



INVITATION TO BID

FINANCE DEPARTMENT

GREGORY N. L'HEUREUX
Finance Director

COLLEEN C. SELBERG
Purchasing Agent

ONE (1) SIDEWALK TRACTOR WITH SANDER, V-BLADE AND STRAIGHT BLADE PLOW Bid #31-19

Sealed bid for furnishing a new Sidewalk Tractor with Sander, V-Blade and Straight Blade Plow to the City of South Portland Public Works Department as specified below, in the attached specifications and proposal, will be received by the City Purchasing Agent, 25 Cottage Road, South Portland, Maine 04106, until 2:00 p.m., Tuesday, February 19, 2019 at which time, they will be publicly opened and read aloud. Proposals received after the above stated day and time will not be considered.

Bids shall be submitted on the attached bid form in sealed envelopes, plainly marked "Bid #31-19 Tractor" and shall be addressed to the Purchasing Agent at the above address.

Delivery to be made upon receipt of purchase order and shall be F.O.B., Public Works Department, 929 Highland Avenue, South Portland, Maine.

All equipment offered on this bid shall be brand-new and the latest type available. Bidder will state in his bid the name and model number of the equipment he is offering and will include with his bid a catalog or brochure marked to indicate the standard factory equipment of the model on which he is bidding. Bidder must attach a separate sheet to his bid listing any deviation from the minimum specifications shown. If no attachment is provided, it will be assumed that the item being bid meets the minimum specifications.

If the equipment offered by a bidder under the attached specifications meets the specifications except for minor factors or reasonably small amounts in dimensions, and if it shall be determined by the City that these minor variations from the specifications do not prevent the equipment being bid from performing as satisfactorily or from being as good as equipment fully meeting these specifications, then these minor variations from the specifications may be waived by the City, if it deems it to be to its advantage, and the equipment with the waived variations in specifications will be accepted as fully meeting these specifications.

Since a prompt delivery is required, delivery time, as well as price, may be a factor in determining the award of this bid.

Price shall include a 14-day plate and State of Maine Certificate of Title or Certificate of Origin, which shall be made out to the City of South Portland, Maine and mailed to the Purchasing Agent, P.O. Box 9422, and South Portland, Me 04116-9422. A copy of the title application is to be delivered with each vehicle. There shall be, within the Greater Portland

area, a repair service which shall maintain a stock of spare parts for any make and model of any vehicle that a bidder offers in the proposal.

It is the custom of the City of South Portland to pay its bills within 20 to 30 days following delivery of and receipt of bills for all items covered by the purchase order. In submitting bids under attached specifications, bidders should take into consideration all discounts, both trade and time, allowed in accordance with the above payment policy. All bidders should quote net prices, therefore, exclusive of all Federal Excise Taxes and Sales Taxes.

The City of South Portland reserves the right to waive all informalities in bids, to accept any bid or any portion thereof, or to reject any or all bids should it be deemed in its best interest to do so. Except as otherwise required by law or as specifically provided to the contrary herein, the City shall govern the award of this bid's purchasing ordinance.

Colleen C. Selberg
Purchasing Agent

City of South Portland
 PUBLIC WORKS DEPARTMENT
 Solicitation of Bids
**ONE (1) SIDEWALK TRACTOR WITH SANDER,
 V-BLADE AND STRAIGHT BLADE PLOW**

This specification is intended to describe a Sidewalk Tractor to be used for various functions in the Public Works Department. This Sidewalk Tractor will be a regular production model for which published specifications are available. Modifications of the vehicle to meet operational requirements of this specification shall be limited to the manufacturers published and optional standards.

Bidders shall list and explain in writing any and all deviations from these specifications. Bidders shall provide sufficient detail and proof needed to assist the city in fully evaluating compliance with detailed specifications. Failure to do so may result in rejection of the bid in its entirety.

General Specifications

These Specifications are intended to describe a Sidewalk Tractor, and is to conform to all EPA and DOT regulations in effect at the time of delivery. The vehicle shall be equipped with all standard equipment, components, and safety features necessary for operation and normally supplied, even if not identified in specifications. The equipment shall have full manufacturer’s preparation, title, and be ready for service upon delivery. The equipment shall come with a full warranty and option of extended warranty.

