



Town of Merrimack, New Hampshire

6 Baboosic Lake Rd · Merrimack, NH 03054 · www.merrimacknh.gov

April 11, 2024

REQUEST FOR BID MUNICIPAL SIDEWALK TRACTOR

Sealed bids will be received by the Town of Merrimack until Monday, April 29, 2024 for one (1) Municipal Sidewalk Tractor for the Highway Division in accordance with the enclosed specifications and conditions.

If, in the bidder's opinion, any aspect of the above specifications is either inadequate or unnecessary, please bid as closely as possible to the specifications and provide an alternate bid reflecting recommended modifications.

The Town currently has numerous older Trackless attachments which the Town needs this new tractor to utilize. They are available for viewing by setting up an appointment to view the existing attachments between 7AM – 2:30PM weekdays at the Highway Maintenance Complex located at 76 Turkey Hill Rd, Merrimack, NH. Please call Lori Halverson at (603) 423-8551 or email at lhalverson@merrimacknh.gov.

The bid shall be submitted on the Bid Form furnished herewith and shall exclude state and federal taxes not applicable to municipalities. The bid price shall include delivery and be quoted F.O.B. Town of Merrimack, Highway Department, 76 Turkey Hill Rd, Merrimack, NH. Descriptive literature must accompany bid.

The Town reserves the right to reject any or all bids, to waive irregularities in the bids, and to accept the bid which best serves the interest of the Town.

Three copies of the bids must be provided. They are to be sealed and marked "Bid on Municipal Sidewalk Tractor" and be delivered to the Town of Merrimack Finance Department, 6 Baboosic Lake Rd, Merrimack, NH 03054 by the time specified above when they will be read aloud.

The Town of Merrimack's Purchasing Policy is available on the Town's website:
http://www.merrimacknh.gov/town/departments/finance/bid_opportunities;
a copy may be obtained by contacting the Purchasing Agent.

It is the bidder's responsibility to confirm the bid is received by the Finance Department by the date and time specified.

For additional information contact Kelly Valluzzi, Purchasing Agent, at kvalluzzi@merrimacknh.gov (603) 424-7075.



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SPECIFICATIONS FOR MUNICIPAL SIDEWALK TRACTOR

It is the intent of these specifications to outline the Town's minimum requirements for one Municipal sidewalk tractor to be furnished to the Highway Division of the Town of Merrimack, NH.

1. General:

The equipment shall be new, latest or current model year at time of delivery, and shall be furnished, installed and fully operational, complete in every detail. It shall be of such design and construction to meet the general and specified requirements set forth. Any parts or units not specifically mentioned, but are necessary to form a complete unit, shall be furnished by the successful bidder.

The vehicle must meet or exceed all applicable Federal and New Hampshire laws and regulations in force at the time of delivery.

2. Usage:

This piece of equipment will be used for winter maintenance of the Town sidewalks, and in the summer for roadside mowing, sweeping and asphalt milling. Tractor must be able to accept currently owned attachments from Trackless MT, series 5.

3. Service & Warranty Requirements:

a. To insure proper service, no bid will be accepted unless the bidder owns or offers facilities within 50 miles from Merrimack, NH where complete parts and service are available. The facility must be staffed by full time personnel who are factory trained and certified in the operation and repair of the equipment, with full authorization of the manufacturer. Bids from manufacturers who use third party service people or facilities, or who do not offer a service center will be immediately rejected. Furthermore, due to a concern over having vehicles out-of-service for extended periods of time any bidder who cannot guarantee that all future repairs will be handled at a local level will not be acceptable.

b. The bid shall describe the standard factory warranty on all equipment, material and workmanship shall be a minimum of "bumper-to-bumper" from the date of delivery. In addition, each bid shall include an option for the Town to purchase an extended 5-year "bumper-to-bumper" warranty on the equipment. Warranty shall be inclusive of parts, service time, and transportation of equipment to service provider. Any exceptions to the warranty shall be clearly contained in the bid.

4. Miscellaneous: Manuals shall include proper operation, safety, maintenance, parts, and repair for tractor and all attachments. Manufacturer shall supply a full replacement set for all operator safety and warning decals, as well as a can of touch-up paint.

