LEE FIRE & RESCUE DEPARTMENT

20 George Bennett Road
Lee, New Hampshire 03861

FIRE CHIEF SCOTT NEMET
ASSISTANT CHIEF JEFF LIPORTO

Town of Lee, New Hampshire

Lee Fire & Rescue Department

Contract # 2021-LF&R-PVEES

INSTALLATION OF PNEUMATIC VEHICLE EXHAUST EXTRACTION SYSTEM

INVITATION TO BID

The Town of Lee, NH Fire Department will receive **sealed bids** addressed to the Lee Fire & Rescue Department Chief's Office, Lee Fire & Rescue Department, 20 George Bennett Road, Lee, NH 03861 until 3:00 pm on November 16, 2021 for provisions of the installation of a Pneumatic Vehicle Exhaust Extraction System at the Town of Lee, NH Fire Department. At this time the bids will be publicly opened and read aloud in any available office or conference room at the Lee Fire & Rescue Department, Lee, NH. Bid documents may be obtained, at no charge from the Lee Fire & Rescue Department or on www.leenh.org.

The Fire Chief reserves the right to reject any or all bids, to waive technical or legal deficiencies, to re-bid, and to accept any bid that it may deem to be in the best interest of the Town.

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Contract # 2021-LF&R-PVEES

INSTALLATION OF PNUEMATIC VEHICLE EXHAUST EXTRACTION SYSTEM

GENERAL PROVISIONS

1. **BID PROCESS:** Each bid shall be submitted in a sealed envelope clearly identified with the Bidder's name and marked "Town of Lee # 2021-LF&R-PVEES Installation of a Pneumatic Vehicle Exhaust Extraction System" and will be received at the Lee Fire & Rescue Department Chief's Office, Lee Fire & Rescue Department, 20 George Bennett Road, Lee, New Hampshire until 3:00 pm, prevailing time, November 16, 2021. Shortly thereafter, the bids will be publicly opened and read aloud in any available office or conference room at the Lee Fire & Rescue Department, Lee Fire & Rescue Department, 20 George Bennett Road, Lee, NH. Bids when opened shall be irrevocable for a period of thirty (30) calendar days following bid-opening date. Following a review of the bids by staff, the Town of Lee will award the bid.

2. **RIGHT TO REJECT BIDS:** The town expressly reserves the right to reject any or all bids as the Fire Chief may determine and to waive defects in form or minor irregularities where the best interest of the Town of Lee would be served.

3. **BID SUBMISSION:** The bidder is to submit their bid on the attached Vendor's Bid Form showing a Lump Sum Price. The bid price shall not include Federal or State Taxes. If such taxes are applicable, the successful bidder shall furnish the Town with the necessary tax-exempt forms in triplicate upon submission of the invoice.

4. **BID SECURITY:** No bid security is required for this bid.

5. **PERFORMANCE SECURITY:** No performance security will be required for this project.

6. **CONTRACT EXECUTION:** The successful bidder shall execute and deliver to the Town of Lee the contract agreement within ten (10) calendar days of being awarded the contract.

7. **TIME TO COMPLETE:** Vender will specify the time on the Vendor's Bid Form by which all product will be supplied to the Town of Lee.

8. **CONTRACT DOCUMENTS:** The contract documents shall include the "Invitation to Bid", "General Provisions", "Specifications", "Vendor's Bid", any issued addenda, and the final

executed "Agreement". The intent of these documents is to include all labor, materials, appliances, and services of every kind necessary for the proper execution of the work and the terms and conditions of payment thereof.

9. **ADDENDA:** Any change to the provisions or specifications of this bid shall be made by written addendum issued no later than four (4) working days prior to the bid opening date. Prospective bidders shall have complete responsibility for being aware of any and all addenda.

