NOTICE & INVITATION TO BID
GRANULAR ACTIVATED CARBON (GAC) MEDIA
CONTRACT No.1FX2025
VILLAGE OF SOUTH GLENS
FALLS SARATOGA COUNTY,
NEW YORK

NOTICE IS HEREBY GIVEN that sealed bids will be received at the Village of South Glens Falls Village Hall, Attention: Village Clerk, 46 Saratoga Avenue, South Glens Falls, NY 12803 until **12:00 pm** local time of **April 23rd, 2025** and then at said office publicly opened and read aloud for work that shall include but is not limited to:

Contract No. **1FX2025**: South Glens Falls Granular Activated Carbon (GAC) Media Project scope shall include: GAC MEDIA

Specifications will be available for viewing at the Village of South Glens Falls Village Hall, 46 Saratoga Avenue, South Glens Falls, NY 12803 between the hours of 9:00am and 2:00pm, Monday through Friday.

The Owner reserves the right to waive any informalities or irregularities in the Bids received, or to reject any or all Bids without explanation.

Any questions should be directed to TJ Chagnon, Superintendent of Public Works, at dpwchagnon@sgfny.com or (518) 792-4033.

Bids should exclude sales and compensating use taxes on materials incorporated into the work. The Contractor must ensure that employees and applicants for employment are not discriminated against because of their race, creed, color, religion, sex or national origin. New York State and Federal Prevailing Wage Requirements shall apply to this project.

No bids will be received or considered after the time stated above. One original and one copy of the bid forms must be submitted in a sealed envelope bearing the name and address of the bidder and clearly marked "VILLAGE OF SOUTH GLENS FALLS – SOUTH GLENS FALLS GRANULAR ACTIVATED CARBON (GAC) MEDIA CONTRACT **No. 1FX2025**.

Digital copies of the Contract Documents may be obtained online as a download from the website: www.sgfny.com under “Public Notices” Complete hardcopy sets of bidding documents may be obtained from 46 Saratoga Avenue South Glens Falls, NY 12803. Any Bidder requiring documents to be shipped shall make arrangements with the Village Clerk's Office and pay for all packaging and shipping costs.

PART 1. GENERAL

1.01 SCOPE OF WORK

A. This specification section is for the supply of Granular Activated Carbon (GAC) services as follows:

1. Furnish all fees, labor, materials, equipment, and supervision of the removal, and transport of spent GAC, and the supply and installation of re-activated and virgin GAC;

2. Contract duration: 5 years (with option for renewal)

1.02 SITE CONDITIONS

A. The Village of South Glens Falls owns and operates the Water Treatment Plant (WTP) at 2 Beach Rd, South Glens Falls, NY 12803.

B. The WTP contains two 12-foot diameter adsorption vessels (Model CP-40K-12) manufactured by TIGG, a NewTerra Company. Each vessel holds 40,000 lbs of GAC media.

