

## **INVITATION FOR BID**

The City of Antigo will accept bids until August 29, 2023 at 10:00 am for the following:

### **One (1) New Snow Blower**

Bid information will be available on the City of Antigo website at the following address:

[www.antigo-city.org](http://www.antigo-city.org)

Bids will be opened and read at 10:00 am on August 29, 2023 at the City of Antigo, 700 Edison Street, Antigo, WI 54409.

The City of Antigo reserves the right to reject any or all bids and to accept the bid deemed most advantageous to the City of Antigo.

## **SPECIFICATIONS FOR SNOW BLOWER**

### **GENERAL SPECIFICATIONS**

The following specifications are intended to serve as general guidelines to obtain bids on comparable equipment. It shall be the responsibility of the supplier to fully comply with these minimum specifications. The Bid information shall itemize in detail all standard and accessory equipment. The equipment shall be new and of the latest type and model, shall be equal to or exceed the following specifications, and shall conform to all safety and OSHA regulations. All parts not specifically mentioned which are necessary to provide a complete operating piece of equipment shall be included in the bid and shall conform in strength, quality of material, and workmanship to what is usually provided the trade in general.

The supplier shall describe in detail those areas where the equipment does not comply with these specifications. Any alternate equipment or material deviating from these specifications shall also be described in detail. Failure to do so may disqualify the bid.

The City will not necessarily purchase the lowest priced equipment. The decision to purchase will be based on price, performance, and maintenance history, availability of parts and service, equipment warranty, evaluation of quality, past operating experience and delivery date.

The City of Antigo reserves the right to reject any and all bids and to determine the choice of equipment in the best interests of the City after considering those criteria mentioned in the preceding paragraph.

### **INTENT**

It is the intent of this specification to describe a snow blower that could be utilized daily by a municipal government. This unit shall be of the manufacturer's latest model except as modified herein. This equipment shall be furnished and delivered new, complete and ready to use. All parts not specifically mentioned but which are necessary for the complete unit shall be supplied and installed by the vendor, even though such work or materials are not specifically outlined and shall conform in strength, quality and/or material and workmanship to be the best practice known to the industry.

### **TYPE OF SERVICE**

The City of Antigo will use this snow blower in the day to day operations of Street Maintenance.

### **WARRANTY AND RECALLS:**

Warranty work or recalls must be fully explained to Shop Mechanic at delivery. Warranty work or recall needing to be performed on site or shall be picked up by successful bidder at the City of Antigo Street Department, and returned to the City of Antigo Street Department by successful bidder when work is complete, at bidders cost or done in our facility.

### **DEVIATIONS TO SPECIFICATIONS:**

If you have any deviation from the specifications listed, include them on the attached Bid Proposal. Failure to fill out these columns may result in a rejection of your bid.

**SPECIFICATIONS**

The bidder shall indicate their compliance with a “YES” or non-compliance with a “NO” or “DEVIATION” for each line item specification. Any space left blank shall be considered non-compliance. Any **EXCEPTIONS** to these specifications must be clearly cited in writing and attached on a separate sheet of paper by the bidder. No deviations below “minimum” specifications will be accepted.