10. **WORK GUARANTEES AND WARRANTIES:** The Bidder will guarantee the work and the materials and the work and materials of all subcontractors for a period of five (5) years from the date of acceptance of the work by Fire Department and agree to leave the work in perfect order at completion. Neither the final certificate of payment nor any provisions in the contract documents shall relieve the bidder of responsibility for negligence, or faulty materials or workmanship within the extent and period provided by laws, and upon written notice they shall remedy any defaults due thereto, and pay all expenses for any damage to work resulting there from. It is hereby specifically agreed and understood that this guarantee shall not include any cause other than defective work materials. It is further understood that the Fire Chief shall be the final judge as to whether any defect is a defect in workmanship and /or materials, which is the bidder's responsibility. All manufacturers' warrantees shall apply.

11. **EXCEPTIONS:** Any exceptions taken to the bid documents must be clearly noted by the bidder in the Vendor's Bid Form. Exceptions so taken may be grounds for rejection of bids as determined by the Fire Chief to be in the best interest of the Town.

12. **PAYMENT:** The Fire Department will pay for the product once it is delivered and accepted as fully meeting the specifications.

13. **CHANGE ORDERS:** After execution of the contract, there shall be no changes in the bid documents except by a written amendment executed in the same manner as the contract or by change order as described below. The Fire Department, without invalidating the contract, may order changes in the work within the general scope of the contract consisting of additions, deletions or other revisions, the contract sum and the contract time being adjusted accordingly. All such changes in the work shall be executed under the applicable conditions of the contract documents. The terms of any change order shall be mutually agreed to by the contractor and the Fire Chief.

14. **COMPLIANCE WITH LAWS:** The bidder's attention is drawn to the fact that they will observe and comply with all applicable federal and state laws and regulations, town ordinances and the rules and regulations of all authorities having jurisdiction over the project,

and these shall apply to the contract the same as though written out here in full, and the contractor shall indemnify the Fire Department and the Town and its representatives against any claim or liability arising from or based on any such law, ordinance, rules and regulation by themselves or by their employees. The bidder shall, in the employment of labor, comply with the laws of the State of New Hampshire, including but not limited to Chapter 275 RSA, as amended, "Hours of Labor", Chapter 279, RSA as amended, "Minimum Wage Law". The successful bidder shall notify the Lee Fire & Rescue Department if these bid documents are at variance with any of these laws.

15. **INDEMNIFICATION:** The contractor shall be responsible for all damage to property, or injury to persons, arising out of their actions or failure to act. The contractor shall indemnify and hold harmless the Lee Fire & Rescue Department and the Town of Lee from all suits, claims, judgments, awards, loss, cost or expenses (including without limitation attorneys' fees) arising in any way out of the vendor's negligent performance of its obligations under this contract. Contractor will defend all such actions with counsel satisfactory to the Lee Fire & Rescue Department and the Town of Lee at its own expense, including attorneys' fees, and will satisfy any judgment rendered against the Lee Fire & Rescue Department or the Town of Lee in such action.

16. **INSURANCE:** The bidder shall take out and maintain at their own expense insurance against damages arising from injury to their employees in accordance with Chapter 281 RSA, as amended, "Worker's Compensation Acts and from claims for damages because of bodily injury including death and for all property damages, including without limitations, damage to buildings, which might arise from and during operations under this contract, whether such operations be by themselves or by any subcontractor or anyone directly or indirectly employed by either of them. The contractor shall insure the activities of their subcontractors in their own policy, for subcontractor's public liability and property damage insurance and vehicle liability Insurance of the types and amounts as herein specified. Approval of insurance by the Town of Lee shall not relieve the liability of the contractor there under.

17. **NO COLLUSION:** The bidder shall not, either directly or indirectly, enter into any agreement, participate in any collusion, or otherwise take any action in restraint of free competitive bidding in connection with this bid.

