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**CHARLOTTESVILLE- ALBEMARLE AIRPORT**

**CHARLOTTESVILLE, VIRGINIA**

**4X4 SEVERE SERVICE, HI-SPEED RUNWAY SNOW PLOW VEHICLE**

**CAB FORWARD CHASSIS WITH TWENTY- TWO FOOT FLARED PLOW**

**Bid#2021-04**

**SPECIFICATIONS**

**CHARLOTTESVILLE-ALBEMARLE AIRPORT AUTHORITY**

**INVITATION TO BID**

**4 X 4 SEVERE SERVICE, CAB FORWARD CHASSIS WITH A TWENTY- TWO FOOT FLARED PLOW**

The Charlottesville-Albemarle Airport Authority, acting by and through the Executive Director, invites bids for the purchase of a 4x4 Severe Service, Hi-Speed Runway Snow Plow Vehicle.

Copies of the Bid Documents and Specifications are available upon request to F. Jason Devillier Director of Operations, Maintenance & Construction, Charlottesville-Albemarle Airport Authority, 100 Bowen Loop, Suite 200, Charlottesville, Virginia, 22911, (434) 973-8342.

Bids will be received until 3:00pm, local time, April 30, 2021, by the Director of Operations, Maintenance & Construction, Charlottesville-Albemarle Airport Authority, 100 Bowen loop, Suite 200, Charlottesville, Virginia, 22911. Each bid must be contained in an envelope which shall be sealed, conspicuously endorsed with the bidder’s name, date, and time Bid is to be received and may be either mailed or hand delivered. Bids will be opened and read aloud in the Authority offices at 3:00 pm, local time, April 30, 2021. Bids received after 3:00 pm local prevailing time will be returned unopened.

The Bid must be submitted on the blank form furnished by the Authority and must give all information required. This is Attachment A included in the ITB.

The Authority reserves the right to accept or reject any or all bids and to waive any informalities in Bids received, if it is in the best interest of the Authority to do so.

F. Jason Devillier, C.M.

Director of Operations, Maintenance & Construction

Charlottesville-Albemarle Airport Authority

**CHARLOTTESVILLE-ALBEMARLE AIRPORT AUTHORITY**

**INVITATION TO BID**

**SEVERE SERVICE, ALL WHEEL DRIVE, CAB FORWARD CHASSIS**

**AND TWENTY-TWO FOOT FLARED PLOW**

**ITB SCHEDULE OF EVENTS**

Bid posting date: April 21, 2021

Deadline for submission of bid questions: April 28, 2021

Bids Open: April 30, 2021

**GENERAL CONDITIONS**

1. Bids must be submitted in a sealed envelope with the outside of the envelope marked in the lower left hand corner as follows:

**4X4 SEVERE SERVICE ALL WHEEL DRIVE CAB FORWARD CHASSIS WITH A TWENTY- TWO FOOT FLARED PLOW**

**April 30, 2021**

**3:00 PM**

1. Bids will be time stamped upon receipt and retained unopened in a secure location until bid opening. FACSIMILE AND TELEGRAPHIC BIDS SHALL NOT BE ACCEPTED AS RESPONSES FOR COMPETITIVE SEALED BIDDING.
2. No consideration will be given to date of postmark.
3. The Airport Authority reserves the right to accept or reject any or all bids in whole or in part and to waive any informality in the bid. Informality shall be defined as a minor defect or variation from the exact requirements which does not affect the price, quality, quantity or delivery schedule. The Authority reserves the right to terminate the procurement process at any time if the Authority deems it is in its best interest to do so.
4. The specification herein is intended to indicate the character, quality and/or performance of the goods or services desired. Unless qualified by the provision "No Substitute" the name of a brand, manufacturer or catalog designation does not restrict the bidder to that brand or manufacturer. Alternates to the specified goods or service will be considered to the extent that such action is deemed in the best interest of the Airport Authority. The Authority, in its sole discretion, shall determine if an article is an equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended.
5. The Airport Authority will assume no responsibility for oral instruction, suggestion or interpretation. . Any question regarding the bid documents and/or specifications should be directed to F. Jason Devillier, Director of Operations, Maintenance & Construction, and any material change will be submitted to all bidders through issuance of an addendum.
6. Modification of or corrections to bids are not acceptable after bids have been opened.

Erroneous bids may be reclaimed or superseded any time prior to bid opening time. Any new

bid must be marked with the additional notation "Supersedes all previous submissions" .

1. Identity of bidders, except in the case of construction contracts, will not be disclosed prior to bid opening.
2. As part of this bid a notarized Certificate of No Collusion must be submitted with the bid.

10. Unless otherwise noted below no bid may be withdrawn from consideration for 120 days from

bid opening. A bidder may withdraw a bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn. The bidder shall submit the original work papers, documents and materials used in the preparation of the bid at or prior to the time fixed for the opening of bids. Thereafter, the bidder shall have two days after the opening of bids within which to claim in writing any mistake as defined herein and withdraw his bid. Such mistake shall be proved only from the original work papers, documents and materials delivered as required herein. The work papers, documents and materials may be considered as trade secrets or proprietary information. No bid may be withdrawn when the result would be the awarding of the contract on another bid of the same bidder or of another bidder in which the ownership of the withdrawing bidder is more than five percent. No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor to or perform any subcontract or other work agreement for the person or firm to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted. If a bid is withdrawn under the authority of this section, the lowest remaining bid shall be deemed to be the low bid.

1. Do not include taxes, including excise taxes in your quotation. A tax- exempt certificate will be provided upon request.
2. Tabulations of bids are a matter of public record and are available upon request.
3. Awards shall be based on determination of the lowest responsive and responsible bidder.
4. All prices submitted must be FOB Destination-Freight Prepaid and Allowed, unless otherwise specified.
5. In the case of error in the extension of prices the unit price shall govern.
6. Unless otherwise noted any equipment shall be new, unused, of current production and standard to the manufacturer. Where any part or nominal appurtenances of equipment are not described it shall be understood that all equipment and appurtenances standard to or recommended by the manufacturer for complete and safe use shall be included as part of this bid.
7. A Material Safety Data Sheet is required for all chemicals proposed to be furnished as a result of this bid. The MSDS must list all ingredients which constitute more than 1% of the product (.1% for known or suspected carcinogens); identify the product by common and chemical name; provide physical and chemical characteristics of any hazardous components; list any known acute or chronic health effects; specify exposure limits, precautionary measures, and emergency and first aid procedures.

 18. The undersigned hereby certifies that the provisions of the federal Buy American provisions shall be met.

19. A requirement in the invitation to bid that fixes the time within which bids must be received is not a minor defect or an informality that may be waived but, rather, a material and formal requirement that, under the circumstances present in the instant case , must be fulfilled to the letter of the law.

20. Bids shall be valid and binding for a period not less than 120 days from the date set for receipt of bids

Conditions herein have been carefully read and this bid is submitted subject to all requirements stated herein. The undersigned hereby acknowledges and agrees if this bid is accepted to furnish all goods and/or services for which prices are quoted in strict accordance with the specifications.

SPECIAL CONTRACT TERMS AND CONDITIONS

1. The General Terms and Conditions applicable to the Authority’s procurement transactions (Attachment B) and FAA provisions for Airport Improvement Program (Attachments C and D) of this ITB, and are incorporated by reference as if set forth herein verbatim. The provisions of Attachments B, C and D should be construed together with the provisions of this ITB, so as to give effect to the terms and conditions set forth within each whenever possible. However, in the event of any conflict between the provisions of Attachment B, C and D and those set forth within this ITB, the provisions of this ITB shall govern as the requirement applicable to the contractor.

**SPECIFICATIONS FOR**

**ONE, OPTION FOR TWO, 4 X 4 ALL WHEEL DRIVE**

**CAB FORWARD CHASSIS with a TWENTY-TWO FOOT FLARED PLOW**

**GENERAL**

These specifications proved for the furnishing and delivery of one (1), with an option for two (2) ALL-WHEEL DRIVE, HEAVY DUTY, CAB FORWARD CHASSIS with a TWENTY-TWO FOOT FLARED PLOW and describe, in general the type, size, and quality desired.

This vehicle shall be all wheel drive and must be designed and manufactured in the United States, for the specific purpose of snow removal, with a minimum 50,000 lb. GVW rating, approximate wheel base of 164". The configuration shall be suitable for front mounted attachments. The forward mounted cab design shall have near center steering and a rear mounted chassis drive engine. This vehicle shall comply with all applicable FMCSR and FMVSS quality/safety standards, and requirements of the FAA Advisory Circular 150/5220-20A.

All parts and components of this unit shall be engineered and classified as HEAVY DUTY, and shall be of the size, material, and strength to sustain the maximum load limits and severe operating conditions encountered in snow removal, while resulting in minimum wear and failure.

These specifications require the doing of all things necessary or proper for, or incidental to the furnishing of said unit. All items of design and equipment not listed in these specifications, but involved in carrying out their intent, are required to be furnished by the bidder, the same as if these items were specifically mentioned and described in these specifications.

**PROTOTYPES AND EXPERIENCE**

The airport sponsor requires this specified piece of equipment in order to maintain the airfield during large and small snow events. It will be a central and critical element in the fleet and in the effort to accomplish the airport’s published snow plan. Experience building machines of this nature is mandatory as is a track record of recent manufacture and in-service record for machines comparable and similar to that specified. Therefore, location and contact lists are required in the bid package to enable the airport sponsor to contact at least 10 airports that have taken delivery of similar equipment from the bidder within the last two years. Bids received without including such location and contact list will be considered non responsive and will not be considered.

**TYPE & SIZE**

This unit shall be designed for one man operation, and have a fully enclosed, thermally and acoustically insulated, aluminum and glass cab mounted center frame, as far forward as good engineering practices will permit. The operator shall be near center cab positioned for visibility in high speed snow removal operations.

The front attachment to front axle dimension shall be kept as close as possible. This cab location and the axle to attachment dimension are necessary in order to have the operator as far forward as good engineering practices will permit, allowing greater visibility and maneuverability while clearing debris from runways and taxiways.

**CHASSIS**

The chassis shall be designed to permit easy and safe mounting and dismounting of the unit for operators and service personnel. Grab bars shall be installed as required for safe mounting and dismounting by personnel following OSHA standards of 3-point contact during all mount and dismount activities. This shall include a minimum 1-inch diameter vertical grab bar behind each door, to include round tactile material for improved grip. The inside of each door shall include a minimum 1-foot grab handle positioned under the window. It shall be made of minimum 1-inch diameter material, round only (no sharp edges or corners) for safety. All sheet metal, cowling, steps and fenders shall be free of sharp edges and protrusions, and include ample supports and bracing to prevent distortion and cracking. All steps or walkways shall be raised lug or expanded metal type construction.