**GENERAL SPECIFICATIONS**

Yes	No	Deviation	
___	___	___	The snow blower bidder has quality assurance program under the supervision of an engineer.
___	___	___	Unit Model year: 2023 or newer.
___	___	___	The two-stage loader-mounted snow blower must come with a dual auger conveyor, having a minimal volumetric capacity of 3,600 yd <sup>3</sup> /h @2,500 lb-ft (2,750 m <sup>3</sup> /h @ 3,400 N-m) with a minimum of 235 hp (175 kW) engine, capable of handling all types of snow from wet heavy snow to hard packed frozen snow.
___	___	___	The equipment must be handled with a minimum wheel loader bucket size of 2 yd <sup>3</sup> (1.53 m <sup>3</sup> ).
___	___	___	The unit bid upon is capable of arduous duty for prolonged periods of time without deformation and/or failure of components in ambient temperatures as low as minus forty degrees -40° (-40°C).
___	___	___	The diesel engine drives a mechanical transmission, right angle gearbox located behind the impeller casing; it divides the power directly to the impeller through a chain case for the conveyor.
___	___	___	The unit is provided with a female coupler system to match the existing wheel loader for Volvo Loader.
___	___	___	The quick attach is equipped with an adjustable stopper to avoid contact between the snow blower hood and the wheel loader’s Z-bar.
___	___	___	Replaceable rubber scraper blade.
___	___	___	Full width skid shoe Hardox 550.
___	___	___	Six (6) in. widening kit.
___	___	___	Twenty-five (25) ft. control cable.
___	___	___	Wireless blue-tooth control system.

Yes No Deviation

**DIESEL ENGINE**

___	___	___	Minimum of 235 hp (175 kW) @ 2,300 RPM, Cummins turbocharged and air-to-air after cooled electronic diesel engine.
___	___	___	Electronically controlled engine cooling fan providing cooling-on-demand to reduce fuel consumption and noise.
___	___	___	Stage IV & Tier 4 Final compliant.
___	___	___	Oil, fuel and cooling liquid filters with replaceable cartridges all accessible from the engine compartment.
___	___	___	Temperature and level indicator for hydraulic oil.
___	___	___	Alternator: 160A minimum.
___	___	___	Low oil pressure and high coolant temperature shutdown system.
___	___	___	Air cleaner inside the hood.
___	___	___	Water separator on the fuel line.
___	___	___	The exhaust system must be equipped with a muffler.
___	___	___	Exhaust pipe must be protected with a heat protection grill.
___	___	___	After-treatment system and DEF tank with skid plates for additional protection and increased longevity.
___	___	___	Radiator protection grill to reduce damage caused by external debris.

**DIMENSIONS**

___	___	___	Working width of 110 in (2,794 mm) minimum.
___	___	___	Truck loading height of 129 in. (3,277 mm) with spot casting chute at its minimal height.
___	___	___	Working height of 54 in (1,372 mm) or less.

**SNOW BLOWER FRAME**

___	___	___	Fully welded construction with high-strength steel.
___	___	___	Quick attach coupler bolted directly into the frame for quick and easy removal.

Yes No Deviation

**SPOT CASTING CHUTE**

- \_\_\_ \_\_\_ \_\_\_ Off-centered spot casting chute location for optimal operator visibility.
- \_\_\_ \_\_\_ \_\_\_ Loading chute diameter of 16 in. (406 mm) and consists of one (1) vertical section, one (1) directional section and one (1) flexible chute deflector section made with Hardox 500.
- \_\_\_ \_\_\_ \_\_\_ 30 in (762 mm) hydraulic telescopic chute extension to allow spot casting at any adjustable height from 129 to 159 in (3,277 to 4,039 mm).
- \_\_\_ \_\_\_ \_\_\_ Right side hydraulic tilting chute enables the chute to be unclogged from ground level, increasing operational safety and speed while reducing total height for easier trailer transportation.
- \_\_\_ \_\_\_ \_\_\_ Steel and UHMW plastic rotation system to prevent friction and wear.
- \_\_\_ \_\_\_ \_\_\_ Flexible chute deflector tilts through one (1) hydraulic cylinder to control the casting distance from 15 to 50 ft. (3 to 15 m).
- \_\_\_ \_\_\_ \_\_\_ 3-section chute deflector for better spot casting precision and control combined with a solid steam.
- \_\_\_ \_\_\_ \_\_\_ Minimum 300° hydraulic rotation.
- \_\_\_ \_\_\_ \_\_\_ Hydraulic tilting chute.
- \_\_\_ \_\_\_ \_\_\_ Remote grease points- three (3) section chute.