C. The WTP currently uses virgin Filtrasorb 400M GAC media, manufactured by Calgon Carbon Corporation.

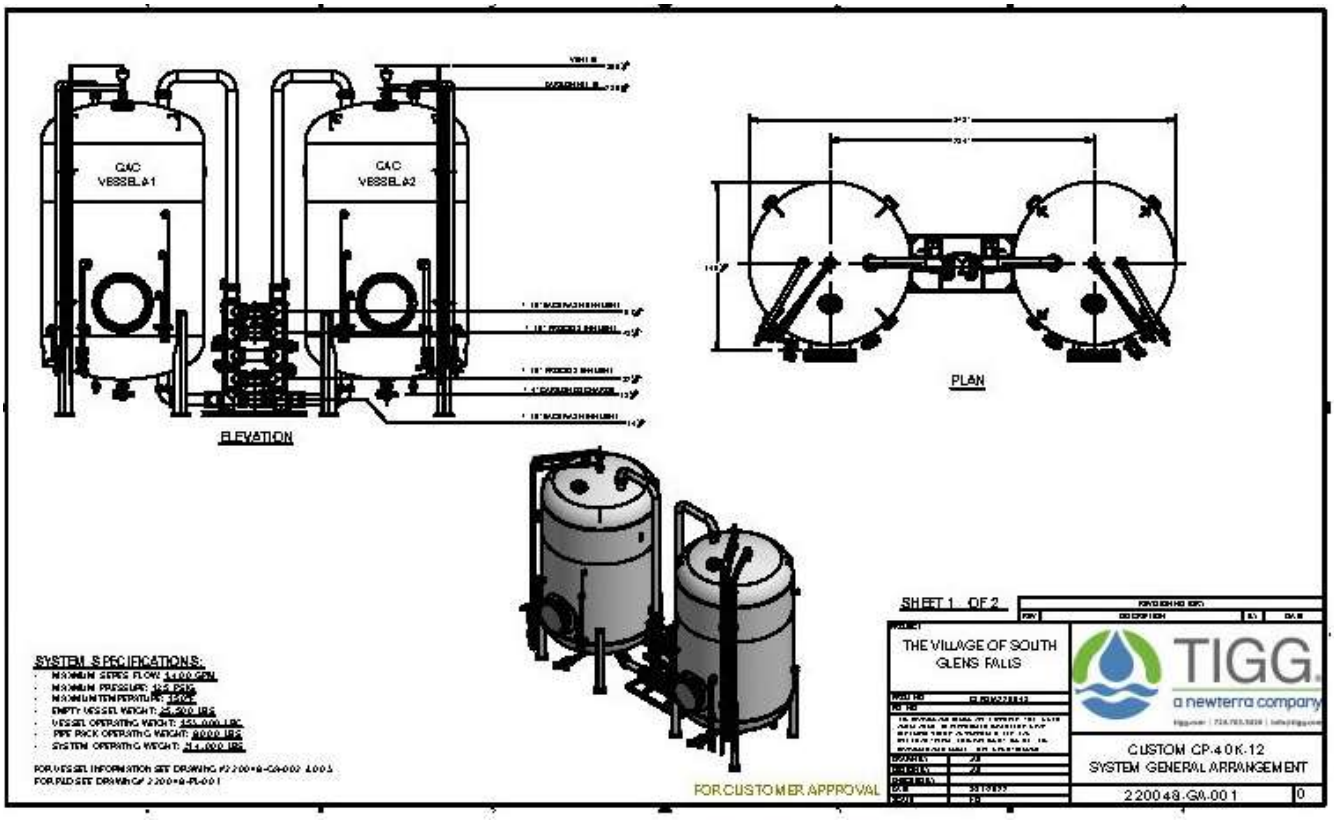

Figure 1 - South Glens Falls - WTP Adsorption Vessels

1.03 BID BACKET

A. All bids must include the following items. **Bidders that fail to provide any of the following items will be considered non-responsive and their bid shall be rejected.**

1. Detailed GAC media technical information brochure.
2. Certificates of insurance in accordance with these bid specifications.
3. Five (5) references for reactivated GAC.
    a. Account name
    b. City/State
    c. Contact
    d. Phone number
    e. Type and quantity of GAC supplied
4. Source of coal, carbon manufacturing location, and description of the manufacturing and reactivation processes.
5. Affidavit of Compliance: All make-up GAC is 100% virgin, 100% bituminous coal-based reagglomerated material.
6. Bidder's virgin and reactivation carbon NSF/ANSI/CAN 61 certification.
7. Pricing sheet – See last page of this bid document.

1.04 BIDDER ACKNOWLEDGMENTS

A. In submitting this Bid, Bidder acknowledges that:

1. Each bidder is solely responsible for visiting the site and satisfying itself as to the general, local, and site conditions that may affect cost, progress, and performance of the Work.
2. Bidder has examined and carefully studied this document, and any data and reference items identified in this document.
3. Bidder agrees, based on the information and observations referred to in the preceding paragraphs, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this bid for performance of the work at the price bid and within the times required.
4. This bid document is generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

1.05 INSURANCE REQUIREMENTS

A. Contractor shall obtain and maintain at all times during the term of this agreement, at its sole cost and expense, the following insurance with an Insurance

carrier qualified and admitted to do business in the State where the project is located. The Insurance carrier must have at least an A- (excellent) rating by A. M. Best.