18. **INVESTIGATION OF BIDDERS:** The Town of Lee Fire & Rescue Department may make such investigations as it may deem necessary to determine the ability of the bidder to perform the services, and the bidder shall furnish the Lee Fire & Rescue Department all such information for this purpose that the Lee Fire & Rescue Department may request. The Lee Fire & Rescue Department reserves the right to reject any bid if the evidence submitted by, or investigations of such bidder fails to satisfy the Lee Fire & Rescue Department that such bidder is qualified to carry out the obligations of the contract.

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INSURANCE REQUIREMENTS

Insurance shall be in such form as will protect the Vendor from all claims and liabilities for damages for bodily injury, including accidental death, and for property damage, which may arise from operations under this contract whether such operation by himself or by anyone directly or indirectly employed by him.

AMOUNT OF INSURANCE
A) Comprehensive General Liability:
Bodily injury or Property Damage - $1,000,000
Per occurrence and general aggregate
B) Automobile and Truck Liability:
Bodily Injury or Property Damage - $1,000,000
Per occurrence and general aggregate
Coverage requirements can be met with excess policies. Additionally, the Contractor shall purchase and maintain the following types of insurance:
A) Full Workers Comprehensive Insurance coverage for all people employed by the Contractor to perform work on this project. This insurance shall at a minimum meet the requirements of the most current laws of the State of New Hampshire.
B) Contractual Liability Insurance coverage in the amounts specified above under Comprehensive General Liability.
C) Product and Completed Operations coverage to be included in the amounts specified above under Comprehensive General Liability.

ADDITIONAL INSURED
All liability policies (including any excess policies used to meet coverage requirements) shall include the Town of Lee, New Hampshire as named Additional Insured by endorsement.
1) The vendor's insurance shall be primary in the event of a loss.
2) Town of Lee shall also be listed as a Certificate Holder. The Town shall be identified as follows:

Town of Lee
Attn: Office Manager
249 Calef Highway
Lee, NH 03861

LEE FIRE & RESCUE DEPARTMENT

20 George Bennett Road
Lee, New Hampshire 03861

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TOWN OF LEE FIRE & RESCUE DEPARTMENT

Lee, New Hampshire

Contract # 2021-LF&R-PVEES

INSTALLATION OF PNEUMATIC VEHICLE EXHAUST EXTRACTION SYSTEM

SPECIFICATIONS

General Requirements

1.0 Specifications

Provide all labor, materials, and equipment necessary to install a complete turnkey system that will ventilate diesel and gasoline exhaust from the tailpipe of the vehicle to the outside of the fire station. All necessary controls, motors, fittings, ductwork, blowers, labor and all other equipment and materials specified shall be part of the work.

All items of equipment and materials described in the specifications are to be furnished installed and placed into proper operating condition in accordance with best practices and the manufacturer's written or published instructions.

1.1 The exhaust system shall be designed to vent one hundred percent (100%) of exhaust gasses and particulate safely to the outside of the fire station. The exhaust system shall be designed and installed by factory-authorized personnel, who are certified by the manufacturer of the exhaust system. System is to be installed as a turnkey project with all labor, tailpipe modifications and duct material included in the scope of work. Electrical connections and disconnect switches shall be part of the electrical contractor's project scope.

1.2. The system shall not impede personnel boarding the apparatus. Hose loops shall not hang any lower than six feet five inches from the apparatus bay floor. The hose assembly shall not encounter the vehicle other than one connection point to the vehicle's tailpipe. The hose assembly shall not touch or drag on the floor.

1.3. The exhaust system shall not block doorways, exits, and aisles in the apparatus bay, which could endanger the welfare of fire personnel or visitors.

1.4. The department shall be able to use the exhaust system for performing engine and pumper checks indoors.

1.5. Systems must be designed for high temperature vehicle exhaust fire rescue applications. The system shall automatically activate, disconnect, shutdown, and reactivate upon return.

1.6. The system shall under no circumstances allow exhaust leakage or bypass the nozzle.

1.7. Exceptions and variances from any of the specifications outlined in this bid specification must be acknowledged and listed.

