

**County of Lee, Virginia**

**Lee County Airport**

**Jonesville, Virginia**

**Request for Proposals**

**For 10,000 Gallon**

**Fuel Tank Installation**

**March 20, 2022**

The Lee County Board of Supervisors is now accepting proposals for the installation only of a 10,000 gallon fuel tank at the Lee County Airport, Jonesville, Virginia. Proposals must be received no later than 2:00 p.m., local prevailing time, April 12, 2022, at the Lee County Administrator's Office, Room 111, Lee County Courthouse, P.O. Box 367, Jonesville, Virginia 24263.

Contract will be for the above-ground installation of a 10,000 gallon Jet-A fuel tank procured separately by the County.

During the performance of this contract, the contractor agrees as follows:

- a. The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- b. The contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that such contractor is an equal opportunity employer.
- c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- d. The contractor will include the provisions of the foregoing paragraphs a, b and c in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.
- e. The contractor will not, and shall not during the performance of the contract, knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.
- f. During the performance of this contract, the contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

The County reserves the right to reject any or all proposals, to waive any informality or irregularity in any proposal received and to accept or reject any and all items of any proposal. Any proposal received after the time scheduled for the opening will be returned to vendor unopened. Any proposal may be withdrawn prior to the above-noted scheduled time for the

opening of proposals or authorized postponement thereof. All proposals must provide a firm price for the tank, including delivery to the Lee County Airport.

### **Project Description**

The Lee County Airport currently has a 10,000-gallon AvGas tank which is situated in a concrete-lined containment facility. This site was constructed to accommodate two 10,000 gallon tanks and the Jet-A tank will be located within this containment area. A 10,000 gallon Jet-A fuel tank has been previously procured with an approximate delivery date of May 15, 2022. This RFP is for the above-ground installation of this 10,000 gallon tank at the Lee County Airport to include all plumbing, electrical and connection to the existing QTPod M4000 fueling terminal. The project will be funded with a combination of Virginia Department of Aviation and USDA Rural Development grant funds.

### **Project Timeline**

Contractor should provide a timeline for expected completion of the installation and all necessary connections to existing fueling terminal per the Project Scope and Specifications.

### **Price**

Price will be used for consideration in the award of this contract but may not be the sole determining factor. Upon completion of negotiations with selected proposers the County of Lee will award a contract to the firm deemed to have submitted the best proposal that meets the County's need.

### **Basis of Award**

Selection criteria will include the following elements:

1. Compliance with specifications
2. Price
3. Availability

Submittals should be formatted in accordance with the Basis of Award as listed above. Proposals should include the Vendor name, address and phone number, signature and printed name of authorized representative. Upon review of the submittals, the short list of selected firms may be asked to attend an interview prior to, or during, negotiations. Final selection of a recommendation of award will be sent to the Board of Supervisors for their consideration and approval.

### **Subcontractors**

Proposals should include a list of all expected subcontractors to be used for this project, if any, including names and addresses.

Site visits, if desired, may be arranged by contacting Dane Poe, County Administrator, at 276-346-7714 or [ddpoe@leecova.org](mailto:ddpoe@leecova.org). Photos of the existing fuel farm and containment site are available on request.

Three (3) copies of the Submittal are due no later than 2:00 p.m., local prevailing time, April 12, 2022, in the office of the County Administrator, Room 111, Lee County Courthouse, P.O. Box 367, Jonesville, VA 24263. Any proposal received after the due date and time will be returned unopened. Questions should be addressed to Dane Poe, County Administrator, at the phone or email address listed above.

# **ABOVE GROUND AVIATION JET FUEL STORAGE TANK (JET-A)**

## **PART 1 GENERAL**

**1.1 SCOPE** - This section specifies the requirements for complete installation of an above ground storage tank (AST) used for Jet-A fuel storage and requirements for accessories. The Jet-A tank will be provided by others. Contractor will be responsible for installation of the Jet-A tank, and providing and installing all pumps, piping, wiring, controls, accessories, and other appurtenances required to provide a complete, and functioning fueling facility.

