



## **Request for Expressions of Interest No. 740-2014 for the Supply and Delivery of Industrial Sidewalk Snow Removal Machines & Associated Attachments**

The City of Winnipeg (City) is inviting Expressions of Interest (EOI) from Respondents experienced in the Supply and Delivery of Sidewalk Snow Removal Machines & Associated Attachments.

### **1. Background**

- 1.1. The City relies on Sidewalk Snow Removal Machines to clean and remove snow from City sidewalks and active transportation paths, utilizing a rotary broom to sweep during spring clean-up, utilizing asphalt/concrete profiler to maintain roads, throughout the seasons.
- 1.2. The current fleet is Trackless MT5 and MT6 sidewalk snow removal machines and various attachments. It is the intent of this “EOI”, to identify and evaluate sidewalk snow removal machines most suitable for the City of Winnipeg operations.

### **2. Purpose**

- 2.1. The purpose of this EOI is to seek responses from Respondents that will:
  - 2.1.1. Provide The City with information related to various models of industrial sidewalk snow removal machines offered by Respondents. This information will be used to aid in the selection of up to (2) to (3) brands of machines for the purposes of testing and trial over a course of up to (3) years.
  - 2.1.2. Aid in the development of specifications for a future bid opportunity and to standardize the City Fleet in order to more efficiently operate and maintain sidewalk snow removal machines.
  - 2.1.3. Provide cost of ownership data including fuel analysis, parts cost analysis, machine performance, vendor performance, operator feedback using life cycle costing principles.

### **3. Submission Requirements**

- 3.1. **The Submission Deadline for the EOI is: 4:00 p.m., Winnipeg time, August 15, 2014.**
- 3.2. The EOI Submission should include:
  - a) the name and contact information (address, phone, fax, and email) of the individual who will act as the Respondent’s principal contact throughout the EOI process;

- b) Provide the City with a cost for trial and testing and associated terms and conditions. Cost shall include rental options, lease options, rent to own options, lease to own options, and out-right purchase options.
- c) Fully completed 1.0 of the General Specification and Details of Equipment; and
- d) Any other pertinent literature that the Respondent believes may useful to the City in their determination.
- e) Submit any equipment options or features that would benefit in the operations of sidewalk snow removal.

3.3. The EOI Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.

3.3.1. If the EOI Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the EOI number and the Respondent's name and address, and shall be submitted to:

The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor  
Winnipeg MB R3B 1J1

3.4. If the EOI Submission is submitted by facsimile transmission, it shall be submitted to (204) 949-1178.

3.4.1. The Respondent is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.

3.5. EOI Submissions submitted by internet electronic mail (e-mail) will not be accepted.

#### 4. Evaluation of EOI Submissions

4.1. The sidewalk snow removal machines will be evaluated based on:

- a) How closely the sidewalk snow removal machines correspond to 1.0 of the General Specifications and Details of Equipment); and
- b) Any other considerations available that may be advantageous to City operations.
- c) Local distributor, parts, sales and service.
- d) Rental and Lease options and/or purchase price

#### 5. Anticipated Process-

5.1. The City will analyze all submissions and select up to four various machines for testing and trial through a point system with an evaluation team. The City will evaluate the following items and asses a total 100 points.

- a) **OPERATIONAL/SAFETY AND OPERATOR ACCEPTANCE -15 Points**

- The ability to maneuver within confined spaces in the City of Winnipeg without causing significant damage to the unit and provide adequate safety for the operator. This criteria also includes operator acceptance and the City of Winnipeg Safety and Training Branch.

b) **PERFORMANCE/SPECIFICATIONS- 20 Points**

- The ability to meet the general specifications
- The ability to maintain “up-time” during peak winter months and provide a high level of operating performance.

c) **FUEL CONSUMPTION- 15 Points**

Total fuel consumption and the environmental impact to the City of Winnipeg;

- Published fuel consumption rating

d) **REPLACEMENT PARTS ANALYSIS (DAMAGES) -15 Points**

- Cost analysis of regularly scheduled replacement parts and damaged parts

e) **EXPEDIENCY OF DEALER PARTS & SERVICE SUPPORT-15 Points**

The local dealer’s ability to provide expedient parts and service support for the equipment being offered.

