City of Aurora

Finance Department | Purchasing Division
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DATE: September 17, 2020

TO: Prospective Bidders

FROM: Jolene Coulter, Director of Purchasing

RE: **CITY OF AURORA INVITATION TO BID 20-47 – Addendum #1**
Purchase of One Combination Sewer Cleaner

This notice forms a part of the Invitation to Bid 20-47: Purchase of One (1) Combination Sewer Cleaner for the Water and Sewer Division. All other information pertaining to this Invitation to Bid shall remain the same.

Bidder must submit an original proposal response, marked as "original" and shall have provided all requested information, and submitted all appropriate forms, certificates, affidavits and addendum acknowledgements in each copy in order to be considered responsive.

Sealed Bid Proposals will be received at the Purchasing Division office, 44 East Downer Place, Aurora, Illinois 60507, until **2:00 pm, CST, Wednesday, September 23, 2020** to determine proposals for the anticipated above named purchase.

City Hall is open to the public on Monday, Wednesday and Friday, but is accepting deliveries Monday through Friday 8:00 am – 5:00 pm.

Bid proposals will be opened via a non-mandatory teleconferenced live stream at 2:00 pm. Zoom information for this opening will be posted 24-48 hours prior.

Please acknowledge this addendum on your bid proposal form. Failure to do so may subject Bidder to disqualification.

Response to questions/clarifications received by 12:00 pm, Tuesday, September 15, 2020:

1. Due Date: The above reverenced bid is currently due on September 23, 2020. Is the City of Aurora willing to extend the due date to allow adequate time to respond after answers to the below questions are received? Two weeks is preferred.

Do to the fact that the equipment being specified is standard, and bids are currently available through various cooperative bids, a time extension does not seem warranted.

2. Appendix A, Page 3, Debris Body, Item 1: This line item is exclusive to one specific manufacturer. The product we intend to bid has an Exten steel debris body. This premium grade steel is the sewer cleaner industry standard due to its corrosion and abrasion resistant properties. Is 1/4" Exten steel acceptable?
   a. Requested Change: *Debris storage body has a minimum usable liquid capacity of 12 cubic yards. The debris body shall be round for maximum strength and constructed of a minimum 3/16-inch Corten or Exten steel.*

Remove the second sentence of paragraph no. 1. under Debris Body and replace with the following: "The debris body shall be round for maximum strength and shall be constructed of either 3/16" thick ASTM A242 Corten A steel or 3/16 inch Exten steel."

3. Appendix A, Page 3, Debris Body, Item 2: This line item is exclusive to one specific manufacturer. The product we intend to bid has an Exten steel debris body with a minimum yield point of 50,000 psi and a tensile strength of 65,000 PSI. Corten Steel is designed as a weather proof exterior steel. Exten Steel is designed as a tank steel with high abrasion and corrosion resistance. In term of a tank design a 5,000 PSI higher tensile strength does not offer any additional value. Is 65,000 psi tensile strength acceptable?

a. Requested Change: *The debris body shall have a minimum yield point of 50,000 PSI and minimum tensile strength of 65,000PSI*

Remove "70,000 PSI" from paragraph no. 2 under Debris Body and replace with "65,000 PSI".

4. Appendix A, Page 3, Debris Body, Item 7: This line item is exclusive to one specific manufacturer. The machine we intend to bid has a door locking mechanism that consists of 4 deadbolt style locks actuated by a single hydraulic cylinder for symmetrical and proportional control of the locks. This mechanism is designed with the safety of the operator and machine in mind. Will the City of Aurora accept this design?

a. Requested Change: *The debris body shall have a minimum of four externally mounted positively engaging door locks that lock hydraulically. The unlocking-opening and the closing-locking operations shall be controlled by a single switch and sequence valve.*

Remove "five (5)" from the first sentence of paragraph 7 under Debris Body and replace with "four (4)".