1.8. Related documents to the specifications – drawings and general provisions of the contract apply to this section.

1.9. No tailpipe adapter shall extend past the side of the apparatus in compliance with NFPA 1901. No exceptions.

2.0 Quality Standard Assurance and Experience:

2.1. All standards of quality are met and adhered to in accordance with UL, NFPA, AMCA, IMC, ASME, UMC, NEC, and all local and state building codes. Product is to be supplied by manufacturer with current ISO-9001-2008 certified in manufacturing, design, layout, and sales functions.

2.2. Manufacturing Experience: Companies must have 10 or more years of manufacturing experience of automatic vehicle exhaust removal systems for the fire/rescue service market. In-state references must be made available upon request.

2.3. Submittals indicating rated capacities and product features must be included for the following:

a. Fan power rating with blower curves provided
b. Motor ratings and electrical characteristics
c. Hose ratings and testing verifications
d. Controller
e. Rail and track information as specified

2.4. Shop Drawings: Drawings must show detailed layout of system including elevations, length of track assembly, duct layout with detail and fan location.

3.0 System Description:

3.1. The exhaust shall be a source capture system designed to handle exhaust fumes from diesel engines. The system shall be flexible and allow movement of apparatus from bay to bay.

4.0 Air Volume and Fan Requirements

4.1. The exhaust fan for the facility shall provide a minimum of 600 CFM per vehicle at 6.0 inches static pressure.

4.2. The fan shall be a backward incline fan made from continuous welded construction. Fan housing that is screwed together or riveted is not actable.

4.3 Fans shall be tested and balanced prior to installation, be manufactured in an ISO certified facility in accordance with AMCA certification standards.

4.4. A safety disconnect in the vicinity of the blower fan motor shall be provided.

4.5. Fan motor shall be a totally enclosed, fan cooled and comply with UL 705 and NEMA standards.

5.0 Installation and Duct Connections

5.1. Complete exhaust system with all equipment and installation including the exhaust fan, control box, ductwork, track, hose, and nozzle connection must be completed. Electrical work is not included in the scope of work. Tailpipe modification from muffler out that are required to ensure proper system operation is to be included in the scope of the work by the bidder.

5.2. All penetrations through walls and ceilings and roof shall be properly sealed, if a fire-rated wall is penetrated, the fire-rated wall shall be sealed with the proper rated sealant.

5.3. All duct material installed as part of this project shall conform to Class II SMACNA standards. An appropriate rain cap shall be provided on the building exterior.

5.4. All system components shall be labeled with manufacturer identification.

5.5 Installation of exhaust system shall be accomplished by a factory-authorized installation team that specializes in the business of installing emergency response exhaust systems.

6.0 Pneumatic Nozzle Details and Attachments

6.1. The exhaust capture system shall provide one hundred percent (100%) exhaust removal at the source from the vehicle start up to exit of the apparatus from the station. In no event shall the nozzle allow for the potential escaping of diesel exhaust into the apparatus bay area by having openings that could allow gases to back wash back into the apparatus bay area. Nozzles should sufficiently seal to vent to the outside even in the event that the fan does not properly activate.

6.2. The exhaust system shall be attached to the vehicle within three feet of the door threshold.

6.3. The system shall be designed so that attachment to the exhaust hose is accomplished by operator standing erect and with one simple motion to connect system to the vehicle. A rigid lower hose section with handle shall be provided to allow for easy hose connection.

6.4. Tailpipe adapter plate shall not exceed 7 inches in diameter to provide sufficient ground clearance.

6.5. Any system that does not seal around the tailpipe shall not be considered.

6.6. The tailpipe adapter and nozzle shall be uniform in size to allow vehicles to move freely from bay to bay.

6.7. Pneumatic nozzle to be molded from high temperature composite and constructed of multi-air bag lined and reinforced with synthetic high temperature cord. Nozzle grabbing strength to be 14psi, normal use and have a maximum 45psi. Must incorporate air release valve allowing air pressure release at both nozzle and assembly.