**FRAME**

The frame shall be of Grade 8 bolted construction, with heat treated, 120,000 psi yield strength, single channel carbon manganese steel rails, connected by an adequate number of cross members to resist frame distortion from the lateral stress expected in this application. Minimum bar size shall be 12.375" X 3.875" X .375", with minimum 2,818,000 inch pound RBM per rail. The frame shall be the industry standard 34" width. There shall be two (2) tow hooks mounted on the rear of the vehicle. FRAME LINERS, WRAPPERS, FISHPLATING, AND BOLT-ON EXTENSIONS ARE NOT ACCEPTABLE.

A straight, full width rear bumper is required to protect the rear of the vehicle. Bumper shall be approximately 12 inches in height to offer ample protection at rear of the vehicle. For maneuverability, the unit shall have an angle of departure of no less than 15 degrees.

Mud flaps shall be provided behind both axles and in front of rear axle to avoid snow and debris on truck.

**CHASSIS DRIVE ENGINE**

The engine shall be of the EPA “On-Road” compliant, four stroke diesel type, six (6) cylinders, minimum 11.9 liter nominal displacement, developing a minimum of 500 horsepower at 1800 RPM, with engine governed RPM of 2100, Cummins brand or approved equivalent. Engine shall be equipped with latest diesel electronic control and engine management system.

The engine shall be provided with full flow, replaceable oil filters, heated fuel water separator, engine manufacturer’s standard fuel filtration system, high idle and cruise control, and emergency (power de-rate) system with light and buzzer, in event of high water temperature and/or low oil pressure. Two switches conveniently located for the operator shall be provided, one to manually activate the emissions regeneration system and one to inhibit the regeneration process. An automatic measured shot ether starting aid with thermostatic control shall be provided. Starter shall be Delco. Engine shall have a front engine PTO flange for mounting a front mounted hydraulic pump to be driven directly off the crankshaft. A 1500 watt, block type, engine coolant heater shall be provided.

A dry type two stage air cleaner is required with provisions for modification of air intake, offering both outside of hood and under hood air intake as required by seasonal and local conditions to assure that engine manufacturer’s intake air temperature limitations can be met. Chassis engine air intake filter canister(s) shall be located under the chassis engine hood on stand away brackets to avoid snow build up on exposed mechanisms.

An exhaust guard shall cover the external exhaust components to protect crew from burns.

**CARRIER ENGINE ACCESS COVER**

The carrier engine access cover shall be a fiberglass tilting type with an air over hydraulic assist system installed on the vehicle, controlled from the rear bumper area. Hoist shall operate on system air pressure by means of push to operate controls. Hood lift shall include a minimum of two (2) hydraulic cylinders to avoid deformation of engine cover, one on left and one on right, mounted under the hood to avoid snow build up on exposed mechanisms. Lowering shall be accomplished by means of an orifice release to provide a slow and safe lowering of the hood. Two guides shall be mounted below the leading edge of the hood one left and one right, to self-align hood as it lowers. Rollers or other appendages on the hood shall lower to the outside of these guides.

A chassis lubrication data plate shall be affixed to drivers’ side of the chassis engine hood. The data plate shall provide a visual guide for all lubrication points and lubrication specifications that are utilized on the chassis.

**COOLING SYSTEM**

The cooling system shall consist of a HEAVY DUTY radiator and engine air charge cooler assembly. The charge air cooler (CAC) shall be mounted above the coolant radiator core to optimize air flow and reduce the opportunity to collect snow and other debris between the cooling cores. The coolant and air flow shall be horizontal for maximum cooling with the side tanks, and side members bolted together to form a rigid frame. The tanks shall be steel and the core shall be constructed of copper and brass. Sturdy steel support rods (minimum ½ inch diameter) between radiator and frame, complete with rubber vibration isolating pucks at frame end are required. There shall be at least one support bracket on left and right of radiator, providing stability for the cooling package.

A transmission cooler shall be located integral to the radiator protected within one of the coolant radiator side tanks. A thermostatically controlled, air operated disconnect type suction fan shall be provided. Radiator shroud is required to properly direct air flow through cooling system. An engine mounted fan ring is required and shall attach to the cooling system radiator and charge air cooler through a flexible rubber material. Normal operational engine movement shall not put undue stresses into the cooling system radiator or charge air cooler. The engine cooling system shall be filled with permanent type antifreeze protecting the system to -40 degrees F. A spin on coolant filter and silicone radiator and heater hoses shall be provided.

Fan belt shall be serpentine type. Engine shall be equipped with an automatic belt tensioning device.

**CHASSIS ENGINE COOLING SYSTEM CERTIFICATION**

Certification and proof of chassis engine cooling tests are required in the bid package. Certification shall include a dated, signed letter from the engine manufacturer indicating approval of the installation as bid. Certification shall prove suitable cooling capacity in ambient temperatures up to 100 degrees when operated at maximum horsepower. Certification shall be for horsepower equal to or greater to the horsepower required within this specification.

Lack of proper certification proof in the bid will be considered reason to reject any proposed unit as an untested and unreliable prototype.

**FUEL SYSTEM**

Twin fuel tanks shall have a minimum total capacity of 250 gallons. The tanks shall be constructed of heavy gauge steel and be properly fastened to the frame. A four inch diameter filler neck with chain connected cap and brass tank drain plugs shall be provided. Fuel tanks shall be interconnected to allow equalized fuel level in both tanks. A Racor 3250R heated fuel/water separator shall be installed in the supply line to the engine fuel injectors. Fuel tanks shall be interconnected, single side fuel fill, 30 GPM fill rate with shut-off valves at each end to allow both fuel tanks to be quickly filled from one side.

**TRANSMISSION**

The transmission shall be Allison RDS or approved equivalent – electronically controlled four-speed automatic minimum, with a low gear ratio of 3.51:1, and shall be supplied with the appropriate torque converter for this application. Shifting shall be accomplished via a shift control within easy reach of the operator. A low transmission oil level sensor system shall be included in the electronic transmission. Touch pad control shall be located near driver, enabling operator to shift gears with left hand. A dedicated back up connection shall be provided between touch pad shifter and vehicle electronic system EXTERNAL TO THE J1939 DATA BUS CONNECTION to allow operator to shift into gear during fault mode or if main J1939 data bus fails. This back up connection is essential for emergency egress from active runways.

**TRANSFER CASE – AUTOMATIC LOCKING TYPE**

In accordance with FAA Advisory Circular; AC 150/5220-20A, an automatic lockout type transfer case is selected by the purchaser. Bids received without a two-speed automatic lockout type transfer case will be considered non responsive and will not be considered. For safety, it is required that NO driver intervention be required. Manufacturer must provide description and proof of this requirement.

The transfer case shall be a two-speed type with automatic locking/unlocking differential to control the torque between the front and rear axles. The hi-low range selection shall be electric over air actuated and operated from the cab and equipped with Smart Shift® or approved equivalent to eliminate range shifting at excessive speeds. Switch shall be stage bump type, moving the shift from low to high or high to low. For vehicle and equipment protection, if the shift is not completed by the electric/air system within one minute, the system shall cease attempts at range shift and notify the operator of the failure by flashing light at the control switch. Operating range of the transfer case is to be displayed on the main dash LCD screen. The transfer case shall have a torque transmission capacity exceeding the maximum torque developed by the engine and transmission, and shall be approved for the application.

**FOUR WHEEL STEERING SYSTEM**

Front axle steering shall be Sheppard dual gear integral hydraulic power assist gear type. The steering gear shall be rated for heavy-duty service. Four wheel steering shall be electronically coordinated through the standard steering wheel. A selector switch within easy reach of the operator shall provide the option of front steer only, crab steer, or coordinated front/rear steer. Additionally, a single axis joystick, or thumbswitch, shall be provided for controlling rear steer only.

The system shall include safety provisions for dampening of all wheel steer effects at higher speeds, but it shall also allow full operation while the vehicle is moving at lower speeds. An indicator shall be provided in the cab to display mode selected and rear wheel position. Also for safety, there shall be a mechanical linkage maintained at all times between the steering wheel in the cab and the front axle to assure the ability to control the vehicle in the event of hydraulic or electrical system failure. Safety dampening of all wheel steer effects shall be related to vehicle speed and all wheel steer be available in both transfer case speed ranges.

Due to the conditions under which the vehicle will be operated the ability of this equipment to operate safely at all speeds while maximizing maneuverability, and provide the operator the ability to select the desired mode of operation “on the go” an electronically controlled rear axle steering system which operates in conjunction with the mechanically controlled front wheel steering system is required. This system must consist of the following components and operating features.

The all wheel steering system consists of the following major components:

* The vehicle’s original front steering system
* A driving, steerable rear axle
* Various hydraulic control valves, wheel position sensors, speed sensor and a steering cylinder located on the rear axle.
* ECU (electronic control unit) and control panel (located in the cab )

 **OTHER REQUIRED FEATURES**

* All of the all-wheel steering systemcontrols are to be located in the cab easily accessible to the operator.
* Theall wheel steering system must be preprogrammed with multiple steering modes for improved maneuverability.
* The driver must have the option to select one of the following modes of operation “on the go” based on the driving conditions at hand.
1. **Front Steer.** When in the front mode the vehicle behaves like a conventionally steered vehicle. In this mode, the axle lock remains in the locked position and the rear axle does not steer. Use this mode when enhanced maneuverability is not needed or during operation at speeds greater than 30 mph, such as highway travel or straight ahead high speed brooming operations.

**2. Coordinated Steer.** This mode gives the operator the tightest turning radius of any of the available modes. When the front axle is steered, the rear axle turns in the opposite direction of the front, which reduces the turning radius and enhances maneuverability. This mode also has a deadband feature. Deadband allows the vehicle front axle to be turned a predetermined number of degrees in either direction before the rear axle steers. The deadband varies according to the speed of the vehicle. The rear axle lock remains engaged (locked) when the front axle is within the deadband range.

**3. Crab Steer.** When the front axle is steered, the rear axle steers in the same direction as the front axle. This makes the vehicle travel in a diagonal motion, sometimes called “crab walking”. This mode can be useful for parallel parking or for counteracting side forces applied to a vehicle, such as during low speed snow plowing or brooming operations. This mode also has a speed controlled variable deadband.

**4. Joystick or Manual Rear Steer.** When in this mode, the rear axle is controlled only by the joystick, or convenient thumbswitch, independently of the front wheel position. Use this mode only during low speed operation. This mode is particularly useful when backing the vehicle or when the vehicle is brooming large amounts of snow and more broom angle is desired. The hydraulic locks remain operational; however, the mechanical lock is disengaged (unlocked) at all times when in this mode.

**5. Switching Between Modes.** The mode switch may be moved at any time; however, the ECU will not switch modes unless the front axle crosses center. If the front axle does not cross center the system remains in the previous mode until the front axle crosses center. The rear wheels must be in the straight–ahead position before the mode change occurs.