1. Workers Compensation Insurance with statutory limits and Employers Liability coverage of not less than $1,000,000 for all states other than NY. If a NY State Workers Compensation exposure/policy applies, statutory (unlimited) Employers Liability applies.
2. Commercial General Liability Insurance with minimum limits of $1,000,000 per occurrence and $2,000,000 in the aggregate, such insurance shall cover the following:
    a. premises & operations, contractual liability, products/completed operations, personal & advertising injury, independent contractor's liability, XCU (Explosion, Collapse & Underground coverage)
    b. CGL coverage General Aggregate Limit shall apply specifically to this Contract.
    c. CGL Coverage shall be written on ISO Occurrence CG00 01 1001 or a substitute form providing equivalent coverage.
    d. Village and all other parties required by contract, shall be included as Additional Insured on the CGL, using a combination of ISO forms CG 2010 04/13 and CG 2037 04/13 or an equivalent coverage to the additional insureds. This insurance for the additional insured shall be as broad as the coverage provided for the named insured contractor. It shall apply as Primary and Noncontributory Insurance, before any other insurance or self-insurance, including any deductible or self-insured retention, maintained by or provided to the additional insured.
    e. CGL coverage shall not contain any "Labor Law" exclusions or any similar exclusions which exclude bodily injury to an employee of the insured or an employee of a contractor hired by the insured if it occurs in the course of employment.
3. Automobile Liability insurance covering:
    a. Owned, hired and Non-owned vehicles, with a minimum limit of liability of $1,000,000.
    b. Village and all other parties required by contract, shall be included as additional insured on a primary and noncontributing basis.
4. Umbrella or Excess liability insurance with a limit of $1,000,000 per occurrence & aggregate of $1,000,000.
    a. Village and all other parties required by contract, shall be included as additional insured on a primary and non-contributing basis before any other insurance or self-insurance, including any deductible or self-insured

retention maintained by, or provided to the additional insured other than the CGL, Auto Liability and Employers Liability coverage's maintained by the Contractor.

5. Pollution Liability Insurance with limits of at least $1,000,000 per claim/occurrence.

PART 2. PRODUCTS AND COMPONENTS

2.01 PRODUCT SPECIFICATION – VIRGIN GAC

A. Virgin GAC will either be used to make up losses of spent GAC via the reactivation process, or as an alternate supply to the custom reactivated GAC. The virgin GAC will meet the following specifications:

1. Manufacturer/Supplier:
   a. Basis of Design: FILTRASORB 400M as manufactured by Calgon Carbon Corporation.
   b. Equal: Equal products must be approved by the Owner and their consulting Engineer. All supporting documentation, including third-party laboratory testing results, must be included in the submitted bid packet.
2. The moisture content of all GAC provided shall not exceed 8%. Since the unit price is based on weight, any material exceeding this limit will be rejected to ensure the Owner does not incur costs for excess water weight.
3. The GAC shall comply with AWWA B604, latest edition.
4. The GAC shall comply with NSF/ANSI/CAN 61 Drinking Water System Components – Health Effects standard.
5. The GAC shall comply with the requirements for activated carbon as defined by the Food Chemical Codex (FCC), latest edition published by the U.S. Pharmacopeia.
6. The GAC must be a 100% reagglomerated bituminous coal-based product, sized to a granular form prior to baking and activation.
7. The GAC will be capable of removing PFAS compounds to non-detect levels, color, tastes, odors, and other organic contaminants from water.
8. Bidder shall indicate the source of coal, carbon manufacturing location, and a description of the reagglomeration/thermal process.
9. Quantity of virgin GAC required as make-up in order to compensate for reactivated material lost in transport and reactivation, as well as that needed to bring the final reactivated product up to acceptable quality, shall be determined by the Owner and their consulting Engineer.
10. The successful Bidder must provide a signed Affidavit of Compliance stating

that the GAC they are supplying is:

a. 100% virgin, with no reactivated carbon content whatsoever, and

b. 100% bituminous coal based, reagglomerated material.