### **1.2 APPLICABLE PUBLICATIONS INCORPORATED BY REFERENCE**

A. National Fire Protection Association (NFPA):

1. NFPA 30 – Flammable and Combustible Liquids Code
2. NFPA 407 – Aircraft Fueling Operations
3. NFPA 70 – (NEC)

B. Underwriters Laboratories, Inc. (UL):

1. UL 2085 – Standard for Protected Aboveground Tanks for Flammable and Combustible Liquids

C. Energy Institute (EI)

1. EI – 1529 Aviation Fuel Hoses
2. EI – 1540 Latest Edition, Design, Construction, Operation and Maintenance of Aviation Fueling Facilities.
3. EI - 1500, 1542, 1581, 2000
4. EI – 609, 607

D. ATA 103 Standards for Jet Fuel Quality Control

### **1.3 APPLICABLE REGULATIONS**

A. NIST Handbook 44 (Latest Edition)

B. Approvals by Authority having Jurisdiction

### **1.4 DESCRIPTION OF WORK**

A. Furnish all labor, materials, tools, equipment and incidentals required to install one (1) above ground jet-A fuel storage tank system, above ground fuel piping, pumps, dispensing system, and electrical service as described in this specification. **NOTE: JET-A FUEL TANK WILL BE PROVIDED BY OTHERS.**

B. All work shall be coordinated with the Owner to minimize the impact to flight operations and limit the impact on fueling service availability.

C. All equipment shall be marked with the appropriate service designation. Tanks and filters shall also be labeled with an OSHA/NFPA hazardous communication label.

D. General Requirements:

**1. Aviation Jet-A Fuel Storage Tank with Manifold Connections Per Base Bid: TANK TO BE SUPPLIED BY OTHERS**

- a. Tank Capacity: 10,000 gallons
- b. Product: Jet A
- c. Tank Support: Jet A, UL 2085 flame shield Double Wall Aboveground Horizontal Cylinder.
- d. Tank Support: box skids.

**2. Jet-A Horizontal Coalescing/Separating Filters**

- a. Flow Rate: Min 35 gpm, Max 250 gpm
- b. Product: Jet A
- c. E1-1581,6th Edition Category-M, Type-S
- d. ASME VIII, Div. 1 rated housing, 150 psig Design Pressure
- e. Accessories:
  - 1. Automatic air vent with value check and flame arrester
  - 2. Pressure relief valve, 75psi
  - 3. Differential pressure gauge with test feature
  - 4. Pressure Gauge 0-100 psi
  - 5. Inlet and outlet sample probes
  - 6. Spring Closed Stainless Steel Bottom drain valve
  - 7. Fill cap and adapter
  - 8. Ball valve and check valve for fill line

**f. List of Acceptable Manufacturers:**

- 1. Parker Velcon

2. FACET Filtration Group

3. Or APPROVED EQUAL

3. Aviation (Jet A) Storage Tanks Systems Pumps:

a. Minimal Unloading Flow Rate: 200 gpm

b. Recirculation Flow Rate: 200 gpm

c. Refueler Loading Flow Rate: 200 gpm

d. Product: Jet A

e. Type: Centrifugal Pump

f. Motor: 240/480 Explosion Proof (EXP)

g. Secondary containment fuel recovery sump pump

1. Submersible pump – 1.5 horsepower

2. Relay control box

3. All required piping and hardware, including but not limited to unions, shear valves, flex connectors, solenoid valve, and ball valves as necessary.

4. Filter assembly (must match existing) with pressure relief components, stainless steel piping, fittings, bushings, and foot valve.

4. Aviation (Jet A) Bulk Unloading Systems Equipment:

a. Spring rewind static grounding reel

b. Cla-Val 347GF coupler or approved equal

c. Viton Butter-fly shut-off valves, EI-609

d. Flanged tank shut-off ball valves, EI-607

e. Aluminum Floating Suction Assembly (JET)

f. Pump inlet check valve

g. Pump inlet strainer per design drawings

h. Positive displacement meter with air eliminator/strainer, mechanical register (Total Control Systems or approved equal)

5. Tank Level Gauge with 90% Capacity Alarm System

- a. Morrison 918 level (clock) gauge with 90 decibel alarm or approved equal
- b. Overfill valve with drop tube
- c. Secondary float gauge