Manufacturer's assembly line parts coding information must be included with the unit. The intent is to enable identification of all component parts in case of breakdowns and the need to obtain replacement parts.

5. Delivery: The *Certificate of Origin* will be provided to the Town of Merrimack upon delivery of equipment.

Upon delivery and prior to acceptance the Fleet Division will inspect and approve the new equipment.

6. Exceptions/Deviations: Any exceptions or deviations from the specifications shall be addressed on the Bid Form.

7. Submittal: Failure to submit any and all documents requested could be cause for bid to be rejected.

TRACK LESS SIDEWALK TRACTOR

A four wheel drive articulating, oscillating, rubber tired, diesel powered multi-purpose tractor, designed for year round work, utilizing The Towns existing attachments shall be supplied:	
Make	
Model	
Year	
Repair parts inventory location	
Repair facility location	

Mandatory Requirements:	Comply		Comments
	Yes	No	
Tractor shall be no wider than 50 ½” including fenders and no higher than 88” to the top of roof guard.			
The cab of tractor (panels and roof) must be steel. Plastic, fiberglass or any other non-metallic material will not be accepted.			
Engine shall have a displacement of no less than 4.5 LT. HP to be 74hp or greater. The engine must be a Tier 4 final diesel not requiring the use of urea injection. Tier 3 or 4I engines not acceptable.			
Tractor shall have sufficient hydraulic capability to power manufacturers own hydraulically driven angle sweeper, flail mower, snow blower, cold planer, etc.			
Tractor shall have a mechanically driven front PTO.			
A seat safety switch must automatically shut down PTO shaft and shut off any hydraulically powered attachment.			
If the operator leaves the seat without placing the shifter into neutral, the engine will shut down.			
Cab must be ROPS certified and have a metal certification tag attached to the structure.			
The tractor shall have a minimum of 8 flashing LED amber lights mounted above the roof line, two on each side for full unobstructed visibility.			
Dimensions are <u>not</u> to exceed the following:	Yes	No	Comments
Overall length including rear bumper – 149.5 inches			
Height to top of AC roof guard-88 inches			
Track width with winter tires-49.5 inches			
Overall width including fenders-50.5 inches			
Dimensions are <u>not</u> to exceed the following:	Yes	No	Comments
Inside turning radius-90 inches			
Weight of tractor to be no less than 6,500 lbs and not more than 7,000lbs			
Engine/Electrical:	Yes	No	Comments
Engine must be programmed for anti-idle which shuts off the engine automatically after			

a specified period of time, once the engine has reached operating temperature.			
Engine shall be water cooled by means of a fan and a radiator which automatically reverses every few minutes to prevent dirt, salt and grass clippings from building up on the oil cool and radiator fins.			
A 2 piece cooler is to be supplied for cooling hydraulic oil and engine coolant.			
A wire protection guard must enclose the engine fan.			
PTO drive system to be mechanical by way of clutch. 1 1/2" over-center type is preferred. Must be electric over hydraulic actuation with indicator light. Actuation by lever is not acceptable.			
Tractor shall have a 12V system, 200 amp alternator and main breaker switch protection.			
There shall be a battery disconnect switch inside the engine compartment.			
There shall be a 7 prong trailer plug in the rear panel.			
There shall be a 4 prong trailer plug in the rear panel for powering other electrical components than lighting.			
There shall be a 7" LED digital display screen with the following indicators: <ul style="list-style-type: none"> - Backup camera when in reverse - Tachometer - Speedometer - Hour meter - Coolant Temperature - Engine Oil Pressure - Hydraulic Oil Temperature - Voltmeter - Fuel Level - Turn signals and 4 way flashers - High/low beams - Forward/Neutral/Reverse - Low range/high range - Warnings for: low hydraulic oil, low coolant level, air breather service required, parking brake engaged, parking regen required - Seat belt icon 			
Tractor must utilize multiplex CAN communication			
Wiring harnesses must be professionally manufactured with terminals which are machine crimped to ISO standards			
Codes and numbers must be shown on all parts manual exploded views and wiring schematic drawings and charts			
All fuses are to be mini blade type and must be contained within an IP67 watertight enclosure			
	Comply		
Engine Compartment:	Yes	No	Comments
The top hood, two sided panels and rear grill			