	Min	Max
IODINE NUMBER, mg/g	1000	-
MOISTURE (AS PACKAGED), wt%	-	2
ABRASION NUMBER	75	-
EFFECTIVE SIZE, mm	0.55	0.75
UNIFORMITY COEFFICIENT	-	1.9
12 US MESH [1.70 mm], wt%	-	5
< 40 US MESH [0.425 mm] (PAN), wt%	-	4

Figure 2 - Virgin GAC Properties

2.02 PRODUCT SPECIFICATION – REACTIVATED GAC

A. The Bidder shall custom reactivate the Owner's spent GAC. Custom reactivated GAC shall be supplied by the manufacturer of the virgin GAC. Custom reactivated GAC shall meet the following specifications:

1. The moisture content of all GAC provided shall not exceed 8%. Since the unit price is based on weight, any material exceeding this limit will be rejected to ensure the Owner does not incur costs for excess water weight.
2. The reactivated GAC must be the restored product of the same GAC media removed from the Owner's WTP. Reactivated media from other facilities is not permitted. The successful bidder must demonstrate compliance with this requirement.
3. The reactivated GAC must be the same type as the virgin GAC and meet all specified performance requirements.
4. The reactivated GAC will be of the same product as the virgin GAC and will meet all the same performance requirements.
5. Materials shall comply with the requirements of the Safe Drinking Water Act, and all other federal requirements.
6. The spent GAC shall be reactivated in an NSF-certified reactivation facility, conforming to all requirements of AWWA Standard B605, latest edition, dedicated to receiving and producing potable reactivated GAC.
7. The reactivated GAC shall comply with NSF/ANSI/CAN 61.
8. Effective procedures will be in place and utilized to ensure segregation of any spent carbon from reactivated carbon intended to be returned as a custom reactivated product.

PART 3. EXECUTION

3.01 GENERAL

A. Provide and install CAC media per manufacturer's specification.

B. Owner shall provide air and water as necessary to complete the work.

C. The trailer driver connects the necessary hoses and operates all the valves on the trailer. A plant operator, or the Village's Engineer, shall be available to operate the valves on the adsorber system.

D. After all the carbon is transferred from the trailer, the driver disconnects the hoses and closes the valves on the trailer. The plant operator, or Village's Engineer, closes the valves in the vent and carbon fill lines on the adsorber.

3.02 SHIPPING AND DELIVERY

A. The specified material shall be delivered by the manufacturer and thereby the manufacturer shall hold the full responsibility for the condition and completeness of the material upon its delivery.

B. The Engineer shall hold the right to inspect the equipment prior to unloading and setting so as to assure the quality and condition of the equipment is in no way deficient.

C. If in the view of the Engineer or Engineer's inspector, the equipment is deficient when delivered, delivery shall be refused.

3.03 FILLING AN ADSORBER WITH CARBON

A. After the system has been checked, the adsorbers are ready to be filled with granular activated carbon. The carbon is transferred to the adsorbers as a water slurry from Carbon trailers. Typical utility and piping requirements to connect to the adsorber and trailer are as follows:

B. Adsorber

1. Plant Air Line: 3/4" Universal air connection 100 scfm at 30 psig min. (Attaches to 3/4" flush connection on carbon fill line above carbon inlet valve)

2. Plant Water Line: 100 gpm (max) at 30 psig min. (Attach at drain connection using a 2" female Kamlock, or through backwash inlet using an 8" 150 lb. flanged connection).

C. Trailer

1. Plant Air Line: 3/4" Universal air connection (for both industrial and food grade trailer) 100 scfm regulated to 15 psig max.