The equipment will be delivered with all the proper paperwork to insure and register the equipment in a timely manner.

Compliance

Mandatory Specifications		
yes___	no___	Four wheel drive articulating, oscillating, rubber tired, diesel powered, and multi-purpose tractor, designed for year round work, utilizing various attachments shall be supplied.
yes___	no___	Tractor shall be no wider than 50-1/2” (1.3m), including fenders.
yes___	no___	Engine shall have a minimum displacement of 4.5L. Engine shall be tier 4 (interim) emission certified and bear label so stating. No exceptions.
yes___	no___	Tractor shall have sufficient hydraulic capability to power manufacturers own hydraulically driven attachments.
yes___	no___	Tractor shall have a mechanically driven front PTO or the ability to drive attachments on the front.

Safety		
yes___	no___	A neutral safety start system shall prevent the engine from starting unless shifted into neutral.

- yes___ no___ A seat safety switch must automatically shut down the PTO shaft and shut off any hydraulically powered attachments if the operator leaves the driver's seat (no exception allowed).
- yes___ no___ If the operator leaves the seat without placing the shifter into neutral, the engine will shut down (no exception allowed).
- yes___ no___ The hydraulic circuits which power the hydraulic driven mower wings must kick off automatically when wings are raised to a pre-determined angle. When lowered, they must be re-started. This feature must be designed into the tractor for future additional attachment purchases.
- yes___ no___ Tractor must have a hydraulic brake at each wheel. There must also be a mechanical parking brake that can be applied if hydraulic brakes fail.
- yes___ no___ Cab must be ROPS certified and have a metal certification tag attached to the structure (no exception allowed).
- yes___ no___ A wire protection guard must enclose the engine fan.
- yes___ no___ The tractor shall have flashing LED amber and/or blue lights mounted above the roof line, two on each side for full, unobstructed 360-degree visibility.
- yes___ no___ Tractor shall have a backup alarm activated by the forward / neutral / reverse switch.
- yes___ no___ The tractor shall have a backup camera viewed on the digital dash display whenever tractor is in reverse.
- yes___ no___ The tractor shall have Safety. Danger, Caution and Pinch Point decals as described in the labelling Section of this specification (no exception allowed).
- yes___ no___ 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.
- yes___ no___ 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.

Dimensions and Weights

Dimensions are not to exceed the following:

Overall length (without attachments)	154.5"	Specify _____
Height to top of cab roof (with A/C)	83.1"	Specify _____
Height to top of cab roof (without A/C)	83.1"	Specify _____
Overall width (outside tire tread)	50.1"	Specify _____
Minimum wheel base	83"	Specify _____
Maximum inside turning radius	90"	Specify _____
Minimum weight	6500lbs	Specify _____

Engine Compartment

- yes___ no___ The top hood, two side hood panels, and rear grill are to be easily removable without the use of any tools. Only latches and quarter turn fasteners need to be released before lifting off the hoods and grills.
- yes___ no___ There shall be an air breather pre-cleaner permanently attached to the top hood.
- yes___ no___ The left side hood panel must have 2 hinged access doors for access to daily fluid checks, battery, filters, battery disconnect switch and main breakers.
- yes___ no___ 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
- yes___ no___ There shall be a hinged door for access to the radiator fill spout.
- yes___ no___ 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 where there is no danger of someone touching it while hot.

Cooling

- yes___ no___ Engine shall be water cooled by means of an 18-inch (minimum) diameter fan and a radiator, which automatically reverses every few minutes to prevent dirt, salt and grass clippings from building up on the oil cooler and radiator fins.
- yes___ no___ A cooler is to be supplied for cooling charge air, hydraulic oil, and engine coolant.
- The hydraulic system shall have a thermostatically controlled bypass valve for cold weather operation.

PTO

- PTO drive system to be mechanical by way of a clutch. Must be electric over hydraulic actuation with indicator light.