are to be easily removable without the use of any tools.			
There shall be an air breather precleaner permanently attached to the top hood			
The left side hood panel must have a 2 hinged access door for access to daily fluid checks, battery, filters, battery disconnect switch and main breakers			
The top hood shall be made of aluminum			
Complete rear grill shall hinge open and lift off for easy access to clean oil cooler and radiator. Must be able to lift off when rear sander attached			
There shall be a hinged door for access to the radiator fill spout			
The tractor shall have an all stainless steel horizontal exhaust system. The DPF and DOC shall be located over the fender where it is protected from the environment and behind the side hood			
Transmission:	Yes	No	Comments
The tractor shall be propelled by a hydrostatic transmission and controlled by a single electronic foot pedal.			
A forward/neutral/reverse switch in the joystick shall be supplied			
The tractor shall have a 2 speed mechanical transmission which provides speed ranges of: Low Range 0-12 km/hr High Range 0-32 km/hr			
The transmission shift lever inside the cab must have a neutral position allowing the tractor to be towed without danger of damaging the hydrostatic transmission. Shutoff taps, screws, etc located in the rear frame will not be accepted. Tractor may be towed several miles.			
	Comply		
Brakes:	Yes	No	Comments
Tractor shall have no less than 3 braking systems, hydrostatic dynamic braking, hydraulic service brakes and mechanically actuated emergency/parking brakes			
Parking brake is to be applied by way of an adjustable parking lever. It must be able to apply the brakes mechanically in an event that the hydraulic system fails.			
The hydrostatic braking is to be programmed more aggressive when the service brake pedal is applied			
The parking brake must sound a warning buzzer when applied and a warning message must appear on the dash display			
Axles/Wheels/Tires:	Yes	No	Comments
Shall be Dana model 60 style full float with track lock differentials (limit slip) front and rear			

Each axle shaft shall have a minimum of 8 wheel studs			
Tires shall be LT245/75R x 16 winter radial mounted on heavy duty wheels			
Axle assemblies must be manufactured in North America with local parts availability			
There shall be no less than 8 ½" dia. Bolts securing each axle housing to the chassis			
Cab:	Yes	No	Comments
The cab shall be ROPS Certified			
Shall have a steel door			
Shall have an air ride high back seat. Air ride switch to be remote mounted inside switch panel beside ride control and cruise control switches			
Shall have a retractable three point orange seat belt			
Shall have an HVAC system that allows operator to select heat, AC or defrost. A cab pressurizer is also mandatory			
Two individual heaters totaling 63,000 BTU supply heat through 12 adjustable louvers.			
Shall have front intermittent 3 speed pantograph wiper and washer			
Rear intermittent wiper and washer			
Inside rearview mirror and backup camera			
AM/FM radio			
Tilt steering column			
DOT approved, tinted, tempered safety glass for all windows. Must be flat for convenience of local replacement in emergency situation			
Side windows shall be slider type contained within an aluminum frame and lockable			
Horn mounted in center of steering wheel			
Hinged overhead switch panel			
There shall be positive and negative ports for connection of a two way radio or other device			
Hydraulic System:	Yes	No	Comments
The hydraulic gear pump shall be driven by the engine and produce a minimum of 20gpm			
A second hydraulic pump is to be engaged only when the PTO is engaged			
Tractor shall be supplied with an electronic joystick, No exceptions.			
All attachment functions and forward/reverse are to be controlled by a single joystick. The joystick must automatically program itself to the attachment that is mounted. Three float position switches to have additional indicator lights. Joystick allows for lifting and lowering of attachment while two other function controls remain live.			
Seven (7) front hydraulic couplers are to be supplied for operating the control features on attachments			

