



CITY OF BANGOR

**Request for Proposals
Combination Sewer Cleaner and Vacuum Truck
Proposal No. P25-01**

**Purchasing Department
262 Harlow Street
Bangor, ME 04401
207-992-4282**

Issue Date: July 12, 2024

I. Introduction

The City of Bangor requests proposals to furnish and deliver one (1) new heavy-duty chassis and chassis-mounted combination sewer cleaner and vacuum truck to the Fleet Maintenance Facility, FOB destination, 481 Maine Avenue, Bangor, Maine. The equipment must be furnished and delivered in accordance with the attached specifications and conditions.

II. General Information

Available at the following web address: www.bangormaine.gov/proposals on the City's website. By submitting a response to this solicitation, the Proposer accepts the responsibility for downloading, reading, and bidding by the terms and conditions set forth in the City's "General Information for Vendors".

In your proposal, please specify whether you currently have or are in the process of developing a domestic violence policy. If you do not have such a policy, let us know if you would like to receive a copy of the City of Bangor's policy as a reference.

III. Submission

For consideration, submit the proposal Bid Form and Vendor Specifications Form in an envelope marked "**Proposal No. P25-01: Combination Sewer Cleaner and Vacuum Truck**" by 2:00 P.M. on **Wednesday, August 14, 2024**.

Submission of documents can be completed by:

- A. **Emailing** to bids@bangormaine.gov ; or
- B. **Hand Deliver** to Purchasing Department, 262 Harlow Street, Bangor, ME (back entrance of building at City of Bangor entrance); or
- C. **US Post Office** addressed to City of Bangor-Purchasing Department, 73 Harlow Street, Bangor, ME 04401; or

D. **All Other Delivery Services** addressed to City of Bangor-Purchasing Department, 262 Harlow Street, Bangor, ME 04401.

All submissions should reference “**Proposal No. P25-01: Combination Sewer Cleaner and Vacuum Truck**”. Proposals will be publicly opened at the time stated above in the temporary Council Chambers, 262 Harlow Street, Bangor, Maine (**see Appendix A - Meeting Location Map**).

A tabulation of all received proposals will be posted on the City's website by 4:30 P.M. on the opening date. Visit www.bangormaine.gov/bidtabs for results.

IV. Questions

Any questions must be directed in writing to bids@bangormaine.gov no later than 4:30 P.M., **Friday, July 26, 2024**.

The City will provide a response by 4:30 P.M. on **Friday, August 02, 2024**. This response will be in the form of an addendum, accessible on the City's website. Notifications will be sent to the Registered Vendor List when new addenda are released. To receive these updates, the City strongly encourages all potential bidders to register as vendors at www.bangormaine.gov/vendorregistration.

V. Late Proposals

It is the responsibility of the Proposer(s) to see that their proposals have sufficient time to be received by the Purchasing Department before the submittal deadline. Any proposal, portion of a proposal, or requested proposal revision received at the City Purchasing Department after the time and date specified, will be returned to the Proposer unopened.

VI. Withdrawal of Proposals

No Proposer may withdraw their proposal for a period of ninety (90) days from the date of opening. All proposals shall be subject to acceptance by the City during this period.

To withdraw a proposal prior to the opening, the Proposer shall request the withdrawal in writing. All costs associated with the withdrawal (i.e. mailing fees) will be borne by the Proposer.

VII. Rejection

The City reserves the right to reject any proposals, waive any informalities or defects in proposals, or accept a higher cost proposal if it is deemed to be in the best interest of the City. The City also reserves the right to request clarification, of any details, from the successful Proposer.

VIII. Information for Proposers

- A. All Federal and State taxes must be excluded from the proposal price. Upon request, a tax exemption certificate for the City of Bangor shall be furnished to the successful Proposer.
- B. The Bid Form, included with this request must be completed and returned for a proposal to be considered.
- C. The vehicle must be thoroughly inspected, serviced, and ready for use upon delivery. All work performed must meet established industry standards of quality to be acceptable. Any unacceptable work must be corrected before payment is issued.
- D. All decisions pertaining to any product equivalency will be the sole decision of the City of Bangor and its employees. This decision will be final and will be made according to the piece of equipment that best suits the City of Bangor.
- E. The Vendor Specification Form, included with this request must be completed and returned for a proposal to be considered. Use this form to explain any exceptions to the requested specifications.

IX. Award

The award will be based on one or more of the following:

- A. Quality and performance of the vehicle offered.
- B. Availability of equipment and parts.
- C. Prior history and experience with the Proposer and/or prior history and experience with the vehicle offered. If there is no history or experience, references may be requested of the successful Proposer.
- D. Cost.

X. Specifications

The specifications listed below represent the City's basic requirements for the equipment requested. The specifications should be viewed as a guideline for the City's needs and not an absolute minimum or maximum requirement. Alternate specifications will be considered but may not be accepted. The City will purchase the equipment that will best meet the requirements of the Sewer Maintenance Department.

Requested Truck Specifications

A. Unit

1. Heavy-duty Freightliner ten (10)-wheel chassis with a gross vehicle weight (GVW) of not less than 66,000 lbs.

B. Wheelbase and Cab to Tandem (CT)

1. CT shall be a sufficient length to accommodate the combination sewer/catch basin cleaner specified in this request.
2. Axle to Frame (AF) dimensions must allow for a min. 12" of frame to extend past the rear tires to facilitate mounting of the body described within this specification list. The unit must have both electric and air lines to the rear.