5. Appendix A, Page 4, Debris Body, Item 8: This line item is exclusive to one specific manufacturer. The machine we intend to bid utilizes two polyethylene screens measuring 16.25" x 16.5" each for a total of 2112 square inches of internal debris tank filtration. Polyethylene is used for its corrosion resistance and durability properties. Is this filtration acceptable?

a. Requested Change: *Dual Screen float ball cages, providing a minimum of 1,200 square inches of added filtration for the vacuum system inside the debris tank. These screens shall be easily removable for cleaning and require no cutting or welding.*

Dual 16.25"X16.5" screens do not equate to a total of 2112 square inches. However this requested substitution is acceptable. Remove the first sentence of paragraph no. 8 under Debris Body and replace with "Dual stainless or polyethylene screen attachments of a minimum size of 16.25"X16.5" of filtration for the vacuum system shall be provided inside the debris tank."

6. Appendix A, Page 4, Debris Body, Item 9: This line item is exclusive to one specific manufacturer. The machine we intend to bid uses a debris tank that raises to a 50-degree angle and achieves a 60" dump height via a double acting three stage lift cylinder. The debris body hinges are spaced 27" apart for superior support of the body. Does this configuration meet the intent of the bid spec?

a. Requested Change: *The debris body shall dump via a minimum 50 degree dump angle. The lift mechanism shall be designed to support the debris tank width to provide stability and when dumping on uneven ground.*

Remove the first two sentences of paragraph no. 9 of Debris Body and replace with the following: " The debris body shall have lift mechanism capable of raising the body to a minimum of 50 degrees. The lift mechanism shall support the debris tank to ensure stability while dumping on uneven ground."

7. Appendix A, Page 4, Debris Body, Item 14: The product we intend to bid has stainless steel ball floats for strength and corrosion resistance. Does this configuration meet the intent of the bid spec?

a. Requested Change: *An internal float device with external indicator is supplied to show when body is loaded to capacity.*

Delete "Polyethylene" from the first sentence of paragraph no. 14 under Debris Body and replace with "Polyethylene or stainless steel".

8. Appendix A, Page 4, Automatic Vacuum Breaker, Item 1: The product we intend to bid has a vacuum breaker located outside of the debris body for ease of access and longevity. Does this meet the intent of the spec?

a. Requested Change: *There shall be an automatic vacuum breaker integral to the vacuum system.*

Delete the first sentence of paragraph no. 1 under Automatic Vacuum Breaker and replace with the following: "There shall be an automatic vacuum breaker integral to the vacuum system."

9. Appendix A, Page 4, Automatic Vacuum Breaker, Item 2: This line item is exclusive to one specific manufacturer. The product we intend to bid has a vacuum breaker assembly consisting of a butterfly-style shutoff valve located in line with the 10" ducting to the centrifugal fan. This valve is controlled via an electric over pneumatic solenoid circuit. The intent of the design is to assure the operator can visually verify the position and operation of the vacuum breaker as needed for safety purposes. Will this configuration meet the intent of the bid spec?

a. Requested Change: We would like to see this line item removed as the importance is the presence of an automatic vacuum breaker as noted in item 1 of this section and not how the breaker is assembled. If specific designs are needed, we would like to have the design above listed as an approved equal.

Remove paragraph no. 2 under Automatic Vacuum Breaker in its entirety.

10. Appendix A, Page 5, Centrifugal Compressor (Fan Design), Item 1: This line item is exclusive to one specific manufacturer. The product we intend to bid utilizes a dual stage centrifugal compressor design with two 38" diameter riveted aluminum fans in tandem. The purpose of this design is to maintain strength, corrosion resistance, and flexibility under high speed and load. The compressor's outer housing consists of 1/4" spun steel to provide strength and proper airflow operation. This design has been demonstrated and tested by the city of Aurora and by design will produce at minimum the same, if not better performance than the stated design. Is this acceptable?

a. Requested Change: *The centrifugal vacuum compressor shall be of multi-stage construction. The centrifugal compressor (fans) shall be constructed of welded steel or riveted aluminum. The compressor's outer housing shall be a minimum of 3/16" spun steel for strength and provide proper airflow in operation. The vacuum system shall operate independent of the high-pressure water*