- Parts warehouse location.
- Quantity of parts stocked at any given time

f) **DEALER QUALIFICATIONS- 10 Points -**

- The dealer to have a services facility to repair up to 6 machines at any given time with certified technicians whom specialize in the repair and service of industrial sidewalk snow removal machines.
- Number of technicians dedicated to service and repair sidewalk snow removal machines.
- Hours and after hours of operations.
- On-site service truck

g) **COMPATIBILITY- 10 Points -** The ability for current City of Winnipeg attachments to be compatible with the sidewalk snow removal machine. Attachments are as follows:

- Ribbon style snow blower
- Plow Blade
- Flail Mower
- Rotary Broom
- Tow behind Sander Spreader

- 5.2. The City will work with Streets Maintenance and Parks during the testing and trial period to further develop the Draft Specifications – Sidewalk Snow Removal Machines.
- 5.3. After the testing and trial period the City intends to at a later date publish a Bid Opportunity utilizing the newly developed Specifications – Sidewalk Snow Removal Machines using the data received from the trial & testing.
- 5.4. The City may require the Respondent to clarify any portion of its of EOI Submission
  - 5.4.1. **Notwithstanding any other section of the EOI, The City of Winnipeg may, in its sole discretion, at any time, elect not to proceed with a Bid Opportunity.**

## **General Conditions**

### **6. No Contract**

- 6.1. **This is an inquiry only. By submitting an EOI Submission and participating in the process as outlined in this EOI, Respondents expressly agree that no contract of any kind is formed under, or arises from, this EOI and that no legal obligations will arise.**

### **7. Right to Alter**

- 7.1. The City of Winnipeg reserves the right to alter any of the conditions and criteria outlined in this EOI, including the deadline for submissions, by posting addenda on The City of Winnipeg website at:<http://www.winnipeg.ca/matmgt/bidopp.asp>. It is the responsibility of the Respondent to ensure that any possible addenda have been reviewed.

### **8. City's Contact Person**

- 8.1. All enquiries should be directed to:

Kevin Moniz  
Coordinator of Equipment Specifications  
Winnipeg Fleet Management Agency  
770 Ross Avenue  
Winnipeg Manitoba R3E 1C6  
Telephone No. (204) 986-8273  
Email: [kmoniz@winnipeg.ca](mailto:kmoniz@winnipeg.ca)

## **1.0 GENERAL SPECIFICATION AND DESCRIPTION OF EQUIPMENT & ATTACHMENTS-**

**Please be advised that the general specifications below are derived from the City of Winnipeg past technical specifications and requirements as well as newly requested features available.**

- 1.1 These specifications describe Industrial Sidewalk Snow Removal Machines, (3) way snow plow blade attachments, industrial snow blower attachments, and other equipment and features as specified herein.
- 1.2 The Industrial Sidewalk Snow Removal Machines, Associated Attachments and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and Associated Attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The equipment and associated and attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.3 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these specifications, the Contractor shall be held responsible for the satisfactory operational function of the equipment.

## **2.0 OTHER SPECIFICATIONS AND STANDARDS-**

- 2.1 All applicable SAE standards form an integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.2 The Industrial Sidewalk Snow Removal Machines and Associated Attachments shall comply with the following regulations:

Manitoba Highway Traffic Act= [https://web2.gov.mb.ca/laws/statutes/ccsm/PART III EQUIPMENT DIMENSIONS AND WEIGHT OF VEHICLES, MINIMUM LIGHTING EQUIPMENT REQUIRED,](https://web2.gov.mb.ca/laws/statutes/ccsm/PART_III_EQUIPMENT_DIMENSIONS_AND_WEIGHT_OF_VEHICLES,_MINIMUM_LIGHTING_EQUIPMENT_REQUIRED)

Motor Vehicle Safety Regulations= <http://www.tc.gc.ca/eng/acts-regulations/regulations-crc-c1038.htm>, Motor Vehicle Safety Regulations (C.R.C., c. 1038)

Canadian Standards Association, CSA = <http://www.csa.ca/about/Default.asp?language=english>

Society of Automotive Engineers, SAE = [http://en.wikipedia.org/wiki/Society\\_of\\_Automotive\\_Engineers](http://en.wikipedia.org/wiki/Society_of_Automotive_Engineers)

City of Winnipeg Lighting Visibility Standard= <http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf>.

