate of insurance reflecting the above referenced coverages, in a form and substance satisfactory to Owner, acknowledging that Owner has been named as an additional insured on all referenced policies with respect to liability arising out of Renter's activities or omissions. No such policy will be cancelled or materially changed without at least 30 days prior written notice to and the consent of Owner.

15. **End of Rental Period.** Upon expiration of the applicable Rental Period, or the termination of this Agreement, Renter shall promptly return to Owner the Equipment, at Renter's cost and expense, in good working condition and good repair, ordinary wear and tear resulting from proper use thereof alone excepted; and pay to Owner any and all outstanding amounts due Owner as of the date of such termination or expiration. The Equipment must be returned in the same shipping container as it was received it; failure to do so will result in a restocking fee up to

$1,000.00. The amount of the restocking fee will vary based on the Equipment shipped and the shipping container that was used and is determined in Owner's sole discretion. Prior to return of the Equipment, Renter agrees to decommission the Equipment in accordance with the decommissioning procedure documented in the Proposal or Instruction Manual provided. Failure to complete these actions may result in additional charges. The Equipment will be inspected upon return and the determination of any damage charges will be at the discretion of Owner. Renter agrees to pay additional Rental Charges on Equipment at the rate of two times the daily Rental Charge rate for each day, beginning on the expiration of the Rental Period, which the Equipment has not been returned to Owner. Rental Charges for late returns may be deducted from the security deposit at the option of Owner.

16. **No Subletting or Assignment.** Renter shall not assign, delegate, transfer or encumber any of its rights or obligations hereunder, sublet the Equipment or otherwise permit the Equipment to be operated or used by, or to come into or remain in the possession of, anyone but Renter. Without limiting the foregoing, Renter may not attempt to dispose of any of the Equipment, and Renter shall maintain the Equipment free from all liens, notify Owner immediately upon receipt of notice of any lien affecting the Equipment, and defend Owner's title to the Equipment.

17. **DISCLAIMER OF WARRANTIES.** OWNER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING, WITHOUT LIMITATION, THE CONDITION OF THE EQUIPMENT, ITS MERCHANTABILITY, ITS DESIGN, ITS CAPACITY, ITS PERFORMANCE, ITS MATERIAL, ITS WORKMANSHIP, ITS FITNESS FOR ANY PARTICULAR PURPOSE. OWNER FURTHER DISCLAIMS ANY LIABILITY WHATSOEVER FOR LOSS, DAMAGE, OR INJURY TO RENTER OR THIRD PARTIES AS A RESULT OF ANY DEFECTS, LATENT OR OTHERWISE, IN THE EQUIPMENT. AS TO OWNER, RENTER RENTS THE EQUIPMENT "AS IS". OWNER SHALL NOT BE LIABLE IN ANY EVENT TO RENTER FOR ANY LOSS, DELAY, OR DAMAGE OF ANY KIND OR CHARACTER RESULTING FROM DEFECTS IN, OR INEFFICIENCY OF, EQUIPMENT HEREBY RENTED OR ACCIDENTAL BREAKAGE THEREOF.

18. **Indemnity.** Renter shall defend and indemnify Owner against, and hold Owner harmless from, any and all claims, actions, suits, proceedings, costs, expenses, damages, and liabilities, including reasonable attorneys' fees, arising out of, connected with, or resulting from the Equipment or this Agreement, including without limitation, the manufacture, selection, delivery, leasing, renting, control, possession, use, operation, maintenance or return of the Equipment. Renter shall further defend and indemnify Owner, and hold Owner harmless from all loss and
damage to the Equipment during the Rental Period. Renter recognizes and agrees that included
in this indemnity clause, but not by way of limitation, is Renter's assumption of any and all liability for injury, disability and death of workmen and other persons caused by the operation, use, control, handling, or transportation of the Equipment during the Rental Period.

19. **Limitation of Liability.** IN NO EVENT, WILL OWNER BE LIABLE FOR ANY INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING WITHOUT LIMITATION, LOSS OF PROFITS, WHATEVER THE CLAIM (TORT, BREACH OF CONTRACT OR WARRANTY OR OTHERWISE) AND WHATEVER THE FORUM. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, IN NO EVENT WILL OWNER BE LIABLE FOR ANY LOSSES OR DAMAGES IN EXCESS OF THE RENTAL CHARGES PAID TO OWNER WITH RESPECT TO THE 12 MONTH PERIOD PRECEDING THE CLAIM.

20. **Intellectual Property Infringement:** Renter has no authorization to make any representation, statement, or warranty on behalf of Owner relating to the Equipment. Renter shall indemnify and defend, at its own expense, Owner against claims or liability for U.S. or applicable foreign patent, copyright,

trademark or other intellectual property infringement and for product liability arising from the preparation or manufacture of a Equipment or part thereof according to Renter's specifications or instructions, or from Renter's unauthorized or improper use of the Equipment, or from any changes or alterations to the Equipment or part thereof made by persons other than Owner, or from the use of the Equipment in combination with products not furnished by Owner.

21. **Ownership of Materials:** All ideas, concepts, whether patentable or not, devices, inventions, copyrights, improvements or discoveries, designs (including drawings, plans and specifications), estimates, prices, notes, electronic data and other documents or information that are: a) created, prepared, reduced to practice or disclosed by Owner; and/or b) based upon, derived from, or utilize the Confidential Information of Owner, and all related intellectual property rights, shall at all times remain Owner's property. No right, title or interest in any patents, trademarks, trade names or trade secrets, or in any pattern, drawing or design for any Equipment or in any other Owner intellectual property right, shall pass or transfer to the Renter and Owner shall at all times retain ownership rights therein. Owner grants Renter a non-exclusive, non-transferable license to use any such material to the extent necessary and solely for Renter's use of the Equipment during the Rental Period. Renter shall not disclose any such material to third parties without Owner's prior written consent. Renter shall not, directly or indirectly, and shall cause its employees, agents and representatives not to: (i) alter or modify the Equipment and/or parts thereof, (ii) disassemble, decompile or otherwise reverse engineer or analyze the Equipment and/or parts thereof, (iii) remove any product identification or proprietary rights notices, (iv) modify or create derivative works, (v) otherwise take any action contrary to Owner's rights in the technology and intellectual property relating to the Equipment and/or parts thereof, and/or (vi) assist or ask others to do any of the foregoing.

22. **Confidentiality.** If Owner discloses or grants Renter access to any research, development, technical, economic, or other business information or know-how of a confidential nature, whether reduced to writing or not, Renter shall not use or disclose any such information to any other person or company at any time, without Owner's prior written consent. Such obligation shall continue for 5 years after said disclosure regardless of the termination of this Agreement or the expiration of the Rental Period. Renter shall not, directly or indirectly, and shall cause its employees, agents and representatives not to: (i) alter or modify the products, (ii) disassemble, decompile or otherwise reverse engineer or analyze the products, (iii) remove any product identification or proprietary rights notices, (iv) modify or create derivative works, (v) otherwise take any action contrary to Renter's rights in the technology and intellectual property relating to the products, and/or (vi) assist or ask others to do any of the foregoing. In the event that Owner and Renter have entered into a separate confidentiality agreement, the terms and conditions of such agreement shall take precedence over these terms.

23. **No Waiver.** No failure on the part of the Owner to exercise and no delay in exercising, any right or remedy, shall operate as a waiver thereof; nor shall any single or partial exercise by Owner of any right or remedy hereunder preclude any other or further exercise thereof or the exercise of any other right or remedy.

24. **Force Majeure:** Seller is excused from performance of its obligations under this Contract to the extent caused by acts or omissions that are beyond its control, including but not limited to Government embargoes, blockages, seizures or freezing of assets, delays, or refusals to grant an export or import license, or the suspension or revocation thereof, or any other acts of any Government; fires, floods, severe weather conditions, or any other acts of God; quarantines; pandemics; outbreaks; labor strikes or lockouts; riots; strife; insurrections; civil disobedience or acts of criminals or terrorists; war; material shortages or delays in deliveries to Seller by third parties. In the event of the existence of any force majeure circumstances, the period of time for delivery, payment terms, and payments under any letters of credit will be extended for a period of time equal to the period of delay.

24. **Severability.** The provisions of this Agreement are several and, in the event that any court of competent jurisdiction shall determine that any portions of this Agreement is invalid, the terms of this Agreement shall nevertheless be fully enforceable to the extent not specifically deemed invalid.

26. **Governing Law:** This Agreement, and all the rights and duties of the Parties arising from or relating in any way to the subject matter of this Agreement or the transaction(s) contemplated by it, shall be governed by the laws of the State of New York, regardless of conflict of laws principles, and the parties hereby unconditionally and irrevocably submit to (and waive any objection on the grounds of inconvenient forum or otherwise) the jurisdiction of the Supreme Court of the State of New York, County of Nassau or the United States District Court for the Southern District of New York, which courts shall have exclusive jurisdiction to adjudicate and determine any suit, action or proceeding regarding or relating to this Agreement and the rental of the Equipment. A judgment, order or decision of those courts in respect of any such claim or dispute shall be conclusive and may be recognized and enforced by any courts of any state, country or other jurisdiction.

The parties expressly exclude the application of the United Nations Conventions on Contracts for the International Sale of Goods, and further exclude the applications of the International Sale of Goods Contracts Convention Act, S.C. 1990-1991, C.13, and the International Sale of Goods Act, R.S.O. 1990, C.I. 10, as amended.

EACH PARTY HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR RELATING TO THIS PURCHASE ORDER.

27. **Survival:** All payment, confidentiality and indemnity obligations, limitations of liability and ownership of materials provisions together with those sections the survival of which is necessary for the interpretation or enforcement of this Agreement, shall continue in full force and effect for the duration stated in such provisions or the applicable statute of limitations.

28. **Funds Transfers (Payments):** Buyer and Pall both recognize that there is a risk of banking fraud when individuals impersonating a business demand payment under new banking or mailing instructions. To avoid this risk, Buyer must verbally confirm any new or changed bank transfer or mailing instructions by calling Pall at +1-607-753-6041 and speaking with Pall's Credit Manager before mailing or transferring any monies using the new instructions. Both parties agree that they will not institute mailing, or bank transfer instruction changes and require immediate payment under the new instructions but will instead provide a ten (10) day grace period to verify any payment instruction changes before any new or outstanding payments are due using the new instructions.

29. **Entire Agreement.** This Agreement represents the entire agreement of the Parties with respect to the rental of Equipment and may not be modified except in writing signed by Owner

Attachment C – Drawings

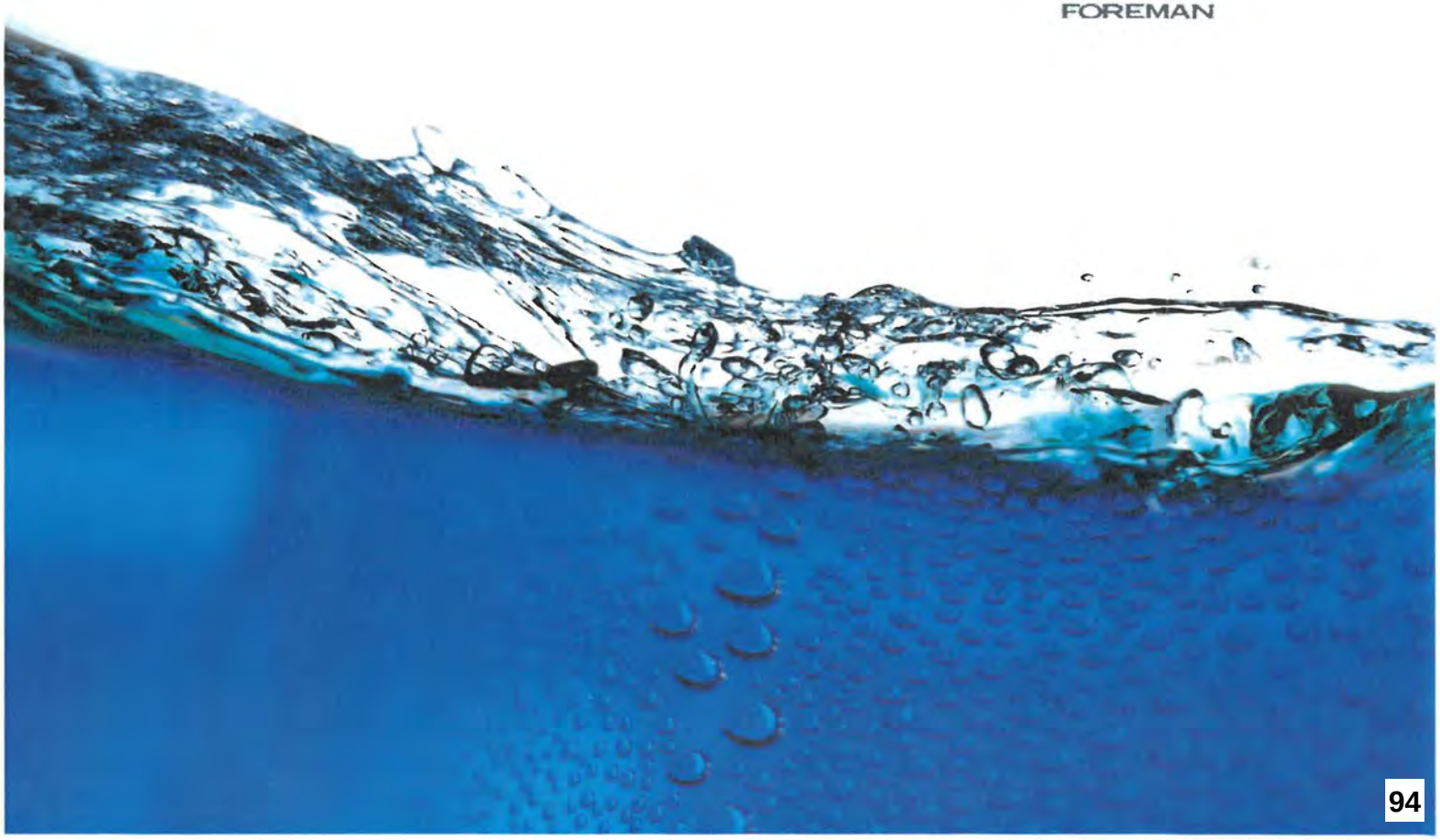
5.2 SCINOR MEMBRANE FILTRATION PILOT STUDY PROPOSAL

PILOT STUDY AGREEMENT

AOP
ARTESIAN OF PIONEER
Water Treatment Systems

Scinor MEMBRANE FILTRATION SYSTEM
MEMBRANE FILTRATION PILOT STUDY
FOR TOWN OF CHARLES TOWN, WV

Prepared for:
GD&F
GWIN
DOBSON &
FOREMAN



November 6, 2025
Pilot Study Agreement
Town of Charles Town, WV
Gwin, Dobson & Foreman, Inc.

Company Overview

Artesian of Pioneer, Inc. (AOP) is a water treatment specialist that has been in business for over 60 years providing potable water treatment systems. Responding to today's growing demand for efficient, cost effective water treatment system, AOP offers innovative solutions for the water treatment needs of commercial, industrial, and municipal customers. AOP has been awarded "Best Water in America" for past projects and has designed and built over 550 water treatment facilities throughout the Midwest and Eastern regions and have a vast knowledge of treatment options, designs, strategies and quality control measures.

System Description

The AOP membrane pilot unit is designed to demonstrate the performance and efficiency of Scinor ultrafiltration membrane filtration. AOP has selected the Scinor ultrafiltration membrane module SMT600-P50 to demonstrate filtration of the customer source water. The pilot unit is designed to produce ultra-filtered water and gather performance data to confirm the design of the full-scale filtration system. Please refer to the process schematic for illustration of system components and configuration.

The pilot unit is a complete membrane filtration system that is automated and programmed to control all operations and maintenance of the system. The controls and automation is similar to all AOP full-scale water treatment systems. The control system is a PLC/PC based controller with data logging, graphical system trending, remote system monitoring via wireless connection. System operating data monitored includes pressure, flowrates, turbidity, temperature and filtration-cleaning cycle duration. Data logged and recorded includes transmembrane pressure (TMP), flowrates, and turbidity to assess performance. Data and parameters can be viewed and adjusted at the system control panel or remotely. This allows AOP engineers to remotely monitor system performance and adjust operations of the system to optimize system performance.

The pilot unit with the selected membrane module has the capacity to treat up to 19.8 gallons per minute depending on the feed flow water quality. A pressurized water supply or a submersible pump can be utilized to supply the water to the pilot unit. Filtered water is gravity supplied to customer preferred conveyance (i.e. discharge, collection tank and transfer, etc.). Membrane cleaning is performed automatically with air scrub, reverse filtration, and chemical treatment. In addition, operator assisted clean-in-place (CIP) can be performed to provide more thorough membrane maintenance.

Air scrub and reverse filtration is performed automatically by the system for approximately 90 seconds. The frequency of air scrub and reverse filtration, typically 30 minutes, is entered in the

control panel. The air scrub involves injected compressed air (less than 30 psi) into the feed water of the membrane module. Reverse filtration involves pumping filtered water from the filtered water tank through the inside of the membrane (filtered water connection) to the outside of the membrane to dislodge any particles that may have fouled the membrane.

Chemical treatment is performed automatically by the system as an Enhanced Flux Maintenance (EFM) of the membrane. EFM chemically cleans the membrane to remove any biofilm, metals, organics, or other build-up that may compromise the TMP and membrane flux rate. EFM frequency is user entered (i.e. every 48 hours) and requires approximately 45 minutes to complete the EFM chemical treatment cycle.

CIP is performed with an operator present to assist in more thoroughly cleaning the membrane. The CIP process involves draining the system, cleaning the feed tank and screens, circulating warm caustic and chlorinated water, draining the system again, and circulating warm mildly acidic water. The system is then drained again prior to being put back into service. The system is equipped with chemical feed systems and immersion heater to pump the required chemistry and heat the water. Typically CIP is performed every 15-45 days depending on raw water quality. The entire CIP process requires 2-4 hours to complete.

System Components

The following is a list and description of pilot unit major system components:

A. Membrane Module
- One (1) Scinor hollow fiber membrane module.
- Module diameter = 160 mm
- Module length = 2330 mm
- Membrane rating = 0.1 micron
- Outside membrane area 538 ft^2
- Membrane material = Polyvinylidene Fluoride (PVDF)
- Flow direction = Outside to inside of the membrane

B. System Feed
- One (1) 200 micron automatic backwashing strainer
- One (1) 50 gallon polyethylene, flat bottom feed tank with removable top, level transmitter, and automatic fill control valve.
- One (1) 50 gallon polyethylene, flat bottom reverse filtration tank with removable top, level transmitter, and automatic fill control valve.

C. Chemical Addition
- Sodium hypochlorite, sodium hydroxide, and citric acid chemical storage.

D. Controls
- Unitronics software and flat panel computer and HMI

E. Pumps
- One (1) 3 HP feed pump
- One (1) 2 HP reverse filtration pump
- One (1) sodium hypochlorite chemical feed pump

F. Instruments
- One (1) Hach SC200 turbidity controller with two (2) Hach 1720E turbidity sensors
- Three (3) pressure transmitters
- One (1) compressed air rotometer flow rate indicator
- One (1) compressed air regulator with pressure indicator
- Two (2) magnetic flow meters
- Two (2) submersible in-tank level transmitters
- One (1) temperature transmitter

Piloting Fee

We appreciate the opportunity to work with the Town of Charles Town, WV and Gwin Dobson & Foreman Inc. (GD&F). We appreciate the opportunity to demonstrate AOP's Scinor membrane filtration system. **The cost for the pilot unit three-month rental and associated AOP technical services is $19,000.**

Freight & Rigging

AOP will deliver and return the pilot unit at no cost to the customer. Customer will be responsible for fork-truck rigging of the pilot unit to the specified pilot testing location.

Operations

AOP will provide technical support throughout the pilot test. AOP technicians will commission the system and provide operator training. AOP will remotely monitor and adjust the system to optimize performance. Customer will be responsible for onsite inspection of the system two times daily. AOP representatives will be onsite monthly to review operations and make any necessary maintenance and system optimization.

AOP's Scope of Supply

- Influent water lift pump.
- Pilot unit skid as described above.
- Air compressor (if required).
- Cleaning chemicals for EFM and CIP.
- Delivery of scope of supply items.
- Technical services as described in Operations section.

- System performance data.

Customer's Scope of Supply

- Off-loading/loading and rigging of pilot unit skid to/from the pilot testing location.
- System site security.
- Electrical connection to pilot unit control panel: 230V 60 Hz 1-phase 100 Amp.
- Raw water (2.0" NPT) and finished water connections (1.5" NPT), as necessary.
- Assistance as described in Operations section and assistance with maintenance and cleaning procedures as necessary.
- Required water quality analysis and associated lab fees.
- Weekly communication of water quality and system data (other than logged by control panel).

Schedule

- Delivery: To Be Determined by AOP, Town of Charles Town and GD&F.
- Start-up: within one week of delivery.
- Duration: 3 months from start-up.

Effective Term

Pricing is valid for 30-days from date of this offer. If a formal purchase order is not received within 30 days, both the pricing and schedule are subject to review and potential revision.