C. Front Axle

1. 20,000 lb. min. capacity I-Beam type.
2. Oil-lubricated and sealed wheel bearings with a visible oil supply.
3. Spring-mounted hardware and brackets shall be designed for extreme use.
4. Front axle shall be of the set-forward type.
5. Front shock absorbers.

D. Rear Axle

1. R-Series tandem axle at 46,000 lbs. GVW, with lube pump and driver-controlled locking differential in forward and rear with 200-wheel ends.
2. Approximately 65 MPH at most economical RPM in high gear.
3. Aluminum housings are not acceptable.
4. Magnetic oil drain plug.
5. Oil lubricated and sealed wheel bearings.
6. Rear axle ratio shall be 6:14 to one (1).

E. Engine

1. Cummins ISL – 370; 370 HP at 1,900 RPM, 1,250 lb./ft. at 1,400 RPM.
2. Auxiliary Engine Water Pump: GM 5.7 liter and gasoline powered.
3. Engine brake.
4. Extreme service oil filtration system (remote mount filter assembly will not be accepted).
5. Fuel/water separator with fuel temperature-controlled heater and filter restrictor/change indicator, including standard water in fuel filter sensor.
6. Stainless steel oil pan with magnetic oil drain plug.
7. Engine block heater, 1,000 watts min., 115 volts, receptacle with spring-operated lid mounted on the front of truck.
8. Must meet all Environmental Protection Agency (EPA) Department of Environmental Protection (DEP) requirements for emissions and must meet California Clean Air Regulations (CARB).

F. Transmission

1. Allison 4500 RDS, automatic transmission with PTO Provision, push-button electronic shift control dash mounted, and transmission diagnostics. Magnetic

oil drain plugs and transmission cooler includes an oil level sensor with electronic check or approved equal.

2. Synthetic transmission oil is required. TES-295 qualified.
3. Mode switch programming.

G. Driveline

1. Driveline shall be heavy-duty and factory-balanced.
2. Main driveline shall use Meritor RT 46 160P or equal with half-round yokes.
3. Interaxle driveline shall use Meritor 17T or equal with half-round yokes.
4. Extended-life U-joints.

H. Brakes

1. Dual air brake system with ABS (such as Wabco 4S/4M ABS) or an approved equal.
2. Front brakes shall be 16 ½ x 6 cam type ("Q" + style preferred).
3. Rear brakes shall be 16 ½ x 7 cam type ("Q" + style preferred) with two (2) 30/30 brake chambers on rear axles, with moisture-proof chambers.
4. All brake drums shall be outboard-mounted cast drums with dust shields.
5. Haldex automatic slack adjustors.
6. Wabco SS-120 Plus air dryer with integrated heater and air governor that is mounted inside of the left rail behind the cab.
7. Aluminum reservoirs must have ample road clearance and have sufficient capacity to support all air accessories and the requirements of a tag-a-long trailer. Compressor shall be a min. 18.7 cfm type. Aluminum air tanks must allow for mounting of sewer body.
8. Pull drains on each reservoir with the loose end of the cable attached professionally and in a location that is easily accessible to the operator.

I. Rear Springs and Suspension

1. Hendrickson RT463 46,000 lbs. or an approved equal rear suspension.
2. Tuftrac or an approved equal standard ride height.
3. Hendrickson-style rear suspension, 54" spacing.
4. Clearance between dual tires shall be 2" min. The clearance between the inner dual tires and suspension system or brake chambers shall not be less than 2". This min. clearance must be retained during all normal operating conditions under capacity loading. Local modifications will not be accepted. Special spacers or wheel components will not be accepted.
5. All hardware shall be designed for extreme services.

J. Steering

1. Heavy-duty design suitable for in-town driving, such as TRW TAS85 or an approved equal.

2. Power steering with a replaceable, large-capacity reservoir filter.

K. Electrical

1. 12-volt Delcotron 160-amp capacity alternator model #28-SI or approved equal, Quadramount with remote voltage sense.
2. Heavy-duty Delco starter 12-volt, #38 MT type, or equal, with integrated magnetic switch.
3. Three (3) 12-volt batteries, Group 31 min. of 2,750 CCA maintenance-free stud mounting type, must be mounted so as not to interfere with body mounting. Positive and negative posts for the jumpstart located on the frame next to starter.
4. Enclosed battery compartment with proper ventilation to prevent corrosion.
5. Electronic Engine Integral Warning and Derate System.
6. All exterior wiring shall be salt-resistant and in a suitable loom or conduit, using weatherproof connectors.
7. Manually operated master battery disconnect switch with lockout tag-out provision that is mounted on the battery box and readily accessible to the operator. Cole-Hersee Model M284-05 or an equivalent is preferred.
8. Sealed battery cable ends.
9. Electronic features of the manufacturer must be able to integrate with body requirements.
10. Body builder's light pack to rear of cab at the left frame rail.
11. Toggle switch in dash for customer-supplied light at cab rear.

L. Frame

1. One (1)-piece heavy-duty reinforced high tensile heat-treated steel, 120,000 psi yield, min. Straight channel frame rail, 7/16" thick.
2. Min. section modules are 21.6 per rail.
3. Bolted construction, designed for extreme service and use.
4. Heavy-duty gusseted cross members shall be provided.
5. Front and rear tow hooks mounted to frame.
6. Cone storage is mounted to front bumper.
7. Local installation of frame reinforcement will not be acceptable.