Remove paragraph no.1 under Centrifugal Compressor (Fan Design) and replace with the following: "*The centrifugal vacuum compressor shall be of multi-stage construction. The centrifugal compressor (fans) shall be constructed of welded steel or riveted aluminum. The compressor's outer housing shall be a minimum of 3/16" spun steel for strength and provide proper airflow in operation. The vacuum system shall operate independent of the high-pressure water system."*

11. Appendix A, Page 5, Centrifugal Compressor (Fan Design), Item 2: This line item is an exclusive design specific to a single manufacturer.

a. Requested Change: *The Centrifugal Compressor shall be driven via a hydraulic system powered by the chassis engine. Adequate cooling and filtration for the compressor drive system shall be provided.*

Remove paragraph no. 2 under Centrifugal Compressor (Fan Design) in its entirety.

12. Appendix A, Page 5, Centrifugal Compressor (Fan Design), Item 3: This line item is exclusive to one specific manufacturer. This item is design specific and would not apply to our design.

a. Requested Change: Eliminate this line as it is design specific.

Remove paragraph no. 3 under Centrifugal Compressor (Fan Design) in its entirety.

13. Appendix A, Page 5, Centrifugal Compressor (Fan Design), Item 6: This requirement is vague and not a real-world test. It is not clear as to what type of material shall be pulled from under the surface. There are also many other environmental factors that can affect a test like this. It is also not an effective test of real-world performance. Air induction will always be a more effective way of moving material from a flooded environment.

a. Requested Change: We would like to see this line removed as it is not an effective test.

Remove paragraph no. 6 under Centrifugal Compressor (Fan Design) in its entirety.

14. Appendix A, Page 5, Vacuum Pick Up Hose, Item 2: The product we intend to bid has a boom that is lifted via a single large hydraulic cylinder mounted to a structural boom turret pedestal. The boom is designed to operate within a 180 degree arc across the front half of the truck. By limiting reach to 180 degrees, needless wear and tear on expensive air conveyance hoses is eliminated. The 180 degree arc also allows for maximum coverage area when uses in conjunction with the 270 degree rotating hose reel when vacuuming and jetting in combination mode. Is 180 degree rotation acceptable?

a. Requested Change: *The 8" vacuum intake will be mounted on a boom that will provide a minimum of 18' vertical lift utilizing dual hydraulic cylinder and a minimum 180 degree of boom rotation powered hydraulically for non-interrupted smooth movement. Boom to have a lift capacity of 500 lbs. at the front bumper.*

Remove "230 degree" from the first sentence of paragraph no. 2 under Vacuum Pick Up Hose and replace with "a minimum of 180 degree".

15. Appendix A, Page 5, Vacuum Pick Up Hose, Item 3: The product we intend to bid has a boom with left/right movement controlled by dual hydraulic cylinders rather than a hydraulic worm gear. The dual hydraulic cylinder design offers smooth lateral movement with no maintenance or adjustment necessary. Is this acceptable?

a. Requested Change: *The boom will be powered by an electric over hydraulic system: up/down by dual lift cylinders. The right/left movements shall be hydraulic via worm gear rotation or dual hydraulic cylinders.*

Add "or dual hydraulic cylinders" to the end of the 2nd sentence in paragraph no. 3 under Vacuum Pick up Hose.

16. Appendix A, Page 6, Vacuum Pick Up Hose, Item 7, F: A 5 pipe carousel storage rack is specified. In order to maximize space utilization and prevent an unnecessarily longer truck, will fold down pipe storage racks in lieu of carousel style storage be deemed acceptable?

a. Requested Change: *5-Pipe Carousel Storage Rack or 6 –Pipe dual fold down racks.*

Add "or 6 – Pipe dual fold down racks" to item F. of paragraph 7 under Vacuum Pick Up Hose.