7.0 Nozzle Release

7.1. The release of the nozzle shall occur by a forward motion of an apparatus. The separation shall be accomplished by a pneumatic air pressure release.

7.2. The disconnection of the hose shall not be speed dependent and have a balancer that helps lift the exhaust nozzle off the vehicle tailpipe. The nozzle must separate from the tailpipe at the point each time regardless of the speed of the vehicle.

7.3. Any auto-release system that requires the driver to modify the exit speed to control the nozzle release shall not be accepted. Nozzles requiring trip switches and support systems such as compressed air or electrical support to operate or release are approved.

7.4 Bladder nozzle elbows constructed of one piece, cast aluminum are required to eliminate the possibility of denting, rusting, and breaking.

8.0 Sliding Aluminum Track/Expandable Hose Track

8.1. The exhaust system shall use a lightweight aluminum track support system to convey the exhaust hose from the vehicle's parked position all the way to the door threshold. The aluminum track shall be of box lock design with two cross supports for rigidity. Systems that use steal unistrut or aluminum H track design are not acceptable.

8.2 Rail track system must be supported using adjustable, telescoping support legs allowing for future adjustments and changes to the system.

9.0 Suction Rail

9.1. To best facilitate possible situations where vehicles are parked in tandem and exiting in the same direction, a suction rail system must be used to provide a neat, clean installation. The suction rail system shall be comprised of rail sections which shall have a length of ten feet (10'). Aluminum material shall be 6063-T-5 with a standard mill finish.

9.2. The aluminum suction rail shall be constructed from a one-piece continuous extruded aluminum profile. Construction shall be 6" round in diameter, with guide rails on each side to accommodate the external trolley assembly, and molded slots on the top for leg and support bracing.

9.3. The trolley assembly shall be of external guide rail design. Four Delrin wheels, using oil less bearing design, shall insure long life and allow the trolley assembly to roll freely along the external guide rails. The chassis shall include a fitted cone assembly, designed to part the memory sealing lips. The cone assembly shall be equipped with a series of friction rollers. These rollers shall be designed to reduce the resistance between the memory lips and the cone assembly.

9.4. A shock absorber assembly shall incorporate an adjustable hydraulic cylinder, capable of reducing the forward impact of the trolley assembly, without causing damage to either the suction rail or the trolley assembly.

9.5. A rubber bumper shall be located on the trolley assembly and designed as a contact point. The hydraulic cylinder shall be equipped with a rubber bumper end stop. Both bumpers shall be designed to align upon impact, and at no time shall metal to metal or plastic to metal contact be allowed.

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10.0 The System Balancer

10.1. The system balancer shall retract and keep the hose and nozzle from dangling on the floor for safety concerns.
10.2. Hose shall be supported by the balancer using a lifting elbow.
10.3. Five-inch diameter flex hoses are required to provide less static pressure loss and more efficient fan performance than smaller hoses.

11.0 Extraction System Exhaust Hose

11.1. Exhaust system hose drops shall be the same sectional diameter across as the vehicle tailpipe or greater. Also, exhaust system shall maintain CFM that matches the CFM of the vehicle engine exhaust when running at 1500 RPM.
11.2. The flexible exhaust hose is manufactured for the sole purpose of venting high temperature exhaust gases which are produced by internal combustion engines.
11.3. This construction of hose must be capable of operating at a continuous minimum temperature of 400°F and intermittent temperatures of 550°F. Hoses that are not rated at higher than these temperatures shall not be acceptable.
11.4. The hose shall incorporate a safety disconnect that shall enable the lower two-foot section of the hose assembly to separate from the upper hose assembly when required. This device shall consist of two 16-gauge galvanized sleeves with one rolled end and shall be connected by a reusable rubber band assembly. The release tension of the device to separate shall be no greater than 88 pounds. The tension shall not be adjustable as to eliminate faulty adjustments by personnel.