M. Tires and Wheels

1. Front tires will be 12R x 22.5 16-ply type, such as Bridgestone R250ED, or approved equal.
2. Rear tires will be 11R x 22.5 12Rx22.5, such as Bridgestone R250ED, or approved equal.
3. Spare wheel and tire: front tire 12Rx22.5 Bridgestone R250ED, or approved equal.
4. Both front and rear hubs must be cast iron hub-piloted (ten-hole).

5. Accu-ride wheels shall be 22.5 x 8.25 hub-pilot style; part #41644ANP wheels will be used on front and outside rear tires. Part #28828 HD steel will be used on inside rears. Spare tire will be mounted on a part #41644ANP wheel.

N. Fuel System

1. Provide an aluminum fuel storage tank mounted on the left side of the truck, 80-gallon min.
2. Non-skid step.
3. 12" road clearance min.
4. Factory-installed fuel heater, Alliance or equal.
5. Fuel lines shall be of the proper flexible wire braid type.
6. Tank shall be vented in such a manner as to prevent fuel spillage if operating on a slope or on level ground with the tank full and the fuel warm.
7. Suitable mud flaps shall be installed to protect the fuel tank from road debris.
8. Shut-off valve shall be installed at fuel outlet.
9. Fuel tank heater, such as Instaheat or equal.

O. Cooling System

1. Radiator core and tanks shall be of heavy-duty design and construction.
2. Ample capacity for continuous high engine output under extreme temperatures and/or operating conditions, 1,000 sq. in. min. area.
3. Heavy-duty mounting brackets and hardware.
4. Gates Blue: stripe-type radiator and water hoses.
5. Extended-life antifreeze to -40°F.
6. Horton Drivemaster automatic fan clutch with fan switch.

P. Exhaust

1. Vertical exhaust designed and installed not to interfere with visibility or any customer installed accessories (such as tanking or body).
2. Angle exhaust tip shall be provided.
3. Heavy-duty mounting brackets, elbows, piping, and expansion joints.
4. Shall keep noise to the lowest practical level in accordance with Federal and State regulations.
5. Aluminized muffler.
6. Must comply with the latest EPA regulations with regeneration capabilities and a warning system.

Q. Filters

1. Air filter shall be heavy-duty dry type.
2. Option of drawing air from either under the hood or from the cab so as not to clog filter with snow. An air filter restriction gauge is mandatory.
3. All filters must be located easily for servicing.

4. All oil, fuel, and water filters shall be disposable spin-on types.

R. Cab

1. Must have clear cab clearances. No articles can protrude past the rear of cab.
2. Aerodynamic LED cab marker lights.
3. Dome light shall have independent switch.
4. Heater shall have the highest capacity available.
5. Automatic low oil pressure, high temperature, low coolant visual, and audible warning system that is operational only when ignition is on.
6. Electric-heated windshield and washer fluid.
7. Heavy-duty 2-speed electric windshield wipers, minimum with time delay.
8. Dual sun visors.
9. Bright finish heated aero mirrors with lights, right hand (RH) remote adjustable (4-way).
10. 8" convex mirrors, bright finish, mounted under primary mirrors.
11. Grab handles on the right and left sides.
12. Three (3) point seat belts on driver's seat.
13. All exterior lights must be LED.
14. Driver's seat shall be a Bostrom Talladega 915, or equal, high-back air suspension seat with air lumbar support.
15. Passenger seat shall match the driver seat.
16. Instruments shall include, but not be limited to: oil pressure gauge, water temperature, fuel gauge, brake warning light, low air pressure light and alarm, voltmeter, amp meter, air pressure gauge, and dash mounted engine hour meter. All gauges shall be properly marked and illuminated.
17. Full coverage, insulated rubber floor mats.
18. Heavy-duty closed-cab, all-steel construction.
19. Hood and fender shall be one (1) piece design, tilt forward type, with factory-installed side access panels to provide safe, easy, and complete access to the engine compartment for daily service and periodic maintenance.
20. Stationary grille is highly preferred to increase engine accessibility.
21. Back-up alarm, 97 dba.
22. Fresh air intake for heater and defroster must be protected, designed, and installed to prevent the entrance of sand and salt.
23. AM-FM / WB radio with a clock.
24. Suitable heavy-duty bumper must be supplied and mounted on frame.
25. Electric horn.
26. Air horn.
27. Directional signals, non-canceling type, with a motorized flasher.
28. Cab-mounted 5 lb. fire extinguisher.
29. Steering column shall be both tilted and telescopic.
30. Six (6) extra switches are mounted in the dash for emergency lighting.
31. Exterior fiberglass visor.
32. Single auxiliary dash-mounted defroster fan.
33. Air ride for the cab.

S. Paint

1. Single-stage polyurethane, Omaha Orange. Wherever possible, lead-free paint is required.
2. Chassis shall be semi-gloss black enamel.
3. Reflective striping.
4. Cab interior to match exterior.

T. Manuals

1. Two (2) operator's manuals.
2. One (1) complete line ticket (parts).
3. Software program to diagnose engine troubleshooting provided by the engine manufacturer is to be used with a shop-owned laptop. The engine supplier must train shop personnel in the proper use of software programs. Any electronic software available for either parts or service-related problems must accompany this vehicle and may be substituted for written material.
4. Vendor must supply a complete set of service and parts manuals, both in print and electronic. Electronic training must be supplied to two (2) work shift personnel.