**DUAL AUGER**

- \_\_\_ \_\_\_ \_\_\_ Two (2) interchangeable one-piece augers with a minimum diameter of 17 in. (432 mm) each.
- \_\_\_ \_\_\_ \_\_\_ Each auger must have a minimal tube diameter of 4 ½ in. (114 mm).
- \_\_\_ \_\_\_ \_\_\_ Saw tooth design located every 30 degrees (12 per pitch) on each flight.
- \_\_\_ \_\_\_ \_\_\_ The 3/8 in. (9.5 mm) thick flight made of Hardox 400 must be welded on each tube.
- \_\_\_ \_\_\_ \_\_\_ A rubber deflector is bolted on the conveyor frame above the top auger.

**IMPELLER AND IMPELLER CASING (DRUM)**

- \_\_\_ \_\_\_ \_\_\_ Impeller must be centered in the conveyor.
- \_\_\_ \_\_\_ \_\_\_ Minimum 34 in. (864 mm) diameter impeller and five (5) bolt-on and concave 100,000 PSI (690 Mpa) steel impeller blades. The minimum surface of the blade must be 95 5/8 in<sup>2</sup>. (617 cm<sup>2</sup>).
- \_\_\_ \_\_\_ \_\_\_ Bolted flange mount.

Yes No Deviation

___	___	___	Impeller planetary oil dipstick accessible from the engine compartment.
___	___	___	The impeller casing of 34 in. (864 mm) nominal diameter and constructed of 3/8 in. (9.5 mm) Hardox 550 abrasive steel.
___	___	___	Impeller casing rotation is hydraulically operated with a cylinder and rotates through 60°.
___	___	___	150° drum rotation hydraulically operated through a heavy-duty worm gear and a double roller chain enabling side casting from left to right.

**TRANSMISSION**

___	___	___	Mechanical drive equipped with hydraulically actuated multi-disc clutch, planetary gearbox, maintenance free gearbox and conveyor chain lubricated in oil bath.
___	___	___	All external driving shafts U-joints are permanently lubricated and maintenance free.
___	___	___	Transmission needs to be able to handle the power and torque of the diesel engine in all conditions.
___	___	___	Two (2) shear bolt flanges to protect the transmission drive. One (1) for the complete system and another one (1) for the auger.
___	___	___	All input and output shafts of the gearbox and drop box are splined, which drives the impeller.
___	___	___	The clutch hydraulically engages and is controlled from the cab.
___	___	___	Reverse function for conveyor and impeller to help unclog the snow blower safely from the cab.

**SAFETY**

___	___	___	Automatic clutch disengagement system in the event of a unit blockage.
___	___	___	Three (3) points of contact at all times when the operator is on the snow blower.
___	___	___	Two (2) emergency stop buttons for increased safety.
___	___	___	Sheared oversized safety bolts protected by a separate access door on the curb side. Easily accessible from ground level and all bolts are located in the same compartment.
___	___	___	LED work light for safety bolts compartment.
___	___	___	LED work light for engine compartment.

Yes	No	Deviation	
_____	_____	_____	Key maintenance points all within reach from ground level for easier maintenance and service.
_____	_____	_____	Two (2) frame-mounted LED lights.
_____	_____	_____	Two (2) frame-mounted heated LED lights to improve forward visibility by eliminating snow accumulation on the lights.
_____	_____	_____	One (1) LED light on the left side of snow blower hood.
_____	_____	_____	Two (2) chute-mounted LED lights.



**BID PROPOSAL – ONE SNOW BLOWER**

**Name of Supplier:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Price (Delivered) \$** \_\_\_\_\_

**Make & Model:** \_\_\_\_\_

**Delivery Date:** \_\_\_\_\_

**WARRANTY:**

**Full Machine Warranty:** \_\_\_\_\_ **Years – enclose breakdown of warranty coverage**

*If additional space is needed, please attach to this bid sheet.*

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date