In addition to the 7 couplers for operational controls, there shall be 4 (2 pair) oh High Volume front couplers to power hydraulically driven attachments. They can power 2 separate attachments or be combined for attachments requiring higher flows. One switch engages the left pair and a second switch engages the right pair. Switches for the hydraulic circuits are to be located to the left and right of the front PTO engagement switch.			
All hydraulic hoses to have NPT, SAE straight thread or SEA split flange fittings			
Rear of tractor shall have 1 pair of hydraulic couplers with an output of 3 gpm			
Hydraulic couplers must be color coded, matching joystick color coded switches			
Hydraulic oil filter shall be cartridge type, mounted at highest point in hydraulic system for dry changes. Spin of filters are not accepted.			
For tractors other than Trackless, the flow/pressure of each circuit used to power hydraulically driven mowers, sweepers, ect. already owned by the Town must match the requirement of the attachments to be considered safe to operate.			
	Comply		
Safety Features:	Yes	No	Comments
The tractor shall have reflective striping on both sides of cab and rear side hoods, as well as on the rear hood below the tail lights.			
Tractor shall have a backup alarm activated by the forward/neutral/reverse switch			
Tractor shall have a backup camera viewed on the dash display whenever tractor is in reverse			
Access to the PTO shaft shear bolt shall be from inside the cab. This is also where the PTO shaft is connected when attaching an implement. Having to reach down in front of the tractor to connect the PTO shaft or change a shear bolt will not be accepted.			
For hooking up attachments, the PTO shaft of the attachment must be supported by a stand on the push frame so that no one is required to hold up the shaft while the operator drives the tractor forward into the attachment			
There shall be an external lift cylinder switch on the front of the cab which the operator can bump up or down to align the lift cylinder pins			
No fluid checks, filters, battery, ECUs or breaker switches are to be located on the same side of the tractor as the exhaust and after-treatment system			
	Comply		
Lighting:	Yes	No	Comments

There shall be 4 headlights and 1 backup light. All 5 lights are to be adjustable, halogen and identical			
There shall be LED signal lights, 4 way flashers and shock proof rubber mounted LED taillights			
There shall be 8 flush mounted LED flashing lights, 2 on each side of the branch guard for 360 degree visibility			
There shall be an interior dome light			
Signal lights must self-cancel			
Other:			
Tractor shall be supplied with a front quick hitch system. Implement height shall be controlled by two double acting hydraulic cylinders which are operated from the joystick. Spring load lift latches hold the implement frame in place.			
Must be capable of attaching existing trackless attachments already owned by the municipality			
The tractor shall have an anti-bounce ride control system which automatically weighs the front mounted attachment when lifted and calculates, according to speed and shock load, how many milliseconds to counteract the bounce when hitting a bump or pothole, deadening the bounce that normally would follow the initial impact			
A 4 pin connector must be supplied inside the cab to plug in a GPS system			
Tractor shall have an on board diagnostic system which constantly monitors and self-diagnoses all electrical and electronic components, hydrostatics, hydraulic valves, joystick, switches, sensors and the entire ECU.			
Tractor shall have an auto/run feature which automatically shuts off the sand/salt spreader when the tractor stops moving for any reason or is shifted into reverse			
There shall be a rotary switch to adjust amount of material being spread by rear salt/sand spreader to reduce cost.			
	Comply		Comments
Literature:	Yes	No	

<p>The successful bidder shall furnish the following:</p> <ul style="list-style-type: none"> • One (1) complete service manual for chassis, engine and drivetrain equipment • One (1) as-built electrical schematics that is readable to the naked eye • One (1) complete parts manual for chassis, engine and drivetrain equipment • One (1) shop manual for each piece of equipment or attachment • One (1) weather resistant operator's manual covering all components of the equipment • One (1) DVD/CD version of all the literature above in PDF format. 			
	Yes	No	
<p>Diagnostic Software:</p>			
<p>The following are acceptable options for providing diagnostic and troubleshooting capabilities with the piece of equipment;</p> <ul style="list-style-type: none"> • Diagnostic software for engine, chassis, transmission and brakes must be provided for equipment programming and diagnostics, along with connectors and/or harnesses that are needed to complete testing or programming. • On board diagnostic capabilities that provide trouble codes with the appropriate supporting documentation necessary for repairing, maintaining and servicing the unit. • Equipment telematics diagnostic system which Fleet personnel can access via the internet. System must provide the trouble codes and supporting documentation necessary for repairing, maintaining and servicing the unit. 			
<p>Fees for any required software license/subscriptions for the diagnostic software or telematics diagnostic system will be included in the bid price for a period of 3 years from date of delivery.</p>			
<p>Operator/Maintenance Training:</p>	Comply		Comments
<p>All training shall take place at the Merrimack Highway Maintenance Complex located at 76 Turkey Hill Rd, Merrimack, NH 03054</p>	Yes	No	
<p>Operator training to include the following topics:</p> <ul style="list-style-type: none"> • Operator before/during/after preventative maintenance checks and 			