5.3 CALGON GRANULAR ACTIVATED CARBON (GAC) FILTRATION PILOT STUDY PROPOSAL AND FROSTBURG MARYLAND CASE STUDY

Pilot Proposal: Charles Town Utility Board

Calgon Carbon Corporation
3000 GSK Drive,
Moon Township, PA 15108

Contact: Christopher M. Eckenrode, P.E.
Email: ceckenrode@gdfengineers.com
Location: Charles Town, WV
Date: October 29, 2025

Item	Description	Price
System Commissioning Fee	One (1) Pilot System, media, installation, training, and technical assistance	$12,500.00
Equipment Delivery	Dedicated van delivery of equipment to site	$2,000.00
Monthly Service Fee (after the 1st month)	Equipment and on-going major maintenance	$350.00/month
Additional Site Visits, if Required	Travel to and from the site, technical assistance, troubleshooting, decommissioning, etc.	$3,500.00
Equipment Return	Dedicated van return of equipment to CCC	$2,000.00

Terms & Conditions

1. Unless otherwise noted, or until other Terms and Conditions are provided, this offer is made only under Calgon Carbon Corporation's Pilot System Rental and Service agreement attached within.
2. Pricing provided is exclusive of any sales tax.
3. Upon acknowledgement of the Pilot System Rental and Service Agreement, the buyer will be requested to complete a Credit Application and provide Tax Exemption Documentation.
4. The quoted price is valid for 30 days from the date of this Scope of Supply document.

If you have questions or would like to proceed ordering the proposed work and equipment, please contact:

Kelsey Kaplan
Senior Technical Sales Representative
Kelsey.kaplan@kuraray.com
412-286-8020

Elisa Mayerberger
Applications Engineer
elisa.mayerberger@kuraray.com
412-535-1928



Figures 1 & 2: Photos of front and rear of pilot unit showing 4 columns, flow meters, and interconnecting piping.

CALGON CARBON CORPORATION
PILOT SYSTEM RENTAL AND SERVICE AGREEMENT

This Pilot System Rental and Service Agreement (this "Agreement") is entered into as of **March 1, 2026** (the "Effective Date") by and between **GWIN, DOBSON & FOREMAN, INC.**, a **Pennsylvania corporation**, located at **3121 Fairway Drive Altoona, PA 16602** ("Subscriber") and Calgon Carbon Corporation, a Delaware corporation, located at 3000 GSK Drive, Moon Township, PA 15108 ("CCC").

In consideration of the mutual agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the parties hereto agree as follows:

1. CCC will supply products and services for the treatment of **municipal surface water** (the "Application") at Subscriber's sites listed and described in Exhibit I (the "Sites"). This Agreement is specific to the Application at the Sites. CCC's scope of supply and responsibilities are further defined in Exhibit II and Subscriber's responsibilities are further defined in Exhibit III.

2. Any CCC-owned equipment included as part of this Agreement may not be used for other purposes or taken to other facilities without the prior written consent of CCC. In addition, CCC-owned equipment may not be altered without the prior written consent of CCC and only employees of Subscriber that have been authorized and trained on the use of the equipment may operate such equipment. All equipment supplied by CCC during the Term of this Agreement shall remain the property of CCC at all times. Any media (activated carbon or resin) used in CCC's adsorption equipment must be supplied by CCC. If the Subscriber decides to utilize media from a supplier other than CCC, then CCC will have the right to terminate this Agreement upon written notice.

3. This Agreement shall be in effect from the Effective Date through **June 30, 2026** (the "Initial Term"). Thereafter, this Agreement shall automatically renew for successive one month periods (each, a "Renewal Term" and, together with the Initial Term, the "Term"), unless terminated by either party upon written notice at least ten (10) days prior to the end of the Initial Term or the Renewal Term, as applicable. Any equipment and media shall be removed within thirty (30) days following the effective date of termination of this Agreement. Subscriber shall provide CCC with reasonable access in order to affect such removal.

4. The Subscriber shall pay CCC the following fees:

   A one-time system commissioning fee for equipment and media in the amount of twelve thousand five-hundred dollars ($12,500.00), which includes engineering, system preparation, start-up assistance, loading of initial media fill, first month's service fee.

   Equipment delivery fee, for equipment only, in the amount of two thousand dollars ($2,000.00).

A monthly service fee of three hundred fifty dollars ($350.00), which includes equipment and media use and on-going major maintenance, will begin after the first month. The first month's service is provided at no charge.

Additional site visit if required – (3 days total – 1 day on site and 2 travel days in the amount of three thousand five-hundred dollars ($3,500.00), which includes, travel to and from site, lodging, technical assistance, troubleshooting, decommissioning etc. Additional site days beyond the 1 day included above will be in the amount of one thousand twelve hundred dollars ($1,200.00)

Return fees, for equipment only, in the amount of two thousand dollars ($2,000.00).

The fees in this Agreement are based upon CCC performing the responsibilities as described in Exhibit II during normal working hours, and under reasonable order processing conditions. If overtime costs are incurred solely for Subscriber's convenience, CCC reserves the right to invoice Subscriber for documented overtime expenses.

5. CCC will invoice Subscriber placement fees upon delivery. CCC will invoice Subscriber subsequent monthly service fees each month (the day coinciding with that of the original delivery date or mutually agreed upon date). CCC will invoice Subscriber return fees upon termination of this Agreement.

Subscriber agrees to remit payment within thirty (30) days of the invoice date. All invoices must be paid in full. If Subscriber disputes any portion of an invoice, it will pay the entire invoice when due and once the dispute is resolved, any resulting credit will be made against subsequent invoices. Late payments (payments made after thirty (30) days of invoice date) will be subject to a penalty of 1.25% per month.

6. At the request of the Subscriber, technical assistance will be provided by CCC in an effort to aid in the optimization of results for the Subscriber's specific application. Such assistance will be provided upon such terms as may be mutually agreed upon by both parties. An additional fee may apply.

7. Disposal of the media will be the responsibility of the Subscriber. Title for media shall pass to Subscriber upon delivery.

8. All of the Exhibits referenced in this Agreement are attached hereto and made a part of this Agreement.

9. This Agreement constitutes the entire agreement between CCC and Subscriber and may not be modified except by a writing signed by the authorized representatives of each of the parties. CCC shall be obligated to perform only in accordance with the terms of this Agreement and any terms and conditions contained in any purchase order which are different from, conflict with or add to the provisions of this Agreement shall be deemed to materially alter them and are hereby objected to and rejected by CCC.

CALGON CARBON CORPORATION

By _____

Name _____

Title _____

Date _____

GWIN, DOBSON & FOREMAN, INC.

By _____

Name _____

Title _____

Date _____

EXHIBIT I
SUBSCRIBER'S SITES

[TO BE COMPLETED]

Site Contact Name: _____

Site Contact Number: _____

Site Address: _____

EXHIBIT II
RESPONSIBILITIES OF CALGON CARBON CORPORATION

1. Instructions for site preparation, if needed.

2. Design and supply of CCC pilot unit.

3. Supply Calgon Carbon activated carbon or resin media in adequate quantity for pilot. Competitor media for the study, if applicable, would be the responsibility of the subscriber to supply.

4. Assistance, if needed, with the development of a test plan for the study based on project goals and subscriber feedback.

5. Equipment delivery and removal transportation. **Pilot column to be delivered in a shipping crate which must be stored for future return.**

6. CCC engineering supervision for start-up and training during normal working hours for one day. Additional supervision available upon request.

7. Troubleshooting assistance throughout the duration of the study.

8. Data analysis (modeling) and summary of results memo, if requested.

EXHIBIT III
RESPONSIBILITIES OF SUBSCRIBER

1. Site preparation in indoor, fully enclosed, safe location for the equipment.

2. Forklift or handtruck, as required for receipt of the equipment and placement at site and removal of the equipment. **Storage of the pilot unit shipping crate is the responsibility of the subscriber.**

3. System installation and removal labor. Assistance with decommissioning is available upon request.

4. Influent and effluent connections to the equipment and flow control, as required.

5. Day-to-day operation and minor maintenance of the equipment, including media handling and transfer. Minor maintenance is defined as routine maintenance which must be performed on a frequent, e.g. daily or weekly, basis. The intent here is to perform the minor tasks required to ensure the safe, continuous, and effective operation of the equipment. Minor maintenance can include the visual check and replacement of pressure indicators, the adjustment or replacement of valving, adjustments to regulators, tightening of flanges or connections to eliminate leaks, and similar minor activities. All replacements made pursuant to this section must be completed using substantially identical replacement parts of the same material and quality as the part being replaced.

6. Pretreatment of the influent stream, if required.

7. Disposal of backwash/backflush, forward flush during start-up conditioning and all other transfer water.

8. Winterization of the equipment, if required.

9. Equipment decontamination, as required, prior to its return.

10. At sites where spent media is classified as a RCRA hazardous waste, customer is responsible for the disposal of contaminated PPE, equipment (e.g., filters) and decontamination rinse water.

11. Spent media disposal.

EXHIBIT IV
GENERAL TERMS AND CONDITIONS

1. ASSIGNMENT: Neither party may assign this Agreement, including without limitation any of its rights or obligations hereunder, without the express written consent of the other party hereto; provided that CCC may assign this Agreement, including without limitation any of its rights or obligations hereunder, to any of its parents, subsidiaries or affiliates or to any third party which merges with CCC or acquires all or substantially all of its business and assets or a substantial part of its assets or business relating to the products or services without Subscriber's consent.

2. FORCE MAJEURE: Neither party shall be liable to the other party for failure to perform any of its obligations hereunder (except for the payment of money) due to an Act of God, terrorism, court order, accident, fire, flood, riot, war, sabotage, explosion, strike or labor disturbance (however neither party shall be obligated to settle any strike or similar dispute even if it is able to do so), national defense requirements, governmental law, ordinance, rule or regulation, whether valid or invalid, extraordinary failure of equipment or apparatus, inability to obtain electricity or other type of energy, raw material shortage, equipment or transportation shortage or unavailability, or any similar or different contingency beyond the party's reasonable control which would make performance impractical, whether or not the contingency is of the same class as those enumerated above (the foregoing conditions and events herein referred to individually and collectively as "Force Majeure"). The party invoking Force Majeure shall provide the other party with prompt written notification and shall advise the other party of its estimate as to when the Force Majeure condition will end. If CCC invokes Force Majeure related to part or all of the services provided hereunder, no fees related to the areas covered by the Force Majeure claim shall be payable so long as the Force Majeure condition continues. If Subscriber invokes Force Majeure, only those fees associated with the on-site equipment will be payable during the period of Force Majeure.

3. EQUIPMENT DAMAGE AND CONTAMINATION: CCC's practice is to examine all equipment prior to shipment to ensure that the equipment is in good condition when it is shipped. Subscriber will be responsible for examining the equipment when it arrives to ensure that it is in satisfactory operating condition. If the equipment is damaged in transit, Subscriber must promptly notify CCC. If the equipment is damaged by the Subscriber after arrival at the facility, CCC reserves the right to charge the Subscriber for the actual repair or replacement costs. If the adsorption equipment or ancillary equipment, through its use by Subscriber, becomes contaminated so that decontamination is required, Subscriber will be responsible for the costs of such decontamination. If decontamination is impractical as determined by CCC, Subscriber hereby agrees to purchase the adsorption equipment (or transport trailer) at a mutually agreed upon fair market price.

4. WARRANTY: CCC warrants that all media (at the time of delivery) and services (at the time of performance) provided under this Agreement shall conform to the specifications for such product or service as published by CCC from time to time during the term of this Agreement. Subscriber shall promptly notify CCC of any non-conforming goods or services. Thereafter, CCC shall confirm that non-conformity and, at CCC's option and expense, repair or replace the non-conforming product or service. This shall serve as Subscriber's sole and exclusive remedy.

THERE ARE NO WARRANTIES MADE WITH REGARD TO THE MEDIA PRODUCTS OR SERVICES TO BE PROVIDED PURSUANT TO THIS AGREEMENT OTHER THAN THOSE CONTAINED IN THIS PARAGRAPH. ALL OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED, ARE HEREBY DISCLAIMED, INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

In no event shall CCC have any obligation to provide corrective warranty services, in whole or in part, as the result of (i) normal wear and tear, (ii) accident, disaster or event of Force Majeure, (iii) misuse, fault or negligence of or by Subscriber, (iv) use of the service equipment or goods in a manner for which they were not designed, (v) external causes such as, but not limited to, power failure or electrical power surges, (vi) improper storage and handling of the service equipment or goods, or (vii) use of the service equipment or goods in combination with equipment or software not supplied by CCC. If CCC provides services or replacement parts that are not covered by this warranty, Subscriber shall pay CCC therefor at CCC's then prevailing time and materials rates.

5. INDEMNIFICATION: Subscriber shall indemnify and save CCC harmless at all times from and against any liability on account of any and all claims, damages, law suits, litigation, expenses, counsel fees, and compensation relating to property damages or injuries (including death), arising out of its performance under this Agreement. Subscriber will reimburse CCC for damages to the adsorption system and to the adsorption system site caused by (a) the negligence or willful misconduct of Subscriber, its employees, representatives, or agents or (b) operation of such equipment by anyone other than trained authorized employees of Subscriber. In the case of repeated acts of negligence or willful misconduct or use by unauthorized individuals, CCC shall have the additional right to terminate this Agreement.

6. LIMITATION OF LIABILITY: Notwithstanding any provision to the contrary herein, the parties hereto agree that in no event shall CCC or its contractors or suppliers of any tier be liable to Subscriber for any indirect, special, consequential, incidental or punitive damages as a result of a breach of any provision of this Agreement or for any other claim of any kind arising out of or relating to this Agreement, whether in contract, in tort (including negligence or strict liability) or otherwise. Notwithstanding any provision to the contrary herein, for all losses, damages, liabilities or expenses (including attorney's fees and costs), whether for indemnity or negligence, including errors, omissions or other acts, or willful misconduct, or based in contract, warranty (including any costs and fees for repairing, replacing or re-performing services or curing a breach hereof), or for any other cause of action (individually, a "Claim"; collectively, "Claims"), CCC's liability, including the liability of its insurers, employees, agents, directors, and officers and all other persons for whom CCC is legally responsible, shall not, to the maximum extent permitted by law, exceed in the cumulative aggregate with respect to all Claims arising out of or related to this Agreement, the lesser of (a) the total amount of compensation paid to CCC hereunder, and (b) One Million Dollars ($1,000,000).

All Claims shall be deemed waived unless made in writing within ninety (90) days of the occurrence giving rise to the Claim. Subscriber shall maintain insurance on all equipment and goods to be serviced hereunder in amounts at all times equal to their full replacement cost, and

such insurance shall remain in effect regardless of the cause of the loss or damage, even if such loss or damage shall be caused by CCC. Subscriber and its insurer shall waive all subrogation rights under such policies. CCC shall have no liability to Subscriber for any losses that are insured against, or were required to be insured against, by Subscriber pursuant to the previous sentence. Furthermore, Subscriber will hold CCC harmless from and against liens and claims against the adsorption system due to its location on Subscriber's premises.

7. TAXES, PERMITS, TARIFFS AND LICENSES: The fees provided for in this Agreement to be paid by Subscriber to CCC do not include any taxes, licenses, government tariffs or other assessments. Subscriber agrees to pay any sales and use taxes upon or measured by CCC's services provided hereunder and for all applicable licenses, property taxes, personal property taxes and other taxes, fees, licenses, government tariffs or other assessments imposed on the adsorption system (or carbon) and the adsorption system site or upon the installation and operation of the adsorption system (or carbon) and will prepare and submit all documents, plans, and schedules which may be required by governmental agencies with the reasonable assistance of CCC where necessary. Subscriber shall provide CCC with a direct pay permit for sales tax, an affidavit of sales tax exemption, or an affidavit that equipment, products, and services are exempt from sales tax, or CCC has the right to invoice Subscriber for said taxes on each invoice.

8. RECORDING: From time to time certain Subscribers desire to record the activities of CCC representatives during presentations, conductance of training, or other on-site activities. If Subscriber desires to record such activities, a separate recording agreement shall be executed, in the interest of protecting both parties from any liabilities which may potentially result from such recording.

9. CONFIDENTIALITY: Other than in the performance of the terms of the Agreement, neither Subscriber nor its agents, employees, or subcontractors shall use or disclose to any person or entity any confidential information of CCC (whether written, oral, electronic or other form) that is obtained or otherwise prepared or discovered in connection with this Agreement. Subscriber agrees that all pricing, discounts, design drawings and technical information that CCC provides to Subscriber are the confidential and proprietary information of CCC, whether or not otherwise identified as such. The obligations under this section continue perpetually and survive the termination or expiration of any underlying agreement between the parties. The provisions of this section relating to use and disclosure shall not apply to any information that: (a) is or becomes generally available to the public other than as a result of a disclosure by Subscriber under this Agreement; (b) becomes available to Subscriber from a source other than CCC without breach of any obligation of confidentiality; (c) was independently developed by Subscriber without violation of CCC's rights and without reference to the confidential information, as evidenced by written records, maintained in the ordinary course of business by Subscriber; (d) is used or disclosed with the prior written approval of CCC; (e) is information previously known to Subscriber as evidenced by written records maintained by Subscriber in the ordinary course of business, and not otherwise subject to any confidentiality restrictions; or (f) Subscriber becomes legally compelled (by oral questions, interrogatories, requests for information or documents, subpoenas, investigative demands or similar process) to disclose. If Subscriber becomes legally compelled (by oral questions, interrogatories, requests for information or documents, subpoenas, investigative demands or similar process) to disclose any of the confidential information, Subscriber shall provide CCC with prompt written notice so that

CCC may seek a protective order or other appropriate remedy or waive compliance with the provisions of this Agreement. If such protective order or other remedy is not obtained, or if CCC waives compliance with the provisions of this Agreement, Subscriber shall furnish only that portion of the confidential information which Subscriber is legally required to disclose and shall exercise its reasonable efforts to obtain reliable assurance that confidential treatment shall be accorded the confidential information.

10. MANAGEMENT OF CHANGE: CCC is constantly striving to improve its products and capabilities and to provide the best product to it customers. CCC may from time to time develop product improvements or alterations with respect to the products hereunder (the "Product Improvements"), and CCC may implement such Product Improvements without notice to Subscriber so long as the performance of the products will not be materially diminished, as determined in CCC's sole discretion, and so long as CCC has not separately agreed in writing to provide such notification to Subscriber. In the event that CCC has agreed in writing to provide notice of Product Improvements to Subscriber (the "Notice"), then CCC shall provide such Notice in accordance with the terms set forth in the separate writing.

11. EXPORT CONTROLS: Subscriber acknowledges that the products and related technology are subject to U.S. export controls and economic sanctions, which may include the International Traffic in Arms Regulations ("ITAR"), the Export Administration Regulations ("EAR") and regulations promulgated by the U.S. Department of the Treasury Office of Foreign Assets Control. Subscriber further acknowledges that the reexport of the products and/or related technology to a third country or retransfer to an unapproved end user may require a license or other authorization from the Government of the United States. Such licenses or other authorizations may impose further restrictions on the reexport or retransfer of the products and/or related technology. U.S. law also restricts the reexport or retransfer of U.S.-origin goods, technology, or services to countries or persons subject to U.S. sanctions or embargoes. Subscriber agrees to comply with all applicable U.S. export control and economic sanctions laws and regulations. It is the sole responsibility of the Subscriber to apply for and obtain any necessary licenses or other authorizations prior to any reexport or retransfer of the products and/or related technology. CCC makes no warranty that any such licenses or other authorizations will be granted, and shall have no liability for Subscriber's inability to obtain such licenses or other authorization or for any violation by Subscriber of any applicable export control and/or economic sanctions laws and regulations. Subscriber will indemnify CCC and hold it harmless from any liability resulting from Subscriber's violation of this provision or applicable export laws or regulations. Notwithstanding any other provision in this Agreement, CCC shall have the right to terminate this Agreement immediately upon the determination by CCC, in CCC's sole discretion, that Subscriber has breached, intends to breach, or insists upon breaching any of the provisions in this section.

12. TERMINATION: CCC may cancel this Agreement if any of the following occurs: (a) Subscriber becomes insolvent; (b) Subscriber ceases to conduct its operations in the normal course of business; (c) Subscriber is unable to meet its obligations as they mature, or admit in writing such inability or fails to provide adequate assurances of its ability to perform its obligations hereunder; (d) Subscriber files a voluntary petition in bankruptcy; (e) Subscriber suffers the filing of an involuntary petition in bankruptcy and the same is not dismissed within thirty (30) days after filing; (f) a receiver, custodian or trustee is appointed for Subscriber or for a

substantial part of its property; (g) Subscriber fails to make payment on the terms and within the time specified in this Agreement, or breaches any other obligations under this Agreement; or (h) Subscriber executes an assignment for the benefit of its creditors. In the event of such cancellation, CCC shall have all rights and remedies set forth in the UCC of any applicable jurisdiction and all other remedies available at law or in equity.

13. APPLICABLE LAW: This Agreement will be governed by, construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania, without regards to its conflict of law principles. The UN Convention on Contracts for the International Sale of Goods shall not apply to the transaction represented hereby. The parties hereto agree to the exclusive jurisdiction of any state court situated in Allegheny County, Pennsylvania or in any Federal court situated in the Western District of Pennsylvania.

14. MISCELLANEOUS:

(a) In the event of any legal proceeding between CCC and Subscriber relating to this Agreement, neither party may claim the right to a trial by jury, and both parties waive any right they may have under applicable law or otherwise to a trial by jury.

(b) In the event that any one or more provisions contained herein shall be held by a court of competent jurisdiction to be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall remain in full force and effect, unless the revision materially changes the bargain.

(c) CCC's failure to enforce, or CCC's waiver of a breach of, any provision contained herein shall not constitute a waiver of any other breach or of such provision.

(d) CCC reserves the right to correct clerical, arithmetical, or stenographic errors or omissions in this Agreement.

(e) Any notice or communication required or permitted hereunder shall be in writing and shall be deemed received when personally delivered or three (3) business days after being sent by certified mail, postage prepaid, to a party at the address specified herein, or at such other address as either party may from time to time designate to the other.