Manitoba Motor Vehicle Act = <http://www.tc.gc.ca/acts-regulations/GENERAL/M/mvsa/menu.htm>

- 2.3 It will be the responsibility of the Bidder to inform the City of any deficiencies in these

specifications, for under this Contract the Contractor shall be held responsible for the design, performance, safety, reliability and satisfactory operational function of the units.

**3.0 SERVICE FACILITY-**

3.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility located within (10) km of the boundaries of the City of Winnipeg. The facility, or a portion thereof, shall be dedicated to the service and maintenance of the type equipment being offered. Bidders shall provide a description of the service facility including, but not limited to, number of qualified service staff, years of service experience, and general service capabilities within three (3) Business Days upon request of the Contract Administrator.

**4.0 REFERENCES-**

4.1 The bidder shall provide shall have five (5) Canadian references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.

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**5.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS-**

5.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Expression of Interest package.

5.2 All items in these specifications shall be answered indicating compliance or non-compliance. **BIDDERS SHALL STATE "YES" FOR COMPLIANCE OR STATE DEVIATION**, or give reply where requested to do so. Deviations shall be clearly stated and fully detailed. Alternatives will be considered subject to evaluation.

5.3 **EACH BIDDER IS REQUIRED TO FILL IN EVERY BLANK. FAILURE TO DO SO MAY BE USED AS A BASIS FOR REJECTION OF BID**

**6.0 PERFORMANCE RELIABILITY-**

6.1 The responsibility for the design of the **Industrial Sidewalk Snow Removal Machines and Associated Attachments**, its performance and reliability shall rest upon the Contractor.

6.2 The term "repeated failures" as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the vehicle inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, of assembly. Minor items or ordinary service adjustments are not included, or considered under the scope of "repeated failures", as well as other factors, such as operational damage due to accidents, misuse or lack of proper maintenance, service and lubrication attention by not following the manufacturer's preventative maintenance schedule.

6.3 Where the **Industrial Sidewalk Snow Removal Machines and Associated Attachments** develops “repeated failures” in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.

6.4 **The equipment shall be capable of consistent top performance in City of Winnipeg Environment. Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C)**

**7.0 FUEL-**

7.1 All equipment shall be fully fuelled upon delivery (no exceptions).

**8.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR-**

8.1 The manufacturer of the **Industrial Sidewalk Snow Removal Machines and Associated Attachments** shall have five (5) years continuous experience manufacturing **Industrial Sidewalk Snow Removal Machines and Associated Attachments**

8.2 The manufacturer shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry.

**9.0 SPECIFICATIONS-**

9.1 Type- A four-wheel drive articulating, oscillating, rubber tired, diesel powered multi-purpose heavy duty industrial tractor, designed for year round work, utilizing currently owned City of Winnipeg attachments preferable. \_\_\_\_\_

**DIMENSIONS-**

9.2 Length- Overall length including rear bumper approx. 146”, **state-** \_\_\_\_\_

9.3 Height- Height of top of cab including air conditioning and lighting approx. 89.0”, **state-** \_\_\_\_\_

9.4 Track Width- Track width (wheel to wheel) with radial tires approx.50.0”, **state-** \_\_\_\_\_

9.5 Overall Width- Overall width including fenders approx. 50.5”, **state-** \_\_\_\_\_

9.6 Turning- Inside turning radius approx. 90.0”, **state-** \_\_\_\_\_

**OPERATING WEIGHT-**

9.7 Weight- For performance, increased traction and safety, the weight of tractor is to be approx. 5,500-6,000 lbs., **state-** \_\_\_\_\_