U. General

1. All manuals or software shall be delivered prior to acceptance of the final, completed vehicle.
2. Chassis shall be completely serviced, tuned, wheels balanced (front), and steering geometry adjusted prior to delivery.
3. Vehicles offered must comply with all applicable Federal, State of Maine, and most current engine EPA regulatory standards. Certified GVWR must be furnished.
4. A computer analysis of the proposed engine, transmission, and rear-end combination of that is being offered must be provided.
5. Wherever possible, friction materials must be non-asbestos.
6. Vehicles must be fully operational and ready for service when delivered to the Fleet Maintenance Department.
7. Noise level at the operator's hearing zone must not exceed the applicable OSHA maximum amount with hours of exposure as specified in Table G-16 of Parts 1910-95 and D2 of 1926.52. This sound level shall be an eight (8)-hour time-weighted average in accordance with SAE Standards J1166, J919, J1174, and J1175, or whichever is applicable.

Requested Sewer Cleaner/Vacuum Specifications

A. Debris Storage Tank

1. Debris tank volume shall be twelve (12) cubic yards with an eleven (11) cubic yard min. usable capacity.
2. Each Proposer will submit a dimensional drawing that certifies the min. usable capacity and overall truck dimensions with the proposal documents.
3. The debris tank shall be constructed from A36, preferably stainless steel, ¼" min., ex-ten steel (min. yield pt. of 50,000 PSI) or approved equal. It shall withstand water and have a min. tensile strength of 70,000 PSI.
4. The entire debris tank shall dump via hydraulic cylinder lift to a min. of 50°. There shall be no plates or baffles inside the body. A steel splash shield in the body to deflect debris away from the truck is required.
5. The complete rear door assembly shall open and close for dumping by means of a hydraulic cylinder and shall tip open enough to not drag through debris. There shall be a replaceable rubber or neoprene gasket attached to the body. The rear door shall be locked closed by means of hydraulic cylinder(s), which shall eliminate the need for unlatching at the rear of the body, preferably four (4) cylinders or an approved equal.
6. Provide visual means to assess the level of debris in the debris body from the ground.
7. To prevent overfilling the debris tank, there shall be a stainless-steel ball check valve installed inside the body. When the tank reaches a full level, the ball check shall shut off the air to the exhauster to prevent water intake. An approved equal shut-off system may be accepted.
8. Two (2) manual prop rods certified for support of the tank shall be provided.
9. The air drawn from the debris tank shall pass through a filter screen easily serviced from the ground.
10. A bronze, quick-opening gate valve (air activated or manual) with a cam-lock coupler and 30' x 6" lay flat hose with a storage rack permanently mounted at the reel end to allow for easy removal of excess liquids. Some means shall be used to allow for 80% of the liquids in the tank. There shall be a means of using a screen to allow this to happen; this screen shall pivot during the dump cycle to allow for cleaning. The ability to drain liquids shall be done without raising the body.
11. Debris body door shall have a failsafe lock in case there is a loss of hydraulic pressure.
12. 6" knife decant valve with 10' of lay-flat discharge hose.
13. Debris flush-out system consists of two (2) spray nozzles to flush the front of the tank.
14. Stainless steel ball on the debris body level indicator.
15. Float-type auto-shutoff when full.
16. Debris body shall be supplied with a vibrator.

B. Water Tank

1. A min. usable capacity of fifteen hundred (1,500) gallons supplies the operation of the sewer flushing system. No water storage shall reduce the twelve (12)-yard debris body capacity. Polyethylene tanks shall be interconnected, baffled, and self-leveling, with easily accessible inspection ports on top of each tank.
2. A ten (10) year warranty shall be supplied, and a representative from the awarded Proposer shall be required to perform an annual inspection during the life of the warranty at no additional cost and leave documentation of the inspection, citing the condition.
3. A water fill system with direct full flow from a water hydrant shall be located on the curbside. A 1 ½" national standard fire thread female swivel connection shall be provided to allow complete filling of the water tank system, as well as a 30' hose.
4. The fill system shall include a 6" air gap, anti-siphon design to protect the portable water system. An anti-splash valve shall be located inside the fill system to prevent spillage from the water tank while in transit. Two (2) water level sight tubes shall be provided at locations visible to the operator.
5. The water supply to the pump shall allow dumping of the debris tank and operation of the water pump while in a full dumped position. A min. 2 ½" quick opening drain in the lowest position (allowing complete draining) of the water tank system shall be included, allowing for periodic flushing out of water tank sediments.
6. Each Proposer shall submit a dimensional drawing that certifies the min. usable capacity.
7. Truck must be supplied with a water tank fill strainer with a #30 mesh or smaller or an approved equal filter system at the inlet of the water tank fill air gap and between the water tanks and water pump.
8. Bottom of tanks shall be above the pump to provide gravity flow to pump.
9. Low water alarm to alert the operator.
10. Air purge system.

C. Water Pump System

1. The water system shall include a heavy-duty tri-plex water pump.
 - a. The pump shall be capable of operating flow from 0-80 GPM min. and from pressures of 0-2,500 PSI min. without changing nozzles.
 - b. This valve shall allow for water and air pressure to be reciprocally proportional.
 - c. The air flow shall be switched ON and OFF by means of a solenoid valve, whereas the air pressure and, in turn, the water pressure shall be adjusted by the air pressure. This will be done by using an air regulator. Must be capable of performing this function at the operator's station or at the washdown reel.