17. Appendix A, Page 6, Water Supply, Item 2: The bid spec requests non-metallic water tanks. The product we intend to bid utilizes aluminum water tanks along with cathodic protection and internal screens to prevent sudden weight shifts. This design optimizes the center of gravity, weight distribution, overall weight, and dimensional requirements and are manufactured in-house to maintain quality. Will tanks with aluminum construction be acceptable?

a. Requested Change: *The water tanks shall be constructed of corrosion resistant, durable, crosslinked polyethylene or aluminum to eliminate rust, corrosion, and stress cracking.*

Delete "polyethylene" from paragraph no. 2 under Water Supply and replace with "polyethylene or aluminum".

18. Appendix A, Page 6, Water Supply, Item 8: The product we intend to bid utilizes metallic water tanks that are not susceptible to damage from impact and flex damage like polyethylene tanks are, thus 11 gauge steel guards simply are not necessary. Will metallic tank construction serve as an acceptable substitute for guarding against road hazards?

a. Requested Change: *If plastic tanks are to be utilized the water tanks shall be protected by a minimum of 11-gauge steel plating mounted below the water tanks for protection against road hazards when unit travels over the road, off the road or to landfills. Not required for tanks made of aluminum.*

Add the following to paragraph 8 under Water Supply "This item is not applicable for tanks constructed of aluminum."

19. Appendix A, Page 6, Water Supply, Item 9: Is a 10 year water tank warranty acceptable?

a. Requested Change: *The water tanks shall carry a minimum 10 year warranty.*

Yes, this is acceptable. Language in the bid spec will remain the same.

20. Appendix A, Page 7, Auxiliary Engine – If Supplied (Water Pump Drive Engine): This item is exclusive to one specific manufacturer. The product we intend to bid utilizes a single engine design. We highly recommend a single engine machine vs a machine with an auxiliary engine. Every sewer cleaner manufacturer with the exception of one only offers single engine machines. The offering of this antiquated design creates an unfair price advantage to the gas engine. The manufacturer that offers dual engine, also offers a diesel aux engine model and a single engine model. We recommend requiring a single engine model machine only and eliminating the option for a 2 engine design.

Reasons for Single Engine Technology in a combination sewer cleaner featuring a centrifugal fan system.

- Tier 4 engine emission requirements have significantly increased the cost of auxiliary engine driven units and limited the number of manufacturers that continue to offer this product to one.
- Single Engine technology makes better use of the efficiencies and power capability of the chassis engine and increases performance of the centrifugal fan system.
- Single engine technology reduces the maintenance and upkeep cost of the older dual engine designs.
- Single engine technology allows for better weight management of the machine and provides greater legal load capacities.
- Single engine technology in centrifugal fan sewer cleaners is proven over five years of production and have over 1,000 units in use. There are over 100 Single Engine Centrifugal Fan Sewer Cleaners in use in the Chicagoland area.
- The largest producer of Centrifugal Fan Sewer Cleaner uses this technology.

a. Requested Change: Eliminate the Dual Engine Option.

Either single or dual engine design is acceptable.

21. Appendix A, Page 7, High Pressure Water Pump, Item 5: The specification explains the drive system of a dual engine machine, but does not specify the water pump drive system of a single engine machine. The product we intent to bid is a single engine design with a single piston water pump that is powered by the central hydraulic system, independent of the vacuum system. Is this design acceptable?

a. Requested Change: Eliminate this line item.

Delete paragraph 5 under High Pressure Water Pump in its entirety.

22. Appendix A, Page 8, High Pressure Water Pump, Item 6: The specification for high pressure water pump warranty refers to the "water pump drive system". Does the "water pump drive system" refer to the water pump itself, or to the means that the water pump is energized and actuated? It could be interpreted that this requirement refers to one specific manufacturer that is the only company that builds a dual engine machine and uses a belt driven pump, thus this may only be a 5 year belt warranty, not the entire drive system as it is stated specifically that the auxiliary engine is excluded from this warranty requirement. Is the 5 year warranty only covering the belt on machines with dual engines, not the entire drive system. It is unfair to ask that one design is covering belt replacement for 5 years while all others would be warranting a hydraulic drive system.

a. Recommended Change: Eliminate this item or provide greater clarity.