(f) Subscriber agrees that it will not use CCC's name(s), logo(s) or mark(s) in any public communication or press release, or for any other marketing or promotional purpose, without CCC's prior written consent.

(g) This Agreement does not constitute either party as the agent or legal representative of the other for any purpose whatsoever.

CalgonCarbon

Drinking Water Purification in Frostburg, MD

Different Carbon, Different Performance

For the past four decades, bituminous coal has been the standard choice of raw material for activated carbons used in drinking water purification. Bituminous coal is an abundant raw material that has the properties necessary to produce a final activated carbon product with the characteristics that are essential for drinking water purification; e.g., high adsorption capacity, good abrasion resistance, and low ash levels. It is important, however, to note that among bituminous coal-based carbons, there are differences in raw materials and activation methods that influence the final properties of the resultant carbon.

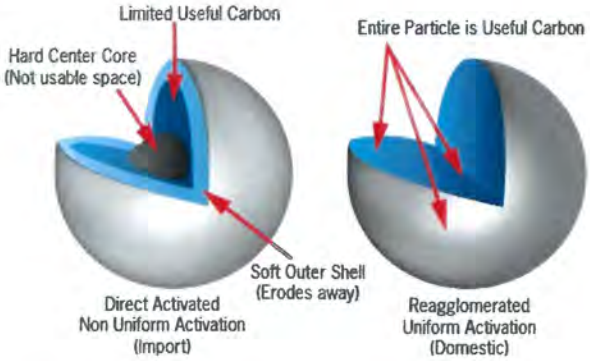
Thermal activation of bituminous coal-based activated carbon products can be accomplished through two methods: reagglomeration or direct activation. The reagglomeration process consists of the following steps:

- Pulverize the raw material coal into a powder approximately 50 microns in size
- Add a chemically-inert binder
- Reagglomerate the product into briquettes
- Crush the briquettes
- Size the crushed briquettes
- Bake the crushed briquettes at temperatures up to 800°F in a controlled atmosphere to remove VOCs
- Thermally activate the carbon by exposing it to temperatures up to 1900°F in a controlled atmosphere

The direct activation process skips the initial three steps; the raw material coal is crushed, sized, baked, and activated. While both processes result in an activated carbon product with similar iodine number values, the final properties of this product are significantly impacted by the activation method used. Reagglomeration adds man-made pore structure into the carbon granule which allows for better penetration of gases into the granule during baking and activation, resulting in a more uniformly activated product. Direct activation does not provide these additional pathways for the activation gases, often resulting in granules that are overactivated along the outer edge of the granule and underactivated at the core.

Visual Cross-Sectional Comparison of Reagglomerated and Direct Activated Carbons

While basic activated carbon specification tests, such as the Iodine Number, often show identical values between reagglomerated and direct activated products, actual performance between these two types of carbons in municipal applications can be quite different. A recent case study in Frostburg, Maryland, highlights these performance differences.



Comparison Trial: Frostburg, MD

The city of Frostburg is a small municipality in western Maryland. The current water treatment plant at Frostburg began treating water in 1997, and treats a flow rate of 3 MGD to serve the city and surrounding communities. The city used anthracite coal for filtering their drinking water supply. With impending US-EPA stage 2 DBPR regulations limiting the allowable discharge of disinfection byproducts such as total trihalomethanes (TTHMs - limit of 80 ppb) and the group of five haloacetic acids (HAA5s - limit of 60 ppb), the city began evaluating changes to its treatment process.

One option considered was to replace the existing anthracite filter media with granular activated carbon (GAC). To evaluate this option, Calgon Carbon Corporation provided pilot equipment to test the effectiveness of GAC to remove a variety of organics including TTHMs and HAA5s. While the main purpose of the pilot was to compare anthracite to GAC, the city also wanted to evaluate reagglomerated and direct activated carbons under identical treatment conditions so they would know they were selecting the best activated carbon product for their application.

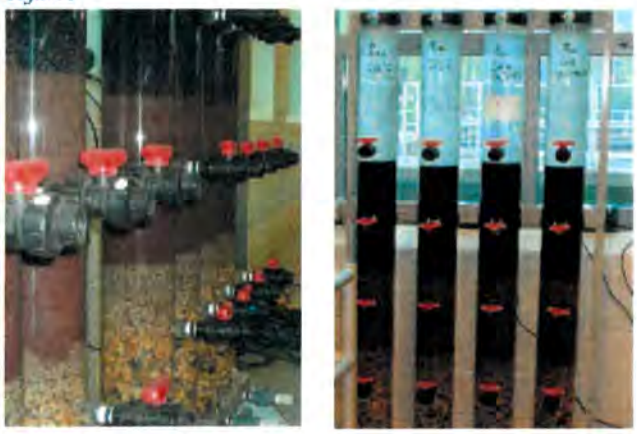


The pilot columns (see Figure 1) provided for treatment of a slipstream of 2.3 liters/min. (0.6 gpm) and a total contact time of 10 minutes through the media (gravel, sand, garnet, and anthracite or GAC). The contact time through the anthracite/GAC step was two minutes[1]. Water quality parameters measured were Total Organic Carbon (TOC), UV_{254} Absorbance, TTHMs, and HAA5s. The columns were allowed to treat nearly 80,000 bed volumes of water during the trial for approximately 180 days.

[1]Normal contact times for GAC in surface water treatment are typically 10 minutes, but since this pilot was studying the replacement of anthracite with GAC, equal volumes of GAC and anthracite were provided, with the lower contact time of the anthracite bed being held constant.

Pilot Column Configuration for Frostburg, MD

Figure 1



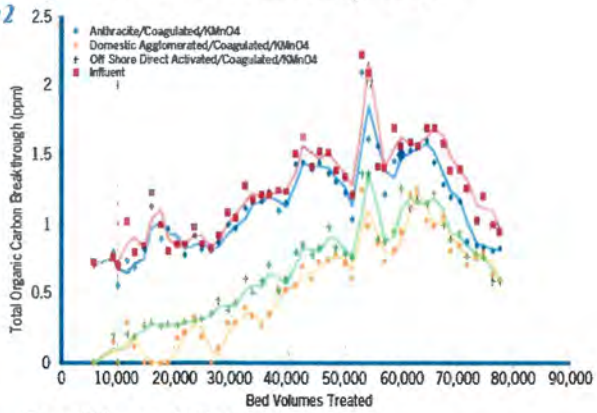
Trial Results

- Both activated carbon products exceeded the performance of anthracite for all of the water quality parameters tested.
- The reagglomerated and direct activated carbons both exhibited similar breakthrough characteristics for TOC and UV_{254}, with the reagglomerated GAC removing approximately 10% more total TOC and UV_{254} Absorbance over the life of the trial (Figures 2 and 3).
- Both products effectively reduced the HAA5 levels to below 5 ppb throughout the trial.
- The most dramatic difference in performance was with the TTHM removal (Figure 4). The reagglomerated product treated double the water volume before reaching saturation for TTHMs. Both products exhibited what is known as "rollover" - the desorption of TTHMs (probably due to adsorption of other, more highly adsorbable species); however, the direct activated GAC more closely approached the maximum contaminant level of 80ppb during this time.

Based on the results of this trial, Frostburg decided to replace their anthracite with domestically produced reagglomerated GAC. Based on the pilot results, the expected bed life of the GAC system is approximately 10 months before exchange of the carbon is required.

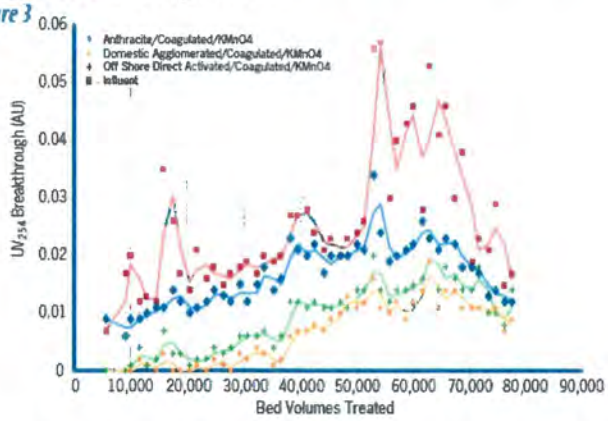
Total Organic Carbon Breakthrough Data

Figure 2



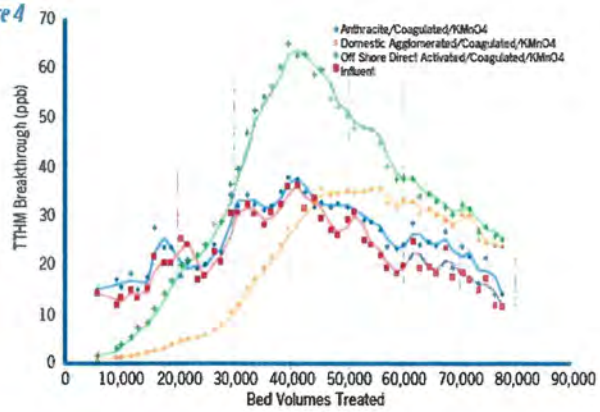
UV_{254} Breakthrough Data

Figure 3



TTHM Breakthrough Data

Figure 4



CalgonCarbon

Corporate Headquarters
Calgon Carbon Corporation
500 Calgon Carbon Drive
Pittsburgh, PA USA 15205
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3121 Fairway Drive, Altoona, PA 16602
gdfengineers.com

CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

Belt Press Building Enclosure

Attachments:

Building Enclosure Quote.pdf

PREMIER CONTRACTING

62 PREMIER DRIVE

GERRADSTOWN WV 25420

(304) 283 – 4436

BUILDING ENCLOSURE QUOTE

FRAMING MATERIAL	**$ 1,837.11**
METAL SIDING, TRIM	**$ 2,979.77**
GARAGE DOORS (10 X 16), (10 X 12), 3-0 MAN DOOR	**$ 6,100.00**
ELECTRICAL (LABOR, 4 -4FT LEDS, WIRING, SWITCHES)	**$ 1,100.00**
GUTTER	**$ 300.00**
REMOVE OLD CONVEYOR	**$ 500.00**
SCISSOR LIFT	**$ 1,500.00**
FOREMAN	**$ 2,600.00**
LABORER	**$ 2,200.00**
FASTNERS (SCREWS, NAILS, SPECIALITY NAILS)	**$ 400.00**
SUB TOTAL	**$ 19,516.88**
20 % PROFIT	**$ 3903.38**
TOTAL	**$ 23,420.26**

Proposal & Estimate

Avanhar General Building Company
dba Avanhar Construction
205 Ambrose Drive, Unit 253
Ranson, WV 25438

Client:
Charles Town Utility Board
661 South George Street, Suite 101
Charles Town, WV 25414

Date: August 27, 2025

Scope of Work & Pricing

1. Framing & Metal Wall Panels

Light framing with dimensional lumber.

Install 26-gauge painted metal wall panels (to match existing).

Includes trim, flashing, closures, screws, and sealant.

Pricing:

$35 per sq. ft. installed.

Approx. 1,260 sq. ft. enclosure → $44,100.

2. Roll-Up Doors (Commercial Grade)

Manual 10’ × 12’ doors.

Installed with all required trim and flashing.

Pricing:

$6,000 each installed.

Two doors → $12,000.

3. Additional Work

Fire-resistant steel entry door (36” × 78”) installed at the left location of garage door.

Pricing:

$1,800.

4. Electrical Scope

Service Feed:

Trench or surface-mount conduit from existing building panel to new enclosure.

Pull feeders sized for 100A load.

Install subpanel or junction box inside enclosure.

Receptacles:

Code-compliant GFCI outlets spaced per NEC (20A circuits).

Approx. 4–6 receptacles.

Lighting:

LED high-bay type fixtures sized for coverage.

Switches or motion sensors.

Permits/Inspection:

Electrical permit + final inspection.

Pricing:

Feed + Subpanel: $6,000

Receptacles (4–6 total): $1,800

LED Lighting (4 fixtures): $1,600

Total Electrical Add-On: $9,400

Total Estimate

Framing & Metal Wall Panels + Roll-Up Doors + Entry Door + Electrical Add-On
➡️ $67,300

Terms & Conditions

1. Estimate valid for 30 days.

2. Pricing includes labor, materials, and equipment as described.

3. Any additional work, unforeseen conditions, or scope changes will be billed separately.

4. Permits and inspections included only; building permit fees (if required) are excluded.

5. Payment terms: To be agreed upon prior to project start.

Prepared by:
Avanhar General Building Company, Inc.
dba Avanhar Construction

Accepted by:
Charles Town Utility Board

Authorized Signatures

Avan Harris, President
Avanhar General Building Company, Inc.

Date: 08/27/2025

Authorized Representative
Charles Town Utility Board

Date: _____


GREER
HYDRATED LIME
204L


DEERE
204L



CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

Utility Manager Performance Evaluation Review and Contract Addendum

CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

Utility Manager Report

Attachments:

- Utility Manager Report.pdf
- Tank Inspection Reports.pdf
- Revenue & Expense July 2025.pdf
- Revenue & Expense August 2025.pdf

Charles Town
Utility Board
661 S. George Street, Suite 101 Charles Town, WV 25414
Phone: (304) 725-2316 ♦ Fax: (304) 725-7150 ♦ Web: www.ctubwv.com

MEMORANDUM TO THE BOARD OF DIRECTORS

DATE: November 12, 2025
TO: Board of Directors
SUBJECT: Utility General Manager's Report, November 2025

Summary:
Wastewater operations back to normal operations. Several major projects are on-going including the 2023 Collection System Project, Greenfield Forcemain Project, Asbury Block Sewer project, Orchard Hills PS Decommissioning, Wilt PS Decommissioning. Huntfield Tank leak repair is complete. Various other task orders are being completed as well.

Wastewater Treatment Plant

Total Wastewater Processed October 2025:
Charles Town: 35.87 million Gallons per month or 1.16 MGD average
Tuscawilla: 3.68 million Gallons per month or 0.12 MGD average

Collection System

5 pump(s) pulled and sent for repair
23 Grease Trap inspections
7 Sewer main repairs/blockages/call-outs
12 sewer line inspections
17 manhole inspections

Water Plant and Distribution System

Total Water Pumped October 2025 (CT): 48.8 million Gallons per month or 1.57 MGD average
6 leaks repaired
1 meters repaired
8 meters replaced
79 new meters installed
1,744 - Ten (10) day notices
199 Disconnect notices, 103 Disconnects
0 hydrant(s) repaired

Customer Counts

- Sewer 10,381
- Water 7,552

Human Resources

Employees Count: 35 full-time | 1 part-time | 1 vacancies

Other Notable Activities for the Month:

October 1, 2025 – Locust Hill. Avis Street and Northern High Zone Tank Inspections completed. Inspection reports attached.

October 15th – Water Advisory Committee meeting – Discussed obtaining goals and direction from the County along with a presentation from Than Hitt on various online resources for water

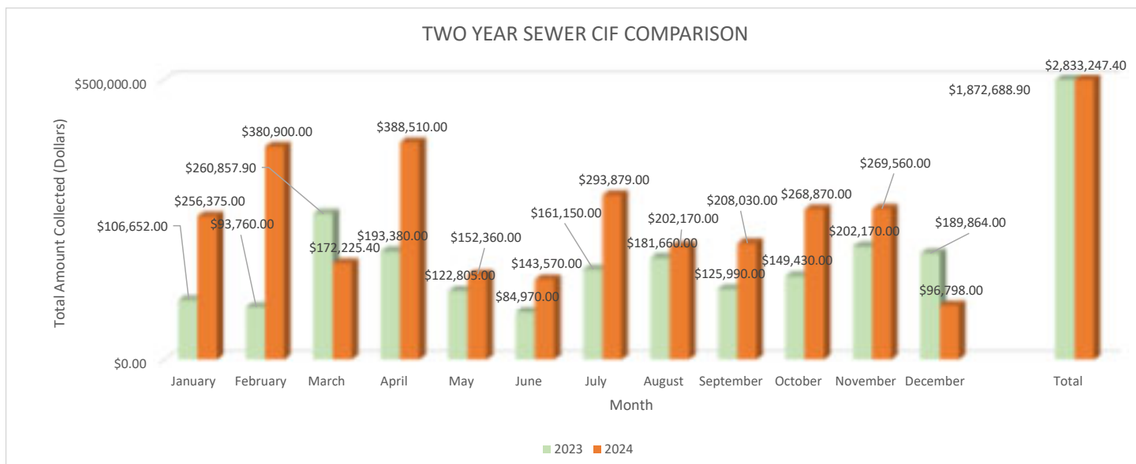
October 16, 2025- Chlorine Room Project Progress meeting.

October 20, 2025 – City Council meeting to review recommendations on Board Capacity Improvement Fee recommendation. Board recommendation accepted and 1st Reading will be on November 3rd with 2nd Reading and Public Hearing on November 17th.

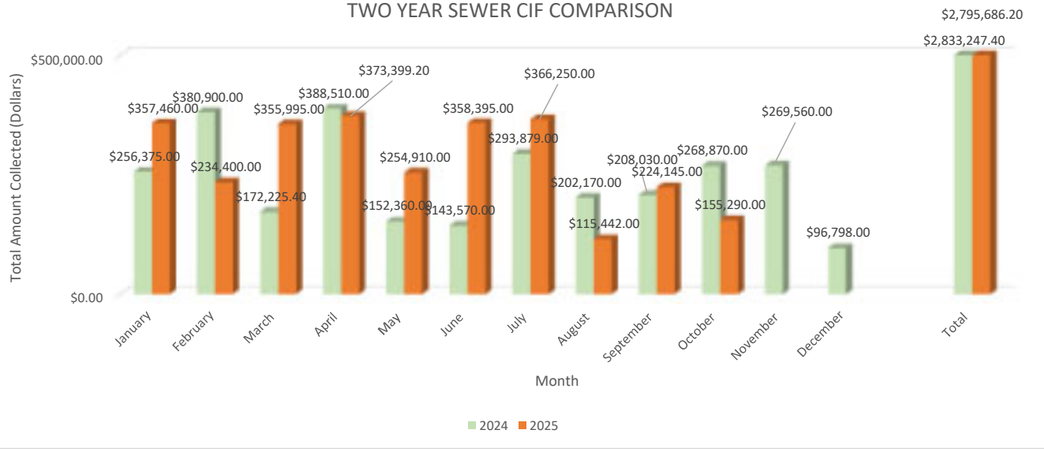
October 30, 2025 – Collection System Project Progress Meeting #8 – Meeting minutes will be provided at next meeting.