**6. Rear Wheel Position Gauge.** The system must include a rear wheel position gauge, which performs the following three functions:

* *Calibration Indicator:* The LED bar graph on the display gauge is used for calibrating the wheel position sensors. The LED bar graph display shows the position of the angle sensors for adjustment purposes.
* *Rear Wheel Position Indicator:* The LED (light emitting diode) bar graph display shows the operator the position of the rear wheels. When the rear wheels are in the straight–ahead position, the center green LED will be on. When the rear wheels are turning left, the LED bar graph sweeps from center to the left in proportion to the rear wheel angle. When the rear wheels are turning right, the LED bar graph sweeps from center to the right, in proportion to the rear wheel angle
* *Error Code Display:* The error code display is used in troubleshooting. If an error is detected by the ECU (electronic control unit), it signals the operator. This display is also used during system start–up to display the current CPU (central processing unit) software revision level.

**7. Mode Lights.** The mode light feature consists of four lights

The FRONT mode light is lit when the all-wheel steeringECU is operating in the front steer mode and the three-position mode switch is in the front steer (center) position.

The AXLE LOCKED mode light is lit when the rear axle is mechanically locked in the straight–ahead position. This light also comes on when the all-wheel steering ECU detects a system problem and an error code is displayed on the rear wheel position gauge.

The COORD mode light is lit when the all-wheel steeringmode switch is in the coordinated steer mode position and the ECU is operating in coordinated steer mode.

The CRAB/JOYSTICK mode light is lit when the three-position mode switch is in the rear steer position and the ECU is operating in the rear steer mode.

**8. Managers Switch.** A key switch must be provided which will allow supervisory personnel to “lockout” or “enable” operation of the all-wheel steer system. This switch is included to insure that only those operators who are qualified to operate the vehicle all wheel steering system are permitted to do so.

1. An auto-center feature is required to assist in relocating the rear axle to the straight ahead position after use of the independent rear steer mode.

**SPRINGS**

The unit shall have alloy steel springs of the semi-elliptical type, with minimum 27,000 lb. front and minimum 23,000 lb. rear ratings. The front springs shall be so designed and engineered as to provide reserve carrying support with blower head raised in the transport mode. The spring hangers, pins and supports shall be heavy duty to give long life. The pins shall be of the grease type with substantial bronze bushings.

**BRAKES & AIR SYSTEM**

The service brakes shall be fully air actuated, drum and shoe type with a minimum 18.7 CFM air compressor and documented to conform to FMVSS 121, S-cam type front and rear. The parking brakes shall be spring actuated, air released at the rear service brake air chambers with the control switch mounted within the cab and in easy reach of the operator. An electronic anti-lock brake system is required, 4S-4M. The air system for this unit shall be equipped with frame mounted, heated Bendix AD-9, or approved equal, air drier system. A quick disconnect coupler on the right side of the vehicle shall allow introduction of shop air into air system upstream of the air dryer for filling on board truck system with air. Remote cable drains shall be provided for each air tank. DISC BRAKES AND DRIVELINE BRAKES ARE NOT ACCEPTABLE.

**WHEELS & TIRES**

This unit shall be equipped with proper sized wheels and tires for the GVW rating of the unit being bid. Single wheels shall be furnished for the front and rear axles. The wheels shall be of the steel disc type with an 11-1/4" bolt circle. The tires shall be Goodyear 395/85R20 MV/T or equal. One spare front and one spare rear wheel / tire assembly shall be provided.

**CAB**

This unit shall have a fully enclosed, thermally and acoustically insulated (85 db as measured 6" from the drivers ear at full engine RPM), aluminum and glass cab. Fiberglass components shall be used where shaping will assist in snow and air flow around the vehicle to avoid snow build up on the unit during operation. This shall include the roof and front cowling. A visor above the windshield outside the cab is required to shield from falling snow and to assist in shading the operator from sun glare. The operator shall be positioned slightly right of center. Minimum cab height shall be 132" as measured from the ground to the top of the cab.

The cab of this unit shall be provided as follows:

A tilt/telescoping steering column.

A single piece panoramic electrically heated windshield with reverse slope, minimum 2500 square inches. The windshield shall be heated type, 12VDC with approximately 340 watts of heating power. The side door windows shall be power roll down type, one on each side of cab in each door, 5-1/2 square feet each. Rear window shall be minimum 3 sq. ft, stationary type.

Rear corners of cab shall include sight windows for visibility of processed runway surface, approximately 320 square inches each.

Two peep windows, 340 square inches each, required in cab front fascia below windshield to assist operator in monitoring working head and casters.

All windows shall be tinted safety glass, DOT approved and stamped.

Minimum four (4) electric variable speed wiper(s), providing operator clear line of vision, providing a minimum of 80% swept surface of the windshield. Wipers shall be mounted above the windshield to assist in snow shedding.

Air operated side door window wipers shall be provided. The side wipers shall be equipped with an interlock system that disables the wiper when the door window is opened.

Six quart reservoir for wet arm wipers required. System shall include an automated sequence which soaks the windshield and performs wiper sweep with the press of a single button, minimizing dry wipe.

A windshield deluge system is required to maintain operator visibility during snow removal operations. As a minimum, the system shall consist of a 5 gpm pump, a 16 gallon reservoir, three discharge nozzles above the front windshield, one discharge nozzle above each side window, one discharge nozzle above left and right rear view mirrors, and the associated plumbing to make a functional system. Fill point shall be conveniently located no higher than the bottom of cab door for easy refill. Discharge shall be controlled by a dash-mounted switch in conjunction with wiper controls. This system SHALL NOT rely on regular wet wiper discharge for function, but shall allow single shot discharge for best operational convenience. The deluge system shall be disabled whenever either of the side (cab door) windows is opened.

 High output, fresh air type heater/defroster/air conditioner with multispeed fan motor, mounted behind the operator to minimize visibility obstructions to the front. Cab heater with defroster shall be capable of maintaining a 50 degree F inside temperature at sea level when the ambient temperature is -40 degrees F. Air flow of 380 CFM minimum required. The air conditioner shall be 23,000 BTU minimum rating.

A screened, louvered vent is required near cab rear for fresh air intake into Heater/ventilation unit. The heater/ventilation/AC unit to be digitally controlled, set-it-and-forget-it style with digital settings up to 95 degrees Fahrenheit. Climate control shall include auto mode for fan to provide rapid warm up of cab with automatic throttling down of fan as requested temperature is reached. Vent controls shall be provided from panel selection including defrost mode dictating outside air intake for maximum drying effect.

Cab doors shall be provided with full length stainless steel piano type hinges. Hinges shall be bolted to the door and bolted to the cab frame. Hinges shall not be welded to doors and/or cab. Interior lower panels of doors shall include a nonmetallic liner to assist in sound absorption. Side sight peep windows required in each door, 70 square inches each. Glass pane in each skin of door required.

Auxiliary power outlets (2) required near center of cab for access by operator or passenger.

Dual, heated, motorized West Coast type mirrors operated from the operator position in the cab.

Self-canceling turn signals with hazard switch.

Key type starter switch for chassis engine. Integrated safety checks shall prevent starting when an unsafe condition is detected. Real time feedback to the message center will report what condition is preventing the system from attempting an engine start.

Coat hooks.

Cup holders (two) shall be located front center of cab.

The operator seat shall be National Standard Plus air ride, fully adjustable in the horizontal and vertical positions with high back, air assist, arm rests, lumbar support, cloth covered, and load adjustable and furnished with 3 point type safety belts. Adjustable arm rest shall contain joystick for implement control. Arm rest control shall include a vertical stow feature to facilitate easy egress/ingress of operator. A detent shall lock arm rest in the stowed position, with release control provided for operator.

An air ride passenger jump seat shall be provided to the left of the driver. It shall also be equipped with three point type safety belts; arm rests are not required.

All digitally controlled electrical circuits shall be protected by solid state circuitry and logic. Power supplies to control modules shall be protected by manual reset circuit breakers. Master wiring circuitry boxes shall be mounted behind operator. Manual reset circuit breakers controlling all analog circuits shall be easily accessible.

The interior of cab shall be fully insulated. The floor of the cab shall be insulated with thermal-acoustical sound barrier floor mat.

Master connection point for radios in control console above windshield near center of cab.

Electric horn.

Multiple access panels in upper console to allow easy access to switch and wiring connections.

Instrumentation shall be centered on a color liquid crystal display mounted to the tilt/telescoping steering wheel.

Available information shall include:

* 1. Speedometer/odometer
	2. Tachometer and hour-meter that registers when engine is running only.
	3. Voltmeter.
	4. Air pressure gauge (dual system, physical gauge required)
	5. Time of day.
	6. Fuel level with low level indicated by color (12% remaining gauge shall be yellow for caution; at 6% level, gauge to be red for urgent situation)

Warning Icons required for:

Low Air Pressure

ABS Fail

ABS Communication Lost

Engine Stop

Engine fail warning

Low voltage

Engine overheat

Engine low oil pressure

Engine air intake restriction

Transmission overheat

Transmission fail

Control system node communication lost

Transmission Communication lost

Parking brake applied

Transmission range

Traction lock engaged

Windshield washer fluid low level indicator

Message center for fault messages affecting operation

Diesel Exhaust Fluid level gauge

Diesel Exhaust Fluid level icon

Diesel Particulate Filter lamp

High exhaust temperature lamp

Hydraulic temperature warning

Hydraulic fluid level low

Left and Right turn indicators

High beam indicator

A summary of fault messages with most probable resolutions shall be provided in the service manuals required elsewhere in this specification.

Multiple selections of display shall be provided for operation and maintenance. Fault codes shall be “notify of failure” with operator attention drawn to the area of fault. Display of ground speed required. Display shall include selectors to page through digitally displayed instrumentation for maintenance and routine preflight check list procedures. As a safety feature, to prevent operator skimming of instrumentation during operations, screen selection controls shall become non functional at approximately 2 mph with the screen display reverting to operating mode information.

**ELECTRICAL & LIGHTING**

Electrical system shall be multiplex technology for efficiency and maximization of control parameters. All lighting on this vehicle shall conform to FMVSS. All lighting shall be 12 volts, and shall include, but not be limited to, the following:

Two (2) fender mounted headlights w/ integral turn signals per FMVSS.

Tail, stop, clearance and backup lights per FMVSS. Back up alarm Preco 1040 with auto adjustment for noise level.

Whelen 800 amber LED beacon, or approved substitute, near or on cab roof with switch for operator.

Cab dome light.

Variable intensity instrument lighting, push button control with ramp up through approximately 16 steps.

Weatherproof wiring shall be GXL nomenclature type, insulated and numbered, required circuit breakers for analog circuits shall be located in easily accessible weatherproof electrical panels.