6. Aviation Jet-A Dispensing Cabinet

- a. Flow rate: Min – 25 gpm. Max - 35 gpm
- b. Product: Jet-A Fuel
- c. Aluminum cabinet enclosure with locking access roll up door, weather rated
- d. 1.5-inch diameter aviation hose, 75 feet in length and Jet-A nozzle
- e. 115VAC Electric rewind hose reel with push button
- f. Pulsar kit for existing meter
- g. Blackmer TX3 pump and motor assembly, or approved equal
- h. Aviation EI-1581 Horizontal Coalescing/Separating Filter
- i. Accessories:
  - 1. Differential pressure gauge
  - 2. Pressure Gauge 0-100 psi
  - 3. Spring closed stainless steel bottom drain valve
- j. Acceptable Manufacturers:
  - 1. Parker Velcon
  - 2. FACET Filtration Group
  - 3. Or APPROVED EQUAL

7. Existing Kiosk to be repurposed or retrofitted to accommodate the addition of Jet-A fuel.

**1.5 QUALIFICATIONS OF MANUFACTURERS**

A. Manufacturer of Aviation Tank Systems shall be regularly engaged in manufacture of Aviation Fuel Storage and Delivery Systems of types and sizes whose products have been in satisfactory use (service) for not less than 10 years. Manufacturer shall possess the appropriate skills, experience, competence and required certification to complete the work in accordance with the provision of these specifications.



## PART 2 -PRODUCTS

**2.1 MATERIALS** - All materials and equipment used in this project shall be new and shall meet or exceed the following specifications.

- A. Steel Plate: All steel plate used in the construction of the storage tanks and related accessories shall conform to ASTM A36
- B. Steel Sheet: All steel sheet used in the construction of the storage tables and related accessories shall conform to ASTM A570 Grade 33.
- C. Pipe and Tubing:
  - 1. Tank and dispenser systems pipe 2-inches in diameter and larger: 304/304L ASTN SA312 SCH10 Stainless steel, 150#R/F, S/O, ASTM1852 Flange, 90° & 45°, ASTM SA403WPW, SCH10 Tank and dispenser systems.
  - 2. Tank and dispenser systems pipe 2-inches in diameter and smaller: 304/304L ASTM SA312 SCH40 Stainless steel.
  - 3. Instrument Tubing: ASTM A269 304 Stainless steel .035 wall, Compression Fittings DK-LOK or approved equal

## 2.2 PRODUCTS

A. Double-Wall Protected Above Ground Storage Tank (**SUPPLIED BY OTHERS**):

- 1. The AST shall be constructed with materials conforming to the specification found in Section 2.1 and the entire assembly shall be listed by a nationally recognized testing laboratory. The AST shall be constructed by a manufacturer that has been regularly engaged in the manufacture of UL Listed Protected Steel Above Ground Tanks for Flammable and Combustible Liquids. The AST shall be designed and constructed in conformance with NFPA 30. It shall consist of a steel tank and shall meet or exceed the following minimum specifications:
- 2. The primary tank shall be constructed of steel plate not less than ¼” thick for tanks with a total capacity of 10,000 gallons. However; in no case shall the primary tank be thinner than specified by UL Standard 2085.
- 3. The aviation tanks interior shall be lined using two-coats of Epoxy Phenolic. Finish color shall be white.
- 4. The external surfaces of the tank, nozzles and supports shall be protected from the elements with two coats of high-performance industrial epoxy and urethane coating system. Finish color shall be white.
- 5. Except for the vent riser pipe and access assembly, if any, the tank shall be fabricated and assembled at the manufacture’s facility.