Availability letters:
October 3, 2025 Providence Shenandoah AKA Bane Farm – 1,103 Residential units
October 21, 2025 Vinton Property Subdivision – 596 Residential EDU's and 18 acres Commercial

Charles Town Utility Board 2024 Capacity Improvement Fee Collections/EDU for Sewer						
Month	**Commercial**	**Residential**	**Total Number of EDU's**	**Total Sewer CIF Collected**	**CIF Paid to Ranson**	**Total**
Jan-24	1.5	86	87.5	$ 289,687.50	$ 33,312.50	$ 256,375.00
Feb-24		130	130	$ 458,900.00	$ 78,000.00	$ 380,900.00
Mar-24	6.78	52	58.78	$ 181,975.40	$ 9,750.00	$ 172,225.40
Apr-24	25	107	132	$ 438,885.00	$ 50,375.00	$ 388,510.00
May-24		52	52	$ 175,110.00	$ 22,750.00	$ 152,360.00
Jun-24		49	49	$ 182,570.00	$ 39,000.00	$ 143,570.00
Jul-24		100.3	100.3	$ 345,879.00	$ 52,000.00	$ 293,879.00
Aug-24		69	69	$ 226,545.00	$ 24,375.00	$ 202,170.00
Sep-24		71	71	$ 234,030.00	$ 26,000.00	$ 208,030.00
Oct-24	14	70	84	$ 278,620.00	$ 9,750.00	$ 268,870.00
Nov-24		92	92	$ 295,560.00	$ 26,000.00	$ 269,560.00
Dec-24	2.6	26	28.6	$ 96,798.00		$ 96,798.00
Total 2024	**49.88**	**764.3**	**954.18**	**$ 3,204,559.90**	**$ 371,312.50**	**$ 2,833,247.40**

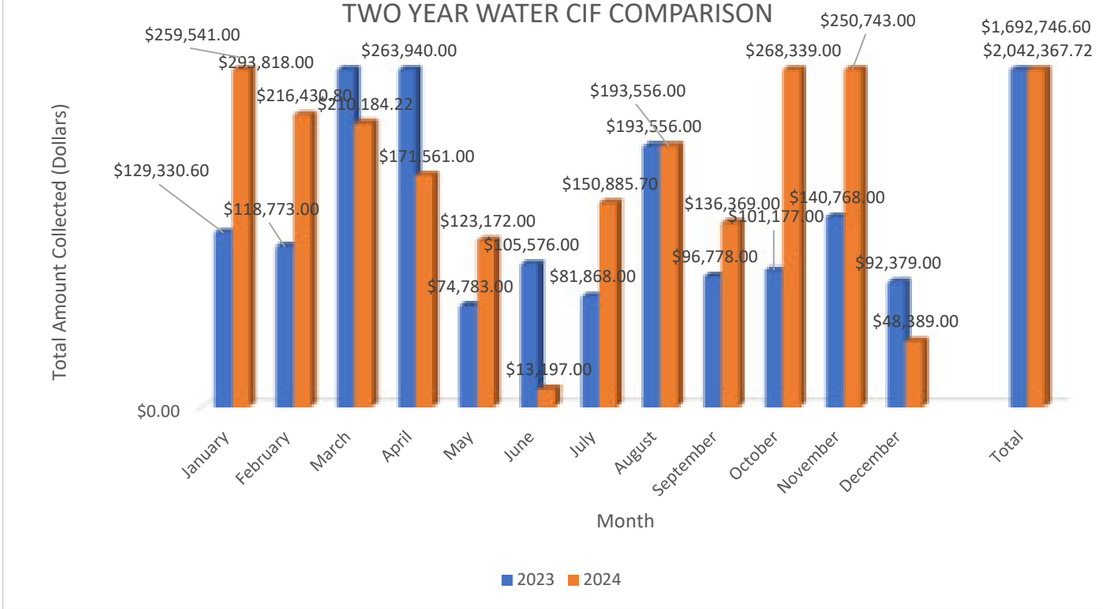


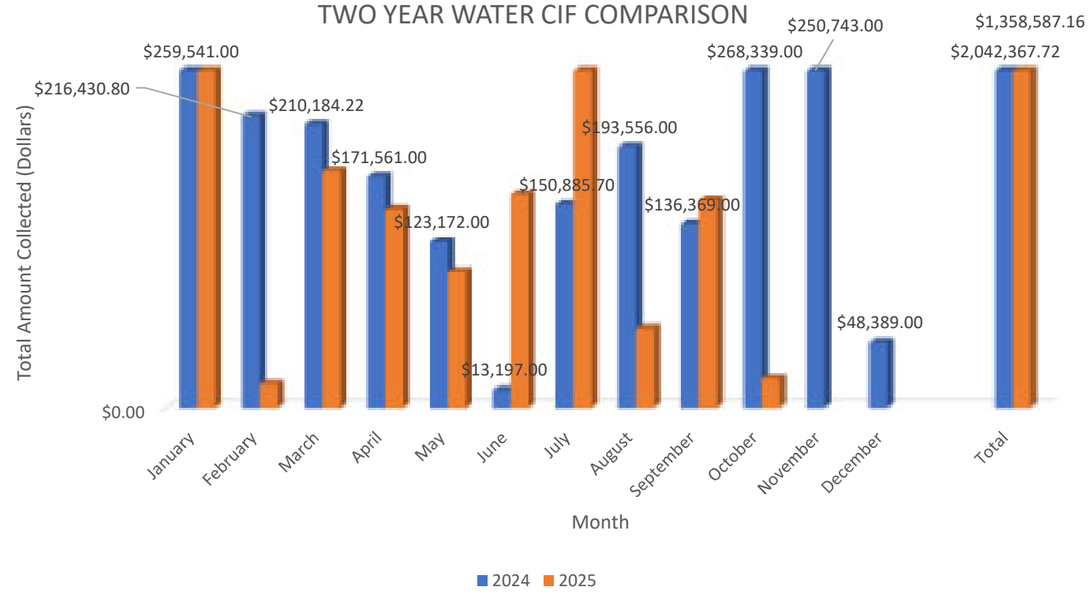
Charles Town Utility Board 2025 Capacity Improvement Fee Collections/EDU for Sewer						
Month	**Commercial**	**Residential**	**Total Number of EDU's**	**Total Sewer CIF Collected**	**CIF Paid to Ranson**	**Total**
Jan-25	1	121	122	$ 402,960.00	$ 45,500.00	$ 357,460.00
Feb-25		80	80	$ 289,650.00	$ 55,250.00	$ 234,400.00
Mar-25	0.5	121	121.5	$ 419,370.00	$ 63,375.00	$ 355,995.00
Apr-25	0.44	127	127.44	$ 514,774.20	$ 141,375.00	$ 373,399.20
May-25		87	87	$ 313,410.00	$ 58,500.00	$ 254,910.00
Jun-25		114	114	$ 368,145.00	$ 9,750.00	$ 358,395.00
Jul-25		125	125	$ 390,625.00	$ 24,375.00	$ 366,250.00
Aug-25	1.4	38	39.4	$ 133,317.00	$ 17,875.00	$ 115,442.00
Sep-25	0.5	76	76.5	$ 259,895.00	$ 35,750.00	$ 224,145.00
Oct-25		53	53	$ 182,915.00	$ 27,625.00	$ 155,290.00
Nov-25						
Dec-25						
Total 2025	**3.84**	**866**	**945.84**	**$ 3,275,061.20**	**$ 479,375.00**	**$ 2,795,686.20**



2024 Capacity Improvement Fee Collections/EDU for Water				
Month	**Commercial**	**Residential**	**Total Number of EDU's**	**Total Water CIF**
Jan-24		59	59	$ 259,541.00
Feb-24		49.2	49.2	$ 216,430.80
Mar-24	6.78	41	47.78	$ 210,184.22
Apr-24		39	39	$ 171,561.00
May-24		28	28	$ 123,172.00
Jun-24		3	3	$ 13,197.00
Jul-24		34.3	34.3	$ 150,885.70
Aug-24		44	44	$ 193,556.00
Sep-24		31	31	$ 136,369.00
Oct-24		61	61	$ 268,339.00
Nov-24		57	57	$ 250,743.00
Dec-24		11	11	$ 48,389.00
Total 2024	**6.78**	**396.5**	**464.28**	**$ 2,042,367.72**

2025 Capacity Improvement Fee Collections/EDU for Water				
Month	**Commercial**	**Residential**	**Total Number of EDU's**	**Total Water CIF**
Jan-25		62	62	$ 272,738.00
Feb-25		4	4	$ 17,596.00
Mar-25		40	40	$ 175,960.00
Apr-25	0.44	33	33.44	$ 147,102.56
May-25		23	23	$ 101,177.00
Jun-25		36	36	$ 158,364.00
Jul-25		57	57	$ 250,743.00
Aug-25	1.4	12	13.4	$ 58,946.60
Sep-25		35	35	$ 153,965.00
Oct-25		5	5	$ 21,995.00
Nov-25				
Dec-25				
Total 2025	**1.84**	**302**	**308.84**	**$ 1,358,587.16**





CHARLES TOWN UTILITY BOARD
WASTEWATER TREATMENT PLANT FLOW DATA

CHARLES TOWN WASTEWATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily (MGD)	Total Available (gpd)	Total Available (EDU's)
2015	1.75	384	1.05	0.7	700,000	2,500
2016	1.75	419	1.14	0.61	610,000	2,179
2017	1.75	393	1.08	0.67	670,000	2,393
2018	1.75	491	1.34	0.41	410,000	1,464
2019	1.75	459	1.26	0.49	490,000	1,750
2020	1.75	419.7	1.15	0.60	603,333	2,155
2021	1.75	401.61	1.11	0.64	637,500	2,277
2022	1.75	387.15	1.06	0.69	687,500	2,455
2023	1.75	382.28	1.06	0.69	694,167	2,479
2024	1.75	432.96	1.19	0.56	559,167	1,997
2025	1.75	357.14	1.17	0.58	578,000	2,064

TUSCAWILLA WASTEWATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily (MGD)	Total Available (gpd)	Total Available (EDU's)
2015	0.5	48	0.13	0.37	370,000	1,321
2016	0.5	49	0.13	0.37	370,000	1,321
2017	0.5	48	0.14	0.36	360,000	1,286
2018	0.5	78	0.21	0.29	290,000	1,036
2019	0.5	55.24	0.15	0.35	350,000	1,250
2020	0.5	1.09	0.16	0.34	340,000	1,214
2021	0.5	32.55	0.10	0.40	400,833	1,432
2022	0.5	62.8	0.17	0.33	328,333	1,173
2023	0.5	83.78	0.23	0.27	270,000	964
2024	0.5	66.68	0.18	0.32	316,667	1,131
2025	0.5	66.68	0.18	0.32	316,667	1,131

Total EDU's available between CT and Tuscawilla	
2015	3,821
2016	3,500
2017	3,679
2018	2,500
2019	3,000
2020	3,369
2021	3,708
2022	3,628
2023	3,443
2024	3,128
2025	3,195

Legend:
MGD= Million gallons per day
MG=million gallons
gpd= gallons per day
EDU= Equivalent Dwelling Unit (280 gpd)

2022		
	Total (MG)	AVERAGE (MG)
JANUARY	37.25	1.20
FEBRUARY	33.8	1.21
MARCH	33.28	1.07
APRIL	32.98	1.1
MAY	35.86	1.16
JUNE	29.9	1.00
JULY	29.78	0.96
AUGUST	30.19	1.01
SEPTEMBER	29.62	0.96
OCTOBER	29.02	0.94
NOVEMBER	30.09	1.00
DECEMBER	35.38	1.14
Annual Total	387.15	1.06

2023		
	Total (MG)	AVERAGE (MG)
JANUARY	36.55	1.21
FEBRUARY	28.96	1.03
MARCH	30.46	1.02
APRIL	29.52	0.98
MAY	30.78	0.99
JUNE	29.64	0.99
JULY	31.2	1.01
AUGUST	29.96	1.00
SEPTEMBER	33.38	1.11
OCTOBER	33.02	1.07
NOVEMBER	33.61	1.12
DECEMBER	35.2	1.14
Annual Total	382.28	1.06

2024		
	Total (MG)	AVERAGE (MG)
JANUARY	36.06	1.16
FEBRUARY	34.43	1.19
MARCH	38.99	1.26
APRIL	38.08	1.27
MAY	37.15	1.2
JUNE	32.9	1.1
JULY	34.51	1.11
AUGUST	42.16	1.36
SEPTEMBER	35.37	1.18
OCTOBER	35.46	1.14
NOVEMBER	35.48	1.22
DECEMBER	32.37	1.1
Annual Total	432.96	1.19

2025		
	Total (MG)	AVERAGE (MG)
JANUARY	38.98	1.26
FEBRUARY	34.73	1.24
MARCH	33.84	1.09
APRIL	32.05	1.07
MAY	37.34	1.2
JUNE	38.01	1.2
JULY	34.6	1.12
AUGUST	35.14	1.16
SEPTEMBER	36.58	1.22
OCTOBER	35.87	1.16
NOVEMBER		
DECEMBER		
Annual Total	357.14	1.17

2022		
	Total (MG)	AVERAGE (MG)
JANUARY	0	0
FEBRUARY	0	0
MARCH	4.34	0.14
APRIL	4.68	0.16
MAY	6.03	0.19
JUNE	6.21	0.21
JULY	6.48	0.21
AUGUST	7.01	0.23
SEPTEMBER	7.11	0.24
OCTOBER	7.27	0.23
NOVEMBER	6.94	0.23
DECEMBER	6.73	0.22
Annual Total	62.8	0.17

2023		
	Total (MG)	AVERAGE (MG)
JANUARY	7.3	0.24
FEBRUARY	6.38	0.23
MARCH	6.41	0.21
APRIL	6.13	0.20
MAY	6.30	0.20
JUNE	6.89	0.23
JULY	7.31	0.24
AUGUST	7.7	0.25
SEPTEMBER	6.98	0.23
OCTOBER	6.92	0.22
NOVEMBER	7.22	0.24
DECEMBER	8.24	0.27
Annual Total	83.78	0.230

2024		
	Total (MG)	AVERAGE (MG)
JANUARY	8.61	0.28
FEBRUARY	8.25	0.28
MARCH	6.28	0.2
APRIL	5.05	0.17
MAY	4.64	0.15
JUNE	5.25	0.18
JULY	4.91	0.16
AUGUST	5.42	0.18
SEPTEMBER	4.87	0.16
OCTOBER	4.5	0.15
NOVEMBER	4.41	0.15
DECEMBER	4.49	0.14
Annual Total	66.68	0.183

2025		
	Total (MG)	AVERAGE (MG)
JANUARY	4.9	0.16
FEBRUARY	4.5	0.17
MARCH	6.19	0.2
APRIL	6.84	0.23
MAY	6.76	0.22
JUNE	6.84	0.23
JULY	6.82	0.22
AUGUST	5.42	0.17
SEPTEMBER	4.78	0.16
OCTOBER	3.68	0.12
NOVEMBER		
DECEMBER		
Annual Total	56.73	0.188

CHARLES TOWN UTILITY BOARD
WATER TREATMENT PLANT FLOW DATA

CHARLES TOWN WATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily (MGD)	Total Available (gpd)	Total Available (EDU's)
2019	2.8	644.32	1.77	1.03	1,034,980	3,696
2020	2.8	615.64	1.68	1.12	1,117,946	3,993
2021	2.8	601.87	1.64	1.16	1,164,627	4,159
2022	2.8	588.97	1.60	1.20	1,204,163	4,301
2023	2.8	602.24	1.63	1.17	1,168,256	4,172
2024	2.8	579.85	1.57	1.23	1,228,525	4,388
2025	2.8	495.14	1.62	1.18	1,176,444	4,202

GLEN HAVEN WATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily (MGD)	Total Available (gpd)	
2020	0.0216	1.04	0.01	0.01	13,120	
2021	0.0216	3.06	0.01	0.01	13,213	-
2022	0.0216	2.70	0.01	0.01	14,335	-
2023	0.0216	2.99	0.01	0.01	13,573	-
2024	0.0216	2.68	0.01	0.01	14,441	-
2025	0.0216	0.00	0.00	0.02	21,600	-

CAVALAND WATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily (MGD)	Total Available (gpd)	
2020	0.036	0.59	0.005	0.03	31,210	
2021	0.036	1.91	0.01	0.03	30,766	
2022	0.036	1.84	0.005	0.03	31,041	
2023	0.036	1.79	0.005	0.03	31,186	
2024	0.036	0.00	0.01	0.03	30,967	
2025	0.036	0.00	0.00	0.04	36,000	

Legend:
MGD= Million gallons per day
MG=million gallons
gpd= gallons per day
EDU= Equivalent Dwelling Unit (280 gpd)

2022		
	Total (MG)	AVERAGE (MG)
JANUARY	47,918,736	1,545,766
FEBRUARY	43,703,896	1,560,853
MARCH	48,063,482	1,550,435
APRIL	47,294,978	1,525,644
MAY	49,834,352	1,607,560
JUNE	49,111,936	1,584,256
JULY	51,919,787	1,674,832
AUGUST	51,872,384	1,673,303
SEPTEMBER	50,844,952	1,640,160
OCTOBER	50,572,280	1,631,364
NOVEMBER	47,643,899	1,536,900
DECEMBER	50,188,260	1,618,976
Annual Total	588,968,942	1,595,837

2023		
	Total (MG)	AVERAGE (MG)
JANUARY	50,324,969	1,623,386
FEBRUARY	44,512,256	1,589,723
MARCH	51,243,776	1,653,025
APRIL	49,507,092	1,597,003
MAY	51,882,496	1,673,629
JUNE	51,245,216	1,653,071
JULY	53,546,017	1,727,291
AUGUST	53,866,467	1,737,628
SEPTEMBER	51,067,174	1,647,328
OCTOBER	49,781,275	1,605,848
NOVEMBER	47,073,432	1,518,498
DECEMBER	48,189,312	1,554,494
Annual Total	602,239,482	1,631,744

2024		
	Total (MG)	AVERAGE (MG)
JANUARY	48,027,207	1,549,265
FEBRUARY	44,217,320	1,579,190
MARCH	46,432,344	1,497,818
APRIL	44,552,042	1,437,163
MAY	46,432,344	1,497,818
JUNE	52,695,168	1,699,844
JULY	55,816,216	1,800,523
AUGUST	51,158,016	1,650,259
SEPTEMBER	48,673,792	1,570,122
OCTOBER	48,580,272	1,567,106
NOVEMBER	46,786,184	1,509,232
DECEMBER	46,480,137	1,499,359
Annual Total	579,851,042	1,571,475

2025		
	Total (MG)	AVERAGE (MG)
JANUARY	49,081,856	1,583,286
FEBRUARY	45,138,739	1,612,098
MARCH	48,289,664	1,557,731
APRIL	48,088,035	1,551,227
MAY	50,221,867	1,620,060
JUNE	49,541,120	1,651,371
JULY	53,797,378	1,735,399
AUGUST	51,914,776	1,674,670
SEPTEMBER	50,267,112	1,675,570
OCTOBER	48,798,720	1,574,152
NOVEMBER		
DECEMBER		
Annual Total	495,139,267	1,623,556

2022		
	Total (MG)	AVERAGE (MG)
JANUARY	204,300	6,590
FEBRUARY	178,600	5,761
MARCH	191,200	6,168
APRIL	222,000	7,161
MAY	237,300	7,655
JUNE	286,600	9,245
JULY	301,600	9,729
AUGUST	262,800	8,477
SEPTEMBER	221,600	7,148
OCTOBER	236,700	7,635
NOVEMBER	215,200	6,942
DECEMBER	144,500	4,661
Annual Total	2,702,400	7,265

2023		
	Total (MG)	AVERAGE (MG)
JANUARY	233,300	7,526
FEBRUARY	184,300	5,945
MARCH	218,200	7,039
APRIL	234,800	7,574
MAY	264,800	8,542
JUNE	268,900	8,674
JULY	325,100	10,487
AUGUST	281,300	9,074
SEPTEMBER	265,600	8,568
OCTOBER	233,900	7,545
NOVEMBER	242,500	7,823
DECEMBER	233,500	7,532
Annual Total	2,986,200	8,027

2024		
	Total (MG)	AVERAGE (MG)
JANUARY	234,900	7,577
FEBRUARY	182,100	5,874
MARCH	206,200	6,250
APRIL	224,200	7,232
MAY	210,000	6,774
JUNE	257,889	8,319
JULY	306,700	9,894
AUGUST	217,900	7,029
SEPTEMBER	203,900	6,577
OCTOBER	215,000	6,935
NOVEMBER	211,300	6,816
DECEMBER	205,400	6,626
Annual Total	2,675,489	7,159

2025		
	Total (MG)	AVERAGE (MG)
JANUARY	229,800	7,413
FEBRUARY	191,300	6,832
MARCH	213,100	6,874
APRIL	248,300	8,010
MAY	275,900	8,900
JUNE	281,500	9,383
JULY	298,800	9,639
AUGUST	288,599	9,310
SEPTEMBER	237,500	7,917
OCTOBER		
NOVEMBER		
DECEMBER		
Annual Total	2,264,799	8,253

2022		
	Total (MG)	AVERAGE (MG)
JANUARY	150,100	4,842
FEBRUARY	127,200	4,103
MARCH	130,300	4,203
APRIL	141,600	4,568
MAY	145,000	4,677
JUNE	155,500	5,016
JULY	173,500	5,597
AUGUST	167,200	5,394
SEPTEMBER	138,500	4,468
OCTOBER	144,300	4,655
NOVEMBER	145,300	4,687
DECEMBER	226,300	7,300
Annual Total	1,844,800	4,959

2023		
	Total (MG)	AVERAGE (MG)
JANUARY	134,900	4,352
FEBRUARY	122,700	3,958
MARCH	140,000	4,516
APRIL	143,100	4,616
MAY	153,400	4,948
JUNE	166,200	5,361
JULY	166,400	5,368
AUGUST	170,400	5,497
SEPTEMBER	163,600	5,277
OCTOBER	140,600	4,535
NOVEMBER	143,200	4,619
DECEMBER	146,400	4,723
Annual Total	1,790,900	4,814

2024		
	Total (MG)	AVERAGE (MG)
JANUARY	155,600	5,019
FEBRUARY	135,000	4,821
MARCH	148,800	4,750
APRIL	155,700	5,023
MAY	153,600	4,955
JUNE	164,300	5,300
JULY	178,100	5,745
AUGUST	177,200	5,716
SEPTEMBER	151,800	4,897
OCTOBER	144,000	4,645
NOVEMBER	134,900	4,352
DECEMBER	160,300	5,171
Annual Total	1,859,300	5,033

2025		
	Total (MG)	AVERAGE (MG)
JANUARY	137,900	4,448
FEBRUARY	125,700	4,489
MARCH	133,100	4,294
APRIL	135,700	4,377
MAY	169,600	5,471
JUNE	140,600	4,687
JULY	148,600	4,794
AUGUST	149,100	4,810
SEPTEMBER	175,900	5,863
OCTOBER		
NOVEMBER		
DECEMBER		
Annual Total	1,316,200	4,804

Tank Inspection Report

General Information

Inspection Date:
10/01/2025

Job Number:
9337

Inspection Performed By:
Zachary Crago

X-file #
X-4329

Current Tank Owner
Tuscawilla Utilities

Name Customer uses for this tank:
Locust Hill

Tank location
Latitude: 39.281963 Longitude: -77.912041

MIP #
8022988

Tank Height:
134

Tank Diameter:
25

Foundation Type
Mid Starter

Tank Color
Cobalt Blue

Sealer Color
Black

- [x] **Exterior inspection**
- [ ] **Interior inspection**
- [x] **Roof Inspection**

Observations and Recommendations:
ROV inspection: Interior sealant is almost completely deteriorated on the vertical and horizontal seams. Some sealant remains on four corners. Significant amount of broken glass around bolt heads on most vertical seams (worse towards the bottom of the tank). Very large buildup of " anti- corrosion additive" on the tank floor (to the R plate of the manway bell). Manway appears to be in good condition. Was unable to see cathodic bars or fill/ drain line.
The tank exterior sealant is also deteriorating and should be replaced in the next 2-3 years. Interior recondition work is needed sooner.

Tank Inspection Report

Tank Exterior - Curb / Foundation

Signs of past or present floor / foundation leaks:

No

Is there positive drainage away from the tank foundation?