2. This tri-plex water pump shall have a five (5)-year warranty. A copy of the pump manufacturer's statement of warranty shall be submitted with the proposal.
3. A mesh strainer shall be provided; it will allow for cleaning the pump without using tools and may be cleaned with the tanks full.
4. The pump shall be mounted above the chassis frame to avoid damage from rough and off-road travel.
5. The truck chassis shall drive the water pump via an auxiliary gas motor, with some means of a variable-speed drive.
6. The means of operating gas motor ON and OFF at the operator's station will be a toggle switch.
7. An air valve for purging water from the pump system for storage shall be provided. Pull valves shall be provided on the pump to drain trapped water from the pump and entire high-pressure water system.
8. A single, three (3)-way water flow control valve shall be provided and operated by a manual lever at the operator's station.
9. The entire pressure piping system shall be designed in 1" I.D. with a pressure relief valve set at the max. operating pressure and sealed at the factory.
10. Bypass pump from manhole to manhole capabilities.
11. A washdown system will be part of the primary water pump system and include a quick-connect hose fitting at the hose reel with a pressure relief setting of 800 PSI.
 - a. Includes piping and hoses and is capable of delivering a 2.5-gallon capacity and an 800-2,500 PSI pressure rating.
 - b. Provide a quick connection hand gun (variable spray stream, mist to steady), 50' min. of high-pressure hose to match system, and storage space for hand gun. Two (2) separate systems will be acceptable: 800 PSI and a variable 1,400-2,500 PSI system.
 - c. Hose must be permanently mounted on a self-wind reel. An additional 35' of high-pressure hose with quick disconnects shall be provided.

D. Arctic Weather Package

1. An "Arctic Weather" package must be provided; the package will be certified to allow operation of the unit in sub-freezing temperatures up to -40°F.
2. The cold weather package shall consist of, but not be limited to, the following heavy-duty components:
 - a. A water bypass system capable of pumping water throughout all systems regardless of chassis speed or approved equal.
 - b. All water suction lines as well as pressure lines will be insulated with a heavy-duty poly-based foam wrap.
 - c. All water suction and pressure lines will be wrapped with heat tape powered via a chassis-mounted inverter system. The inverter will be sized to comply with the chassis and meet the requirements of the heat tape system.

- d. The high-pressure water pump head and secondary water pump will be heat tape-wrapped.
- e. Insulation and heat shall cover, but not be limited to, the following: water tank to pump, pump to hose reel, pump to handgun reel, recirculatory lines, and all water options, such as body washout, hand coupler, etc.

E. Air Vac System

1. Includes an Aeroboost three (3)-stage centrifugal compressor fan system. Hydrostatically driven via a transfer case. The chassis engine's maximum RPM is 1250 - 1300 when the vacuum is operating at full speed.
2. The truck chassis shall drive the vacuum via an auxiliary gas motor with some means of a variable-speed drive.
3. The rating of the vacuum system at sea level will be a min. of two hundred seventeen (217) column inches of water at max. RPM.
4. Single, large air separator for optimal air filtration and conveyance.
5. Vacuum shall be controlled by means of a switch at the operator's station.
6. At minimum, provide a single-stage stainless steel micro strainer in a centrifugal separator with a side access door incorporated between the exhauster and debris tank. It shall be mounted to allow the settling of contamination out of the main air flow. The separator must be easily cleaned through an access door.
7. Provide a min. of two (2) vacuum unloader valves to be built into the vacuum system to maintain high negative pressure.
8. A vacuum / pressure gauge shall be supplied at the operator's station.
9. A self-aligning connection between the debris tank and the air-vac system shall be supplied.
10. Odometer shall not operate when water or a vacuum pump is operating, eliminating premature truck warranty expiration.
11. Provide hydraulic shut-off valves at suction, return, and filter lines to permit servicing of the hydraulic system.
12. Auto-vac breaker door with overflow protections.

F. Suction Intake Boom

1. Debris loading into the tank will be through a min. one (1) piece of 8" extra heavy-duty wire-reinforced rubber hose assembly (or equal) that allows for easy periodic rotation to prevent premature wear of the entire assembly.
2. Front-mounted, 210° of rotation with joystick controls.
3. Remote boom system equipped to activate boom functions, throttle, water pump, hose reel in/out, hose reel speed, vacuum relief, and emergency stop.
4. A boom coverage diagram shall be supplied with the proposal.
5. The boom shall extend 4' 6" to a min. of 20' and rise to a height of 19' or an approved equal working range.
6. The boom shall be capable of lifting a min. of 1,000 lbs.
7. Unit must be capable of cleaning various-sized wet well pump stations.

G. Internal Boom Valve

1. An internal boom valve shall be supplied, or an approved equal valve system. The valve shall be pneumatically operated for greater speed and located outside the debris tank.
2. By closing the internal boom valve, the operator will completely stop all airflow through the vacuum tube, allowing the user to build an instantaneous 217" of water volume vacuum within the debris tank.
3. By quickly opening the valve, an updraft will loosen compacted solids that would normally require removal by mechanical means.

H. Debris Tank Flush-Out / Pump-Off System

1. A system of nozzles will be installed in the debris tank. These nozzles will completely flush out the debris and scour the top, sides, bottom, and inside of the debris tank / rear door.
2. There shall be high-pressure hoses installed to be sure the debris body floor is cleaned.