Please specify _____ *(Actuation by lever is not acceptable).*

- yes___ no___ PTO "ON" function shall have an interlock system tied to a seat switch and the engine throttle. In order to activate the PTO, the operator must be present in the seat and the engine throttle must be set at idle. In order to minimize shock loading and damage to the PTO system, systems that allow activation of the PTO at engine speeds above idle are unacceptable.
- yes___ no___ The PTO function shall include an interlock circuit that shuts off the PTO after the operator leaves the seat. No exceptions.
- yes___ no___ PTO shall have an indicator light that shows when the PTO is engaged

Implement Hitches

- 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.

Please specify details of hitch _____

yes___ no___ Must be capable of attaching existing Trackless attachments already owned by the municipality without modification.

Transmission

yes___ no___ The tractor shall be propelled by a hydrostatic transmission and controlled by a single electronic foot pedal. The electronic pedal controls the hydrostatic transmission and the engine RPM when in FUEL SAVER mode. If switched to work mode, a throttle lever over-rides the pedal control of the engine RPM allowing full RPM to power the PTO shaft to run the attachment

Please specify the complete details of system offered _____

yes___ no___ The tractor shall consume no more than 92 liters of fuel to plow sidewalks for 12 – 15 hours in fuel saver mode.

yes___ no___ A forward / neutral / reverse switch on the joystick shall be supplied.

yes___ no___ 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. Shut off taps, screws, etc. located in the rear frame area will not be accepted. Tractor may be towed several miles without damage. See options page if deep reduction option is required.

Braking Systems

yes___ no___ There shall be a minimum of three braking systems: hydrostatic, service and parking. Service brakes shall be enclosed wet disc type.

yes___ no___ Parking brake is to be applied by way of an adjustable parking brake lever. It must be able to apply the brakes mechanically in the event that the hydraulic system for applying the service brakes fail.

yes___ no___ The hydrostatic braking is to be programmed more aggressive when service brake pedal applied.

yes___ no___ The parking brake must sound a warning buzzer when applied and a warning message must appear on the LED dash display.

Wheels/Tires

yes___ no___ Tires shall be LT 245/75R x 16 winter radial mounted on heavy duty wheels with no less than 6 studs.

Please state number of studs per wheel _____

Ride Control

yes___ no___ 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 much the attachment needs to move and over how many

milliseconds to counteract the bounce when hitting a bump or pothole, deadening the bounce that normally would follow the initial impact.

Hydraulic Systems

yes___ no___ The hydraulic gear pump shall be driven by the engine and produce a minimum of 20 gpm.

yes___ no___ Tractor shall be supplied with an electronic joystick (no exception permitted).

yes___ no___ 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. 3 float position switches to have additional LED indicator lights. Joystick allows lifting & lowering of attachment while 2 other function controls remain live.

**If any deviation, attach a separate description of joystick control offered*

yes___ no___ Tractor shall have a low hydraulic oil warning system. When low a message appears on digital display 7 front hydraulic couplers are to be supplied for operating the control features on attachments.

yes___ no___ In addition to the 7 couplers for operational controls, there shall be 4 (2 pair) of HIGH VOLUME front couplers to power hydraulically driven attachments. They can power 2 separate attachments such as mower wings, 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.

yes___ no___ For tractors other than Trackless, state flow / pressure of each circuit used to power hydraulically driven mower wings, sweepers, etc. already owned by the municipality. These must match the requirement of the attachments to be considered safe to operate.

STATE CIRCUIT A: _____ gpm @ _____ psi
STATE CIRCUIT B: _____ gpm @ _____ psi

yes___ no___ Rear of tractor shall have 1 pair of hydraulic couplers with an output of 16 gpm.

yes___ no___ Hydraulic couplers must be color coded, matching joystick color coded switches.

yes___ no___ All hydraulic hoses to have NPT, SAE straight thread or SAE split flange fittings. (no metric)

yes___ no___ Hydraulic oil filter shall be cartridge type, mounted at highest point in hydraulic system for dry changes. Spin on filters not accepted.