12.0 Auto-Start Control System

12.1. Shall be designed to sense the output pressure which is normally generated by any internal combustion engine designed to operate any gas or diesel engine. The operating logic must be designed to complete this cycle. At any point in time, when the engineered nozzle is connected to the vehicle's exhaust tailpipe, and at which time the vehicle is manually or automatically energized by the operator, this automatic controller, sensing the engine's output pressure, energizes the exhaust fan electrical contractors, which are connected electrically to a low voltage timer that will keep the exhaust fan operating for a period of time designated by fire department procedures.
12.2. Electrical controller shall be UL listed /approved and manufactured in accordance with Underwriters Laboratories standard UL-508 enclosed industrial control panels and incorporate a limited energy control circuit. The enclosure must be NEMA4 rated fiberglass construction.

13.0 System Warranty

13.1. Complete exhaust system parts warranty shall be for a minimum of 5 years. A warranty certificate describing the warranty to be provided must be included. Location and name of the nearest service outlet should be listed. Location of parts inventory shall be indicated as well.

14.0 Point of Origin

14.1. Equipment shall be manufactured by a U.S. Company that has its base headquarters in the USA. Systems shall be built using product and parts supplied from American vendors only. All components shall be American standard. All standards of quality must be met and adhered to including but limited to UL, NFPA, AMCA, IMC, ASME, UMC, NEC and all local and state building codes.

Award will be made solely based on the cost of services. Evaluation factors to be considered in addition to the cost shall be:

- The bidder's ability, capacity, and skills to perform within the specified time limits.
- Bidder's experience, reputation, efficiency, judgment, and integrity.
- Experience and background of the personnel to be assigned to the project.
- Performance of the supplier on previous similar installations.
- The proposed amount of time to complete the project.
- The total cost of the project
- Bidder's ability to provide future maintenance and/or service.

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Lee, New Hampshire

Contract # 2021-LF&R-PVEES

INSTALLATION OF PNEUMATIC VEHICLE EXHAUST EXTRACTION SYSTEM

VENDOR'S BID FORM

To: Town of Lee Fire & Rescue Department, NH

The undersigned, as a lawfully authorized agent for the below named bidder/contractor, has carefully examined the form of this bid with the general provisions, specifications and other bid documents and binds himself/herself and his/her company on award to them by the Durham Fire Chief, a contract under this Bid to execute in accordance with such award, a contract agreement on such form and in such manner as is prescribed by the Town of Lee Fire & Rescue Department and to provide all necessary equipment, labor, materials and other items or services needed to perform all the requirements for the installation of the installation of a pneumatic vehicle exhaust extraction system.

LUMP SUM PRICE OF:

_____DOLLARS ($_____).

Respectfully submitted,

_____
Print Bidder/Vendor's Name

_____ _____
Print Representative's Name and Title Representative's Signature

_____ _____
Street City, State and Zip Code

_____ _____
Telephone and Fax Number Date

Person signing bid must be authorized to sign a contract with the Lee Fire & Rescue Department, Lee, NH.

Integrity Professionalism Teamwork Courtesy Compassion Dedication

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LIST OF PROSPECTIVE BIDDERS

Air Cleaning Specialist of New England
1525 Hanover St.
Hanover, MA 02339
croche@aircleaningne.com

Clean Air Technology
P.O. Box 380
Belmont, NH 03220
info@cleanairetech.com

AIRE Deb Corp.
1625 Linden Ave
Alden, NY 14004
debbie@airedebcorp.com

THIS BIDDER'S LIST IS NOT INTENTENDED TO BE ALL INCLUSIVE OR EXCLUSIVE, BUT TO LIST THOSE VENDORS WHICH MIGHT HAVE, IN THE PAST SHOWN INTEREST IN BIDDING ON PROJECTS IN LEE.