Yes

Condition of curb area:

Signs of radial cracks

Picture of foundation or curb area:



Picture of foundation or curb area:



Picture of foundation or curb area:

Picture of foundation or curb area:

Tank Inspection Report





Tank Inspection Report

Exterior of Tank

Condition of exterior coating:

Good

Exterior coating picture



Exterior coating picture



Condition of Vertical Fillets:

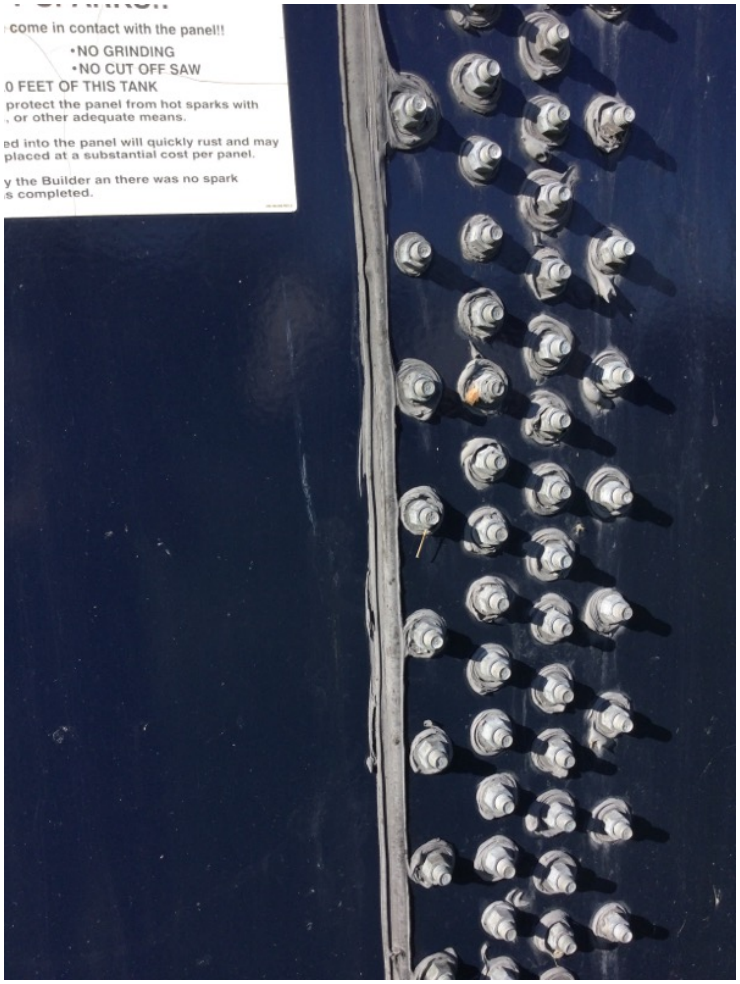
Will need re-applied with in the next 2-3 years

Picture of Typical Vertical Fillets

Picture of Typical Vertical Fillets

Tank Inspection Report





Condition of Horizontal Fillets

Will need re-applied with in the next 2-3 years

Picture of Typical Horizontal Fillets

Picture of Typical Horizontal Fillets

Tank Inspection Report





Sealer Squeeze Out Around Fasteners

Good

Picture of Squeeze Out Around Fasteners

Picture of Squeeze Out Around Fasteners





Condition of Structure Fasteners For Sidewall Sheets

Good

Picture of structure fasteners for side walls

Picture of structure fasteners for sidewalls

Tank Inspection Report





Tank Accessories

Number of Manways

1

Condition of Sidewall Manway Access Hatch

Good

Picture of Sidewall Manway Access Hatch

Picture of Sidewall Manway Access Hatch

Tank Inspection Report





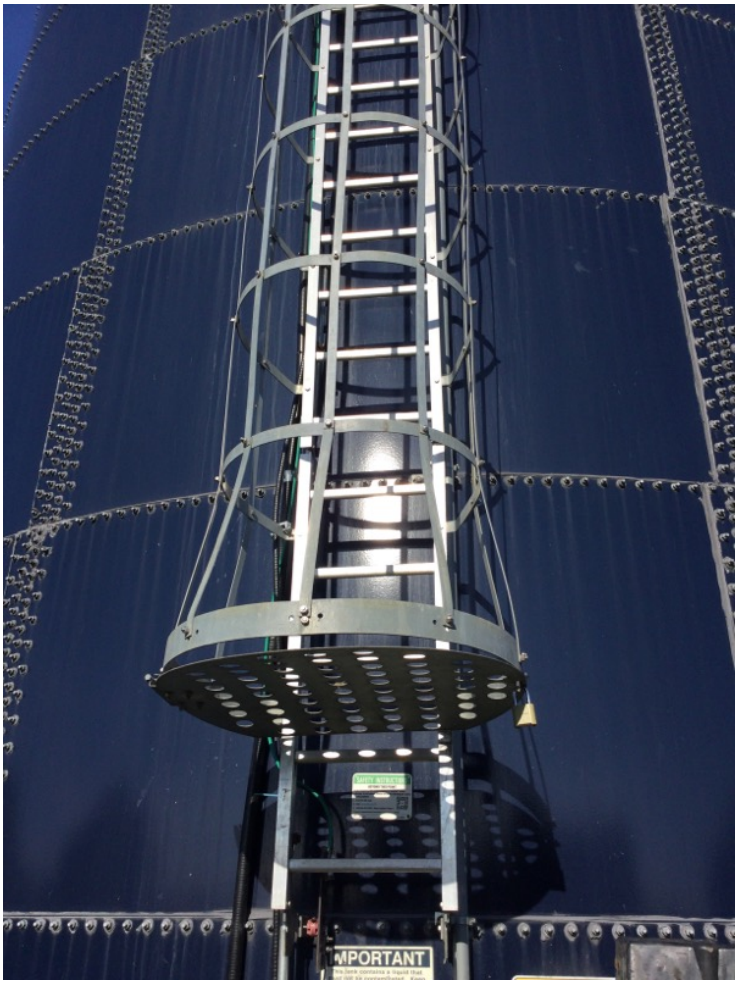
Condition of Ladder / Cage Assemblies

Good

Ladder Condition Picture

Ladder Condition Picture

Tank Inspection Report





Condition of Web Truss Assemblies

Good.

Picture of Web Truss Assemblies

Picture of Web Truss Assemblies

Tank Inspection Report





Condition of Overflow

Good

Overflow Material and Size

10” PVC

Picture of Oveflow

Picture of Overflow

Tank Inspection Report





Condition of Tank Decals

Good

Picture of Tank Decals

Tank Inspection Report



Conditon of Tank Name Plate

Good

Picture of Tank Name Plate

Tank Inspection Report



Roof Exterior

General Comments About the Roof Exterior:

5G transmitters surround the top of the tank.

Roof Type:

Knuckle

Roof Walkway Condition:

Good

Photo # 1 Of Roof Walkway:

Photo # 2 Of Roof Walkway:

Tank Inspection Report



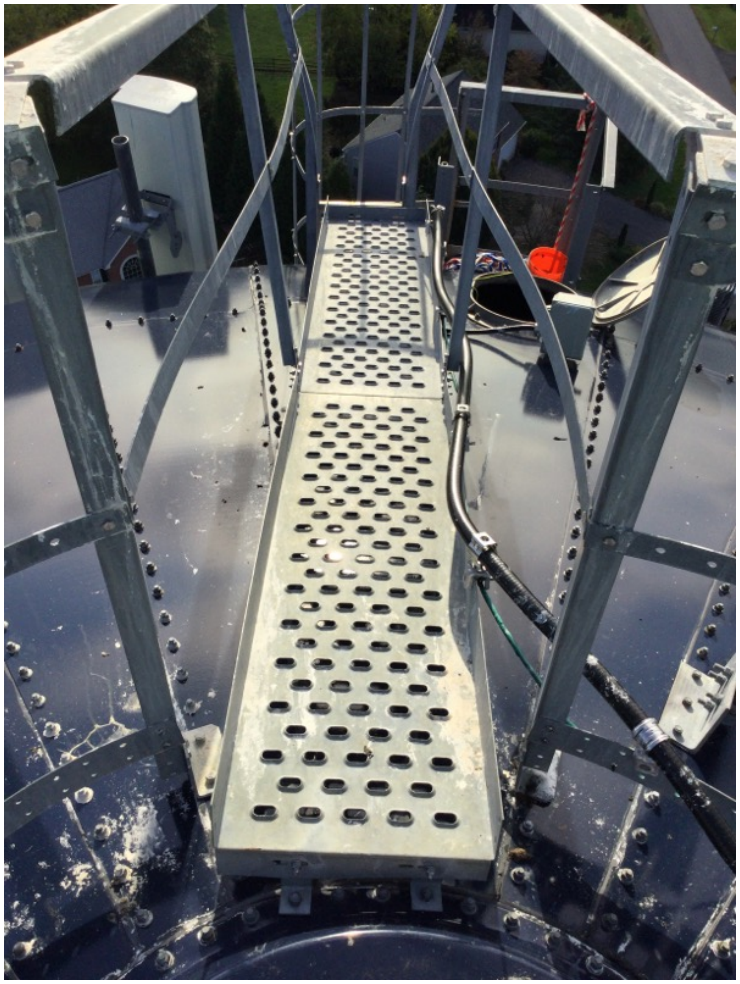
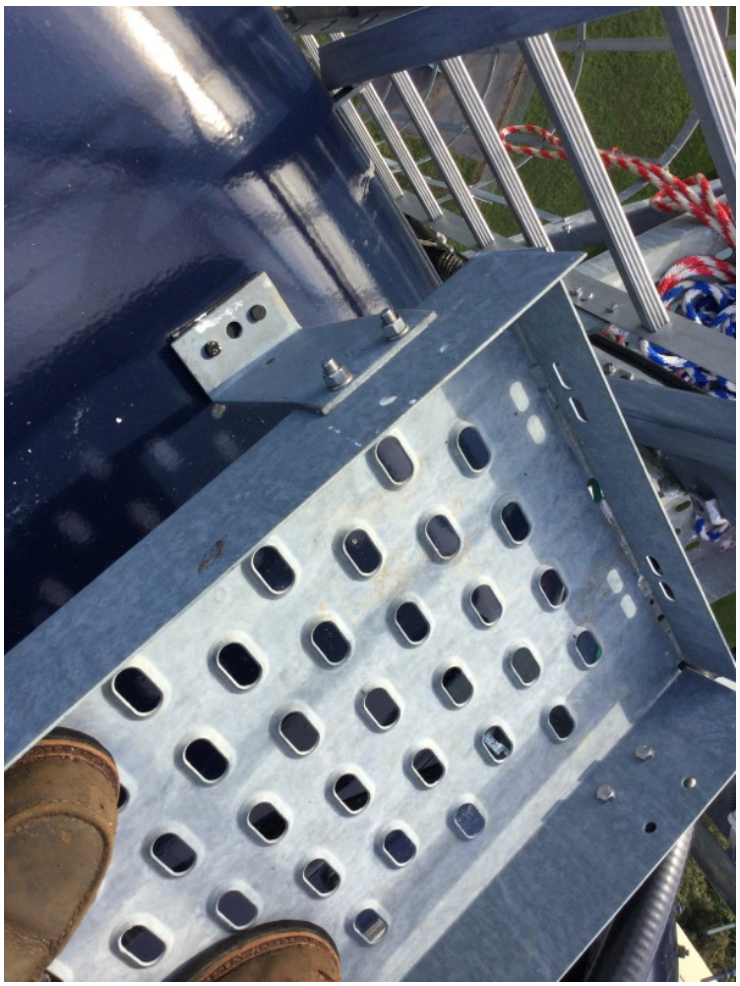


Photo # 3 Of Roof Walkway:



Photo # 4 Of Roof Walkway:

Tank Inspection Report



Number Of Roof Hatches?

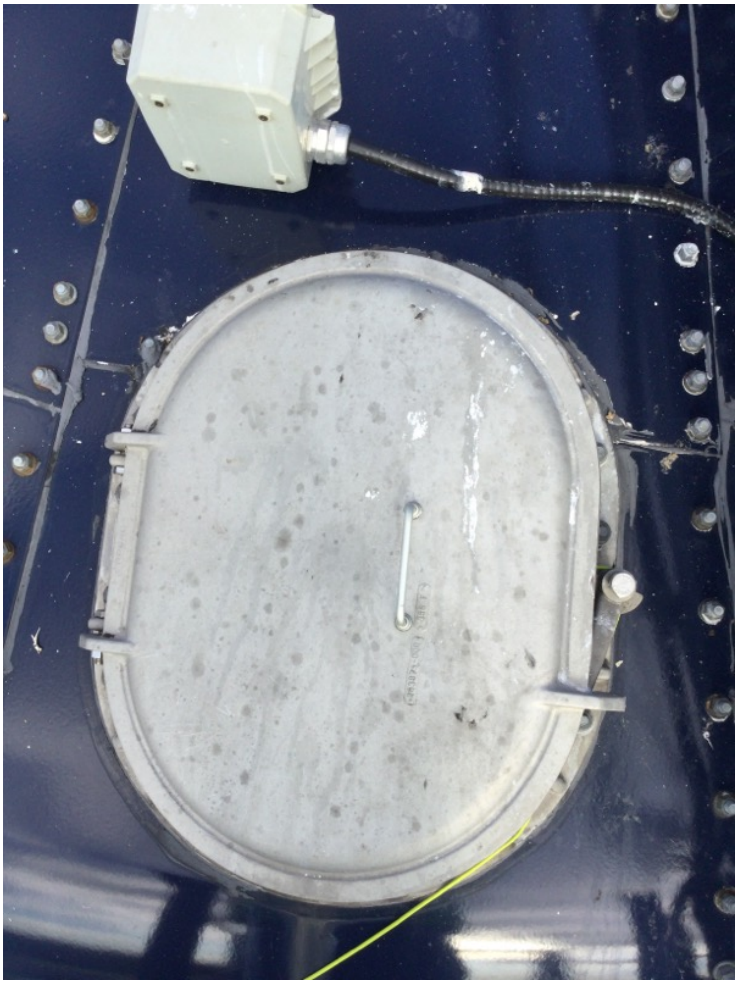
1

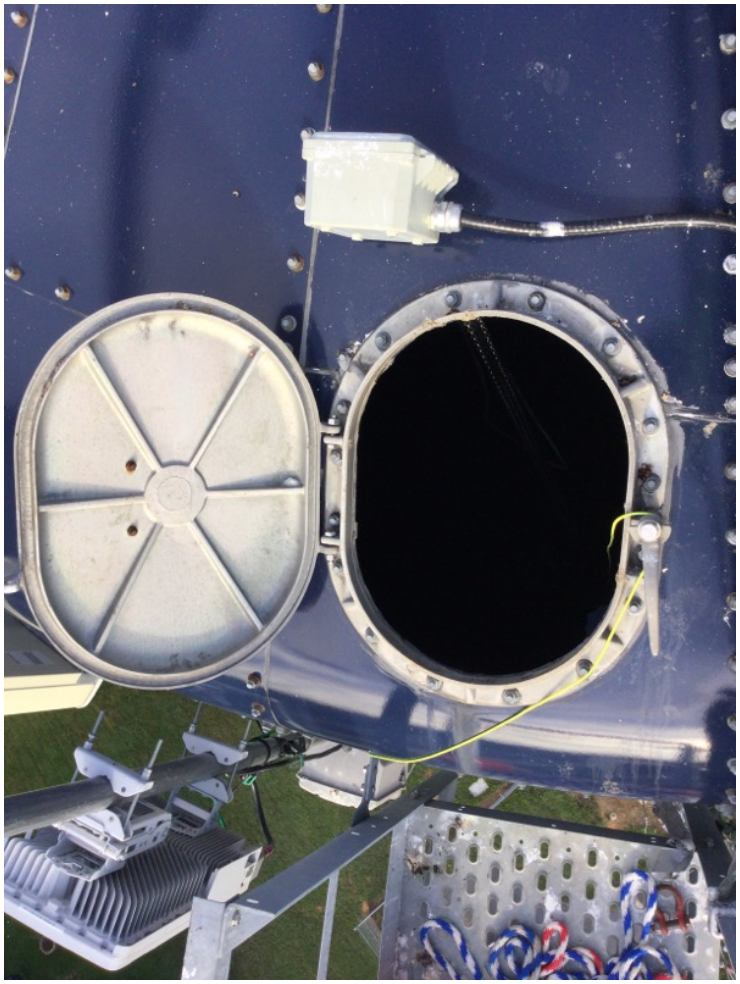
Condition Of Roof Hatch # 1:

Good

Picture Of Roof Hatch # 1

2nd Picture of Roof Hatch # 1





Condition Of Roof Fillets (Knuckle Roof)

Will need re-applied with in the next 2-3 years

Picture of Knuckle Roof Fillets

Picture Of Knuckle Roof Fillets

Tank Inspection Report





Condition Of Structure Fasteners (Knuckle Roof)

Poor (needs cleaned and capped)

Picture Of Structure Fasteners (Knuckle Roof)

Picture Of Structure Fasteners (Knuckle Roof)

Tank Inspection Report





Condition Of Gravity Vent

Good

Picture of Gravity Vent

Picture Of Gravity Vent

Tank Inspection Report





Any Roof Penatrations?

No

Any signs of ice damage?

No

Interior of Tank

Tank Inspection Report

Interior of tank - floor

Additional Pictures

#1



#2



#3

#4

Tank Inspection Report





#5



#6



Tank Inspection Report

General Information

Inspection Date:
10/01/2025

Job Number:
9684

Inspection Performed By:
Zachary Crago

X-file #
X-4329

Current Tank Owner
Tuscawilla Utilities

Name Customer uses for this tank:
Northern High Zone.

Tank location
Latitude: 39.310211 Longitude: -77.858055

MIP #
8060692

Tank Height:
97

Tank Diameter:
25

Foundation Type
Mid Starter

Tank Color
Cobalt Blue

Sealer Color
Black

- [x] **Exterior inspection**
- [ ] **Interior inspection**
- [x] **Roof Inspection**

Observations and Recommendations:
ROV inspection: Fair amount of sealant remains on many four corners inside the tank, but is almost completely deteriorated on both the vertical and horizontal seams. Typical broken glass and rust plumes around bolt heads (mainly on the vertical seams). Manway appears to be in good condition. Was only able to see one cathodic bar due to a MASSIVE buildup of “anti-corrosion additive” that appears to be an entire sheet high in some places. The tank itself appears to be in good condition overall.

The tank exterior sealant is deteriorating as well and should be replaced in 2-3 years. The inside work is due sooner.

Tank Inspection Report

Tank Exterior - Curb / Foundation

Signs of past or present floor / foundation leaks:

No

Is there positive drainage away from the tank foundation?

Yes.

Condition of curb area:

Good

Picture of foundation or curb area:



Picture of foundation or curb area:



Picture of foundation or curb area:

Picture of foundation or curb area:

Tank Inspection Report





Tank Inspection Report

Exterior of Tank

Condition of exterior coating:

Good

Exterior coating picture



Exterior coating picture



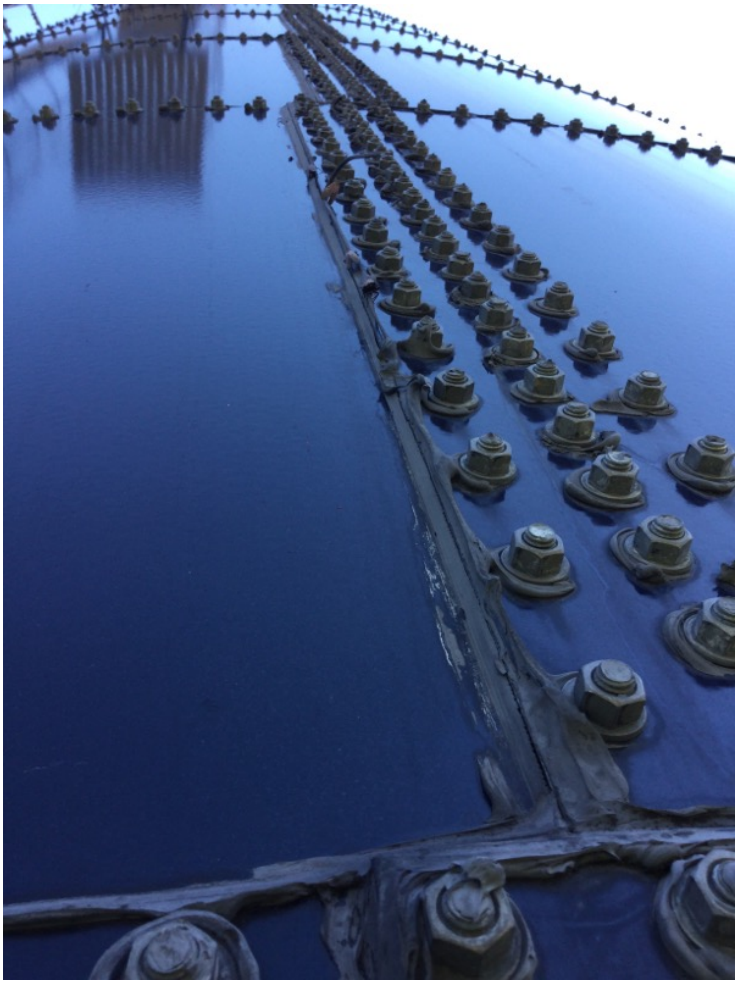
Condition of Vertical Fillets:

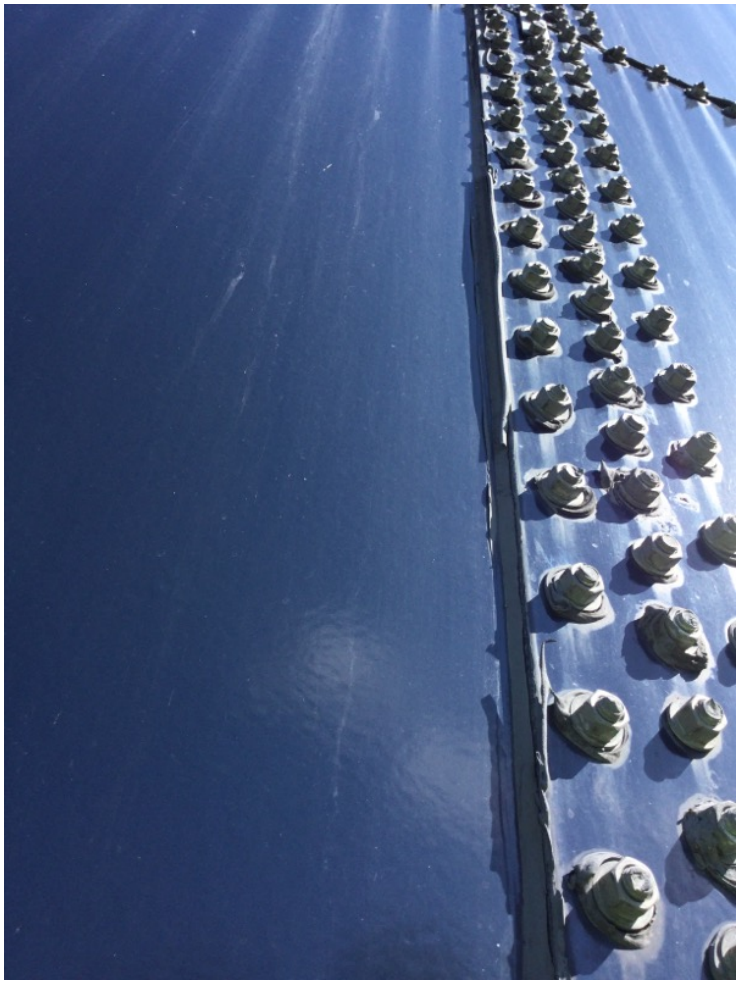
Will need re-applied with in the next 2-3 years

Picture of Typical Vertical Fillets

Picture of Typical Vertical Fillets

Tank Inspection Report





Condition of Horizontal Fillets

Will need re-applied with in the next 2-3 years

Picture of Typical Horizontal Fillets



Picture of Typical Horizontal Fillets



Sealer Squeeze Out Around Fasteners

Good

Picture of Squeeze Out Around Fasteners



Picture of Squeeze Out Around Fasteners



Condition of Structure Fasteners For Sidewall Sheets

Good

Picture of structure fasteners for side walls

Picture of structure fasteners for sidewalls

Tank Inspection Report





Tank Accessories

Number of Manways

1

Condition of Sidewall Manway Access Hatch

Good

Picture of Sidewall Manway Access Hatch

Picture of Sidewall Manway Access Hatch

Tank Inspection Report





Condition of Ladder / Cage Assemblies

Good.