Two (2) headlights with high/low beam and integral turn signals mounted on a light bar near front outside corners of cab near leading edge. Light bar shall be vertical and made of round material to allow infinite positioning and aiming of auxiliary lighting as specified. Deutsch type sealed connector required at each light bar to pass electrical connections through cab shell. Two (2) HID lights are required mounted on the lightbar.

One (1) 12-volt, 270-amp minimum alternator with built-in regulator.

Four (4) 12-volt, maintenance free batteries with a total 3800 cold cranking amperes.

Batteries to be installed in a separate frame mounted compartment with corrosion resistant interior.

On board 110/12 volt trickle charger required, 1.5 amp minimum.

An additional external set of battery jumper terminals shall be installed to provide a convenient location for attachment of jumper cables without removing the battery box cover. The jumper terminals are to be mounted near the master disconnect switch and protected by plastic color coded covers to prevent inadvertent contact and reduce the chance for corrosion.

Two (2) multipurpose type work-lights to be mounted under the chassis hood with individual on/off switches and an over-ride switch for the pair.

An amber Whelen 800 safety LED strobe, or approved substitute, shall be located on the top of the rear engine cover with a switch in the cab.

**COMMUNICATION RADIOS**

Wiring shall be installed to support the following:

 1. One ICOM IC-A200 or equal aviation brand radio with external microphone and speaker.

 2. One Airport radio unit a Motorola APX6500 to operate on the 800 MGHZ system.

 3. Sufficient wiring to extend to the roof or floor of the cab, on each side.

Radio mounting and charge location to be approved by Airport Authority prior to installation.

**REAR VIEW CAMERA**

A rear mounted back up camera providing a near 180 degree view shall be provided.

**ON-BOARD DIAGNOSTICS AND ELECTRONIC CONTROL SYSTEM**

Functional control of vehicle shall be centered on an electronic control system utilizing J1939 data bus. Reliability and precision operation of the unit requires heavy reliance on solid state circuitry and components and minimized reliance on traditional multi-pin “physical switch” type relays. Electronic control systems shall include on board diagnostic assistance and other features to simplify the operation, troubleshooting, and repair of the unit. Proprietary engine and Allison transmission data and troubleshooting readout not required. .

**ECU’s, VIMS, Power Modules and Direct Current Controllers**

Electronic control modules shall be of the highest reliability and durability for use in mobile equipment. System shall comply with the following:

1. High amp manual resettable circuit breaker protection is required upstream from the electronic control modules;
2. Y’s from the data bus to the modules shall be physically labeled in the vehicle for ease of maintenance and troubleshooting;
3. Control boxes shall include a dual external LED tattletale, one LED displaying constant illumination indicating power supply, and one LED displaying a “heartbeat” indicating internal proper function;
4. A timer module shall serve to keep electronic modules live for 1 hour after last cycle of door switches indicating egress from vehicle. This unit shall maintain heartbeats and power indicators at modules and their function without the key switch on. After
5. 1 hour period without a change of status in door switches, unit shall automatically shut down completely.
6. Data bus terminal resistors shall be EXTERNAL to control modules for ease and economy of replacement. Terminal resistors within the control boxes shall NOT be used as part of the electronic system structure;
7. Certifications of testing and durability of electronic modules
8. EMI-RFI (meeting mil-spec of 150 volts/meter
9. Salt spray survival for 1,000 hours minimum (ASTM B117)
10. Water immersion
11. High temperature tested at 125% overload for 100 hours, minimum;
12. Vibration tested to 50 g’s
13. VIM shall be capable of 245 amp sustained output capacity to provide engineered margin of safety;
14. VIM shall be overload and reverse polarity protected with self diagnostic capabilities;
15. Field Effect Transistors (FET) shall provide power output to electrical functions, acting as a solid state relay and circuit breaker in one;
16. FET shall shut off automatically in the event of short to ground, cycling on and off to test itself for proper function to avoid damage while allowing search and repair of fault;
17. Individual FET ratings and over-current protection to be programmed to values of 1 to 15 amps depending on task assignment;

**ON BOARD DIAGNOSTICS FEATURES AND PERFORMANCE**

Electronic control system shall include and enable diagnosis of chassis systems and function by means of the LCD dash display. Engine and transmission diagnosis shall be accessible via accessible connect ports on vehicle, but need not be in the dash display. Engine and transmission diagnostics programs and equipment need not be provided with this vehicle. System shall include the following at a minimum:

1. Message area on LCD to display error message to operator as any system function fails. Available during operation on operations screen;
2. Error message toggle if more than one failure is present;
3. Password registration with chassis OEM’s Service Department;
4. Memory retention of failures until cleared by maintenance personnel with password access;
5. Real time operational indicator of system function on diagnostics/maintenance screens

**SPECIFICATIONS FOR**

**22 FOOT POWER REVERSIBLE POLYETHYLENE**

**FLARED END RUNWAY PLOW**

**GENERAL**

These specifications describe a Power Reversible Plow with a tapered style flared discharge and polymer moldboard, manufactured expressly for airport runway high speed and ramp plowing. This plow shall be rigidly built of new material suited for continuous work under extreme conditions of snow removal.

**MOLDBOARD ASSEMBLY**

The moldboard shall not be less than 50 inches high in the center portion and not less than 73 inches high at the discharge ends when the moldboard is set at 65 degree attack angle, nor less than 22 feet long at the cutting edge, and formed so as to lend itself to high speed plowing operations. In order to offer a low coefficient of friction and resistance to both corrosion and impact, the moldboard sheet shall be formed from 0.38 inch thick VHMW unwelded polyethylene sheet. When set at 75 degrees, the moldboard shall overhang the cutting edge by a minimum of twelve (12) inches the entire length of the plow.

The sheet shall be formed from a polyethylene material that is made from new resin (recycled material is not acceptable), and shall be color impregnated and ultra violet stabilized to a Safety Yellow pigmentation for best visibility in snow removal operations. Welding of sheet is not allowed.

Moldboard reinforcement shall include a full length heavy duty angle across the top front of the steel shell and fourteen (14) vertical ribs tying the upper shell to the cutting edge mounting angle and its reinforcement. There shall be two ribs at each of the four push points, and three ribs at the end of each flared end of the plow. The fourteen (14) steel vertical ribs shall be made from 0.38 inch thick plate and have a varying cross section, becoming wider as they approach the cutting edge mounting angle. A 0.75 inch flat bar shall be welded to the cutting edge angle for additional strength. There shall be no span between reinforcing ribs in excess of 3.5 feet.

The vertical ribs shall provide support and frame work for a series of window openings in the rear steel moldboard backing frame, tying top reinforcement to the bottom reinforcement. Window opening design shall provide long term, stable backing support for the moldboard, and help prevent moisture buildup behind the polymer plow face. The polymer moldboard shall be bolted to this durable framework for maintenance of proper snow handling shape. Moldboard shall consist of three (3) separate polyethylene sheets, one for the center section and one for each flared end of the plow. Polyethylene to be retained by 0.625 inch diameter carriage bolts with locking hardware to avoid loss on the operations area of the airfield.

Means of moldboard attack angle adjustment shall be incorporated so to provide 65, 75 and 85 degree settings (from ground plane to back of cutting edge) for use with either steel, carbide, rubber or urethane cutting edges throughout the life of the plow.

**SPRAY GUARD/DEFLECTOR**

A spray guard/deflector shall bolt to the top discharge point at the moldboard flange or reinforcement, tangential to the upper radius of the modified “J” style moldboard to direct snow forward, down, and toward the trailing edge of the plow. It shall consist of a heavy duty rubber belting, 0.40 inch thick x 12.00 inches wide, and shall include a metal retaining strap, 0.25 inch thick x 2.00 wide, with necessary mounting hardware. The hardware shall be of the locking type to minimize opportunity for loss on the aircraft operating areas of the airport. Provisions shall be provided in the mounting system to adjust the spray guard perpendicular to the moldboard on a case by case basis as desired by the airport for seasonal variation in operations.

**CUTTING EDGE**

Shall be of 1084 steel. The cutting edge shall be supplied in two (2) separate sections, each half the overall length of the moldboard for ease of installation and handling, and shall be not less than 0.50 inch thick x 8 inches wide for reversal to use both sides of the blade before disposal.

**ADJUSTABLE PNEUMATIC DUAL CASTER WHEEL ASSEMBLY**

Casters shall be capable of swiveling 360 degrees. Wheels shall be 10 inch diameter X 6 inch wide minimum, from not less than a combined thickness of 0.25 inch steel. Wheel shall be a five (5) mounting bolt design. They shall ride on hubs fitted with Timken tapered roller bearings. Each bearing shall include seal, dust cap, lubrication fitting and pressure relief plug. Axles shall be a minimum of 1.00 inch in diameter at the ends, 1.06 inch diameter at outer bearings, 1.375 inch diameter at the inner bearings and 1.75 inch diameter at the center. Each caster spindle shall have a rating of no less than 1,750 pounds for a combined caster position rating of 3,500 pounds.

Tires shall be 20.5 x 8.0 on a 10 inch rim for additional load carrying ability, 10 ply (load range "E"), minimum. There shall be a total of at least four (4) tire and wheel assemblies, mounted in dual arrangements, with one dual assembly to each side of the plow center. Dual caster assembly shall include a two piece spindle, separated at the midpoint between caster wheels with left and right halves held in place by a through bolt with nyloc nut. This shall allow for easier and modular maintenance. Tires shall be pneumatic, and delivered with appropriate air pressure as shall be called out in service manuals to be provided with the machine.

Vertical adjustment shall be accomplished through two (2) caster barrel arrangements. The outer barrels of the barrel arrangements shall be heavy duty steel tubing, not less than 4.25 inch OD x 3.75 inch ID, provided as part of the major caster mounting bracketry as a welded unit. Inner tubes shall be from not less than 3.25 inch OD x 2.25 inch ID for grease/lubrication fit. Inner tubing to be ground and hard chrome plated to mate with honed outer steel tube housing. Inner tube shall be held centered in outer tube by means of heavy duty nylon rings at top and bottom. The screw adjustment rod shall be heavy threaded rod fitted with jam nut for maintaining adjustment from not less than 1.375 inch diameter stainless steel.

Each caster assembly shall be equipped with a spring loaded adjustable brake dampener so to minimize wheel wobble.

**STANDS**

The moldboard shall have a pair adjustable leg stands to be used for plow removal / storage with the other remaining weight on the caster tires. They shall aid in raising the cutting edge during change. They are required for safety and storage reasons.