**CHASSIS-**

- 9.8 Structure- The tractor shall consist of 4 main structures, front cab/frame, centre-frame, mid-frame and rear frame or equivalent, **state-** \_\_\_\_\_
- 9.9 Pivot Pins- Two grease-able heavy duty pivot pins approx.1.5", shall connect mid-frame to the center-frame through hardened grease-able spherical bearings or equivalent, **state-** \_\_\_\_\_
- 9.10 Access- Bidder shall state access to remove drive-train components such as a PTO clutch or pump drive assembly from the bell housing if required. \_\_\_\_\_
- 9.11 Frame- Frame rails are to be of sufficient strength to withstand rough road impact with loaded sander on the rear and the heaviest front mounted attachment. \_\_\_\_\_
- 9.12 Articulation- Tractor shall articulate and oscillate for tight turning radius requirements. \_\_\_\_\_

**ENGINE & ENGINE ACCESS-**

- 9.13 Engine - Engine shall be a water cooled diesel with approx.110-115 hp @ 2500 rpm and producing torque of approx. 350-370 lbs-ft @ 1500 rpm. Engines shall meet current EPA Standards for the specified type. Engines shall be warranted to use bio-diesel at a B10 blend level (10% bio-diesel to 90% ultra-low sulphur diesel), where the bio-diesel will meet product specification ASTM D 6751 to ensure fuel quality. \_\_\_\_\_
- 9.14 Access - **State** access points and description for required for daily operator pre and post daily inspections. \_\_\_\_\_
- 9.15 Material- **State** material of all hoods and panels. \_\_\_\_\_
- 9.16 Rear Grill- Shall be easy access to clean coolers and radiator. \_\_\_\_\_
- 9.17 Rad Access- There shall be access to the radiator fill spout. \_\_\_\_\_

**COOLING-**

- 9.18 Cooling- Engine cooling shall be water-cooled by means of an Approx.. 18-inch diameter fan and a radiator. **State** if reversible fan is available- \_\_\_\_\_
- 9.18.1 Hydraulics- The hydraulic system shall have a thermostatically controlled bypass valve for cold weather operation. \_\_\_\_\_
- 9.19 Screens- Engine cooling air intake grills or screens shall be in place.



Perforations shall be small enough to prevent grass clippings from entering coolers.

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**P.T.O. -**

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

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- 9.21 Clutch engage- The engagement speed of the clutch shall be adjustable. 

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- 9.22 Safety- PTO clutch shall include a switch to prevent engagement of the PTO clutch at engine RPM's above idle or equivalent. The safety feature is designed to prevent damage to the PTO driveline or PTO driven attachments if engine is above idle 

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- 9.23 Front PTO- The front PTO is to be approx., 1-3/8 inch diameter, 6 spline 540 PTO rpm @ 2160 engine rpm with approx.95-105 PTO hp required. 

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**IMPLEMENT HITCHES-**

- 9.24 Hitches- Tractor shall be supplied with a front quick hitch system. Implement height shall be controlled by two double acting hydraulic cylinders that are operated from the operator joystick or spool valves/ T-handle. Spring load lift latches hold the implement frame in place. **State** if unit is joystick or spool valve/T-handle forward, neutral, reverse operation- 

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- 9.25 Attachments- Tractor shall be capable of attaching and operating existing attachments already owned by the City of Winnipeg. 

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- 9.26 Lift- **If available**, tractor shall be equipped with an externally mounted control switch for operation of the main lift cylinders to allow an operator to easily and safely attach/detach attachments from outside the cab or equivalent. For safety reasons this shall also be connected to a safety switch in the operators seat to disable this control if there is another operator in the cab. Hydraulics shall operate at reduced pressure and speed for predictable and safe operation. 

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**TRANSMISSION-**

- 9.27 Hydrostatic- The tractor shall be propelled by a hydrostatic transmission and controlled by a single electronic foot pedal. 