2. Plant Water Line: 4" Kamlock connection (female for industrial trailer, male for food grade trailer) 100 gpm regulated to 15 psig max. (Connect to Trailer Carbon Fill or Discharge Line)

3.04 SPENT CARBON TRANSFER

A. Transfer from the adsorber to the trailer is accomplished by pressurizing the adsorber with plant air. When the transfer is complete, the spent carbon in the trailer is drained of water. Prior to disconnecting any lines, the air supply must be shut off, and the adsorber and all transfer lines must be vented. The process steps are as follows:

1. Prepare for Spent Carbon Transfer
    a. Close all adsorber valves.
    b. Connect the adsorber carbon outlet line to the trailer carbon fill line using 4" flexible hose.
    c. Open the center manway of the trailer or trailer vent valve for venting.
    d. Open valve in the trailer carbon fill line.
    e. Check that the adsorber is full of water.
    f. To aid the initial phase of transferring spent carbon, fill the transfer line with water. To do this, use a 3/4" water hose to fill the transfer line with water at the adsorber carbon outlet valve's flush-out connection.
2. Transfer Spent Carbon
    a. Open the 3/4" air line valve slowly and pressurize the adsorber to 25 to 30 psig.
    b. Open the 4" adsorber carbon outlet valve and transfer the spent carbon to the trailer.
    c. As the trailer starts to fill with carbon slurry, open the trailer septa valves to drain off excess motive water.
    d. The transfer should take 20 to 30 minutes. The transfer will end with a loss of pressure in the adsorber and the sound of air in the transfer line. A small heel of carbon may remain in the adsorber. This material will have to be removed. Close the carbon outlet valve on the adsorber and add plant water to the adsorber for 2-3 minutes (through the drain connection or backwash inlet). Leave the 3/4" air line open. When the adsorber pressure reaches 25 psig, open the adsorber carbon outlet valve and transfer the remaining amount of carbon into the trailer.
3. End Transfer
    a. Close the plant air line valve.
    b. Vent the tank and lines through the trailer vent valve.
    c. Open the adsorber vent valve to further aid the venting.
    d. Close the adsorber carbon outlet valve.

e. Using a 3/4" water hose at the adsorber carbon discharge line flush-out connection, flush out the transfer line for a few minutes to remove all traces of carbon. Bleed the water hose and remove it.

3.05 DRAIN WATER FROM TRAILER:

A. Prepare for Draining Water

a. Close all valves on the trailer. Close the trailer manway.

b. Connect the plant air line to the 3/4" connection on trailer carbon fill line using the air line hose.

c. Connect the trailer carbon discharge/drain line to the drain line in the trench by means of a 4" flexible hose.

2. Draining Trailer

a. Pressurize the trailer to 15 psig by slowly opening plant air line valve on the trailer.

b. Open trailer septa valves.

c. By pressurizing the trailer, water will be drained in less time than if drained by gravity.

3. End Draining

a. When the carbon is completely drained, close the air line on the trailer.

b. Vent trailer slowly through trailer vent valve.

c. When venting is complete, close all valves on the trailer and disconnect all hoses.

d. The trailer is now full of drained spent carbon and is ready for return for reactivation.

3.06 TRANSFER CARBON TO ADSORBER:

1. Prepare for Transfer

a. Place about 1500 gallons of water in the adsorber. This water cushion helps to protect the underdrain system and vessel lining.

b. Connect the adsorber fill line to the trailer carbon discharge/drain line using 4" flexible hose.

c. Connect the 3/4" plant air line to the trailer carbon fill line using the air line hose.

d. Close all valves on the adsorber.

e. Open the adsorber vent valve.

f. To aid the initial phase of transferring fresh carbon, fill the transfer line with water. To do this, use a 3/4" water hose to fill the transfer line with

water, at the carbon inlet valve's flush-out connection.

2. Transfer Fresh Carbon
    a. Pressurize the trailer to 15 psig by slowly opening the plant air line valve and then slowly opening valve T4 in the trailer carbon fill line.
    b. Open the adsorber fill line valve.
    c. The trailer driver will open the trailer carbon outlet valves to empty the respective hoppers.
    d. If a water cushion is utilized, open an adsorber drain valve shortly after starting the transfer. This is done to reduce the amount of water that overflows at the end of the transfer.
    e. The disposal of the excess motive water is provided by the customer.
3. End Transfer
    a. Close the plant air valve and vent the trailer through the adsorber vent valve.
    b. Close the adsorber drain valve if it was utilized during the transfer.
    c. Slowly open trailer vent valve for additional venting.
    d. When completely vented, close the adsorber fill line valve, disconnect the hoses, and close the trailer valves.
    e. Proceed to wet and backwash/backflush the adsorber.
    f. After the adsorber has been backwashed/backflushed, shut off the plant water and close the vent valve on the adsorber.

