



THE CORPORATION OF THE CITY OF NIAGARA FALLS
REQUEST FOR TENDER-SUPPLY
RFT1-2022
SUPPLY & DELIVERY OF FOUR (4) SNOW PLOW TRUCKS

SPEC. #31D-2-A
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SPECIFICATIONS & CONFIRMATION - THREE (3) SINGLE AXLE PLOW/SANDER TRUCKS

GENERAL SPECIFICATIONS

These units shall be a new current model year with all standard equipment plus all other equipment outlined in this specification if not standard and be built in conjunction with dump body spreader, plow and wing, **Spec #31D-2-B.**

Bids submitted will be considered non-compliant where minimums are not met and 'No' is specified.

DETAILED SPECIFICATIONS

SPECIFY

1. **MAKE AND MODEL**

YEAR _____
MAKE _____
MODEL _____

2. **VEHICLE WEIGHT AND DIMENSIONS**

SPECIFY

GVWR approximately 43,000 lb. minimum _____ lb.

Wheel base (W.B.) to suit requested CA _____ in.

Cab to axle (C.A.) approximately 112" from back of cab only and does not include exhaust system, to be confirmed with installation layout drawing _____ in.

Must have clear C.A. _____ YES/NO

Appropriate label shall be attached to the vehicle(s) confirming the front and rear G.A.W.R., tire and rim sizes _____ YES/NO

COMPANY NAME: _____ **SIGNATURE:** _____

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5. **FRONT AXLE (Cont'd)** **SPECIFY**
- Axle shall be supplied with all component parts compatible with each other for the maximum capacity stated _____ YES/NO
6. **REAR AXLE** **SPECIFY**
- 26,000 lb. capacity
- MAKE _____
- MODEL _____
- Rear axle ratio 6.14 _____ ratio
- Driver controlled differential lock _____ YES/NO
- Stemco seals _____ YES/NO
- Magnetic traps _____ YES/NO
- Axles shall be filled with synthetic gear lube _____ YES/NO
7. **SPRINGS** **SPECIFY**
- Front** - 10,000 lbs. minimum rated capacity each _____ lbs.
- Auxiliary front Aeon rubber bumper springs or equivalent shall be supplied see (section 28. Spec 31D-2-B) _____ YES/NO
- Heavy duty front shock absorbers _____ YES/NO
- Rear** – 23,500 lb. with 4,500 lb. helpers and radius rod spring _____ YES/NO
- Maintenance free bushings _____ YES/NO

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- | | | <u>SPECIFY</u> |
|-----|---|-----------------------|
| 9. | <u>ENGINE (Cont'd)</u> | |
| | Long life anti-freeze -40°C minimum | _____ YES/NO |
| | Corrosion resistor filter for engine coolant | _____ YES/NO |
| | A bug screen to be provided in front of radiator | _____ YES/NO |
| | Constant pressure hose clamps | _____ YES/NO |
| | Engine block heater(s) compatible to engine size (capacity 120 volts/1000 watts minimum) | _____ watts |
| | Block heater shall be equipped with a weather proof boot and metal receptacle with spring loaded cover plug kit | _____ YES/NO |
| | The plug kit shall be mounted below the body in front of the drivers side door | _____ YES/NO |
| | Horizontal diesel particulate filter (DPF) with vertical exhaust stack on the right side complete with guard and <u>90 degree elbow</u> outlet, routed to avoid interference with wing harness installation and allow installation of the 12' wing specified | _____ YES/NO |
| | After treatment cover to be aluminium (black steel unacceptable) | _____ YES/NO |
| | All <u>exhaust flex pipe used will be stainless steel</u> | _____ YES/NO |
| | Provisions for front mount hydraulic pump installation including crankshaft adapter and clearance for drive shaft with no modifications to radiator | _____ YES/NO |
| 10. | <u>TRANSMISSION</u> | <u>SPECIFY</u> |
| | Automatic 6 speed Allison 3000 RDS/P transmission compatible with engine supplied, five (5) year warranty | _____ YES/NO |
| | Allison Transmission Control Module (TCM) located inside cab | _____ YES/NO |