Electrical

yes___ no___ Shall be 12 volt DC negative ground with a minimum 1100 CCA battery, 120 amp alternator, protected by a main breaker switch, with all breakers, fuses and wiring sized appropriately. The system must include a lockable master electrical disconnect switch.

yes___ no___ There shall be a lockout battery switch inside the Engine compartment.

yes___ no___ There shall be a 4-prong trailer plug in rear panel for powering the water tank spray system, brine pump or other electrical components other than lighting.

There shall be a 7-inch LED digital display screen with the following features:

yes___ no___ Backup camera when in reverse

yes___ no___ Tachometer indicating engine RPM and PTO RPM

yes___ no___ Speedometer, Odometer, and hour meter

yes___ no___ Coolant temperature

yes___ no___ Engine oil pressure

yes___ no___ Hydraulic oil temperature

yes___ no___ Voltmeter

yes___ no___ Fuel level

yes___ no___ Turn signals, 4-way flashers

yes___ no___ High/low beams

yes___ no___ Forward /neutral/ reverse

yes___ no___ Low Range / High Range

yes___ no___ Large text warning messages for Low hydraulic oil, Low coolant level, Air breather service required, parking brake engaged, Parked regen required, and Seat belt ICON.

yes___ no___ Wiring harnesses must be professionally manufactured with terminals which are machine crimped to ISO standards.

yes___ no___ Codes and numbers must be shown on all parts manual exploded views and wiring schematic drawings and charts.

yes___ no___ All fuses are to be mini blade type and must be contained within an IP67 watertight enclosure.

yes___ no___ All harness plug connectors shall be standard packard weatherproof. Bulkhead connector's must be twist lock type.

Lighting

yes___ no___ There shall be 4 headlights and 1 backup light. All 5lights are to be adjustable, halogen and identical.

yes___ no___ There shall be LED signal lights, 4 way flashers, and shock proof rubber mounted LED tail lights.

- yes___ no___ There shall be 8 flush mounted LED flashing lights, 2 on each side of the branch guard for 360 degree visibility.
- yes___ no___ There shall be an interior dome light
- yes___ no___ Signal lights must self-cancel.

CAB

The cab shall have the following:

- yes___ no___ HVAC system to be controlled by digital climate control LED screen which allows operator to select heat, AC or defrost and set desired temperature. A cab pressurizer is also mandatory
- yes___ no___ Heater must include a minimum of 2 outlets no higher than 16 inches above floor level directed at operator's feet
- yes___ no___ Front intermittent 3 speed pantograph wiper and washer
- yes___ no___ Rear intermittent wiper and washer
- yes___ no___ Inside rear view mirror and backup camera
- yes___ no___ Two outside vibration free mirrors. When approaching an obstacle such as a sign post or when working in a narrow section next to a wall the operator must be able to fold mirrors in and back out again without exiting cab.
- yes___ no___ 3 point seat belt including should harness (must be retractable type and orange).
- yes___ no___ AM / FM / CD stereo with MP3 jack, dual speakers, and Bluetooth.
- yes___ no___ Steel door. All glass door not acceptable.
- yes___ no___ Flush mounted door handle
- yes___ no___ Gas strut door closer
- yes___ no___ Door safety strap
- yes___ no___ Tilt steering column in the upper most position the column must be approximately 80 degrees to the floor for easy entry and exit cab
- yes___ no___ Steel fenders – 10 gauge or heavier
- yes___ no___ DOT approved, tinted, tempered safety glass for all windows
- yes___ no___ All glass must be FLAT for convenience of local replacement in emergency situations
- yes___ no___ Side windows shall be slider type contained within an aluminum frame and lockable