This item is specific to the drive belt. This item is not applicable to equipment that do not include a belt driven water pump.

23. Appendix A, Page 8, Hose Reel Assembly, Item 3: The product we intend to bid has the hydraulic hoses located behind an aluminum shroud with steel framework to protect the operator from pinch points and hydraulic oil in the event of a hydraulic hose failure. Is this acceptable?

a. Requested Change: *The hose reel is hydraulically powered in both directions by means of a double chain and sprocket drive. The controls for operating the motor have a speed control device to regulate the rotational speed of the reel in both directions. All hydraulic hoses are behind a steel or aluminum housing to protect operator from hydraulic oil if a hose fails.*

Remove "steel" from the last sentence of paragraph no. 2 under Hose Reel Assembly and replace with "steel or aluminum".

24. Appendix A, Page 8, Hose Reel Assembly, Item 6: This spec item potentially places the operator in the road during operation of the machine. The unit we intend to bid by design will not extend the hose reel outside the width of the truck for safety of the operator. Will this be acceptable?

a. Recommended Change: Eliminate this spec item.

Remove paragraph 6 under Hose Reel Assembly in its entirety.

25. Appendix A, Page 8, Hose Reel Assembly, Item 7: This item is exclusive to one specific manufacturer. The product we intend to bid has a hose reel that is supported completely by the chassis frame and does not require the addition of an outrigger leg for support. This design has been in production for decades and is widely recognized as a superior design. Is a hose reel supported by the frame without the need for an outrigger leg acceptable?

a. Recommended Change: Eliminate this requirement as it is design specific.

Eliminate paragraph 7 under Hose Reel Assembly in its entirety.

26. Appendix A, Page 8, Hose Reel Assembly: Is item # 9 in this section intentionally omitted?

The absence of paragraph labeled no. 9 is a clerical error and has no bearing on the specifications.

27. Appendix A, Page 8, Hose Reel Assembly, Item 10: Is the dual roller level wind guide to be automatic, or manually operated?

Add the following to paragraph no. 10 under Hose Reel Assembly "The dual roller level wind guide shall be manually operated."

28. Appendix A: Is there supposed to be a page # 10?

The absence of a page no. 10 is a clerical error and has no bearing on the bid specifications.

29. Appendix A, Page 11, Additional Equipment and Accessories, Item 2: The product we intend to bid offers aluminum toolboxes in the following sizes: 24”x24”x24” on the driver side and 30”x18”x24” on the passenger side. Are these toolbox sizes acceptable?

a. Requested Change: Use tool box volume vs. specific dimensions.

Delete paragraph no. 2 under Additional Equipment and Accessories and replace with the following: “(2) aluminum side mounted tool boxes on each side with minimum dimensions of 24”x18”X18””

30. Appendix A, Page 11, Additional Equipment and Accessories, Item 3: The product we intend to bid has an aluminum behind cab storage box measuring 16” wide x 30” tall x 96” deep. Is this acceptable?

a. Requested Change: Use tool box volume vs. specific dimensions.

Delete paragraph 3 under Additional Equipment and Accessories and replace with the following “Aluminum storage box behind cab with minimum dimensions of 16”X30”X96”.”

31. Appendix A, Page 11, Additional Equipment and Accessories, Item 6: We are able to locate a cone storage rack on the street side at either the front or rear of the truck. The “deck” location specified is unclear. Is our standard cone storage rack location at or below the frame height acceptable?

a. Requested Change: *Cone storage rack, located street side*

Remove “deck” from paragraph 6 under Additional Equipment and Accessories.

32. Appendix A, Page 11, Additional Equipment and Accessories, Item 15: The product we intend to bid does not require, nor offer a compressor quiet package option due to the efficient design and removal of turbulence in their air conveyance system and centrifugal compressor. We request that is be changed to only require a compressor quiet package for a machine with an auxiliary engine and omit this requirement for a single engine machine.

a. Requested Change: *For Aux Engine Units Only a Vacuum compressor quiet package, replacing existing compressor exhaust diffuser, reduces discharge noise lower than other typical noise generated by other equipment on the chassis. It reduces compressor discharge noise by 5 dBA and stabilizes full vacuum air lift for increased performance. Constructed of 304 stainless steel.*

Add “This requirement is specific to auxiliary engine configured machines and is not required for single engine machines.”