Ladder Condition Picture

Ladder Condition Picture





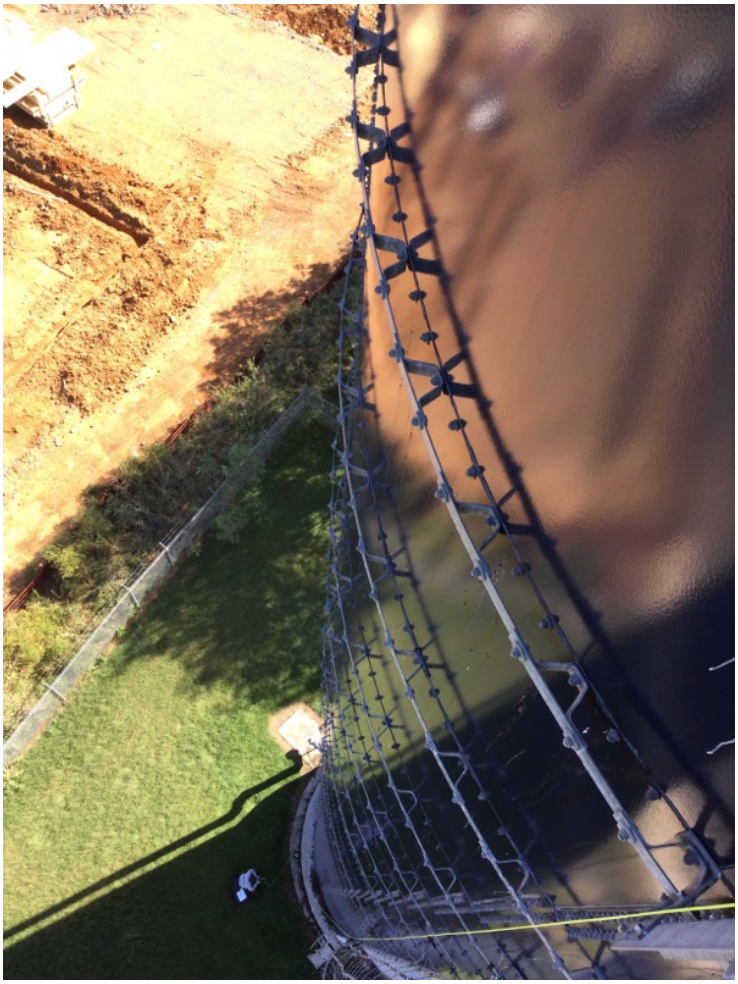
Condition of Web Truss Assemblies

Good

Picture of Web Truss Assemblies

Picture of Web Truss Assemblies

Tank Inspection Report





Condition of Overflow

Good

Overflow Material and Size

8” PVC

Picture of Oveflow

Picture of Overflow

Tank Inspection Report





Condition of Tank Decals

Good

Picture of Tank Decals

Tank Inspection Report



Conditon of Tank Name Plate

Good.

Picture of Tank Name Plate

Tank Inspection Report



Roof Exterior

Roof Type:

Knuckle

Roof Walkway Condition:

Good

Photo # 1 Of Roof Walkway:

Photo # 2 Of Roof Walkway:

Tank Inspection Report

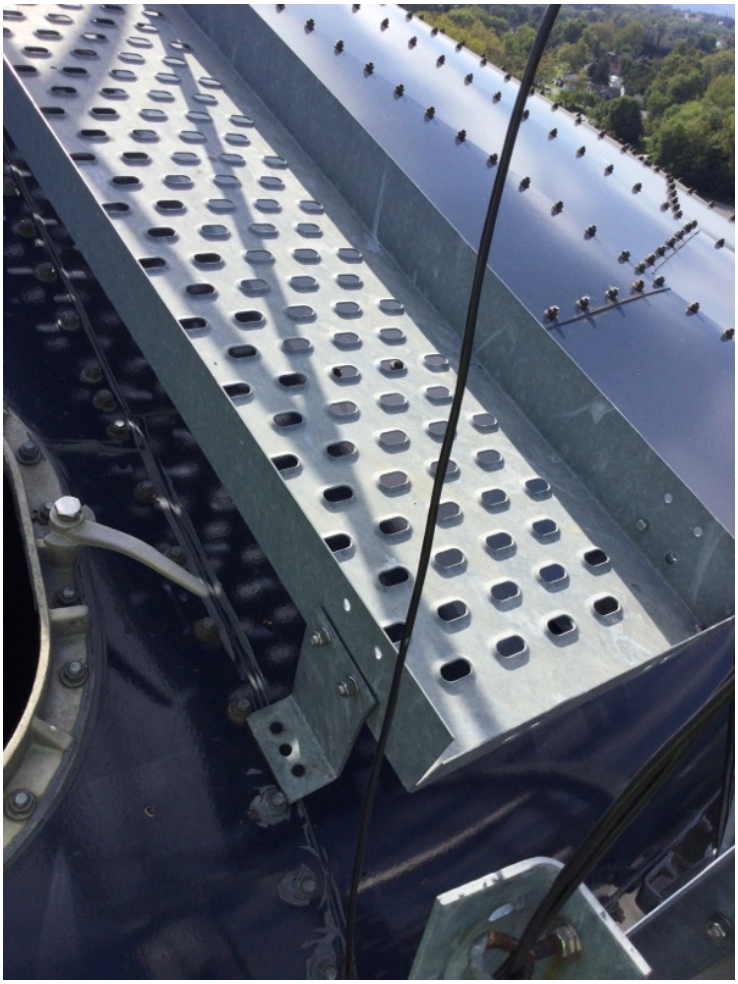


Photo # 3 Of Roof Walkway:



Photo # 4 Of Roof Walkway:

Tank Inspection Report





Number Of Roof Hatches?

1

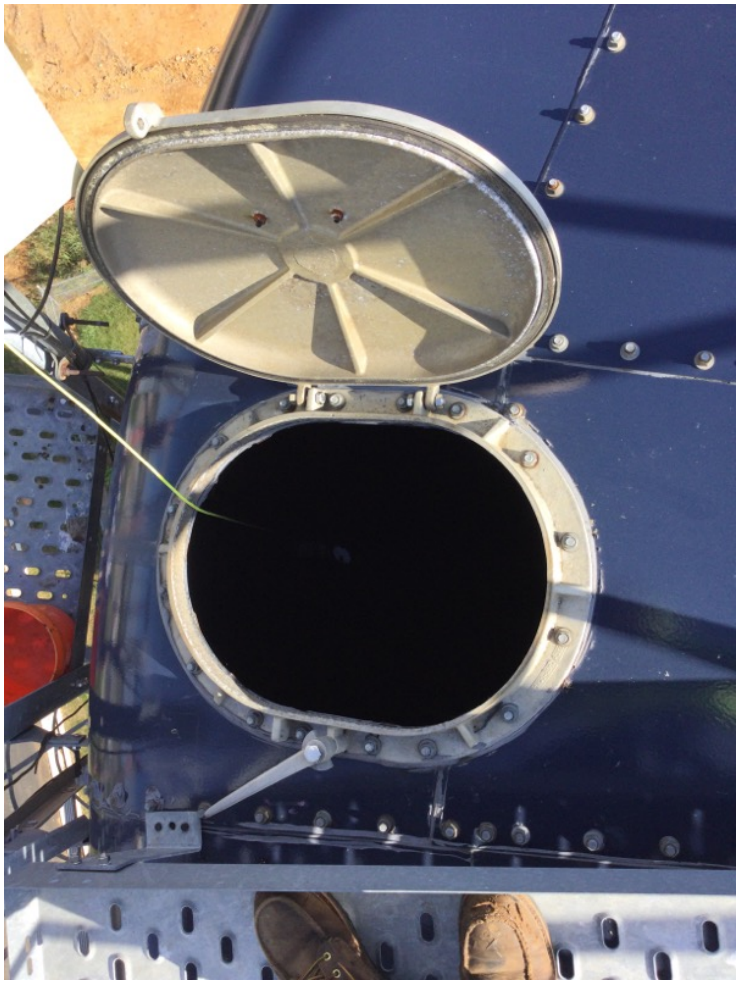
Condition Of Roof Hatch # 1:

Good

Picture Of Roof Hatch # 1

2nd Picture of Roof Hatch # 1





Condition Of Roof Fillets (Knuckle Roof)

Needs to be re-applyed

Picture of Knuckle Roof Fillets

Picture Of Knuckle Roof Fillets





Condition Of Structure Fasteners (Knuckle Roof)

Good

Picture Of Structure Fasteners (Knuckle Roof)

Picture Of Structure Fasteners (Knuckle Roof)





Condition Of Gravity Vent

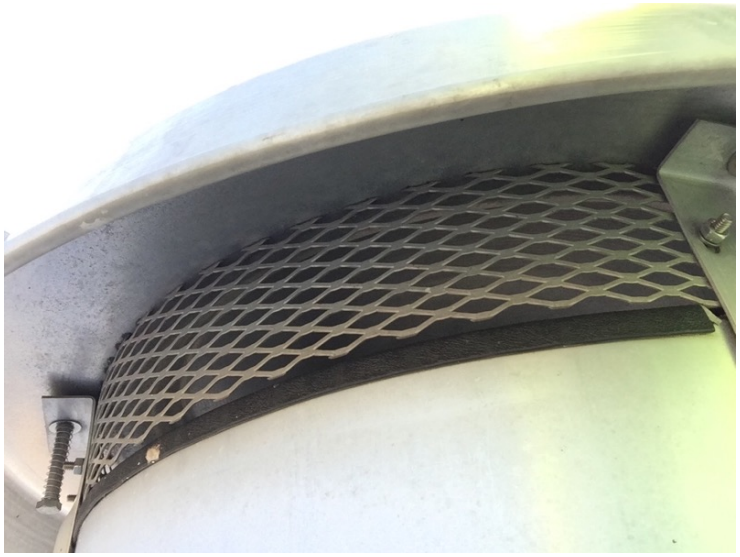
Good

Picture of Gravity Vent

Picture Of Gravity Vent

Tank Inspection Report





Any Roof Penatrations?

No

Any signs of ice damage?

No

Interior of Tank

Tank Inspection Report

Interior of tank - floor

Additional Pictures

#1



#2



#3

#4

Tank Inspection Report





#5



#6



Tank Inspection Report

General Information

Inspection Date:

10/01/2025

Inspection Performed By:

Ryan Lynch

Tank location

Latitude: 39.288712 Longitude: -77.854988

MIP #

N/A welded Seminary

- [x] **Exterior inspection**
- [ ] **Interior inspection**
- [x] **Roof Inspection**

Tank Inspection Report

Tank Exterior - Curb / Foundation

Signs of past or present floor / foundation leaks:

No

Is there positive drainage away from the tank foundation?

No

Condition of curb area:

Good

Picture of foundation or curb area:



Picture of foundation or curb area:



Picture of foundation or curb area:

Picture of foundation or curb area:

Tank Inspection Report





Tank Inspection Report

Exterior of Tank

Condition of exterior coating:

Good

Exterior coating picture



Exterior coating picture



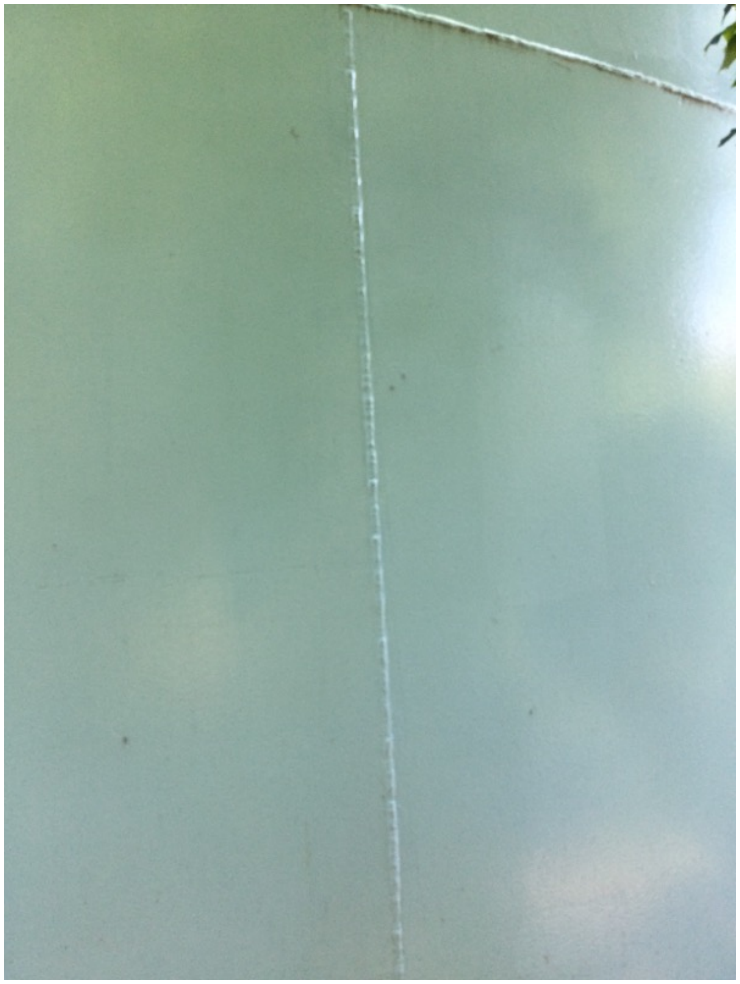
Picture of Typical Vertical Fillets

Picture of Typical Vertical Fillets

Tank Inspection Report



Picture of Typical Horizontal Fillets



Picture of Typical Horizontal Fillets





Tank Accessories

Number of Manways

2

Condition of Sidewall Manway Access Hatch

Good

Picture of Sidewall Manway Access Hatch

Picture of Sidewall Manway Access Hatch

Tank Inspection Report





Condition of Ladder / Cage Assemblies

Good

Ladder Condition Picture

Ladder Condition Picture

Tank Inspection Report





Condition of Web Truss Assemblies

N/A

Condition of Overflow

Good

Overflow Material and Size

10” steel

Picture of Oveflow

Picture of Overflow

Tank Inspection Report





Condition of Tank Decals

N/A

Conditon of Tank Name Plate

N/A

Roof Exterior

Roof Type:

Other

Roof Walkway Condition:

Good

Photo # 1 Of Roof Walkway:

Photo # 2 Of Roof Walkway:



Photo # 3 Of Roof Walkway:



Photo # 4 Of Roof Walkway:

Tank Inspection Report





Number Of Roof Hatches?

2

Condition Of Roof Hatch # 1:

Good

Picture Of Roof Hatch # 1

2nd Picture of Roof Hatch # 1

Tank Inspection Report





Condition Of Roof Hatch # 2:

Good

Picture Of Roof Hatch # 2

2nd Picture Of Roof Hatch # 2



Tank Inspection Report



Condition Of Gravity Vent

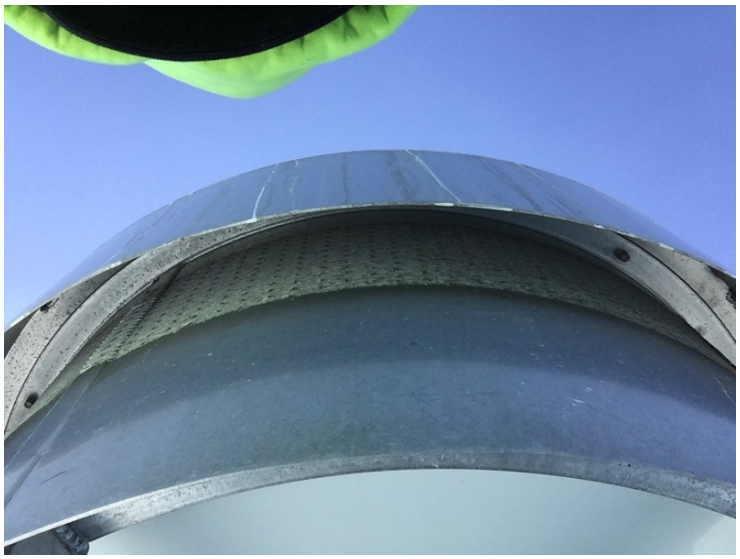
Good

Picture of Gravity Vent

Picture Of Gravity Vent

Tank Inspection Report





Any Roof Penatrations?

No

Interior of Tank

Tank Inspection Report

Observations:
ROV inspection: Tank appears to be in very good condition overall. There are many small rust plumes growing on what appears to be patchwork on the sidewalls. The manways appear to be in good condition as well. There's a small buildup of "anti-corrosion additive" on the tank floor as well. Tank's drain also looked good (silt stop was in place). Nothing major to report.