<ul style="list-style-type: none"> services to include hands on practice; • Attaching and detaching all attachments (snow plow, Snow blower, spreader and lawn mower); • Overall Operation of the Equipment 			
<p>Mechanic training to include the following topics:</p> <ul style="list-style-type: none"> • Perform first Service with Fleet Maintenance personnel; • Troubleshooting; • Deadlined vehicle recovery procedures; • Hydraulic troubleshooting and adjustments; • Diagnostic software. 			
	Comply		Comments
Additional Tractor Options:	Yes	No	
Electric Locking Differential – The front axle shall have electric locking differential operated activated by a single switch.			
Deep Reduction 10:1 Planetary Transmission – The drive system shall have an additional deep reduction planetary transmission, which allows 4 speed ranges instead of 2. The deep low creeper gear allows ground speeds of 0-10ft/min.			
Include a break-in filter kit for the initial filter change. Kit is to include engine oil filter, hydraulic oil filter, air filter and fuel filter.			
Rear License Plate Bracket and light			
Set of 8 dual loader lug tires and wheels			
One (1) Full Year full machine warranty			
Three (3) year power train warranty			
All warranty work shall be addressed within ten (10) business days of problem.			
	Comply		Comments
Bid Alternate Specifications: Ribbon Snow blower 51”	Yes	No	
Throat opening shall be 51" wide with end plates which are not less than 3/8" thick steel.			
Two stage centre drive with helical ribbons.			
Augers shall be serrated ribbon design.			
The impeller shall be 7.5" x 24" dia. with not less than 5 scoop type blades.			
The impeller housing shall have a replaceable, 2 piece liner.			
The chute must rotate on a 15" diameter ball bearing. Systems without a bearing not acceptable.			
The skid shoes shall be free pivoting with 1-1/2" thick hardened wear pads.			
The cutting edge shall be 1/2" x 6" hardened steel and reversible			
The cutting edge height shall be adjustable by shoe brackets.			
The sidewalk chute shall have a minimum throat clearance of 87".			

	Comply		Comments
	Yes	No	
Bid Alternate Specifications: Salt and Sand Spreader			
Sander to be pin mounted to rear of tractor requiring no tools for installation or dismantling.			
It shall be hydraulically driven with engagement from within cab.			
Engagement and disengagement must be independent from front mounted attachments.			
Spread shall be controlled by an adjustment lever.			
The spread shall be by means of a roller with cams, which disperses small spots of material in a grid pattern.			
Hopper capacity shall be not less than ½ cubic yard.			
Shall be fabricated of heavy gauge steel.			
Shall have colour coded hydraulic quick couplers. Tape or paint for colour coding not acceptable.			



TOWN OF MERRIMACK, NEW HAMPSHIRE

**FINANCE DEPARTMENT
6 Baboosic Lake Road
Merrimack, NH 03054**

**Tel: 603-424-7075
Fax: 603-424-0516**

**BID FORM
MUNICIPAL SIDEWALK TRACTOR
Due by 2:00 PM, Monday, April 29, 2024**

One (1) Municipal Sidewalk Tractor per specifications \$ _____

Bid Alternates:

- 1. Ribbon Snowblower 51"** \$ _____
- 2. Rear Mount Sidewalk Spreader** \$ _____

Delivery will be made within ____ calendar days after receipt of the Town's related purchase order.

Descriptive Literature included: yes _____ no _____

The above bid is provided in accordance with the Town's bid invitation dated April 11, 2024 except as indicated below.

Bidder: _____
 Street Address: _____
 City, State, Zip Code: _____
 Phone No: _____ Fax No: _____
 Email: _____
 Authorized Signature: _____
 Printed Name: _____
 Date: _____