3.07 FRESH CARBON TRANSFER FROM TRAILER

A. Fresh carbon is transferred in a slurry using plant air pressure. The trailer is first filled with water to create the slurry. The carbon slurry hose on the trailer is connected to the adsorber fill line and the trailer carbon discharge line. After putting a water cushion in the adsorber, the trailer is pressurized and the carbon slurry is transferred to the empty adsorber. Prior to disconnecting any lines, the air supply must be shut off, and the trailer and all transfer lines must be vented.

3.08 FILL THE TRAILER WITH WATER

A. If the carbon should not be wetted prior to delivery. Assuming the carbon is dry, about 5000 gallons of water will be required. The trailer may be filled either upflow or downflow.
    1. Filling Operation
        a. Connect water line to the trailer (carbon fill line if filling downflow, carbon discharge line if filling upflow) using a 4" flexible hose.
        b. Open one top manway to vent trailer during filling.

c. Open trailer vent line valve.

d. Open trailer water line valve

e. Open plant water line valve slowly and fill the trailer.

2. End Filling Operation

a. Close plant water line valve.

b. Close trailer water line valve, manways, and trailer vent valve.

c. Disconnect hose.

3.09 WETTING (DE-AERATING THE CARBON)

A. In a typical bed of virgin carbon, the pore volume is approximately 40% of the bed volume. Carbon which is shipped dry will contain air in these pores. Therefore, the carbon must be properly wetted prior to being placed on stream. If this is not done, the air within these pores will displace into the void spaces between the carbon particles during operation and cause high pressure drop and channeling in the adsorbers. These problems can cause premature breakthrough of contaminants. Air will not migrate out of the bed during normal downflow operation.

B. The time required for wetting is a function of liquid temperature and viscosity. Generally, a minimum wetting period of 24 hours is required using water at ambient temperatures, although a period of up to 72 hours is preferred for complete wetting. After wetting, backwashable adsorbers should be backwashed to remove air and segregate the carbon by size.

C. As an alternative, the Carbon Service trailer containing fresh carbon may be filled with water and allowed to stand for several hours. When the fresh carbon is transferred to the adsorber, the adsorber should be backwashed to eliminate any remaining air.

D. After the carbon has been wetted, the adsorber should be drained and then backfilled until water flows out the system vent line. The adsorber should be filled up- flow at 2 gpm/ft2 maximum.

E. If the unit must be placed on-stream before the carbon has been wetted, the adsorbers should be drained and backfilled when the pressure drop becomes prohibitive or after two days of operation, whichever occurs first.

F. For process applications, the same procedure is required.

PART 4. PRICING

4.01 UNIT PRICING

A. Unit pricings of GAC Media shall include all costs fees, labor, materials, equipment, overhead & profit, and supplies required to complete the work, including but not limited to:

1. Furnish and install virgin and or reactivated GAC media.
2. Removal, reactivation, and storage of expended media.
3. All transportation related costs.
4. All other incidental work required to accomplish the above items but not listed individually under this section.

B. This bid assumes that the Village's next carbon changeout will use 100% virgin GAC, with the expended GAC sent for reactivation. For subsequent changeouts, the replenished media is expected to consist of an 80% reactivated GAC blend with 20% virgin GAC as makeup.

4.02 CONTRACT PERIOD

A. The Owner agrees to award a contract to the lowest responsible, qualified Bidder for a period of five (5) years commencing on the first day that a contract is signed by both parties.

B. The Owner may extend said contract at the end of the five-year period, so long as it is acceptable and in the interest of both contracting parties and the terms and conditions of the original contract are held firm.

PART 5. BID

Year	Virgin GAC Media ($/lb.)	Reactivated GAC Media ($/lb.)
1		
2		
3		
4		
5		

BIDDER: *[Indicate correct name of bidding entity]*

_____

By:
[Signature] _____

[Printed name] _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices: _____

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Tax ID: _____