**COLOR**

Moldboard= Safety Yellow or bright acceptable color for high visibility on airfield

Drive Frame=Flat Black

**BALLAST**

The chassis shall be properly ballasted for best traction during operation. Such ballast shall not put the unit over its component ratings in plow up or plow down configuration

**SPECIFICATIONS FOR**

**DIN QUICK HITCH**

**GENERAL**

The front attachment hitch between the plow and chassis shall be a DIN plate type quick hitch. It shall allow easy interchange of the plow and other attachments. It shall be hydraulically operated (plow lift and swing) and designed for power reversible runway plows. The plow moldboard, push frame, swing, and lift must be capable of being completely removed and reattached to the chassis as a unit. The entire process of hitching or unhitching shall be possible by one man in not more than 10 minutes and shall be positively connected. All hydraulics and structure for plow lift, swing, oscillation, and lock shall be on the plow side of the DIN plate coupling.

**PLOW HITCH – CHASSIS SIDE**

A DIN plate style coupler shall be attached to the chassis front frame rails. It shall consist of two side (cheek) plates of adequate size bolted to the chassis frame rails with a welded 0.63 inch thick push plate perpendicular to the truck frame rails. This flat mounting push plate shall have two (2) top mounting pockets to accept the mating portion of the plow or other possible front attachments that are equipped with a similar standard DIN type hitch.

**PLOW HITCH – PLOW SIDE**

The plow shall be mounted and unmounted from the chassis by means of a mating DIN plate hitch of a size sufficient to support the weight and operation of the plow. It shall allow easy interchange of the plow and other attachments. Two (2) steel claws and slots for two (2) 1 inch diameter swing bolts with nuts that are part of the attachment will lock the connection between the attachment and chassis. All hydraulic lines from the chassis to the plow side of the hitch shall be of quick disconnect type and clearly marked for ease of change.

The moldboard, pushframe frame, and plow side of the hitch once detached, will rest on the ground on the caster tires and the cutting edge stands.

**Lift:** The plow lift system of the hitch shall be a parallel lifting type consisting of two (2) parallel tubular lift arms made from 3 inch x 3 inch x 0.31 inch wall steel tubing. The design shall incorporate a dual acting plow lift cylinder. The dual acting plow lift cylinder shall be 4 inch bore 15.75 inch stroke with a 2 inch diameter rod, minimum. This lift cylinder will also serve to remove and attach the plow. The plow lift hydraulic system will be furnished with a relief valve to prevent down pressure in excess of 200 psi. The lifting cylinder arrangement shall incorporate a mechanical transport lock that shall take the weight of the plow off the hydraulic cylinder during plow transport, and shall act as a safety in the event of a hose failure during transport.

**Swing:** The plow swing system shall consist of two (2) telescoping type hydraulic cylinders able to position the plow to angle left, right or straight ahead. To maximize snow removal production, a wide plowed path is desired. Therefore, maximum angle to the left or right shall be 32 degrees. Pusher vehicle shall have adequate horsepower and durability to work with plow at this shallow angle. The telescopic hydraulic cylinders shall be two stage type with an outside diameter of 4.50 inch and chrome plated rods with a minimum diameter of 2.50 inches. The cylinders shall be 19.50 inch long from center of mounting hole to center of mounting hole when retracted and shall have a stroke of 20.25 inches. The cylinders shall be heavy duty to allow for heavy snow plowing under severe conditions and shall be equipped with a double acting hydraulic cushion valve mounted on the plow to protect the cylinders from damage. Mounting plates for the swing cylinders shall be 0.63 inch in thickness. The cylinder mounting bolts shall be 1.00 inch diameter. The hydraulic port in the angling cylinders shall be 0.75-16 standard straight SAE “O” ring thread. The hoses used shall be standard 0.50 inch SAE 100R2 rated.

The swing pin (center and vertical) shall be 2 inch diameter by 31.75 inch in length with top and bottom yokes. There shall be a bronze bushing installed in the center of each yoke assembly for low friction movement of the swing pin. The two (2) parallel tubular lift arms shall be attached to the top and bottom yokes. The yokes / lifting arms connections shall have a hardened steel sleeve bushing with replaceable trunnion pins. The trunnion pins must be tapered fit into the yoke for positive locking.

**Oscillation:** The plow oscillation system shall incorporate a drive frame that allows oscillation of the plow with respect to the chassis in order to follow the pavement contour. The plow shall oscillate a minimum of 2 degrees overall. The oscillation mechanism shall consist of two front facing vertical plates which can pivot and slide. When the plow is carried in the raised position and angled right or left the plow shall remain approximately level to the pavement.

The front plate shall be 0.50 inch thick steel plate with a bushing on the top for the oscillation pivot tube and slots cut in the bottom for the oscillation slide bushings. It shall be the middle support structure for the push frame. The back plate shall consist of a formed 0.38 inch plate and backing plate to form a boxed section. The oscillation pivot tube and oscillation slide bushings shall be welded in place facing forward on the boxed section. The back side of the boxed section shall attach to the plow swing pivot pin (center vertical).

A 0.38 inch thick poly plate shall be sandwiched between the two oscillation plates to reduce friction and wear. No metal on metal. The oscillation assembly (two plates) shall be held together with five (5) bolts, 1.0 inch diameter with backing plates and lock nuts. There shall also be two (2) rubber cushions bolted to the plow push frame to limit and cushion the end of oscillation travel.

**PLOW PUSH FRAME**

The push frame shall be of severe duty design, welded construction with no less than three (3) horizontal steel tubes each having a cross section of 3 inch x 5 inch X 0.38 inch wall rectangular tube. There shall be six (6) “Aeon” type isomer rubber cushions on the bottom of the plow frame compressed to a length of 4 inch by means of six (6) bolts – 1.25 inch in diameter and six (6) lock nuts. For durability and safety on the runway, each cushion assembly shall have a 1.50 inch OD hardened steel sleeve tube over each bolt for sliding inside the push frame. This shall prevent over-compression of the rubber cushion when assembling and prevents wear of the bolt. The rubber cushions shall mount to a pivot weldment that connects the push frame to the moldboard via four (4) pivot pins. The pivot pins shall be 1045 CR steel, 1.50 inches in diameter.

The swing stops shall have a poly liner installed to allow free oscillation of the plow frame. When swung to 32-degrees, the plow push frame shall stay against the stops as the operator raises and lowers the plow, no additional swing adjustment needed.

Four (4) heavy-duty braces on top of the plow frame shall allow the plow and cutting edge angle to be adjusted to positions of 65, 75, and 85 degrees from horizontal for optimum snow handling performance.

**QUALITY/SAFETY STANDARDS**

Each bid must include the vehicle (chassis) manufacturer's certification that the vehicle (chassis) meets or exceeds the following requirements based on documented test results. Documented test results shall be provided upon request.

FMVSS 571-103 Windshield defrosting and defogging systems, in accordance with JI944, J198.

FMVSS 571-121 Air brake systems.

FMVSS 571-207 Seating systems.

FMVSS 571-210 Seat belt assembly.

40 CFR CH.1 Pass by noise levels (in accordance with SAE J366).

FMCSR 393.94 Vehicle interior noise levels.

FMVSS 571-101 Controls and displays.

FMVSS 571-108 Lamps, reflective devices and associated equipment.

FMVSS 571-120 Tire selection and rims for motor vehicles other than passenger cars.

FMVSS 571-206 Door locks and door retention components.

FMVSS 271-209 Seat belt assemblies.

FMCSR 393-65 Fuel systems and fuel tanks.

FMCSR 205 Glazing for windows.

FMCSR 302 Flammability of interior materials.

**DYNAMOMETER**

The unit is to be delivered with a chassis dynamometer test report verifying proper operation and power output of chassis engine and drive train. Dynamometer test shall require engine & chassis to be run for at least 20 minutes and shall show run up to various power output levels. Chassis dynamometer speeds to achieve 45 mph minimum and to at least 70% of maximum engine horsepower output. Test report to include truck serial number. A sample of chassis dynamometer testing is to be provided in the bid package. This sample shall verify that such testing is standard practice for the manufacturer. A special procedure to satisfy this requirement for this procurement only does not demonstrate the quality procedures and standards desired by the purchaser.

**ALIGNMENT**

The vehicle is to be delivered with a wheel alignment report verifying proper alignment and set up of all steering axles, both left and right side. Report shall show camber, caster and toe-in before and after adjustment against acceptable product limits. A sample of such alignment report is to be provided in the bid package. This sample shall verify that such testing is standard practice for the manufacturer. A special procedure to satisfy this requirement for this procurement only does not demonstrate the quality procedures and standards desired by the purchaser.

**PAINT**

The complete vehicle shall be painted with one (1) coat of metal primer and two (2) coats of FAA approved International Fleet Yellow acrylic urethane, as specific in FAA Advisory Circular 150/5210-5D,

**FACTORY RUSTPROOFING AND CORROSION PROTECTION**

The vehicle (underside of fenders, underside of battery box, underside of fuel tanks, inside fender supports) shall be treated with low VOC rust-proofing protection. Rust-proofing material shall be tan color and be applied to a thickness of 4-5 mils when dry.

**MANUALS AND ELECTRONIC SCHEMATICS**

The successful bidder shall provide the following product documentation and support information: One complete set of manuals, operators, parts, and service plus internet access to parts books.

Successful bidder shall provide both paper and electronic copies of electrical schematic that include a computer search function. Successful bidder shall also provide at no extra charge the software required to view schematics and operate this search function. The cost of the software and any license fees for use are to be included in the single bid price.

If the electronic schematic is multipage, paper copies of schematics shall include reference indicators directing the reader to connection points on other pages by sheet number and grid location within each sheet.

**WARRANTY**

The bidder shall warrant his equipment as to the specified capacities and performance, and to be free from all defects in design, material and workmanship. All labor, transportation cost and defective parts shall be replaced free of cost. THIS GUARANTEE SHALL CONTINUE FOR ONE (1) YEAR AFTER COMMENCEMENT OF ACTUAL OPERATION OF THE EQUIPMENT. No exceptions to the guarantee requirement will be accepted. Additionally, the engines shall be warranted for a minimum of two (2) years and the automatic transmission shall be covered for a minimum period of three (3) years after commencement of actual operation of the equipment.

**INSURANCE**

To protect the purchaser from potential involvement in litigation, the chassis manufacturer for this contract shall be adequately covered with liability insurance. The manufacturer shall carry commercial general liability insurance including coverage for the products-completed operations exposure, with limits of not less than $1,000,000 Each occurrence (Bodily Injury and Property Damage), $1,000,000 Products/Completed Operations Aggregate, $5,000,000 General Aggregate, and $1,000,000 Personal and Advertising Injury. The insurance shall be issued by an insurance company with a current A.M. Best rating of A- or higher. A Certificate of Insurance showing that this minimum amount of coverage is currently in force shall be included in the bid package for the bid to be considered.