I. Hose Reel Assembly

1. The front-mounted hose reel assembly will use a heavy-duty pinch roller / tensioning device.
2. Power guide "reel power" auto-level wind guide.
3. The hose reel shall be mounted to assure adequate ground clearance to allow for access to manholes behind highway guard rails.
4. The reel capacity shall be a min. of 800' of 1" sewer hose (3,000 PSI/7,500 burst pressure).
5. The reel and control panel with work light shall hydraulically articulate into position over a manhole on a min. of a 270° arc. The articulation shall allow the reel to be positioned directly over a manhole located five (5) ft. off the curb.
6. Sewer hose payout and retrieval shall be accomplished by two (2) means: a push button on the operator's panel and an independent control panel with joy sticks.
7. A heavy-duty dual roller hose level wind guide and hose footage counter to assist the operator in placing the hose evenly on the reel.
8. A flexible hose guide with rope shall be provided.
9. Hose reel shall be manufactured out of 1/4" spun steel or an approved equal and be able to run at full speed independent of engine speed.

J. Cleaning Hose

1. The unit shall be delivered with two (2) 1" x 800' piranha hoses. One (1) hose on reel and one (1) spare hose delivered with truck.
2. The hoses will have a working pressure rating of 3,000 PSI with a burst pressure of 7,000 PSI.

3. The unit will come complete with 20' of flexible leader hose, including threaded connection couplers.

K. Operating Controls, Gauges, and Instruments

1. A portable control with a quick disconnect shall be attached to the unit and will operate all power functions of the boom. It will include power rotation with an automatic position lock, hydraulic boom movement up and down, telescoping in and out, and the air-vac internal boom valve.
2. Hydraulic controls to open and close the debris tank door, raise and lower the debris and water tanks, and lock and unlock the rear door will be on the curbside of the unit. Well forward to the dumping area to provide maximum operator safety.
3. In addition, the following gauges and controls shall be mounted at an angle for ease of viewing on the hose reel assembly.
 - a. Chassis tachometer and hour meter.
 - b. Vacuum gauge.
 - c. Water pressure gauge.
 - d. Digital water pump flow meter.
 - e. Low water warning lamp.
 - f. Tachometer and hour meter for blower.
 - g. PTO hour meter.
 - h. Water pump hour meter and on/off switch.
 - i. Adjustable hose reel speed control (including forward and reverse control).
 - j. Truck engine throttle.
 - k. Boom controls.
4. Electronic actuated engine throttles, one (1) at each control panel mounted and one (1) located at the debris tank hydraulic dump valve.
5. A 12-volt electrical stainless-steel outlet is mounted on the back of the control panel.

L. Misc., Tools, Accessories, and Storage

1. Two (2) aluminum toolboxes are provided.
 - a. Boxes to be constructed of one-hundred (100) aircraft grade, diamond plate tread, bright aluminum with a mirror finish
 - b. Sealed and weatherized with stainless steel "T" latches, one (1) street side at a min. of 35"x14"x14" and two (2) curb side at a min. 24"x18"x18" or to fit on the truck where possible and sized as a min. storage space stated above with east of access for the operator.

2. Side-mount tube racks shall be provided to accommodate all 8' and 6' intake tubes mounted vertically or horizontally with sufficient tubes to reach 20' down from finish grade.
3. A 72" W x 15" D x 36" H aluminum toolbox constructed out of the same material as the side boxes mounted behind the cab shall be provided. Size and location may vary with approval.
4. A traffic cone holder and six (6) 28" double reflective band cones are mounted on front bumper where space allows.
5. Bright, heavy-duty aluminum fenders will be installed over the four (4) rear wheels to protect the unit from road splash. The unit will have mud flaps on the front and rear.

M. Safety Items / Standard Equipment for Truck Operation

1. Cab-mounted 5 lb. fire extinguisher.
2. Cab-mounted Safety Triangle reflector kit.
3. Two (2) frame-mounted wheel chocks are in brackets.
4. OSHA-sized first aid kit.
5. Two (2) operator manuals, written and electronic.
6. Two (2) factory-issued service manuals, written and electronic.
7. Two (2) parts manuals, "as built" with wiring diagrams, written and electronic.
8. One (1) manhole vacuum tube support.
9. One (1) manhole cover removal tool.
10. One (1) tube connector tool.
11. Two (2) lower hose guides (plastic).
12. Two (2) each of front mounts and rear mounts to hooks.
13. All suction tubes shall be ball-and-socket-type with clamps.
 - a. One (1) 8"x6'6" catch basin suction tube.
 - b. Four (4) 8"x5' (or 6') suction tubes.
 - c. One (1) 8"x3' fluidizer tube.
 - d. One (1) 8' suction tube.
 - e. One (1) 3' suction tube.
 - f. All are mounted for vertical storage (including a permanent-mounted vertical rack). Horizontal storage is acceptable with prior approval of design; vertical is preferred.
 - g. Tubes must have a clamp permanently mounted on them and have a ball / socket. Flat flanges with separate clamps will not be accepted.
14. Various nozzles are needed for operation. ENZ brand nozzles with a pelican case or approved equal.
 - a. Part #36.100: Rotodrill nozzle – CT 1".
 - b. Part #60.100: Chisel point nozzle with ceramic inserts.
 - c. Par #40.100a: Grenade Bomb with ceramic inserts.
 - d. Part #404.080hs: Bulldog 80 Series w/4" Skit CT 1".

e. Part #125tr-812: Rotating Turbine Chain scraper, 8"x12" set with kit box.