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- 9.28 Shift- **State** shift operation- 

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9.29 Speed- For improved fuel efficiency, the tractor shall have a 2-speed mechanical transmission that provides speed ranges of:

LOW RANGE Approx. 0 - 15 km / hr, **state-** \_\_\_\_\_

HIGH RANGE Approx. 0 - 35 km / hr, **state-** \_\_\_\_\_

9.30 Neutral- The transmission shall have a neutral position operable from inside the cab allowing the tractor to be towed, without danger of damaging the hydrostatic transmission. \_\_\_\_\_

**AXLES-**

9.31 Axles- Axles shall be full floating with trac-lock differentials \_\_\_\_\_

9.32 Capacity- Approx. 7000 lbs. capacity each \_\_\_\_\_

9.33 Bolts- There shall be approx., 6-8 x ½ inch dia. bolts securing each axle housing to the chassis. Bolts to be grade 5, **state-** \_\_\_\_\_

9.34 Wheels Studs- Each axle shaft shall have 6-8 wheel studs, **state-** \_\_\_\_\_

9.35 Diff Lock- Tractor shall have independent electrically or electrically over hydraulically activated axle differential lockers for both axles \_\_\_\_\_

**BRAKING SYSTEMS-**

9.36 Braking- **State** braking system including parking brakes-  

- hydrostatic dynamic braking (Yes/No) \_\_\_\_\_
- hydraulic service brakes (Yes/No) \_\_\_\_\_
- mechanically actuated emergency/parking brake (Yes/No) \_\_\_\_\_

9.37 Service Brakes- Service brakes shall consist of brakes at all 4 wheels. Hydraulic service brakes (drum and shoes) on all 4 wheels or Internal wet style disc brakes on all 4 wheels or equivalent. \_\_\_\_\_

9.38 Parking Brake- Parking brake is to be applied by way of an adjustable parking brake lever. Shall be able to apply the brakes mechanically in the event that the hydraulic system for applying the service brakes fail. The parking brake shall sound a warning buzzer & light when applied. \_\_\_\_\_

**WHEELS/TIRES-**

9.39 Tires- Tires shall be commercial grade Winter Snow Ice radial, 10-ply radials mounted on heavy duty steel wheels. Make shall be Firestone/Bridgestone or Michelin, **state** size make & model- \_\_\_\_\_

**HYDRAULIC SYSTEMS-**

- 9.40 Gear Pump- The hydraulic gear pump shall be driven by the timing gears of the engine and produce approx. 20-24 gpm, **state-** \_\_\_\_\_
- 9.41 Operations- **State** attachment functions to allow lifting & lowering of attachment while 2 other function controls remain live as well as forward, neutral and reverse \_\_\_\_\_
- 9.42 Couplers- Six front hydraulic couplers (3 pair) are to be supplied for operating the control features on various City of Winnipeg currently owned attachments. In addition to these 6 couplers, there shall be an auxiliary hydraulic pump to supply 2 front couplers (1 pair) with a high volume of fluid dedicated to power attachments requiring approx.14 gpm **state-** \_\_\_\_\_
- 9.43 Pump- The auxiliary hydraulic pump shall only be powered if the PTO clutch is engaged. \_\_\_\_\_
- 9.44 Rear Coupler- Rear of tractor shall have 1 pair of guarded high volume hydraulic couplers to power various attachments. For safety reasons during City of Winnipeg Snow Sanding Operations, the hydraulic circuit shall be equipped with an “auto off” control so that when the tractor is stopped or reversed, hydraulic flow is stopped and therefore turns the sander off .Hydraulic flow shall automatically resume when the tractor moves forward again. \_\_\_\_\_
- 9.45 Coding- Hydraulic couplers shall be colour coded \_\_\_\_\_
- 9.46 Hoses- All hydraulic hoses to have NPT, SAE straight thread or SAE split flange fittings (metric fittings not allowed).Main hydraulic lines from pump to drive motor fabricated from high strength metal tubing and secured to side frame rail. \_\_\_\_\_
- 9.47 Oil Filter- Hydraulic oil filter shall be cartridge type, mounted at highest point in hydraulic system for dry changes. \_\_\_\_\_
- 9.48 Tank- Hydraulic tank to be equipped with a main shut off valve. \_\_\_\_\_

**ELECTRICAL-**

- 9.49 Voltage- Tractor shall have a 12 V, negative ground system \_\_\_\_\_
- 9.50 Batteries- Approx. 950 CCA group 31 battery with remote boost terminals \_\_\_\_\_
- 9.51 Alternator- 95-110 amp alternator \_\_\_\_\_
- 9.52 Breaker- Main breaker switch protection. \_\_\_\_\_