**MANUFACTURER / SUPPLIER STABILITY**

In the interest of continued and reliable service, parts, and technical support, equipment suppliers shall have exhibited a consecutive history of financial stability and manufacture of similar equipment over a minimum of the past ten years. Documentation shall be provided in the bid package to verify such continuous business activity, such as location and contact lists (minimum 10 users), financial statements, and annual reports. In the interest of process and quality control, the chassis manufacturer shall be ISO9001 certified. Because of the critical nature of the product and its application, the burden of proof for this requirement lays with the bidder and/or suppliers.

**CHASSIS MANUFACTURER CERTIFICATION**

Chassis manufacturer shall be ISO 9001 certified for the production of heavy trucks. Claims of self-certification programs are self serving and are not acceptable for this procurement activity. Third party verification is required given the import and scope of the equipment and the purchaser’s equipment procurement program. Certification documentation of chassis manufacturer compliance with 9001 FROM AN ACCREDITED THIRD PARTY is required in the bid package. Bids not including this documentation will be deemed not acceptable.

**COMPONENT SOURCING**

Because of the critical nature of this machinery, it is essential that the complete unit and all components be newly manufactured and unused. To this end, the purchaser reserves the right to compare serial numbers of engines, transmissions, transfer cases and axles with the current production records of the component manufacturers. Any component found to be used, or not of current production will be rejected. The contractor (bidder) will replace the component in question with an appropriate and acceptable new replacement component at his own expense.

**TRAINING**

A qualified factory trained representative must fully install, start-up, and test the unit as well as provide training to the operators and maintenance people. Training shall be performed by factory trained and authorized technician. The training shall be performed at the customer’s site and shall be 8 hours for operators training and an additional 8 hours for mechanics training (mechanics shall attend the operating training first). The purpose of this training is to review safe and effective procedures for use and maintenance of the machine, review and test all systems, assure the full function of the machine. Training will be in small groups – both classroom and hands on training is required. Printed and bound operators manuals shall be provided for each attendee with illustrations. A copy sample of this manual must be provided with a proposal. Material within the manual shall include at a minimum;

1. Vehicle operation and maintenance safety precautions
2. Instrument and control operation
3. Active matrix display summary and operation
4. Seat and seatbelt operation
5. Brake system operation
6. Daily operators’ checks and services
7. Drive engine starting and shutdown
8. Auxiliary engine starting and shutdown (if applicable)
9. Driving recommendations
10. Two speed transfer case shifting
11. Special off-road driving procedures
12. All steer system operation (if applicable)
13. Electrical system
14. Maintenance and inspection intervals

**PREPARATION FOR DELIVERY**

Pre-Inspection – Inspection of vehicle shall be made by two Airport Representatives at the manufacturer’s factory upon completion of the complete unit, prior to delivery to the Charlottesville-Albemarle Airport. The cost of inspection trip is part of these specifications and shall be coordinated with the Airport so that ample time may be given in order to make proper arrangements. The inspections at the manufacturer’s factory shall not be construed as a final inspection or acceptance of vehicle. All costs for inspections shall be made by the manufacturer.

**PREPARATION FOR SHIPMENT**

a. Shipment. The vehicle and its accessories, spare parts, and tools shall be packed in such a manner as to prevent pilferage and insure safe delivery to the Charlottesville-Albemarle Airport, Charlottesville, Virginia.

b. Delivery. The vehicle shall be delivered F.O.B. to the Charlottesville-Albemarle Airport, Charlottesville, Virginia. A qualified delivery engineer in the employ of the manufacturer shall deliver the vehicle and instruct personnel in the operation, care, and maintenance of the vehicle. Such delivery shall be done at no additional cost or expense to the Airport. The vehicle must not be driven from the factory, but conveyed by other means to the Charlottesville-Albemarle Airport.

**ATTACHMENT A**

**BID SHEET**

 **ONE (1) 4 X 4 SEVERE SERVICE, HI- SPEED RUNWAY SNOW PLOW VEHICLE**

Company Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Model/Truck \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Total Bid Price $ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Delivery Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Not to exceed 240 days from date of award)

Authorized Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**BID SHEET OPTION #2**

**TWO (2) 4 X 4 SEVERE SERVICE, HI- SPEED RUNWAY SNOW PLOW VEHICLE**

Company Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Model/Truck \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Total Bid Price for Both Units: $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Delivery Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Not to exceed 240 days from date of award)

Authorized Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ATTACHMENT B**

**GENERAL TERMS AND CONDITIONS**

**APPLICABLE TO CONTRACTS BETWEEN THE CHARLOTTESVILLE ALBEMARLE AIRPORT AUTHORITY AND NON-GOVERNMENTAL PARTIES FOR THE PURCHASE OF GOODS AND SERVICES**

1. **General Application.** These general terms and conditions apply to all Authority purchases of goods and services, including, without limitation, construction, insurance, and other services. They shall be deemed an integrated part of each contract entered into between the Charlottesville-Albemarle Airport Authority (“Authority”) and a non-governmental party. In the event of a conflict between these general terms and conditions and any other provision of a contract between the Authority and a non-governmental party, the provisions of these general terms and conditions shall govern the parties’ agreement.
2. **Modification of contract pricing.** (VA. Code §2.2-4309). No fixed-price contract may be increased by more than twenty-five percent of the amount of the contract or $50,000, whichever is greater, without the advance written approval of Authority’s governing body. In no event may the amount of any contract, without adequate consideration, be increased for any purpose, including, but not limited to, relief of a bidder from the consequences of an error in its bid, proposal or price quote.
3. **Energy Forward Pricing Mechanisms.** (VA. Code §2.2-4329.1). For the purpose of budget risk reduction, Authority may use forward pricing mechanisms, consistent with Authority’s written policies and procedures governing the use of forward pricing mechanisms. Any contract for natural gas, heating oil, propane, diesel fuel, unleaded fuel, and any other energy source, but excluding contracts for the purchase of electricity, may include a forward pricing mechanism which either: (i) Obligates Authority to buy or sell a specified quantity of energy at a future date, at a set price or (ii) Includes an option for the sale or purchase of the contract.

Forward pricing mechanism transactions shall be made only under the following conditions:

(i) Authority’s obligations shall be subject to the availability and annual appropriation of funding;

(ii) The quantity of energy affected by the forward pricing mechanism shall not exceed the estimated energy use for Authority for the same period, which shall not exceed 48 months from the trade date of the transaction; and (ii) a separate account shall be established by the contractor for operational energy for the Authority. Contractor shall be required to cooperate and assist Authority with any and all internal and external audit reviews, and with the preparation and submission of annual reports to Authority’s internal investment committee.

1. **Modification (extension) of Contract Term** (VA. Code §2.2-4309). Authority may extend the term of an existing contract for services, to allow completion of any work undertaken but not completed during the original term of the contract. Any such extension of time shall be in writing and signed by an authorized representative of the Authority.
2. **Annual appropriations condition.** For any contracts that cannot or will not be completed within a single fiscal year: notwithstanding anything in this contract to the contrary, beyond the initial fiscal year in which performance is commenced, Authority’s obligations are and shall be subject to and expressly conditioned upon the availability and appropriation of public funds by Authority to support continued performance in succeeding fiscal years. When funds are not appropriated or otherwise made available to support continuation of performance in a succeeding fiscal year, the order for goods, or contractor’s performance of services, as applicable, shall be canceled and the Contractor shall be reimbursed for the reasonable value of any goods ordered and received, and services completed, prior to the end of the preceding fiscal year.
3. **No Discrimination by Authority** (VA. Code §2.2- 4310). In the solicitation or awarding of contracts, Authority shall not discriminate against a bidder or offeror because of race, religion, color, sex, national origin, age, disability, status as a service disabled veteran, or any other basis prohibited by state law relating to discrimination in employment. **THE AUTHORITY DOES NOT DISCRIMINATE AGAINST FAITH-BASED ORGANIZATIONS**, and shall comply with the requirements of VA Code §2.2-4343.1, as may be applicable.
4. **No Discrimination by Contractor** (Contracts Over $10,000) (VA. Code §2.2-4311). During the performance of a contract where contractor’s compensation is more than $10,000, the contractor agrees as follows:
	1. 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.
	2. 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.
	3. 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.

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.

1. **Compliance with Federal Immigration Laws** (VA. Code §2.2-4311.1). The contractor expressly warrants and certifies that it does 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.
2. **Contractor’s Authority to Conduct Business in Virginia** (VA. Code §2.2-4311.2). A contractor organized as a stock or non-stock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 or as otherwise required by law. A contractor that enters into a contract with Authority shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth, if so required under Title 13.1 or Title 50, to be revoked or cancelled at any time during the term of the contract. Authority may void any contract with a business entity for its failure to comply and remain in compliance with the provisions of this paragraph.
3. **Drug-Free Workplace Requirement** (Contracts Over $10,000) (VA. Code §2.2-4312). During the performance of a contract where contractor’s compensation is more than $10,000, 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. For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.
4. **Workers’ Compensation Coverage** (Construction Contracts) (VA. Code §2.2-4332). No contractor shall perform any work on a Authority construction project unless and until he has obtained, and continues to maintain for the duration of the work, workers' compensation coverage required pursuant to the provisions of Chapter 8 (§ 65.2-800 et seq.) of Title 65.2.
5. **Contractor’s License** (Construction Contracts) (VA. Code §54.1-1115). No individual or business entity shall contract for, or bid upon, the construction, removal, repair or improvements to or upon real property owned, controlled or leased by Authority without a state-issued license or certificate, or without the proper class of license as defined in VA. Code § 54.1-1100 for the value of work to be performed.
6. **Purchase of building materials, etc., from architect or engineer prohibited** (VA. Code §2.2-4374). No building materials, supplies or equipment for any building or structure constructed by or for the Authority shall be sold by or purchased from any person employed as an independent contractor by the Authority to furnish architectural or engineering services, but not construction, for such building or structure, or from any partnership, association or corporation in which such architect or engineer has a personal interest. No building materials, supplies or equipment for any building or structure constructed by or for the Authority shall be sold by or purchased from any person who has provided or is currently providing design services specifying a sole source for such materials, supplies or equipment to be used in the building or structure to the independent contractor employed by the Authority to furnish architectural or engineering services in which such person has a personal interest. For purposes of this paragraph, the term “personal interest” shall have the meaning set forth within VA. Code §2.2-3101.
7. **Bonds and alternate forms of security** (VA. Code §§2.2-4337 and -4338). Where any payment or performance bond, with surety, is required, each of the bonds shall be executed by one or more surety companies selected by the contractor that are authorized to do business in Virginia. Each of the bonds shall be filed with Authority.

In lieu of a bid, payment, or performance bond, a bidder may furnish a certified check or cash escrow in the face amount required for the bond. If approved by Authority attorney, a bidder may furnish a personal bond, property bond, or bank or savings institution's letter of credit on certain designated funds in the face amount required for a required bid, payment or performance bond. Approval shall be granted only upon a determination that the alternative form of security proffered affords protection to Authority equivalent to a corporate surety's bond.