N. Body and Work Lights

1. The body shall include two (2) stop, tail, turn, and back-up lights, as well as a license plate light, all required clearance lights, and reflective tape and reflectors. All lights must be LED.
2. Cab-mounted safety strobe LED.
3. Three (3) LED strobe lights shall be supplied, with two (2) mounted at the rear and one (1) mounted on the front bumper.
4. Dual-mounted boom LED work lights and LED clearance lights shall be provided.
5. Rear-mounted LED arrow directional board shall be provided.
6. A 50' LED retractable work light mounted on the reel shall be provided.
7. Two (2) LED flood lights are to be installed on the reel end of the truck.
8. One (1) LSD flood light is to be installed at the side operator control station.

O. Paint Coating

1. Painting of the body and all exposed surfaces shall be professionally prepared.
2. An accepted min. of one (1) coat of high-build epoxy primer and two (2) coats of DuPont Imron Elite Polyurethane Enamel.
3. Application should be a wet top coat applied to a wet, un-sanded primer base. Parts to be painted before installation on the chassis. No wires to be painted.

P. Training

1. The awarded Proposer shall provide complete training for the operation of the sewer cleaner vacuum truck to operators and maintenance personnel. A min. of two (2) full eight (8)-hour days of instruction, including basic operation and maintenance (field and classroom setting).
2. Follow-up training to include one (1) eight (8)-hour on-site instruction three (3) months from delivery.
3. Provide a training video of the operation of the complete truck.

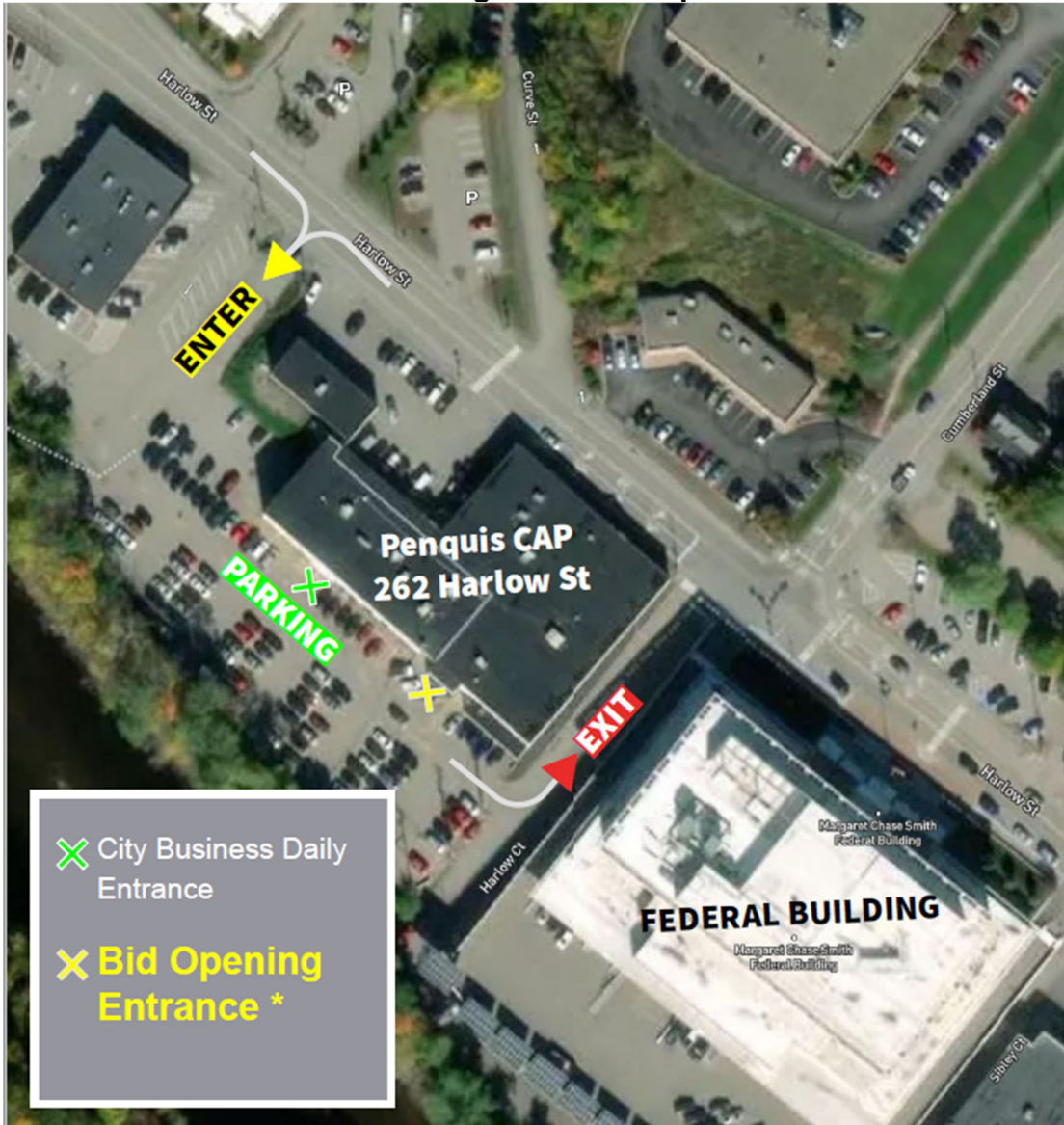
Q. Warranty

1. Standard manufacturer's warranty plus a zero (0) deductible full coverage warranty for the time of five (5) years or five thousand (5,000) hours.