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10. **TRANSMISSION (Cont'd)** **SPECIFY**
- Electronic shifter to be mounted on dash, steering column or console _____ YES/NO
- Control Location _____
- Transmission oil temperature gauge is required indicating operating ranges _____ YES/NO
- Transmission to provide shift points suitable for snow plowing application of 40 kph, a normal road speed of 80 kph and a maximum road speed of 105 kph _____ YES/NO
- Transmission oil Synthetic _____ YES/NO
- Externally mounted transmission cooler required _____ YES/NO
11. **BRAKES** **SPECIFY**
- ABS brakes with traction control _____ YES/NO
- Automatic slack adjusters, all wheels _____ YES/NO
- MAKE _____
- Brake lines colour and size coded nylon _____ YES/NO
- Full air "S" cam type, all axles _____ YES/NO
- Dual air system _____ YES/NO
- Front brakes - drum type 16 1/2" X 6" minimum _____ size
- Rear brakes - drum type 16 1/2" x 7" minimum both axles _____ size
- Positive rear wheel spring loaded parking brake, air reservoir and instrument panel control switch _____ YES/NO

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11. **BRAKES (Cont'd)** **SPECIFY**
- Rear brake chambers to be spring applied, air unloaded
30/30 Haldex brand required _____ YES/NO
- Specify Actual: _____
- Front axle brake chambers to be Haldex brand, 24 sq./in _____ YES/NO
- Specify Actual: _____
- An audible and visual low air pressure indicator _____ YES/NO
- A manual moisture ejector with pull chain shall be supplied on
primary and secondary tanks _____ YES/NO
- Pull chains to be protected from ice build-up so as not to sag _____ YES/NO
- Bendix air dryer-AD9 or equivalent, minimum 18 cubic foot per
minute, with moisture ejector and heater _____ CFM
- MAKE _____
- MODEL _____
- Dust shields front and rear _____ YES/NO
12. **ELECTRICAL** **SPECIFY**
- 12 volt electrical system _____ YES/NO
- Batteries – three maintenance free, 2775 CCA minimum _____ cca
- Batteries shall be mounted in such a way as not to interfere
with sander, chute, spinner or wing operation and must be
easily accessible for service _____ YES/NO

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12. ELECTRICAL (Cont'd)

SPECIFY

Alternator to be Delco Remy 36 SI-brushless, 12 volt 160 amp. capacity, pad mount, with remote voltage sensor

_____ amp

MAKE _____

MODEL _____

Plow lighting, factory wiring from front headlights/turn signals, with-in dash switch

_____ YES/NO

13. CAB EQUIPMENT

SPECIFY

Conventional two person cab with the following equipment shall be supplied

_____ YES/NO

Cab to be high end premium interior with no paint exposed

_____ YES/NO

Self-levelling air-ride cab

_____ YES/NO

Rubberized flooring

_____ YES/NO

Premium removable floor mats on both sides of truck that can be lifted out for cleaning

_____ YES/NO

Exterior light test for pre-trip inspection – to cycle all exterior lights except back-up lights for ease of inspection

_____ YES/NO

Driver and passenger seat shall be high back full air suspension, National -2000 dual shocks with integral headrest or approved equivalent

_____ YES/NO

MAKE _____

MODEL _____

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13. CAB EQUIPMENT (Cont'd)

SPECIFY

The seats shall have the following adjustments:

- | | |
|---|--------------|
| fore and aft | _____ YES/NO |
| back rest tilt | _____ YES/NO |
| height adjustments | _____ YES/NO |
| air lumbar support | _____ YES/NO |
| chugger-snobber lock-out | _____ YES/NO |
| front cushion height | _____ YES/NO |
| Full harness seat belts (safety orange) – driver and passenger | _____ YES/NO |
| Upholstery shall be dark grey charcoal (colour) | _____ YES/NO |
| Cloth upholstered seats and <u>arm rests</u> | _____ YES/NO |
| Horns - dual air with cap to prevent clogging from snow | _____ YES/NO |
| Electric horn | _____ YES/NO |
| Noise insulation package required for cab-under hood and fenders | _____ YES/NO |
| Factory installed AM/FM radio with clock and Bluetooth capabilities | _____ YES/NO |
| 2-Way radio wiring (20amp fuse protection) | _____ YES/NO |
| Header located wiring | _____ YES/NO |
| Push in style 12-volt power supply for cell phone charger | _____ YES/NO |

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| 13. <u>CAB EQUIPMENT</u> (Cont'd) | <u>SPECIFY</u> |
|---|-----------------------|
| Factory installed dash mounted fused switch pack with ten (10) switches min. (remote power module mounted in cab) | _____ YES/NO |
| Two (2) sun visors right and left | _____ YES/NO |
| Overhead map light | _____ YES/NO |
| Cup holders | _____ YES/NO |
| Tilt and telescopic steering wheel | _____ YES/NO |
| Power operated windows and locks, right and left side, both operated from driver's side | _____ YES/NO |
| Factory installed air conditioning with recirculation switch | _____ YES/NO |
| HVAC fresh air filter | _____ YES/NO |
| Electronic cruise control | _____ YES/NO |
| Tinted glass shall be supplied throughout the cab | _____ YES/NO |
| Heavy duty dual two speed electric intermittent windshield wipers with delay and electric washer pump | _____ YES/NO |
| Heated glass windshield with electric wires embedded in the glass that can be turned on/off to melt snow and/or ice | _____ YES/NO |
| Force wipers to slowest intermittent speed when the park brake is set and the wiper are left on for a predetermined time | _____ YES/NO |
| If windshield washer fluid bottle is under hood, filler must be easily accessible | _____ YES/NO |
| Outside power mirrors, two (2) OEM heated west coast type. Integral mirror to include approx. 8" heated convex with integral clearance lights | _____ YES/NO |