Charles Town Water Department
Revenue & Expense Summary
7/31/2025

Annual Budget		Y-T-D Budget	Y-T-D Actual	Difference
	REVENUES			
3,960,000	Metered Sales - Residential	330,000	302,146	(27,854)
1,850,000	Metered Sales - Commercial	154,167	134,482	(19,685)
65,000	Metered Sales - Glen Haven/Cavaland	5,417	5,532	116
40,000	Sale for Resale - Bulk Water	3,333	8,514	5,181
90,000	Forfieted Discounts	7,500	7,075	(425)
30,000	Misc. Service Rev - Reconnection / Tap Fees	2,500	2,870	370
565,000	Tank Lot Rental Income (Non-Operating)	47,083	84,336	37,253
310,000	Interest Income (Non-Operating)	25,833	31,730	5,896
34,000	Sinking Fund Income (Non-Operating)	2,833	-	(2,833)
40,000	Miscellaneous Income (Non-Operating)	3,333	-	(3,333)
6,984,000	**TOTAL REVENUES**	582,000	576,685	(5,315)
	EXPENSES			
15,000	WS - Materials & Supplies Expense	1,250	1,395	145
60,000	WS - Maint of Water Source	5,000	5,573	573
560,000	WT - Salaries & Wages - Operations Labor	46,667	31,329	(15,337)
170,000	WT - Power & Fuel	14,167	11,929	(2,238)
11,000	WT - Power & Fuel - GH/CAV	917	427	(490)
220,000	WT - Chemical Expense	18,333	24,740	6,406
30,000	WT - Testing	2,500	831	(1,669)
35,000	WT - Materials & Supplies Expense	2,917	33	(2,884)
6,500	WT - Materials & Supplies Expense - GH/CAV	542	684	143
55,000	WT - Sludge Hauling	4,583	4,301	(283)
90,000	WT - Maint of Water Treatment Plant	7,500	-	(7,500)
12,000	WT - Maint of Water Plant - GH/CAV	1,000	3,068	2,068
20,000	WT - Licenses & Subscriptions	1,667	-	(1,667)
485,000	TD - Salaries & Wages - Maintenance Labor	40,417	31,759	(8,658)
30,000	TD - Materials & Supplies Expense	2,500	3,241	741
120,000	TD - Maint of Dist Reservior & Standpipes	10,000	52,200	42,200
120,000	TD - Maint of Mains	10,000	5,478	(4,522)
210,000	TD - Maint of Services	17,500	8,241	(9,259)
360,000	TD - Maint of Meters	30,000	43,716	13,716
50,000	TD - Maint of Hydrants	4,167	7,575	3,408
35,000	TD - Maint of Equipment	2,917	-	(2,917)
212,000	CA - Salaries & Wages	17,667	14,813	(2,854)
85,000	CA - Billing Expense	7,083	5,333	(1,750)
120,000	CA - Credit Card Processing Fees	10,000	8,402	(1,598)
90,000	CA - Licenses & Subscriptions (includes Sensus)	7,500	146	(7,354)
15,000	CA - Bad Debt Expense	1,250	(191)	(1,441)
175,000	GA - Salaries & Wages	14,583	11,078	(3,506)
2,500	GA - Director Compensation	208	200	(8)
275,000	GA - Employee Insurance & Benefits	22,917	17,175	(5,742)
128,880	GA - Employee Pension Expense	10,740	7,592	(3,148)
109,739	GA - Payroll Taxes - FICA Tax Expense	9,145	6,826	(2,319)

Charles Town Water Department
Revenue & Expense Summary
7/31/2025

4,572	GA - OPEB (Other Post Employment Benefits)	381	838	457
25,925	GA - Employee 457 Expense	2,160	1,618	(542)
45,000	GA - Office Supplies & Expense	3,750	2,071	(1,679)
20,000	GA - Travel, Training, & Education	1,667	1,810	144
10,000	GA - Uniform Expense	833	206	(628)
30,000	GA - Computer - Technology Expense	2,500	200	(2,300)
35,000	GA - Maint. of General Property	2,917	365	(2,552)
28,000	GA - Licenses & Subscriptions	2,333	22,755	20,422
30,000	GA - Contractual Services - Engineering	2,500	2,448	(52)
25,000	GA - Contractual Services - Accounting	2,083	800	(1,283)
65,000	GA - Contractual Services - Legal	5,417	4,293	(1,123)
60,000	GA - Contractual Services - Other	5,000	9,971	4,971
15,300	GA - Rental of Building	1,275	2,550	1,275
72,000	GA - Transportation Expense	6,000	7,083	1,083
95,000	GA - Insurance	7,917	22,190	14,273
23,000	GA - Worker's Comp	1,917	3,050	1,133
30,000	GA - Regulatory Commission Expense	2,500	695	(1,805)
2,500	GA - Bond Administration Fees	208	-	(208)
3,500	GA - Bond Service Fees	292	-	(292)
15,000	GA - Misc. General Expense	1,250	1,117	(133)
5,000	Advertising & Publication Expense	417	121	(296)
343,292	Interest on Long Term Debt (Non-Operating)	28,608	-	(28,608)
1,328,615	Depreciation Expense (Non-Cash)	110,718	110,718	-
6,219,324	**TOTAL EXPENSES**	518,277	502,790	(15,487)
764,676	Excess (Deficit)	63,723	73,895	

Board request 5/8/2024

NON-OPERATING REVENUES/CAPITAL CONTRIBUTIONS

CIF Revenue (Non-Operating)	246,344

OPERATING CASH ACCOUNT
Reconciliation to Cash:

Cash Balance @ 6/30/25	933,984	
Disbursements To Date	(509,896)	
Expenses	502,790	
Deposits To Date	637,492	
Revenues	(576,685)	
OPERATING CASH BALANCE @ 07/31/2025	1,061,580	
	1,061,580	Water
	-	Operating

Added to report in 2019

OTHER CASH ACCOUNT BALANCES

Water Capacity Improvement Fund	8,299,384
Water Renewal & Replacement Fund	981,161
Water Working Capital Fund	449,483

Charles Town Sewer Department
Revenue & Expense Summary
7/31/2025

Annual Budget		Y-T-D Budget	Y-T-D Actual	Difference
	REVENUES			
3,160,000	CTUB Service Revenue	263,333	245,327	(18,006)
2,000,000	Ranson Revenue	166,667	154,270	(12,396)
2,860,000	JCPSD Revenue	238,333	221,693	(16,640)
45,000	Customer Forfieted Discounts	3,750	4,026	276
40,000	Customer Forfieted Discounts- RA	3,333	2,298	(1,035)
50,000	Customer Forfieted Discounts- PSD	4,167	3,393	(774)
30,000	Misc. Sewer Revenues (Non-Operating)	2,500	-	(2,500)
350,000	Interest Income (Non-Operating)	29,167	34,181	5,015
58,000	Sinking Fund Income (Non-Operating)	4,833	1,067	(3,766)
8,593,000	**TOTAL REVENUES**	716,083	666,257	(49,827)
	EXPENSES			
15,000	CS - Materials & Supplies Expense	1,250	715	(535)
90,000	CS - Maint of Service Connections	7,500	1,495	(6,005)
150,000	CS - Maint of Collecting & Trans. Mains	12,500	9,207	(3,293)
530,000	PS - Salaries & Wages	44,167	44,649	482
170,500	PS - Power & Fuel	14,208	13,125	(1,083)
30,000	PS - Materials & Supplies Expense	2,500	970	(1,530)
65,000	PS - Sludge Hauling	5,417	7,114	1,697
200,000	PS - Maint of Pump Stations	16,667	7,087	(9,580)
10,000	PS - Maint of Equipment	833	-	(833)
355,000	TD - Salaries & Wages	29,583	15,957	(13,627)
210,000	TD - Power - CT Plant	17,500	18,509	1,009
100,000	TD - Power - TUI	8,333	7,303	(1,031)
11,000	TD - Power - Deerfield	917	296	(621)
180,000	TD - Chemical Expense - CT	15,000	5,228	(9,772)
25,000	TD - Chemical Expense - TUI	2,083	7,956	5,872
45,000	TD - Testing - CT	3,750	4,728	978
12,000	TD - Testing - TUI	1,000	496	(504)
80,000	TD - Materials & Supplies Expense	6,667	4,253	(2,414)
60,000	TD - Sludge Hauling - TUI	5,000	824	(4,176)
130,000	TD - Maint. Burns Farm	10,833	4,550	(6,283)
230,000	TD - Maint. Treatment Plant - CT	19,167	16,643	(2,524)
150,000	TD - Maint. Treatment Plant - TUI	12,500	16,537	4,037
30,000	TD - Maint. Treatment Plant - Deerfield	2,500	-	(2,500)
18,000	TD - Licenses & Subscriptions	1,500	8,409	6,909
320,000	CA - Billing & Acct Labor	26,667	22,378	(4,289)
100,000	CA - Billing Expense	8,333	5,720	(2,613)
120,000	CA - Credit Card Processing Fees	10,000	8,402	(1,598)
70,000	CA - Licenses & Subscriptions	5,833	146	(5,687)
25,000	CA - Bad Debt Expense	2,083	(210)	(2,293)
260,000	GA - Salaries & Wages	21,667	17,308	(4,359)
2,500	GA - Director Compensation	208	200	(8)
248,000	GA - Employee Insurance & Benefits	20,667	22,095	1,428
131,850	GA - Employee Pension Expense	10,988	8,944	(2,044)

Charles Town Sewer Department
Revenue & Expense Summary
7/31/2025

112,264	GA - Payroll Taxes - FICA Tax Expense	9,355	7,691	(1,664)
3,500	GA - OPEB (Other Post Employment Benefits)	292	199	(93)
27,445	GA - Employee 457 Expense	2,287	1,893	(394)
45,000	GA - Office Supplies & Expense	3,750	3,002	(748)
35,000	GA - Travel, Training, & Education	2,917	2,743	(174)
15,000	GA - Uniform Expense	1,250	-	(1,250)
30,000	GA - Computer - Technology Expense	2,500	-	(2,500)
35,000	GA - Maint. of General Property	2,917	313	(2,604)
30,000	GA - Licenses & Subscriptions	2,500	14,345	11,845
45,000	GA - Contractual Services - Engineering	3,750	1,855	(1,895)
35,000	GA - Contractual Services - Accounting	2,917	800	(2,117)
180,000	GA - Contractual Services - Legal	15,000	10,384	(4,616)
60,000	GA - Contractual Services - Other	5,000	10,261	5,261
15,300	GA - Rental of Building	1,275	2,550	1,275
110,000	GA - Transportation Expense	9,167	10,851	1,684
110,000	GA - Insurance	9,167	22,189	13,023
20,000	GA - Worker's Comp	1,667	3,050	1,383
40,000	GA - Regulatory Commission Expense	3,333	1,400	(1,934)
50,000	GA - Bond Administration Fees	4,167	-	(4,167)
5,000	GA - Bond Service Fees	417	-	(417)
20,000	GA - Misc. General Expense	1,667	3,063	1,396
5,000	GA - Advertising & Publication Expense	417	172	(245)
571,124	Interest on Long Term Debt (Non-Operating)	47,594	-	(47,594)
2,411,199	Depreciation Expense (Non-Cash)	200,933	200,933	(0)
8,184,682	**TOTAL EXPENSES**	682,057	578,722	(103,334)
408,318	Excess (Deficit)	34,027	87,534	

***Board reques**	**NON-OPERATING REVENUES/CAPITAL CONTRIBUTIONS**		
5/8/2024	CIF Revenue (Non-Operating)	363,320	
	OPERATING CASH ACCOUNT		
	Reconciliation to Cash:		
	Cash Balance @ 6/30/25	3,372,905	
	Disbursements To Date	(574,259)	
	Expenses	578,722	
	Deposits To Date	721,511	
	Revenues	(1,029,577)	
	OPERATING CASH BALANCE @ 07/31/2025	3,520,156	
		3,520,156	Sewer
		0	Operating
***Added to rep**	**OTHER CASH ACCOUNT BALANCES**		
in 2019	Sewer Capacity Improvement Fund	8,982,711	
	Sewer Renewal & Replacement Fund	881,468	
	Sewer Working Capital Fund	757,574	

Charles Town Water Department
Revenue & Expense Summary
8/31/2025

Annual Budget		Y-T-D Budget	Y-T-D Actual	Difference
	REVENUES			
3,960,000	Metered Sales - Residential	660,000	613,539	(46,461)
1,850,000	Metered Sales - Commercial	308,333	271,752	(36,581)
65,000	Metered Sales - Glen Haven/Cavaland	10,833	11,320	487
40,000	Sale for Resale - Bulk Water	6,667	14,126	7,459
90,000	Forfieted Discounts	15,000	13,887	(1,113)
30,000	Misc. Service Rev - Reconnection / Tap Fees	5,000	5,160	160
565,000	Tank Lot Rental Income (Non-Operating)	94,167	123,656	29,489
310,000	Interest Income (Non-Operating)	51,667	63,673	12,006
34,000	Sinking Fund Income (Non-Operating)	5,667	-	(5,667)
40,000	Miscellaneous Income (Non-Operating)	6,667	1,455	(5,212)
6,984,000	**TOTAL REVENUES**	1,164,000	1,118,568	(45,432)
	EXPENSES			
15,000	WS - Materials & Supplies Expense	2,500	1,395	(1,105)
60,000	WS - Maint of Water Source	10,000	5,573	(4,427)
560,000	WT - Salaries & Wages - Operations Labor	93,333	84,310	(9,024)
170,000	WT - Power & Fuel	28,333	24,272	(4,061)
11,000	WT - Power & Fuel - GH/CAV	1,833	898	(935)
220,000	WT - Chemical Expense	36,667	48,074	11,407
30,000	WT - Testing	5,000	4,051	(949)
35,000	WT - Materials & Supplies Expense	5,833	66	(5,768)
6,500	WT - Materials & Supplies Expense - GH/CAV	1,083	684	(399)
55,000	WT - Sludge Hauling	9,167	9,263	97
90,000	WT - Maint of Water Treatment Plant	15,000	5,020	(9,980)
12,000	WT - Maint of Water Plant - GH/CAV	2,000	3,248	1,248
20,000	WT - Licenses & Subscriptions	3,333	-	(3,333)
485,000	TD - Salaries & Wages - Maintenance Labor	80,833	86,424	5,591
30,000	TD - Materials & Supplies Expense	5,000	3,782	(1,218)
120,000	TD - Maint of Dist Reservior & Standpipes	20,000	52,532	32,532
120,000	TD - Maint of Mains	20,000	16,027	(3,973)
210,000	TD - Maint of Services	35,000	11,879	(23,121)
360,000	TD - Maint of Meters	60,000	67,991	7,991
50,000	TD - Maint of Hydrants	8,333	7,575	(758)
35,000	TD - Maint of Equipment	5,833	2,792	(3,041)
212,000	CA - Salaries & Wages	35,333	37,295	1,962
85,000	CA - Billing Expense	14,167	10,802	(3,365)
120,000	CA - Credit Card Processing Fees	20,000	8,402	(11,598)
90,000	CA - Licenses & Subscriptions (includes Sensus)	15,000	421	(14,579)
15,000	CA - Bad Debt Expense	2,500	(160)	(2,660)
175,000	GA - Salaries & Wages	29,167	27,899	(1,268)
2,500	GA - Director Compensation	417	375	(42)
275,000	GA - Employee Insurance & Benefits	45,833	35,968	(9,865)
128,880	GA - Employee Pension Expense	21,480	19,934	(1,546)
109,739	GA - Payroll Taxes - FICA Tax Expense	18,290	18,085	(204)
4,572	GA - OPEB (Other Post Employment Benefits)	762	1,527	765

Charles Town Water Department
Revenue & Expense Summary
8/31/2025

25,925	GA - Employee 457 Expense	4,321	4,362	41
45,000	GA - Office Supplies & Expense	7,500	2,871	(4,629)
20,000	GA - Travel, Training, & Education	3,333	2,539	(794)
10,000	GA - Uniform Expense	1,667	206	(1,461)
30,000	GA - Computer - Technology Expense	5,000	1,213	(3,788)
35,000	GA - Maint. of General Property	5,833	2,626	(3,207)
28,000	GA - Licenses & Subscriptions	4,667	23,505	18,838
30,000	GA - Contractual Services - Engineering	5,000	3,706	(1,294)
25,000	GA - Contractual Services - Accounting	4,167	800	(3,367)
65,000	GA - Contractual Services - Legal	10,833	19,711	8,878
60,000	GA - Contractual Services - Other	10,000	18,831	8,831
15,300	GA - Rental of Building	2,550	3,825	1,275
72,000	GA - Transportation Expense	12,000	12,137	137
95,000	GA - Insurance	15,833	22,190	6,356
23,000	GA - Worker's Comp	3,833	4,812	979
30,000	GA - Regulatory Commission Expense	5,000	1,358	(3,642)
2,500	GA - Bond Administration Fees	417	-	(417)
3,500	GA - Bond Service Fees	583	-	(583)
15,000	GA - Misc. General Expense	2,500	1,699	(801)
5,000	Advertising & Publication Expense	833	161	(672)
343,292	Interest on Long Term Debt (Non-Operating)	57,215	-	(57,215)
1,328,615	Depreciation Expense (Non-Cash)	221,436	221,436	-
6,219,324	**TOTAL EXPENSES**	1,036,554	944,391	(92,163)
764,676	Excess (Deficit)	127,446	174,176	

Board request 5/8/2024

NON-OPERATING REVENUES/CAPITAL CONTRIBUTIONS

CIF Revenue (Non-Operating)	305,291

OPERATING CASH ACCOUNT
Reconciliation to Cash:

Cash Balance @ 6/30/25	933,984	
Disbursements To Date	(1,213,789)	
Expenses	944,391	
Deposits To Date	1,191,401	
Revenues	(1,118,568)	
OPERATING CASH BALANCE @ 08/31/2025	911,596	
	911,596	Water
	(0)	Operating

Added to report in 2019

OTHER CASH ACCOUNT BALANCES

Water Capacity Improvement Fund	8,382,227
Water Renewal & Replacement Fund	1,059,241
Water Working Capital Fund	450,773

Charles Town Sewer Department
Revenue & Expense Summary
8/31/2025

Annual Budget		Y-T-D Budget	Y-T-D Actual	Difference
	REVENUES			
3,160,000	CTUB Service Revenue	526,667	497,909	(28,758)
2,000,000	Ranson Revenue	333,333	337,749	4,415
2,860,000	JCPSD Revenue	476,667	447,640	(29,027)
45,000	Customer Forfieted Discounts	7,500	8,204	704
40,000	Customer Forfieted Discounts- RA	6,667	4,529	(2,138)
50,000	Customer Forfieted Discounts- PSD	8,333	6,682	(1,651)
30,000	Misc. Sewer Revenues (Non-Operating)	5,000	7,516	2,516
350,000	Interest Income (Non-Operating)	58,333	69,045	10,711
58,000	Sinking Fund Income (Non-Operating)	9,667	2,487	(7,179)
8,593,000	**TOTAL REVENUES**	1,432,167	1,381,760	(50,406)
	EXPENSES			
15,000	CS - Materials & Supplies Expense	2,500	1,101	(1,399)
90,000	CS - Maint of Service Connections	15,000	1,495	(13,505)
150,000	CS - Maint of Collecting & Trans. Mains	25,000	19,766	(5,234)
530,000	PS - Salaries & Wages	88,333	104,181	15,848
170,500	PS - Power & Fuel	28,417	21,925	(6,492)
30,000	PS - Materials & Supplies Expense	5,000	1,506	(3,494)
65,000	PS - Sludge Hauling	10,833	8,106	(2,727)
200,000	PS - Maint of Pump Stations	33,333	19,057	(14,277)
10,000	PS - Maint of Equipment	1,667	-	(1,667)
355,000	TD - Salaries & Wages	59,167	38,732	(20,435)
210,000	TD - Power - CT Plant	35,000	41,836	6,836
100,000	TD - Power - TUI	16,667	14,725	(1,941)
11,000	TD - Power - Deerfield	1,833	296	(1,538)
180,000	TD - Chemical Expense - CT	30,000	10,455	(19,545)
25,000	TD - Chemical Expense - TUI	4,167	11,131	6,965
45,000	TD - Testing - CT	7,500	9,140	1,640
12,000	TD - Testing - TUI	2,000	3,044	1,044
80,000	TD - Materials & Supplies Expense	13,333	6,298	(7,036)
60,000	TD - Sludge Hauling - TUI	10,000	2,471	(7,529)
130,000	TD - Maint. Burns Farm	21,667	11,284	(10,383)
230,000	TD - Maint. Treatment Plant - CT	38,333	42,685	4,352
150,000	TD - Maint. Treatment Plant - TUI	25,000	17,519	(7,481)
30,000	TD - Maint. Treatment Plant - Deerfield	5,000	-	(5,000)
18,000	TD - Licenses & Subscriptions	3,000	-	(3,000)
320,000	CA - Billing & Acct Labor	53,333	56,384	3,051
100,000	CA - Billing Expense	16,667	11,776	(4,890)
120,000	CA - Credit Card Processing Fees	20,000	8,402	(11,598)
70,000	CA - Licenses & Subscriptions	11,667	421	(11,246)
25,000	CA - Bad Debt Expense	4,167	(184)	(4,351)
260,000	GA - Salaries & Wages	43,333	43,591	257
2,500	GA - Director Compensation	417	375	(42)
248,000	GA - Employee Insurance & Benefits	41,333	43,336	2,002
131,850	GA - Employee Pension Expense	21,975	21,778	(197)

Charles Town Sewer Department
Revenue & Expense Summary
8/31/2025

112,264	GA - Payroll Taxes - FICA Tax Expense	18,711	18,618	(93)
3,500	GA - OPEB (Other Post Employment Benefits)	583	199	(384)
27,445	GA - Employee 457 Expense	4,574	4,738	163
45,000	GA - Office Supplies & Expense	7,500	3,835	(3,665)
35,000	GA - Travel, Training, & Education	5,833	3,621	(2,212)
15,000	GA - Uniform Expense	2,500	-	(2,500)
30,000	GA - Computer - Technology Expense	5,000	-	(5,000)
35,000	GA - Maint. of General Property	5,833	4,738	(1,095)
30,000	GA - Licenses & Subscriptions	5,000	23,505	18,505
45,000	GA - Contractual Services - Engineering	7,500	1,855	(5,645)
35,000	GA - Contractual Services - Accounting	5,833	800	(5,033)
180,000	GA - Contractual Services - Legal	30,000	12,155	(17,845)
60,000	GA - Contractual Services - Other	10,000	20,845	10,845
15,300	GA - Rental of Building	2,550	3,825	1,275
110,000	GA - Transportation Expense	18,333	32,327	13,994
110,000	GA - Insurance	18,333	22,190	3,856
20,000	GA - Worker's Comp	3,333	4,743	1,410
40,000	GA - Regulatory Commission Expense	6,667	1,400	(5,267)
50,000	GA - Bond Administration Fees	8,333	-	(8,333)
5,000	GA - Bond Service Fees	833	-	(833)
20,000	GA - Misc. General Expense	3,333	3,063	(271)
5,000	GA - Advertising & Publication Expense	833	172	(662)
571,124	Interest on Long Term Debt (Non-Operating)	95,187	-	(95,187)
2,411,199	Depreciation Expense (Non-Cash)	401,867	200,933	(200,934)
8,184,682	**TOTAL EXPENSES**	1,364,114	936,193	(427,921)
408,318	Excess (Deficit)	68,053	445,568	

***Board request 5/8/2024**	**NON-OPERATING REVENUES/CAPITAL CONTRIBUTIONS**		
	CIF Revenue (Non-Operating)	478,762	
	OPERATING CASH ACCOUNT		
	Reconciliation to Cash:		
	Cash Balance @ 6/30/25	3,372,905	
	Disbursements To Date	(1,571,136)	
	Expenses	936,193	
	Deposits To Date	1,438,591	
	Revenues	(1,860,522)	
	OPERATING CASH BALANCE @ 08/31/2025	3,240,359	
		3,240,359	Sewer
		(0)	Operating
***Added to report in 2019**	**OTHER CASH ACCOUNT BALANCES**		
	Sewer Capacity Improvement Fund	9,077,306	
	Sewer Renewal & Replacement Fund	981,366	
	Sewer Working Capital Fund	759,749	

CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

Chairman Report

CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

November 12, 2025

Attachments:

Board Report 11.12.25.pdf

Totals by Year-Fund

Fund Description	Fund	Expend Total	Revenue Total	G/L Total	Total
Water	**6-50**	**$141,379.05**	**$0.00**	**$59,664.38**	**$201,043.43**
Sewer	**6-60**	**$118,522.20**	**$0.00**	**$63,926.05**	**$182,448.25**
Total Of All Funds:		**$259,901.25**	**$0.00**	**$123,590.43**	**$383,491.68**

Totals by Fund

Fund Description	Fund	Expend Total	Revenue Total	G/L Total	Total
Water	**50**	**$141,379.05**	**$0.00**	**$59,664.38**	**$201,043.43**
Sewer	**60**	**$118,522.20**	**$0.00**	**$63,926.05**	**$182,448.25**
Total Of All Funds:		**$259,901.25**	**$0.00**	**$123,590.43**	**$383,491.68**

TOTAL PAGES: 7

APPROVED BY: _____

APPROVED BY: _____

This Packet: $ 383,491.68

Bulk Water Overpayment Refunds, checks dated 11/12/2025: 882.16

Security Deposit Refunds, checks dated 10/22/2025: 1,899.04

Total: $ 386,272.88

Vendor #		*Name*					
P.O. #	PO Date	Description	Status	Amount	Void Amount	Contract	PO Type
USBAN005		U.S. BANK					
26-00736	10/31/25	PCARD 9146	Open	$15,443.55	$0.00		
USALC010		USALCO, LLC					
26-00662	10/23/25	DELPAC 2500	Open	$7,690.80	$0.00		
WAKEF005		WAKEFIELD & ASSOCIATES INC					
26-00694	10/31/25	OCT COLLECTIONS	Open	$25.00	$0.00		
WASTE005		WASTE MANAGEMENT OF WEST					
26-00775	11/03/25	33-41491-53000	Open	$1,553.00	$0.00		
WINCH030		WINCHESTER NOLAND CO.					
26-00659	10/15/25	BLEACH	Open	$51.48	$0.00		
WIREL005		WIRELESS NETWORKS GROUP, INC					
26-00716	11/04/25	MISC SVCS, OCT	Open	$8,275.00	$0.00		
WVAME005		WV AMERICAN WATER					
26-00697	10/23/25	SHUTOFFS, RECONNECTS	Open	$1,040.00	$0.00		
26-00698	11/01/25	USAGE DATA - 3,092	Open	$618.40	$0.00		
26-00750	10/01/25	USAGE DATA - 3,047	Open	$609.40	$0.00		
			Vendor Total:	**$2,267.80**			
WVDEP005		WV DEPT OF HEALTH & HUMAN SVCS					
26-00675	10/23/25	BACTERIOLOGICAL TEST	Open	$184.00	$0.00		
26-00676	10/23/25	BACTERIOLOGICAL TEST	Open	$184.00	$0.00		
26-00688	10/27/25	BACTERIOLOGICAL TEST	Open	$46.00	$0.00		
26-00696	10/30/25	BACTERIOLOGICAL TEST	Open	$138.00	$0.00		
			Vendor Total:	**$552.00**			
XYLEM020		XYLEM WATER SOLUTIONS U.S					
26-00674	10/21/25	GODWIN RENTAL @ CTWWTP	Open	$2,241.35	$0.00		
26-00726	10/28/25	PM AGREEMENT GODWINS	Open	$153.75	$0.00		
26-00727	10/28/25	PM AGREEMENT GODWINS	Open	$285.00	$0.00		
26-00728	10/28/25	PM AGREEMENT GODWINS	Open	$285.00	$0.00		
26-00729	10/28/25	PM AGREEMENT GODWINS	Open	$1,090.05	$0.00		
26-00730	10/28/25	PM AGREEMENT GODWINS	Open	$1,090.05	$0.00		
			Vendor Total:	**$5,145.20**			

Total Purchase Orders: 139 Total P.O. Line Items: 0 Total List Amount: $383,491.68 Total Void Amount: $0.00

Vendor # / P.O. #	PO Date	*Name* / Description	Status	Amount	Void Amount	Contract	PO Type
PORTA005		PORTABLE WATER SYSTEMS LLC	*Account Continued*				
POTES005		POTESTA & ASSOCIATES, INC					
26-00656	10/24/25	CTWWTP SAMPLING	Open	$880.00	$0.00		
PREMI015		PREMIER CONTRACTING LLC					
26-00734	10/24/25	WILTS MHP SWR PRJCT	Open	$6,685.00	$0.00		
26-00735	10/24/25	WILTS MHP SWR PRJCT	Open	$3,450.00	$0.00		
			Vendor Total:	**$10,135.00**			
PROTO005		PROTOUCH COMMUNICATIONS, LLC					
26-00741	11/05/25	OCT SVCS: AFTER-HRS EMERGENCY	Open	$219.13	$0.00		
PYRZW005		PYRZ WATER SUPPLY CO, INC					
26-00714	10/29/25	33GPD	Open	$1,470.00	$0.00		
ROBER025		ROBERT LYNN KERSHNER					
26-00686	10/28/25	SVC CALL TWWTP	Open	$1,368.50	$0.00		
SGPLU005		SG PLUMBING, INC.					
26-00657	10/22/25	PRESTON ST: 10/21/25	Open	$600.00	$0.00		
26-00754	09/10/25	41 STILES WAY: 11/06/25	Open	$2,000.00	$0.00		
			Vendor Total:	**$2,600.00**			
SHENA005		SHENANDOAH SALES & SERVICE INC					
26-00658	09/25/25	MAINT DUMP TRUCK REPAIR	Open	$1,150.37	$0.00		
STHIN005		STH, INC.					
26-00715	10/31/25	WW PMP WENDYS PS	Open	$16,694.00	$0.00		
TMOBI005		T-MOBILE					
26-00669	10/21/25	MONTHLY CELL SERVICE	Open	$364.76	$0.00		
CITHO005		THE CI THORNBURG CO, INC.					
26-00636	10/16/25	PVC PIPE	Open	$98.67	$0.00		
26-00637	10/17/25	TRANSCEIVER	Open	$7,155.00	$0.00		
26-00638	10/17/25	TRANSCEIVER	Open	$7,155.00	$0.00		
26-00639	10/17/25	TRANSCEIVER	Open	$7,155.00	$0.00		
26-00640	10/16/25	WATER PARTS STOCK	Open	$5,623.90	$0.00		
26-00641	10/20/25	KEYCORP	Open	$837.22	$0.00		
26-00642	10/20/25	CHLORINE	Open	$2,804.11	$0.00		
26-00663	10/22/25	COMMAND LINK W/CHARGER	Open	$1,497.73	$0.00		
26-00665	10/21/25	METER	Open	$9,900.00	$0.00		
26-00700	10/30/25	PIPE	Open	$143.57	$0.00		
26-00701	10/30/25	COUPLING	Open	$149.95	$0.00		
26-00738	10/31/25	OMNI TESTER REPAIR	Open	$385.00	$0.00		
			Vendor Total:	**$42,905.15**			
THOMA005		THOMAS NALLS					
26-00693	10/31/25	OCT TANK LOT RENT	Open	$4,104.06	$0.00		

Vendor # / P.O. #	PO Date	*Name* / Description	Status	Amount	Void Amount	Contract	PO Type
HACHC005		HACH COMPANY	*Account Continued*				
HDSUP005		HD SUPPLY INC					
26-00667	10/23/25	CHLORINE REAGENTS	Open	$1,151.60	$0.00		
26-00668	10/24/25	PROCHEM STORAGE TANK	Open	$829.90	$0.00		
26-00732	11/03/25	TNT	Open	$1,519.87	$0.00		
			Vendor Total:	**$3,501.37**			
INWOO005		INWOOD QUARRY, INC.					
26-00660	10/17/25	C2 PICKUP: 10/17/25	Open	$288.26	$0.00		
26-00661	10/22/25	C2 & I10 PICKUPS: 10/22/25	Open	$1,826.41	$0.00		
			Vendor Total:	**$2,114.67**			
IRONM005		IRON MOUNTAIN, INC					
26-00724	11/04/25	SHREDDING, STORAGE	Open	$1,468.51	$0.00		
JAMES005		JAMES RIVER EQUIPMENT					
26-00673	10/24/25	SKID STEER PARTS	Open	$375.05	$0.00		
26-00713	11/03/25	COUPLER JD	Open	$485.13	$0.00		
			Vendor Total:	**$860.18**			
JPRFB005		JP & RF BURNS PARTNERSHIP					
26-00691	10/31/25	OCT LOADS - 45	Open	$8,190.00	$0.00		
KENTP005		KENT PARSONS FORD					
26-00749	11/03/25	SEWER VEHICLE REPAIR	Open	$833.00	$0.00		
KINSL005		KINSLEY CONSTRUCTION, LLC					
26-00744	10/31/25	GRAVITY LINE: OH TO HNTWL PS	Open	$5,629.80	$0.00		
LOGIC005		LOGICAL CONCEPTS, INC					
26-00653	10/21/25	INVENTORY CRYSTAL BALL	Open	$5,184.83	$0.00		
26-00654	10/21/25	INVENTORY CRYSTAL BALL	Open	$5,184.83	$0.00		
26-00685	11/01/25	PS MONITORING	Open	$333.00	$0.00		
			Vendor Total:	**$10,702.66**			
MCKIN005		MCKINNEY'S AUTO REPAIR					
26-00687	10/28/25	MAINT VEHICLE REPAIRS	Open	$1,404.74	$0.00		
METLI005		METLIFE, INC					
26-00762	11/12/25	LIFE,LTD,STD,AD&D PAYABLES	Open	$1,923.33	$0.00		
MISSI005		MISSION COMMUNICATIONS, I					
26-00655	10/18/25	ROXUL	Open	$1,270.80	$0.00		
PATTO005		PATTON BUILDING SERVICES					
26-00692	10/31/25	CLEANING OCT	Open	$533.00	$0.00		
PORTA005		PORTABLE WATER SYSTEMS LLC					
26-00684	10/28/25	HUNTFIELD TANK PROJECT	Open	$26,050.00	$0.00		
26-00733	11/04/25	TANKS @ HUNTFIELD	Open	$1,500.00	$0.00		
			Vendor Total:	**$27,550.00**			

Vendor # / P.O. #	PO Date	*Name* / Description	Status	Amount	Void Amount	Contract	PO Type
DODSO010		DODSON SEPTIC SERVICES, LLC	*Account Continued*				
26-00683	10/15/25	PUMP WENDYS LIFT STATION	Open	$125.00	$0.00		
			Vendor Total:	**$1,125.00**			
EDWAR005		EDWARD DAVID NICHOLS JR					
26-00649	10/23/25	ORTHO PUMPS	Open	$11,960.00	$0.00		
ENCOV005		ENCOVA INSURANCE					
26-00752	11/02/25	INSTALLMENT	Open	$3,456.00	$0.00		
ERA00005		ERA					
26-00710	10/31/25	PH	Open	$223.90	$0.00		
26-00711	10/31/25	PH	Open	$223.90	$0.00		
			Vendor Total:	**$447.80**			
FREDE005		FREDERICKTOWNE LABS INC					
26-00766	10/01/25	TESTING	Open	$60.00	$0.00		
26-00767	10/01/25	TESTING	Open	$4,054.50	$0.00		
			Vendor Total:	**$4,114.50**			
GERAL005		GERALD TAYLOR CO., INC.					
26-00650	10/21/25	PUMP / TRANSPORT	Open	$947.68	$0.00		
26-00651	10/21/25	TRANSPORT	Open	$1,019.70	$0.00		
26-00677	10/28/25	PUMP / TRANSPORT	Open	$574.74	$0.00		
26-00690	10/28/25	SUPERVAC	Open	$7,994.54	$0.00		
26-00739	10/31/25	PUMP / TRANSPORT	Open	$1,011.04	$0.00		
26-00740	10/31/25	TRANSPORT	Open	$1,029.60	$0.00		
26-00764	11/07/25	PUMP / TRANSPORT	Open	$606.67	$0.00		
26-00765	11/07/25	SUPERVAC	Open	$1,255.99	$0.00		
			Vendor Total:	**$14,439.96**			
GUTTM005		GUTTMAN ENERGY					
26-00652	10/19/25	W/E 10/19/25	Open	$1,752.02	$0.00		
26-00672	10/26/25	W/E 10/26/25	Open	$1,754.22	$0.00		
26-00731	11/02/25	W/E 11/02/25	Open	$2,057.42	$0.00		
			Vendor Total:	**$5,563.66**			
GWIND005		GWIN DOBSON & FOREMAN INC					
26-00755	10/31/25	WW RETAINER SVCS	Open	$741.00	$0.00		
26-00756	10/31/25	WTP CHLORINE ROOM UPGRADES	Open	$1,065.19	$0.00		
26-00757	10/31/25	CT ASST MNGMNT PLAN	Open	$1,418.69	$0.00		
26-00758	10/31/25	WWTP MAINT BUILDING	Open	$14,790.23	$0.00		
26-00759	10/31/25	HUNTWELLWEST INSPCTN SVCS	Open	$1,107.60	$0.00		
26-00760	10/31/25	WW SYS PRELIM ENGR RPRT	Open	$9,524.20	$0.00		
26-00761	10/31/25	FS PS UPGRADE	Open	$1,542.10	$0.00		
			Vendor Total:	**$30,189.01**			
HACHC005		HACH COMPANY					
26-00666	10/24/25	CHEMKEY	Open	$225.60	$0.00		
26-00712	10/30/25	CHEMKEY	Open	$207.30	$0.00		
			Vendor Total:	**$432.90**			

Vendor # / P.O. #	PO Date	*Name* / Description	Status	Amount	Void Amount	Contract	PO Type
CITYO005		CITY OF CHARLES TOWN	*Account Continued*				
			Vendor Total:	**$9,367.03**			
COOLE005		COOLEY PUBLIC STRATEGIES, LLC					
26-00695	11/03/25	NOV 2025 PROFF SVCS	Open	$7,000.00	$0.00		
COREM005		CORE & MAIN					
26-00671	10/21/25	CLP, VLVBOX, CURBBOX, LID	Open	$4,871.28	$0.00		
26-00748	11/05/25	BALLCORP, SS BAND	Open	$492.10	$0.00		
26-00751	11/05/25	CPLG	Open	$839.48	$0.00		
26-00753	11/05/25	STOCK	Open	$1,962.71	$0.00		
			Vendor Total:	**$8,165.57**			
COYNE005		COYNE CHEMICAL					
26-00648	10/07/25	CES PACL 2000	Open	$26,869.44	$0.00		
26-00664	10/23/25	AMMONIUM SULFATE 40% NSF	Open	$1,586.00	$0.00		
			Vendor Total:	**$28,455.44**			
CRANE005		CRANETECH INC					
26-00702	10/16/25	WTP HOIST W/TROLLEY	Open	$13,804.00	$0.00		
CUMMI010		CUMMINS, INC					
26-00703	10/31/25	PM: NORTHPORT PS	Open	$813.65	$0.00		
26-00704	10/31/25	PM: WAR ADMIRAL PS	Open	$1,108.56	$0.00		
26-00705	10/31/25	PM: MAGNOLIA SPGS PS	Open	$816.79	$0.00		
26-00706	10/31/25	PM: 4TH AVE PS	Open	$827.12	$0.00		
26-00707	10/31/25	PM: CRANES LN PS	Open	$346.32	$0.00		
26-00708	10/31/25	PM: WENDY'S PS	Open	$586.85	$0.00		
26-00709	10/31/25	PM: WOODLAWN PS	Open	$385.62	$0.00		
26-00725	11/03/25	PM: RACE TRACK	Open	$385.62	$0.00		
26-00742	11/04/25	PM: SPRUCE HILL #1	Open	$385.62	$0.00		
26-00743	11/04/25	PM: SPRUCE HILL #2	Open	$385.62	$0.00		
			Vendor Total:	**$6,041.77**			
DIGIT005		DIGITAL ASSURANCE CERTIFICATIO					
26-00723	11/01/25	DISSEMINATION SVC & STORAGE	Open	$3,000.00	$0.00		
DIWGR005		DIW GROUP, INC					
26-00717	10/27/25	CTUB GENERAL SERVICES	Open	$290.00	$0.00		
26-00718	10/27/25	KINGS CROSSING	Open	$4,098.25	$0.00		
26-00719	10/27/25	SHENANDOAH SPRINGS	Open	$4,943.25	$0.00		
26-00720	10/27/25	NORBORNE GLEBE	Open	$3,211.00	$0.00		
26-00721	10/27/25	HUNTFIELD PHASE 5B	Open	$4,182.75	$0.00		
26-00722	10/27/25	MADISON GREENS	Open	$169.00	$0.00		
			Vendor Total:	**$16,894.25**			
DODSO010		DODSON SEPTIC SERVICES, LLC					
26-00679	10/24/25	PUMP MULT LIFT STATIONS	Open	$250.00	$0.00		
26-00680	10/01/25	PUMP MULT LIFT STATIONS	Open	$375.00	$0.00		
26-00681	10/10/25	PUMP DRIZWOOD LIFT STATION	Open	$125.00	$0.00		
26-00682	10/17/25	PUMP DRIFTWOOD LIFT STATION	Open	$250.00	$0.00		

Charles Town Utility Board
Purchase Order Listing By Vendor Name

Ranges	Item Status	Purchase Types	Misc
Range: *First to Last*	***Open:*** *N*	***Bid:*** *Y*	***P.O. Type:*** *All*
Rcvd Batch Id Range: *First to Last*	***Void:*** *N*	***State:*** *Y*	***Format:*** *Condensed*
Paid Date Range: *11/12/25 to 06/30/26*	***Paid:*** *Y*	***Other:*** *Y*	***Include Non-Budgeted:*** *Y*
	Held: *N*	***Exempt:*** *Y*	***Prior Year Only:*** *N*
	Aprv: *N*		***Vendors:*** *All*
	Rcvd: *N*		

Vendor # / P.O. #	PO Date	*Name* / Description	Status	Amount	Void Amount	Contract	PO Type
3RDTI005		3RD TIME TRUCKING					
26-00770	10/22/25	HAULING	Open	$993.65	$0.00		
WILLI015		ALL AMERICAN PAVING					
26-00634	10/24/25	ASPHALT & CONCRETE: 9/30/25	Open	$13,572.00	$0.00		
AMERI015		AMERIGAS PROPANE LP					
26-00737	10/31/25	TANK RENTAL: FLWNG SPRGS	Open	$139.80	$0.00		
26-00763	11/08/25	PROPANE: JOB CORPS	Open	$482.62	$0.00		
			Vendor Total:	**$622.42**			
AUTOZ005		AUTOZONE					
26-00699	10/29/25	BATTERY FOR NORTHPORT PS	Open	$289.98	$0.00		
26-00746	10/28/25	RACETRACK PS BATTERY	Open	$128.74	$0.00		
26-00747	11/05/25	WOODLAWN PS BATTERY & SUPPLIES	Open	$177.85	$0.00		
			Vendor Total:	**$596.57**			
BIEDL005		BIEDLER'S ELECTRIC MOTOR REPAI					
26-00635	10/17/25	CTWWTP PUMP REPAIR	Open	$1,057.23	$0.00		
BLUET005		BLUETRITON BRANDS INC					
26-00745	10/14/25	COOLER RENTAL@ 661 S GEORGE ST	Open	$14.09	$0.00		
CHAMP005		CHAMPION INDUSTRIES, INC					
26-00768	10/31/25	PRINTING SVCS OCT	Open	$3,208.49	$0.00		
26-00769	10/31/25	POSTAGE 4 PRINTING SVCS OCT	Open	$8,033.22	$0.00		
			Vendor Total:	**$11,241.71**			
CHRIS005		CHRIS HUTZLER					
26-00773	11/12/25	PER DIEM 12/8 - 12/12/25	Open	$299.25	$0.00		
CHRIS010		CHRIS OWENS					
26-00774	11/12/25	PER DIEM 12/8 - 12/12/25	Open	$299.25	$0.00		
CHSTR005		CHS TRAFFIC CONTROL SERVICES,					
26-00670	10/16/25	FLAGGERS 4 MANHOLE: 10/09/25	Open	$1,230.00	$0.00		
CITYN005		CITY NATIONAL BANK					
26-00689	11/04/25	LOCKBOX SVCS: OCT	Open	$231.76	$0.00		
CITYO005		CITY OF CHARLES TOWN					
26-00643	10/17/25	JUL UTILITES@ 661 S GEORGE ST	Open	$1,389.25	$0.00		
26-00644	10/17/25	AUG UTILTIES@ 661 S GEORGE ST	Open	$1,452.28	$0.00		
26-00645	10/17/25	SEP UTILITIES@ 661 S GEORGE ST	Open	$1,425.50	$0.00		
26-00771	11/12/25	NOV RENT@ 661 S GEORGE ST	Open	$2,550.00	$0.00		
26-00772	11/12/25	DEC RENT@ 661 S GEORGE ST	Open	$2,550.00	$0.00		

CHARLES TOWN UTILITY BOARD

Wednesday, November 12, 2025

Special Meeting

661 South George Street
Charles Town, WV 25414

Next Meeting - December 10, 2025 at 4:00 P.M.