R. Parts Availability

1. Replacement parts for major components shall have a forty-eight (48)-hour availability in the Bangor area.

**APPENDIX A
Meeting Location Map**



* From Harlow Street, drive around to the back of the Penquis building (one-way traffic in parking lot). To the right, enter through glass vestibule door (yellow “X” on map above) and once in there, to the right, there is another glass door marked “Meeting Entrance”. Go to the end of that hallway and take a slight left. The room marked “Penobscot Conference Room” is the temporary Council Chambers location where Bid Opening meetings are held.

“Meeting Entrance” door will be opened 10 minutes prior to the scheduled meeting time.



Bid Form

CITY OF BANGOR

**Combination Sewer Cleaner and Vac Truck
Proposal No. P25-01**

**Bid Deadline:
2:00 P.M., Wednesday,
August 14, 2024**

Notes: The proposal must include this Bid Form. A complete Manufacturer's brochure must be attached. Failure to comply with any of the above will result in disqualification.

Business Name:	
Contact Name/Title:	
Street Address:	
City, State Zip	
Telephone Number:	
Email Address:	

Item	Description	Qty.	Unit	Unit Price	Total Price
1	Sewer / Vacuum Truck Year: Make: Model:	1	EA	\$	\$
Total Bid Price:					\$
<i>Price must include all miscellaneous charges: fuel, transportation etc. No other charges will be accepted.</i>					
Estimated delivery after receipt of order:					
Are there any exceptions to specifications?				Yes	No
If yes, include a detailed explanation of all exceptions on the Vendor Specifications Form.					



CITY OF BANGOR

**Request for Proposals
Combination Sewer Cleaner and Vacuum Truck
Proposal No. P25-01**

**Purchasing Department
262 Harlow Street
Bangor, ME 04401
207-992-4282**

Vendor Specifications Form

Notes: The proposal must include this Vendor Specifications Form. Failure to comply will result in disqualification. A detailed explanation of ALL exceptions to the requested specifications must be included.

In order to be considered, Proposers must list the specifications of their equipment on this form. Provide a detailed explanation of any exceptions to the requested specifications. If the Proposer’s specifications match the requested specifications exactly, please indicate with an “X” on the corresponding line.

Vendor Name: _____

Vendor Specifications

A. Unit

1. _____

B. Wheelbase and CT

1. _____

2. _____

C. Front Axle

1. _____

2. _____

3. _____

- 4. _____
- 5. _____

D. Rear Axle

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____

E. Engine

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____

F. Transmission

- 1. _____
- 2. _____
- 3. _____

G. Driveline

1. _____
2. _____
3. _____
4. _____

H. Brakes

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

I. Rear Springs and Suspension

1. _____
2. _____
3. _____
4. _____
5. _____

J. Steering

1. _____
2. _____

K. Electrical

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____

L. Frame

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

M. Tires and Wheels

1. _____
2. _____
3. _____
4. _____

5. _____

N. Fuel System

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

O. Cooling System

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

P. Exhaust

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Q. Filters

1. _____

2. _____

3. _____

4. _____

R. Cab

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____
26. _____
27. _____
28. _____
29. _____
30. _____
31. _____
32. _____
33. _____

S. Paint

1. _____
2. _____
3. _____
4. _____

T. Manuals

1. _____

2. _____
3. _____
4. _____

U. General

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

Requested Sewer Cleaner/Vacuum Specifications

A. Debris Storage Tank

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

11. _____
12. _____
13. _____
14. _____
15. _____
16. _____

B. Water Tank

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

C. Water Pump System

1. _____
 - a. _____
 - b. _____
 - c. _____
2. _____
3. _____

- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____
- 11. _____
 - a. _____
 - b. _____
 - c. _____

D. Arctic Weather Package

- 1. _____
- 2. _____
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____

E. Air Vac System

- 1. _____
- 2. _____
- 3. _____
- 4. _____

- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____
- 11. _____
- 12. _____

F. Suction Intake Boom

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____

G. Internal Boom Valve

- 1. _____
- 2. _____
- 3. _____

H. Debris Tank Flush Out / Pump-Off System

- 1. _____
- 2. _____

I. Hose Reel Assembly

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

J. Cleaning Hose

1. _____
2. _____
3. _____

K. Operating Controls, Gauges, and Instruments

1. _____
2. _____
3. _____
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
 - f. _____
 - g. _____

h. _____

i. _____

j. _____

k. _____

4. _____

5. _____

L. Misc., Tools, Accessories, and Storage

1. _____

a. _____

b. _____

2. _____

3. _____

4. _____

5. _____

M. Safety Items / Standard Equipment for Truck Operation

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

- 10. _____
- 11. _____
- 12. _____
- 13. _____
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
 - f. _____
 - g. _____
- 14. _____
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____

N. Body and Work Lights

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____

7. _____

8. _____

O. Paint Coating

1. _____

2. _____

3. _____

P. Training

1. _____

2. _____

3. _____

Q. Warranty

1. _____

R. Parts Availability

1. _____