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13. **CAB EQUIPMENT** (Cont'd) **SPECIFY**
- Look down convex mirror mounted over passenger side door _____ YES/NO
- Cab-mounted grab handles right and left exterior _____ YES/NO
- Grab handles right and left interior to provide 3-point access _____ YES/NO
- Minimum of 2 slip resistant steps (grip strut or equivalent) shall be supplied on both sides _____ YES/NO
- A cowl tray lid required to reduce snow build up during plow operations _____ YES/NO
14. **INSTRUMENT PANEL** **SPECIFY**
- The following instrumentation is required:
- rheostat, dimmable controlled illumination _____ YES/NO
- ammeter or voltmeter _____ YES/NO
- fuel gauge _____ YES/NO
- coolant temperature gauge _____ YES/NO
- oil pressure gauge _____ YES/NO
- air filter restriction gauge _____ YES/NO
- speedometer _____ YES/NO
- tachometer _____ YES/NO
- engine hour meter _____ YES/NO

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15. **CHASSIS EQUIPMENT** **SPECIFY**
- Fuel capacity 302 litre (80 US Gal) minimum step type fuel tank and mounted on driver's side as not to interfere with the wing when fuelling the truck _____ YES/NO
- Specify size of tank in litres _____
- Fuel tank shall be aluminium with stainless steel straps and Bustin brand anti-slip steps, or approved equivalent _____ YES/NO
- Diesel exhaust fluid (DEF) tank will be mounted on the left side of truck (driver's side) as not to interfere with the wing when fuelling the truck _____ YES/NO
- Specify size of tank in litres _____
- Any behind cab protrusion of the fuel tank shall have to avoid interferences with the sander spinner _____ YES/NO
- Valance panels under doors _____ YES/NO
- Mud flaps behind front wheels mounted on fender extension _____ YES/NO
- Tilt fiberglass hood with stationary grill section and access hatch to provide access for all fluid inspections _____ YES/NO
- Rubber fender extensions will be supplied the full circumference of the wheel well to prevent wheel spray from the front tires. Inner fender skirts to be provided _____ YES/NO
- Grille shall provide protection from stones, debris, etc. _____ YES/NO
- Suitable characteristics to allow mounting of front P.T.O. shaft without disrupting the efficiency of other components _____ YES/NO
- Frame rails to be clear of equipment which could interfere with the mounting of a plow frame, right-side snow wing and dump body _____ YES/NO

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16. **LIGHTING** **SPECIFY**
- All lighting shall conform to Federal Motor Vehicle and Ontario Highway Traffic Act Standards and shall include the following:
- sealed beam headlights _____ YES/NO
 - parking lights _____ YES/NO
 - two (2) front facing directional lights _____ YES/NO
 - two (2) combination tail/stop/directional lights mounted on rear of frame to be reinforced from behind by body builder _____ YES/NO
 - five (5) roof-mounted amber identification lights facing forward _____ YES/NO
 - four-way flasher control for hazard markers _____ YES/NO
17. **PAINT** **SPECIFY**
- Outside of cab shall be manufacturer's standard white _____ YES/NO
 - The interior shall be colour-keyed to the exterior _____ YES/NO
18. **SAFETY** **SPECIFY**
- Audible 'white sound' backup alarm to automatically activate when vehicle is in reverse gear _____ YES/NO
 - "Good to Go" visual and audible dump box sensor required to warn driver when box is in the raised position _____ YES/NO
 - Lug nut indicators on all wheels _____ YES/NO
 - Visual brake stroke adjustment indicators on all wheels _____ YES/NO
 - Parking brake alarm to sound electric horn if parking brake not set with ignition off and any door open _____ YES/NO