6. Above ground storage tank shall be by one of the following or APPROVED EQUAL:

1. Modern Welding Company of Florida
2. Highland Tank
3. Alabama Tank

b. Provide the tank with all openings in locations and of sizes pursuant to the following nozzle schedule:

Description	Size	Location	Remarks
Manway	24"	Cylinder (Top)	
Inlet	3" 150#	Above Liquid Level	w/internal pipe
Sump Pump Out	3/4" 150#	Cylinder (Top)	w/internal pipe
Leak Detection Monitor	2" **	Cylinder (Top)	
Level Indicator	2" 150#	Cylinder (Top)	
Normal Vent	3" **	Cylinder (Top)	
Emergency Vent	8"	Cylinder (Top)	Primary & Secondary
Outlet	3" 150#	Above Liquid Level	

\*\* Tank Manufacture to confirm size

**B. Tank Access Platform and Ladder**

1. Provide Aviation tank with a full height ladder on one side, to be used to reach an access platform across the top of the tank. The access platform shall provide full access to manual stick gauge and floating suction gauging opening on the top of the tanks. Provide an OSHA compliant handrail on all sides of the access platform.

**C. Tank Supports:**

1. Provide the tank with two tank supports, box skid type welded to the bottom radius of the tank. Contractor shall be responsible to verify in field the location of existing concrete tank runner foundations and coordinate with manufacturer the locations of the box supports to meet existing foundations accordantly.
2. Contractor shall be responsible to provide 304 stainless steel anchors epoxied in place, number and sizing of anchors as required by manufacturer and in accordance with meeting local and FBC building codes.

**D. Tank Signage:**

1. Each tank system shall be color coded with required labels and decals affixed to the tank exterior.in the proper location and configuration to meet applicable code requirements.

2. Additional Owner-required signage:

a. Provide confined space warning sign.

b. Provide OSHA/NFPA Hazard Communication label on tank in accordance with NFPA 704.

E. Accessories:

1. Tank Level gauge

2. Fill tube on tank inlet

3. Emergency vents

4. Overfill protection valve on inlet

5. External Emergency Fuse Link Fire Valve (suction)

6. Leak detection for interstitial space

7. Hand pump for sump outlet line. GPI HP-100ULK, or APPROVED EQUAL

## 2.3 CENTRIFUGAL PUMP

A. Manufacturers:

1. Gorman Rupp

2. Or APPROVED EQUAL

B. Operating Conditions:

1. Jet-A Unloading pump

- Flowrate: 200 GPM
- Horsepower: 7.5

C. Design Criteria:

1. Supply pumps with all accessories such as coupling, mechanical seal, piping, and instruments all mounted on a common base frame.

2. Pumps shall be suitable for intermittent operation and outdoor installation.

3. Design entire pump, including suction flange, to withstand specified maximum pressure.

4. Closed couple pumps are not acceptable.

5. Coupling shall be of non-lubricated, flexible, spacer disc type and capable of absorbing torsional vibration and shaft misalignment.

6. Removable metal coupling guards (non-sparking type) shall be provided for all exposed rotating elements and shall be in accordance with applicable codes.

7. All equipment, piping, and auxiliaries shall be installed in such a manner as to permit safe access for operation and maintenance. All instrumentation shall be visible and accessible.

## **2.4 ACCESSORIES**

### **D. Sump Fuel Recovery Unit:**

1. Quantity: One (1)
2. Aluminum or Stainless Steel Construction
3. Construction Acceptable Manufactures:
  - a. ABA-CON, Inc. 321-567-4967
  - b. American Environmental Aviation, 631-586-2000
  - c. Schultz Engineered Products, 732-922-4334
  - d. Or APPROVED EQUAL

### **E. Signage:**

1. Emergency instructions, per NFPA 407 (8.1.11.2)
2. Operating instructions, per NFPA 407 (8.1.11.3 and 4)

## **2.5 VENDOR CONTROL PANELS AND REMOTE START/STOP STATIONS**

A. Contractor shall provide EXP motor starters and remote start/stop station to power and control the Jet-A tank pump. Tank and cabinet equipment shall be classified hazardous environment and shall be housed in NEMA 7 rated housing/cabinet.

B. Tank systems shall include the components listed below:

1. One (1) WATER IN FUEL indicator light (Red) for each tank pump
2. One (1) PUMP ON indicator light (Red) at dispensing cabinet
3. Tank Pumps:
  - One (1) ON-OFF pump selector switch
  - One (1) PUMP ON indicator light (Red)

C. Remote E-STOP emergency pushbuttons shall be classified hazardous environment, red in color and shall be housed in NEMA 7. E-STOP pushbuttons shall be key-to release to reset. Location to be determined in the field by Owner or Engineer.