1. **Required Insurance.** The specific insurance requirements for this contract, if any, (“Required Insurance”) have been specifically set forth within the Specifications/Special Terms and Conditions of the procurement documents. All policies of Required Insurance shall be issued by a company authorized to do business within the Commonwealth of Virginia. (See VA. Code§38.2-518).

Prior to award, the contractor shall be required to demonstrate that it has obtained the Required Insurance, and that each Required Insurance Policy has been endorsed (i) to name Authority, its officers, employees and agents as additional insured parties, and (ii) to confer rights upon Authority to receive at least 30 days’ advance notice of cancellation or nonrenewal. Proof of insurance and required endorsements shall be demonstrated through production of copies of the Required Insurance policies and endorsements, or other evidence satisfactory to Authority. If a standard form insurance certificate is utilized, the insurance certificate must contain the Policy ID number(s) as well as the specific Endorsement Number(s), along with a description of the purpose(s) of the referenced endorsements.

1. **Prompt Payment by Authority** (VA. Code §§2.2- 4352, 2.2-4353) Authority shall promptly pay for the completed delivered goods or services by the required payment date. The required payment date shall be either: (i) the date on which payment is due under the terms of the contract for the provision of the goods or services; or (ii) if a date is not established by contract, not more than 45 days after goods or services are received or not more than 45 days after the invoice is rendered, whichever is later. Separate payment dates may be specified for contracts under which goods or services are provided in a series of partial executions or deliveries to the extent that the contract provides for separate payment for partial execution or delivery. Unless otherwise provided under the terms of the contract for the provision of goods or services, if Authority fails to pay by the required payment date then Authority shall pay any finance charges assessed by the supplier that shall not exceed one percent per month. In those cases where payment is made by mail, the date of postmark shall be deemed to be the date payment is made.
2. **Contractor’s Tax ID** (VA. Code §2.2-4354(2)). Notwithstanding the foregoing, contractor shall have no right to receive payment from Authority unless and until (i) for an individual contractor, the contractor must provide his social security number to the Authority, and (ii) for proprietorships, partnerships, and corporations, any such entity must provide its federal employer identification number to the Authority.
3. **Notice of defects or impropriety** (VA. Code §2.2-4352). Within 20 days after the receipt of an invoice, or of goods or services, the Authority shall notify the supplier of any defect or impropriety that would prevent payment by the payment date.
4. **Interest.** Unless otherwise provided under the terms of this contract, interest shall accrue at the rate of one percent per month on amounts owed by Authority to contractor which remain unpaid by the required payment date. (See VA Code §2.2-4354)

No interest penalty shall be charged when payment is delayed because of disagreement between Authority and a vendor regarding the quantity, quality or time of delivery of goods or services or the accuracy of any invoice received for the goods or services. The exception from the interest penalty provided by this paragraph shall apply only to that portion of a delayed payment that is actually the subject of the disagreement and shall apply only for the duration of the disagreement.

1. **Retainage (Construction Contracts**) (VA. Code §2.2-4333). In any construction contract that provides for progress payments in installments based upon an estimated percentage of completion, the contractor shall be paid at least 95 percent of the earned sum when payment is due, with no more than 5 percent being retained to ensure faithful performance of the contract. All amounts withheld may be included in the final payment. Any subcontract for a public project that provides for similar progress payments shall be subject to the provisions of this section.
2. **Escrowed Retainage (Construction Contracts)** (VA. Code §2.2-4334). For a construction contract involving $200,000 or more, for construction of highways, roads, streets, bridges, parking lots, demolition, clearing, grading, excavating, paving, pile driving, miscellaneous drainage structures, and the installation of water, gas, sewer lines and pumping stations, where portions of the contract price are to be retained, the contractor is authorized to elect to utilize an escrowed retainage procedure, via notification submitted with its bid submission.

In the event the contractor elects to use the escrow account procedure, the contractor shall execute an escrow form, substantially the same as that used by VDOT, and shall submit the executed escrow form to Authority within 15 calendar days after notification. If the escrow agreement is not submitted within the 15-day period, the contractor shall forfeit his rights to the use of the escrow account procedure. Any designated escrow agent shall be a trust company, bank or savings institution with its principal office located in the Commonwealth. If the construction contract includes payment of interest on retained funds, the contractor shall, exclusive of reasonable circumstances beyond the control of the contractor, be required to pay a penalty specified within the construction contract for each day exceeding the completion date stated in the contract.

1. **Payment of subcontractors required** (VA. Code §2.2-4354) Within seven days after receipt of amounts paid to the contractor by Authority for work performed by the subcontractor under that contract the contractor shall: (a) pay the subcontractor for the proportionate share of the total payment received from the agency attributable to the work performed by the subcontractor under that contract; or (b) notify the agency and subcontractor, in writing, of his intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment. Contractor shall pay interest to the subcontractor on all amounts owed by the contractor that remain unpaid after seven days following receipt by the contractor of payment from Authority for work performed by the subcontractor under that contract, except for amounts withheld as allowed in (b), above. Unless otherwise provided under the terms of this contract, interest shall accrue at the rate of one percent per month. Contractor shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor. A contractor's obligation to pay an interest charge to a subcontractor pursuant to this payment clause shall not be construed to be an obligation of Authority. No contract modification shall be made for the purpose of providing reimbursement for the interest charge, and no cost reimbursement claim shall include any amount for reimbursement for the interest charge.
2. **Contract disputes and claims** (VA. Code §2.2- 4363). Written notice of the contractor's intention to file a claim, whether for money or other relief, shall be given at the time of the occurrence or beginning of the work upon which the claim is based. Nothing herein shall preclude a contract from requiring submission of an invoice for final payment within a certain time after completion and acceptance of the work or acceptance of the goods. Pendency of claims shall not delay payment of amounts agreed due in the final payment. Contract claims, whether for money or other relief, shall be submitted in writing to the Authority no later than 60 days after the contractor’s receipt of final payment; provided, however, that written notice of the contractor’s intention to file a claims shall have been given at the time of the occurrence, or at the beginning of the work, upon which the claim is based. Claims shall be considered by Authority in accordance with VA Code §2.2-4363.

The final decision of Authority shall be final and conclusive unless the contractor appeals within six months of the date of the final decision on the claim by Authority, by instituting legal action as provided in VA Code §2.2-4364.

1. **Trade Secrets; Proprietary Information**. Except as provided in VA Code §2.2-4342, all proceedings, records, contracts and other public records relating to procurement transactions shall be open to the inspection of any citizen, or any interested person, firm or corporation, in accordance with the Virginia Freedom of Information Act (VA Code § 2.2-3700 et seq.). Any inspection of procurement transaction records under this section shall be subject to reasonable restrictions to ensure the security and integrity of the records. Trade secrets or proprietary information submitted by a bidder in connection with a procurement transaction or prequalification application shall not be subject to the Virginia Freedom of Information Act (§ 2.2-3700 et seq.); provided that the bidder must (i) invoke the protections of the referenced VA. Code section prior to or upon submission of the data or other materials, (ii) identify the data or other materials to be protected, and (iii) state the reasons why protection is necessary. Each bidder is solely responsible for protecting its trade secrets or proprietary information in accordance with these instructions.
2. **Applicable Law.** Any contract resulting from a Authority procurement transaction shall be governed in all aspects by the laws of the Commonwealth of Virginia, without regard to conflict of laws’ provisions, and any litigation with respect thereto shall be brought in the Circuit Court for Albemarle County, Virginia, or other court presiding within the territory in which Authority is situated.
3. **No Collusion** (VA. Code §18.2-498.4). Any person offering or agreeing to transact business with Authority may be required to submit a certification that the offer or agreement or any claim resulting therefrom is not the result of, or affected by, any act of collusion with another person engaged in the same line of business or commerce; or any act of fraud punishable under this article.
4. **No Waivers of Sovereign or Governmental Immunity.** No action or omission of Authority, and no terms, conditions or provisions within any contract resulting from this procurement transaction, shall be deemed or construed as a waiver of any sovereign or governmental immunity to which Authority may be entitled under the laws of the Commonwealth of Virginia, or any applicable federal law.

**ATTACHMENT C**

FEDERAL REQUIRED SOLICITATION PROVISIONS FOR AIRPORT IMPROVEMENT PROGRAM (AIP) – **Equipment procurement with NO installation**

**C1 BUY AMERICAN PREFERENCE**

Dollar Threshold: $0

***Solicitation Clause***

The Contractor agrees to comply with 49 USC § 50101, which provides that Federal funds may not be obligated unless all steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

A bidder or offeror must complete and submit the Buy America certification included herein with their bid or offer. The Owner will reject as nonresponsive any bid or offer that does not include a completed Certificate of Buy American Compliance.

***C1.1 Certification to be executed in proposal:***

**CERTIFICATE OF BUY AMERICAN COMPLIANCE FOR MANUFACTURED PRODUCTS**

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with their proposal. The bidder or offeror must indicate how they intend to comply with 49 USC § 50101 by selecting one on the following certification statements. These statements are

mutually exclusive. Bidder must select one or the other (not both) by inserting a checkmark (✓) or the

letter “X”.

* + Bidder or offeror hereby certifies that it will comply with 49 USC § 50101 by:
	1. Only installing steel and manufactured products produced in the United States;
	2. Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
	3. Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

1. To provide to the Owner evidence that documents the source and origin of the steel and manufactured product.
2. To faithfully comply with providing U.S. domestic product.
3. To furnish U.S. domestic product for any waiver request that the FAA rejects
4. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
	* The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for either a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
5. To submit to the Owner within 15 calendar days of the bid opening, a formal waiver request and required documentation that supports the type of waiver being requested.
6. That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination may result in rejection of the proposal.
7. To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
8. To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

**Required Documentation**

**Type 3 Waiver** – The cost of the item components and subcomponents produced in the United States is more that 60 percent of the cost of all components and subcomponents of the “item”. The required documentation for a Type 3 waiver is:

1. Listing of all product components and subcomponents that are not comprised of 100 percent U.S. domestic content (Excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety).
2. Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly at place of manufacture.
3. Percentage of non-domestic component and subcomponent cost as compared to total “item” component and subcomponent costs, excluding labor costs associated with final assembly at place of manufacture.