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18. **SAFETY (cont'd)** **SPECIFY**
- Fire extinguisher – 5 lb. ABC Type _____ YES/NO
- Standard First Aid Kit _____ YES/NO
- Standard Safety Triangle kit _____ YES/NO
19. **PINTLE HITCH ASSEMBLY** **SPECIFY**
- A pintle assembly shall be supplied and installed see section 25. (spec 31D-2-B) _____ YES/NO
20. **MISCELLANEOUS** **SPECIFY**
- Signed manufacturer's warranty shall be supplied at time of delivery _____ YES/NO
- State standard warranty terms years (hours and mileage) for
- Engine: _____
- Transmission: _____
- Chassis: _____
- Operator's manual shall be supplied, one (1) per vehicle _____ YES/NO
21. **COMPUTER PROGRAMS AND SOFTWARE** **SPECIFY**
- The manufacturer shall supply electronic shop: service, repair and parts manuals for all applicable components for the vehicle supplied. e.g. chassis, body, brake, airbag, engine, transmission and power train components. If the information is available via the internet, it shall be made available on an on-going basis for a minimum of ten (10) years at no cost to the original purchaser. It shall be made available at all City repair facilities. If the information is provided by DVD there shall be two (2) sets provided. Updates and amendments shall be supplied free of charge for a period of not less than ten (10) years from the vehicle in service date. _____ YES/NO

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21. **COMPUTER PROGRAMS AND SOFTWARE (cont'd)** **SPECIFY**
- Service bulletins shall be provided on an on-going basis for a period of not less than ten (10) years to the original owner of the vehicles at no charge. _____ YES/NO
- One (1) complete vehicle electronic diagnostic communication interface with engine service diagnostic program compatible to Microsoft Windows shall be supplied. On-going service updates shall be supplied with package. _____ YES/NO
- One (1) software program to extract "real time" vehicle information shall be supplied such as Cummins "INSITE" and Cummins "QuickService"
- SPECIFY: Programs _____

22. **RECORDS** **SPECIFY**
- A line setting ticket and/or vehicle specification sheet shall be supplied indicating component sizes, capacities, ratios, etc. _____ YES/NO
23. **LICENCE** **SPECIFY**
- Vehicle to be licensed by City. Dealer to supply a signed **N.V.I.S.** card at time of delivery _____ YES/NO
24. **GENERAL** **SPECIFY**
- The following Parts Number information
- Air Filter _____
- Fuel Filter _____
- COMPANY NAME:** _____ **SIGNATURE:** _____

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24. GENERAL (Cont'd)

SPECIFY

Hydraulic Filter _____

Oil Filter _____

Cab Air Filter _____

PVC Filter _____

DEF Filter _____

Vehicles must be supplied with suitable components to comply with this specification in all respects _____ YES/NO

Where minimums are called for, the vehicle must meet or exceed the capacity, size or performance specified _____ YES/NO

This specification lists only the major details of the unit, therefore, it is the supplier's responsibility to deliver a fully equipped vehicle with compatible components to provide dependable and efficient service

Vehicles shall meet or exceed the mandatory, requirements of the Canadian Motor Safety Regulations and bear the National Safety Mark and will affix their registered National Safety Mark sticker onto the chassis thus certifying the unit as complete _____ YES/NO

Bidders must be qualified and able to supply heavy truck service and parts _____ YES/NO

Location _____

COMPANY NAME: _____ **SIGNATURE:** _____

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25. ENGINEERED DRAWINGS

SPECIFY

Auto-cad or equivalent engineered Manufacturer's dimensioned drawings must be supplied of complete build including dump body and appurtenances with the bid showing the following;

- Chassis, cab and suspension layout
- Front axle location
- Entire exhaust layout
- Fuel tank location
- DEF tank location (if applicable)
- Batter box location
- Air tank location (s)
- Spreader body
- Spinner location (left and right)

_____ YES/NO

26. DELIVERY SCHEDULE

SPECIFY

Expected delivery date of the chassis unit as per specifications to the OEM of the dump and body/spreader.

Date: _____

State number of days for delivery from receipt of Purchase Order

Order: _____

27. PRE-AWARD MEETING

A pre-award meeting may be required prior to the award of the tender. If the meeting is deemed necessary, the bidder shall furnish a complete set of build sheets for the truck being bid at the time

_____ YES/NO

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28. OPTIONAL EQUIPMENT

SPECIFY

A. All frame rail surfaces, including the back-to-back surfaces within the double rail structure, shall be Electro coated, or "E-Coated" with Clearclad, or equivalent, rust protectant. Only E- Coat product applications are acceptable. Non E-Coat products such as oil or wax type rust protectants are not acceptable

_____ YES/NO

B. Complete spare/replacement front wheel and tire assembly as Specified in section eight (8).

_____ YES/NO

COMPANY NAME: _____ **SIGNATURE:** _____