33. Appendix A, Page 12, Electrical and Lighting, Item 3, E: The product we intend to bid displays fan speed. This is essentially the same thing as vacuum level. Is this acceptable?

a. Requested Change: *Vacuum Level or Fan Speed*

Add “or fan speed” to paragraph no. 3 under Electrical and Lighting

34. Appendix A, Page 12, Electrical and Lighting, Items 11-14: The specification calls for Whelen brand lights. Are Whelen brand required or are equivalent lights from other manufacturers such as Federal Signal also acceptable?

a. Requested Change: add or approved Equal to each line.

Equivalent lighting products supplied by Federal Signal are an approved equal.

35. Appendix A, Page 13, Paint, Item 3: Is this intended to state that the Cab must match the body with a standard black frame, or the cab and chassis, including frame yellow to match the body?

a. Requested Change: Specify if both Cab and Chassis are to be painted.

The frame shall be painted black. The cab and body shall be painted School Bus Yellow.

36. Appendix A, Page 14, Engine Equipment, Item 26: The product we intend to bid does not use a front mount PTO, thus no FEPTO provision is required. If our machine does not require this option, is it acceptable to omit this item.

Add the following to paragraph no. 26 under Engine Equipment: "if PTO is supplied"

37. Appendix A, Page 14, Front Axle and Equipment, Item 1: Is a Detroit brand front axle required, or is a Meritor front axle with a minimum 20,000 lb capacity acceptable?

Add the following to paragraph no. 1 under Front Axle and Equipment: "or equivalent equipment as manufactured by Meritor."

38. Appendix A, Page 16, Wheelbase & Frame, Item 1: Is a 261" wheelbase in lieu of a 264" acceptable?

Paragraph no. 1 under Wheelbase and Frame remove 264" and replace with minimum of 261""

39. Appendix A, Page 16, Wheelbase & Frame, Item 4: The product we intend to bid has a 24" OEM front frame extension. Is a 24" front frame extension acceptable?

Add "Minimum" to the beginning of paragraph 4 under Wheelbase and Frame.

40. Appendix A, Page 16, Wheelbase & Frame, Item 5: Is a 195" CA dimension acceptable?

Add "or 195" to the end of paragraph 5 under Wheelbase and Frame.

41. Appendix A, Page 17, Tires and Wheels, Item 1 &2: Are Continental brand tires required, or are tires with a similar tread pattern from another brand such as Goodyear or Michelin be accepted?

Add "or equivalent" to paragraphs no. 1 and no. 2 under Tires and Wheels.

42. The machine shall be of either dual or single engine configuration supplying the required horsepower to operate both the vacuum and water systems at maximum performance levels with required 10% reserve. A minimum of 370HP shall be supplied.

Statement:

370HP is not enough horsepower to operate all the systems specified at maximum performance levels. For example there are numerous items on the chassis and body that operate and the advertised horsepower from the engine manufacture isn't accurate to gauge actual requirements.

Note the following equipment requirements:

Vacuum System (2 or 3-Stage competitive types)	185 HP
Water System (80 GPM @ 2,500 PSI)	137 HP
Hydraulic System (boom, hose reel, etc)	20 HP
Drive System Mechanical inefficiencies	15 HP
Chassis components, parasitic losses (engine cooling fan, air compressor, electrical, etc)	50 HP
Recommended 10% Reserve Factor	41 HP
Total Horsepower Requirement Needed	448 HP

Allowing a single engine chassis with 370HP to be bid on the required performance parameters stated in this bid would not meet the performance requirements.

The 370HP requirement listed in the specifications is a minimum. Actual horse power required will be dependent on the design of the machine being proposed and could be higher than 370HP.

END OF ADDENDUM #1