9.53	Tachometer-	Tachometer and non-reset-able hour meter required	_____
9.54	Coolant-	Coolant temperature gauge required	_____
9.55	Engine-	Engine oil pressure gauge required	_____
9.56	Hydraulic Oil-	Hydraulic oil temperature gauge required	_____
9.57	Voltmeter-	Voltmeter required	_____
9.58	Fuel Level-	Fuel level required	_____
9.59	Speedometer-	Speedometer with odometer required	_____
9.60	Provisions-	For Trailer provisions a 7-prong trailer plug is required, brake controller and trailer hitch for pulling various attachments such as sand spreaders and sidewalk flushers.	_____
9.61	Diagnostics-	Due to the complexity of the wiring systems in tractors with Tier 3 and Tier IV engines management system and other electronic management systems. The following specifications are required to assist in efficient diagnostic and electrical repairs over the life of the tractor:	_____
9.61.1	Wiring Harness-	Wiring harnesses shall be professionally manufactured with terminals that are machine crimped to ISO standards.	_____
9.61.2	Locations-	On both ends of all harness wires there shall be letter location codes and wire numbers printed permanently on the wire insulation. Codes and numbers shall be shown on all parts manual exploded views and wiring schematic drawings and charts.	_____
9.61.3	Wires-	All single wires that are not part of a harness shall have a part number permanently printed on the insulation.	_____
9.61.4	Fuses-	All fuses are to be mini blade type and shall be contained within an IP76 water tight enclosure.	_____
9.61.5	Connectors-	All harness plug connectors shall be standard Packard weatherproof. Bulkhead connectors shall be twist lock type.	_____

**LIGHTING-**

- 9.62 Lights- There shall be 4 headlights and 1 backup light. All 5 lights are to be halogen, of the same make for parts consistency, adjustable by the operator if needed, and protected by a suitable cage to prevent damage from branches and other obstacles. (All lighting shall be sufficiently guarded for application and City of Winnipeg operating environment) \_\_\_\_\_
- 9.63 Signals- There shall be signal lights, 4 way flashers, and an interior dome light and shock proof rubber mounted tail lights. Rear mount stop tail lights shall be mounted in a location not to impede visibility when utilizing a tow behind sander spreader. \_\_\_\_\_
- 9.64 Safety Lighting- There shall be amber and blue LED roof-mounted strobe type flashers at all four corners of the tractor for 360 degree visibility. The strobe lights shall be incorporated into the roof-top cage to prevent damage from branches and other obstacles. These amber and blue light circuits are to be individually switched for independent or simultaneous operation when chosen. \_\_\_\_\_
- 9.65 Type- All lighting accept headlights shall be LED no exceptions. \_\_\_\_\_
- 9.66 Operation- Brake lights are to illuminate when machine is put into gear. When hydrostatic pedal is depressed, brake lights turn off. \_\_\_\_\_
- 9.67 Lighting- All lighting to meet the City of Winnipeg Lighting Visibility Standard=<http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf>. \_\_\_\_\_

**CAB-**

- 9.68 Cab panels- All panels and roof shall be steel. Steel sides and fenders shall be 10 gauge or heavier. \_\_\_\_\_
- 9.69 Cab Structure- Cab and front frame are to be one structure for additional Strength \_\_\_\_\_
- 9.70 Heating/Air Conditioning- One approx..24,000 BTU heating system vented to the operators feet. Air condition-One 14,000 BTU heating system These systems shall evenly distribute air to the front windshield, rear windshield, both side windows of the cab and at the operators feet through adjustable vents. Windows shall stay clear in Winnipeg environment \_\_\_\_\_
- 9.71 Front Window- Front window intermittent wiper and washer. \_\_\_\_\_
- 9.72 Rear Window- Rear window wiper and washer \_\_\_\_\_