**Type 4 Waiver** – Total cost of project using U.S. domestic source product exceeds the total project cost using non-domestic product by 25 percent. The required documentation for a Type 4 of waiver is:

1. Detailed cost information for total project using U.S. domestic product
2. Detailed cost information for total project using non-domestic product

**False Statements**: Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Date Signature

Company Name Title

**C2 CIVIL RIGHTS – TITLE VI SOLICITATION NOTICE**

Dollar Threshold: $0

***Solicitation Clause***

The Charlottesville-Albemarle Airport Authority, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

**C3 CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT**

Dollar Threshold: $25,000

***Solicitation Clause***

**Bidder or Offeror Certification**

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

**Lower Tier Contract Certification**

The successful bidder, by administering each lower tier subcontract that exceeds $25,000 as a “covered transaction”, must verify each lower tier participant of a “covered transaction” under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: [http://www.sam.gov.](http://www.sam.gov/)
2. Collecting a certification statement similar to the Certification of Offeror /Bidder Regarding Debarment, above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

**C4 DISADVANTAGED BUSINESS ENTERPRISE**

Dollar Threshold: $0

***A12.3.1 Solicitation Clause***

**Solicitation Language (Solicitations that include a Project Goal)**

Information Submitted as a matter of bidder responsiveness:

The Owner’s award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR §26.53.

As a condition of bid responsiveness, the Bidder or Offeror must submit the following information with its proposal on the forms provided herein:

1. The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
2. A description of the work that each DBE firm will perform;
3. The dollar amount of the participation of each DBE firm listed under (1)
4. Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner’s project goal; and
5. If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26.

Information submitted as a matter of bidder responsibility:

The Owner’s award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR §26.53.

The successful Bidder or Offeror must provide written confirmation of participation from each of the DBE firms the Bidder or Offeror lists in its commitment within five days after bid opening.

1. The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
2. A description of the work that each DBE firm will perform;
3. The dollar amount of the participation of each DBE firm listed under (1)
4. Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner’s project goal; and
5. If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26.

**Solicitation Language (Race/Gender Neutral Means)**

The requirements of 49 CFR part 26 apply to this contract. It is the policy of the Charlottesville- Albemarle Airport Authority to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. The Owner encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

**C5 FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)**

Dollar Threshold: $0

***Solicitation Clause***

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The Contractor has full responsibility to monitor compliance to the referenced statute or regulation. The Contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

**C6 LOBBYING AND INFLUENCING FEDERAL EMPLOYEES**

Dollar Threshold: $100,000

***Solicitation Clause***

**CERTIFICATION REGARDING LOBBYING**

The Bidder or Offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

**C7 TRADE RESTRICTION CERTIFICATION**

Dollar Threshold: $0

***Solicitation Clause***

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

1. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
2. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
3. has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18 USC Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

1. who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR or
2. whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list or
3. who incorporates in the public works project any product of a foreign country on such USTR list.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The Contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

ATTACHMENT D

FEDERAL REQUIRED CONTRACT PROVISIONS FOR AIRPORT IMPROVEMENT PROGRAM (AIP) – **Equipment procurement with NO installation**

**D1 ACCESS TO RECORDS AND REPORTS**

Dollar Threshold: $0

***Contract Clause:***

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Owner, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

**D2 BREACH OF CONTRACT TERMS**

Dollar Threshold: $150,000.

***Contract Clause:***

Any violation or breach of terms of this contract on the part of the Contractor or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide Contractor written notice that describes the nature of the breach and corrective actions the Contractor must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner’s notice will identify a specific date by which the Contractor must correct the breach. Owner may proceed with termination of the contract if the Contractor fails to correct the breach by the deadline indicated in the Owner’s notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

**D3 CIVIL RIGHTS - GENERAL CIVIL RIGHTS PROVISIONS**

Dollar Threshold: $0

***Contract Clause:***

The Contractor agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

**D4 CIVIL RIGHTS – TITLE VI SOLICITATION NOTICE**

Dollar Threshold: $0

***Contract Clause:***

**COMPLIANCE WITH NONDISCRIMINATION REQUIREMENTS**

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”), agrees as follows:

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor’s obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or

the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

1. **Sanctions for Noncompliance:** In the event of a Contractor’s noncompliance with the non- discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
	1. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
	2. Cancelling, terminating, or suspending a contract, in whole or in part.
2. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

***Contract Clause:***

**TITLE VI LIST OF PERTINENT NONDISCRIMINATION ACTS AND AUTHORITIES**

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

* Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq*., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
* 49 CFR part 21 (Non-discrimination in Federally-assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
* The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC

§ 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

* Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq*.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;
* The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq*.) (prohibits discrimination on the basis of age);
* Airport and Airway Improvement Act of 1982 (49 USC § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
* The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
* Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 USC §§ 12131 – 12189) as implemented by

U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;

* The Federal Aviation Administration’s Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
* Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
* Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
* Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC 1681 et seq).

**D5 CLEAN AIR AND WATER POLLUTION CONTROL**

Dollar Threshold: $150,000

***Contract Clause:***

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 USC § 740-7671q) and the Federal Water Pollution Control Act as amended (33 USC

§ 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceeds $150,000.

**D6 DISADVANTAGED BUSINESS ENTERPRISE**

Dollar Threshold: $0

***Contract Clause:***

**Prime Contracts (Projects Covered by a DBE Program)**

**Contract Assurance (§ 26.13)** –

The Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of Department of Transportation-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Charlottesville Albemarle Airport Authority, deems appropriate, which may include, but is not limited to:

1. Withholding monthly progress payments;
2. Assessing sanctions;
3. Liquidated damages; and/or
4. Disqualifying the Contractor from future bidding as non-responsible.

**Prompt Payment (§26.29**) – The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 14 days from the receipt of each payment the prime contractor receives from the Charlottesville-Albemarle Airport Authority. The prime contractor agrees further to return retainage payments to each subcontractor within 14 days after the subcontractor’s work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Charlottesville- Albemarle Airport Authority. This clause applies to both DBE and non-DBE subcontractors.

**D7 TEXTING WHEN DRIVING**

Dollar Threshold: $3,500

***Contract Clause:***

In accordance with Executive Order 13513, “Federal Leadership on Reducing Text Messaging While Driving”, (10/1/2009) and DOT Order 3902.10, “Text Messaging While Driving”, (12/30/2009), the Federal Aviation Administration encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding

$3,500 that involve driving a motor vehicle in performance of work activities associated with the project.

**D8 ENERGY CONSERVATION REQUIREMENTS**

Dollar Threshold: $3,500

***Contract Clause:***

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to energy efficiency as contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 USC 6201*et seq*).

**D9 OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970**

Dollar Threshold: $0

***Contract Clause:***

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor’s compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

**D10 PROCUREMENT OF RECOVERED MATERIALS**

Dollar Threshold: $10,000

***Contract Clause:***

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part

247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

 The contract requires procurement of $10,000 or more of a designated item during the fiscal year; or

 The contractor has procured $10,000 or more of a designated item using Federal funding during

the previous fiscal year.

The list of EPA-designated items is available at [www.epa.gov/smm/comprehensive-procurement-](http://www.epa.gov/smm/comprehensive-procurement-) guidelines-construction-products.

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

1. Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
2. Fails to meet reasonable contract performance requirements; or
3. Is only available at an unreasonable price.

**D11 TAX DELINQUENCY AND FELONY CONVICTIONS**

***Contract Clause:***

**CERTIFICATION OF OFFERER/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS**

The applicant must complete the following two certification statements. The applicant must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark (✓) in the

space following the applicable response. The applicant agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

**Certifications**

1. The applicant represents that it is (✓) is not (✓) a corporation that has any unpaid federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.
2. The applicant represents that it is (✓ ) is not (✓) a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

**Note**

If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the sponsor has received notification from the agency suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government’s interests. The applicant therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency’s SDO to facilitate completion of the required considerations before award decisions are made.

**Term Definitions**

**Felony conviction:** Felony conviction means a conviction within the preceding twenty four

(24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

**Tax Delinquency**: A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

**D12 TERMINATION OF CONTRACT**

Dollar Threshold: $10,000

***Contract Clause:***

**TERMINATION FOR CONVENIENCE (CONSTRUCTION & EQUIPMENT CONTRACTS)**

The Owner may terminate this contract in whole or in part at any time by providing written notice to the Contractor. Such action may be without cause and without prejudice to any other right or remedy of Owner. Upon receipt of a written notice of termination, except as explicitly directed by the Owner, the Contractor shall immediately proceed with the following obligations regardless of any delay in determining or adjusting amounts due under this clause:

1. Contractor must immediately discontinue work as specified in the written notice.
2. Terminate all subcontracts to the extent they relate to the work terminated under the notice.
3. Discontinue orders for materials and services except as directed by the written notice.
4. Deliver to the Owner all fabricated and partially fabricated parts, completed and partially completed work, supplies, equipment and materials acquired prior to termination of the work, and as directed in the written notice.
5. Complete performance of the work not terminated by the notice.
6. Take action as directed by the Owner to protect and preserve property and work related to this contract that Owner will take possession.

Owner agrees to pay Contractor for:

 completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination;

 documented expenses sustained prior to the effective date of termination in performing work and furnishing labor, materials, or equipment as required by the contract documents in connection with uncompleted work;

 reasonable and substantiated claims, costs, and damages incurred in settlement of terminated contracts with Subcontractors and Suppliers; and

 reasonable and substantiated expenses to the Contractor directly attributable to Owner’s termination action.

Owner will not pay Contractor for loss of anticipated profits or revenue or other economic loss arising out of or resulting from the Owner’s termination action.

The rights and remedies this clause provides are in addition to any other rights and remedies provided by law or under this contract.

**TERMINATION FOR DEFAULT EQUIPMENT**

The Owner may, by written notice of default to the Contractor, terminate all or part of this Contract if the Contractor:

1. Fails to commence the Work under the Contract within the time specified in the Notice- to-Proceed;
2. Fails to make adequate progress as to endanger performance of this Contract in accordance with its terms;
3. Fails to make delivery of the equipment within the time specified in the Contract, including any Owner approved extensions;
4. Fails to comply with material provisions of the Contract;
5. Submits certifications made under the Contract and as part of their proposal that include false or fraudulent statements; or
6. Becomes insolvent or declares bankruptcy.

If one or more of the stated events occur, the Owner will give notice in writing to the Contractor and Surety of its intent to terminate the contract for cause. At the Owner’s discretion, the notice may allow the Contractor and Surety an opportunity to cure the breach or default.

If within [10] days of the receipt of notice, the Contractor or Surety fails to remedy the breach or default to the satisfaction of the Owner, the Owner has authority to acquire equipment by other procurement action. The Contractor will be liable to the Owner for any excess costs the Owner incurs for acquiring such similar equipment.

Payment for completed equipment delivered to and accepted by the Owner shall be at the Contract price. The Owner may withhold from amounts otherwise due the Contractor for such completed equipment, such sum as the Owner determines to be necessary to protect the Owner against loss because of Contractor default.

Owner will not terminate the Contractor’s right to proceed with the Work under this clause if the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such acceptable causes include: acts of God, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, and severe weather events that substantially exceed normal conditions for the location.

If, after termination of the Contractor’s right to proceed, the Owner determines that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the Owner issued the termination for the convenience the Owner.

The rights and remedies of the Owner in this clause are in addition to any other rights and remedies provided by law or under this contra