D. Control operators such as pushbuttons (PB), selector switches (SS), and pilot lights (PL) shall be Eaton Type E34, Square D Company Type SK, or equal. Control operators shall be 30.5 mm, round, heavy duty, oil tight NEMA 4X corrosion resistant.

- E. Pushbuttons and selector switches shall be non-illuminated, spring release type. Pushbuttons shall include a full guard. Panic stop/alarm pushbuttons shall be red mushroom type with manual-pull release. Pilot lights shall be of the proper control voltage, LED type, visible in direct sunlight.
- F. The vendor relay panel shall have one electrical single incoming point of connection with a main circuit breaker sized per National Electrical Code. All relay/control panels shall be constructed under UL 508A standard, by the approved vendor and the vendor shall bear a UL 508A label on the panel.
- G. Motor started shall include one circuit breaker and one NEMA-rated, full voltage non-reversing starter.
- H. The following control functions and protections shall be provided:
1. Dispensing:
    - The remote dispensing cabinet tank pump shall be started and stopped locally via start/stop controls. In the OFF position the pump shall not operate. In the ON position the pump shall operate via the self-service kiosk.
    - Provide pump running indication at remote station.
  2. Tank Pumps:
    - In the ON position the pump shall be started/stopped locally to the pump via start/stop pushbutton controls. In the OFF position the pump shall not operate.
    - Provide pump running indication at each remote station.
  3. Emergency Stops (E-Stops):
    - Actuation of any E-Stop pushbutton shall cause all pumps and reels to stop immediately. All power and control to pumps, self-service kiosk, fuel management system shall be removed until the E-Stop push button is reset.
  4. Pumps shall automatically restart after a power failure if no safety lock-outs have been tripped or triggered.
  5. Provide instrument identification tags, calibration, and manufacturer's services.

## **PART 3 - EXECUTION**

### **3.1 TANK INSTALLATION**

- A. Above ground tanks shall be installed as recommended by the tank manufacturer and approved by the Engineer. Tanks shall be installed in accordance with the manufacture's installation procedure in effect at the time of installation. Above ground tanks shall be placed on a reinforced concrete slab, in accordance with the tank manufacture's approved design. **INSTALLATION WILL BE PERFORMED AS PART OF THIS SCOPE.**
- B. Tank shall be properly grounded after installation.
- C. Supplier shall provide above ground steel fuel storage tank as specified in Section 2 above in quantity, size and arrangement as shown on the shop drawings. Included with the delivery of each tank shall be the manufacture's certification of listing and compliance with NFPA 407 & 30. **TANK WILL BE PROVIDED BY OTHERS.**
- D. The completed installation shall comply with the requirements of NFPA 407 & NFPA 30 and the conditions of approval stated on the permits. The tank(s) shall be labeled UL2085.

### **3.2 SUBMITTALS**

- A. The Contractor shall provide equipment submittals including manufacturer's product data sheets for all components, tank outline drawings, platform drawings, installation instructions, certificates of compliance with testing requirements, engineering data, and equipment specifications.
- B. Contractor shall provide pump outline drawings and diagrams to the Engineer for review prior to installation. Pump performance curves and motor data sheets for each pump shall be submitted to the Engineer for review prior to installation.
- C. Contractor shall provide any 1-line drawings, P&ID drawings, and general layout drawings to the Engineer for review and approval.
- D. Contractor shall provide red-line drawings to the Owner and Engineer after completion of the project. As-built conformed drawings and all manuals shall be provided to the Owner within 60 calendar days of final completion.

### **3.3 WARRANTY**

- A. The tank manufacturer shall furnish in writing a one (1) year warranty for the above ground tanks from the date of delivery pending Owner's receipt inspection at the time of delivery to the site.
- B. All equipment shall be warranted for one (1) year from the date of delivery to the project site.
- C. All defects in workmanship shall be warranted for one (1) year from the date of Final Completion. The Owner or Engineer will establish the date of Final Completion.

**END OF SECTION**