- yes___ no___ 1 and 2 inch thick open cell conasorb with perforated vinyl facing for sound deadening
- yes___ no___ Sound barrier floor matting with 2 lb. /sq. ft. heavy-duty vinyl wear surface and 3/8 inch thick closed cell PVC/nitrile rubber foam layer.
- yes___ no___ Hinged overhead switch panel
- yes___ no___ The cab shall be "ROPS" certified and bear a metal certification label so stating. An engineering ROPS test report is required for verification and to keep on file for WSIB, Ministry of Labor and OSHA audits.
- yes___ no___ The cab must be constructed of steel sheet, plate, HSS tubing and ROPS tubing.
- yes___ no___ Cab and front frame are to be one structure for additional strength.
- yes___ no___ Cab to have tapered sides to allow tractor to work in tight narrow areas where sidewalks are not perfectly level
- yes___ no___ Shall have an air ride high back fabric covered seat with adjustable left armrest, large padded right armrest. Air ride switch to be remote mounted in side switch panel beside ride control and cruise control switches.
- yes___ no___ There shall be a horn button which must be mounted in the center of the steering wheel (no other location acceptable).

Diagnostics

- yes___ no___ The 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 engine ECU. Any fault that occurs is diagnosed and sent to the message center on the digital dash screen where it can be retrieved by clicking on the message envelope ICON. All messages are recorded permanently and archived. The message center also allows access to all ECUs directly. All diagnostics can be done without having to plug in a laptop or any other device.

Attachments

V-blade
 Straight blade
 Sander
 Ribbon blower
 Flair mower

Fuel Tank

Tractor shall have a single fuel tank with no less than 92 liters.

Warranty

Manufacturer's warranty shall be 12 months or 600 hours

Training

Training shall be available at no charge. The training shall include classroom sessions, hands on repair techniques and diagnostic training. The training shall also be available several times per year at no charge, for re-training or new technicians.

Safety

The following labels and decals must present on tractor upon delivery:

- Pinch point decals
- Danger – rotating shaft decal
- Danger – Fan decal
- Joystick function / operation decal
- Diesel fuel only decal on fuel reservoir (minimum .75" high letters)
- Hydraulic oil only decal on oil reservoir (minimum .75" high letters)
- Decals for adjustment procedures
- Grease chart decal under top hood. Decal must include illustrations for showing grease points.
- Metal tag - ROPS Certification
- Metal tag - Serial number / model / model year

Manuals

The following hardcopy manuals with CDs, printed in English, must be furnished at no extra charge at the time of delivery.

- An operator's manual must be supplied in the tractors cab.
- The hardcopy manual will provide all information required to operate the tractor and include maintenance information, safety precautions, lubrication diagrams, etc. All pictures must be in full color.
- A hardcopy parts manual including maintenance and operators instructions shall be supplied. Wiring and hydraulic schematics must be in full color. The manual must have detailed information regarding controls, operating tips, safety precautions, attachment mounting, attachment hose hook up color coding, grease point illustrations, lubrication chart, etc. The manual must include a CD copy inserted into a protective sleeve in the manual cover.
- A hardcopy service manual shall be supplied at time of delivery. The manual must include diagnostic, repair and adjustment information for main drivetrain components. All photo pictures that assist in overhaul procedures must be in full color. Wiring and hydraulic schematics must be in full color. Other items required include a torque specification page, fault logic trouble shooting, lifting point and jack stand placement illustrations. The manual must include a CD copy inserted into a plastic protective sleeve in the manual cover.

**ONE (1) SIDEWALK TRACTOR WITH SANDER, V-BLADE AND STRAIGHT
BLADE PLOW BID PROPOSAL SHEET**

The UNDERSIGNED hereby proposes to furnish one (1) Sidewalk Tractor with Sander, V-Blade and Straight Blade Plow to the Public Works Department, F.O.B., 929 Highland Avenue, South Portland, Maine, with delivery to be made upon receipt of purchase order, in accordance with the attached Invitation to Bid and at the following prices and delivery times:

Bid Price with v-blade, straight blade and sander. \$ _____

Year, Make, & Model # _____

Color _____ Odometer Reading _____

Warranty _____

Delivery Time _____

OPTIONAL ADD ONS

Ribbon Blower \$ _____

Flail Mower \$ _____

Signed: _____
(Corporation, Firm or Company)

By: _____
(Officer, Authorized Individual or Owner)

Title: _____

Mailing Address (including Zip Code):

Date: _____

Telephone: _____

Email: _____

Note: Bids must bear the handwritten signature of a duly authorized member or employee of the organization making the bid.