- 9.73 Inside Mirrors- Dual inside rear view mirrors \_\_\_\_\_
- 9.74 Exterior Mirrors-Two exterior, vibration free side view mirrors. These mirrors shall easily fold back (break-away) to prevent damage from branches, fences and other obstacles \_\_\_\_\_
- 9.75 Seat- Shall have a high back fabric-covered seat with adjustable armrests and lumbar support. Seat shall be air ride suspension preferred with 3 point seat belt including shoulder harness (shall be retractable type) \_\_\_\_\_
- 9.76 Radio- AM/FM/CD stereo with dual speakers. \_\_\_\_\_
- 9.77 Antenna- Exterior mounted flexible aerial. (radio antenna) \_\_\_\_\_
- 9.78 Cup holder- Cup hold required \_\_\_\_\_
- 9.79 Steering- Tilt steering column with self-cancelling turn signals. Horn button mounted in the centre of the steering wheel \_\_\_\_\_
- 9.80 Glass- DOT approved, tinted, tempered safety glass for all windows \_\_\_\_\_
- 9.81 Sliders- Side windows shall be slider type \_\_\_\_\_
- 9.82 Sound- Sound deadening material on both the cab walls and floor. Floor matting shall have heavy-duty vinyl wear surface. Interior shall not exceed 76db. \_\_\_\_\_
- 9.83 Overhead dash-Overhead hinged interior dash panel for easy access to equipment lighting \_\_\_\_\_
- 9.84 Pocket- Operators manual pocket inside cab, within easy reach of the operator. \_\_\_\_\_

**FUEL TANK-**

- 9.85 Fuel Tank- Single fuel tank capacity approx.105-115 litres. Add on auxiliary tanks are not acceptable. **State** fuel capacity- \_\_\_\_\_

**PAINT/FINISH-**

- 9.86 Paint- If body is steel, **state** paint specification and paint methods- \_\_\_\_\_
- 9.87 Resistance- For corrosion resistance, the following parts shall be zinc plated:
- 9.87.1 Latches- Lift latches, lift latch levers, linkages and secondary locks. \_\_\_\_\_
- 9.87.2 Straps- Battery hold down straps and bolts. \_\_\_\_\_



**SAFETY FEATURE REQUIREMENTS-**

- |       |                               |   |       |
|-------|-------------------------------|---|-------|
| 9.91  | Neutral safety start-         | A neutral safety start system shall prevent the engine from starting unless shifted into neutral.   | <hr/> |
| 9.92  | Fire Extinguisher-            | One (1) 2.5 lbs Fire extinguishers, Flare kit, First aid kit required, located as per manufactures recommendations, <b>state</b> location-  | <hr/> |
| 9.93  | Switch-                       | A seat safety switch shall automatically shut down the engine if the operator leaves the seat without placing the shifter into neutral. The seat safety switch shall automatically shut down the PTO circuit if the operator leaves the seat without turning off the PTO button. The seat safety switch shall automatically shut off hydraulic flow to the rear couplers for the sidewalk sander if the operator leaves the seat. | <hr/> |
| 9.94  | Brakes-                       | Tractor shall have a hydraulic brake at each wheel. There shall also be a mechanical parking brake that can be applied if hydraulic brakes fail.  | <hr/> |
| 9.98  | Roll Over Protection Systems- | The cab shall be "ROPS certified" and bear a certification label so stating on the cab. An engineering ROPS test report is required for verification. The cab shall be constructed of steel sheet, plate, HSS tubing and ROPS tubing. (no exceptions allowed)   | <hr/> |
| 9.99  | Guarding-                     | A protection guard shall enclose the engine fan.  | <hr/> |
| 9.100 | Stripping-                    | The tractor shall have reflective striping on both sides of cab and rear side hoods, as well as on the rear hood below the taillights.  | <hr/> |
| 9.101 | Cab entry-                    | The cab shall have easy access for operator entry/exit. There shall be a step at no higher than 14 inches above the ground. The step shall be approximately 11" long and shall be behind the front wheel.   | <hr/> |
| 9.102 | Decals-                       | The tractor shall have Safety, Danger, Caution and Pinch Point decals as described in the labelling section of this specification. (no exceptions allowed)  | <hr/> |



9.103 PTO Access- 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. \_\_\_\_\_

9.104 Utilization- In the event that the City of Winnipeg utilizes the tractor to perform mowing operations, the hydraulic circuits that power the mower wings shall turn off automatically when wings are raised to a pre-determined angle. When lowered, they shall be re-started. This feature shall be designed into the tractor for future additional attachment purchases. \_\_\_\_\_

9.105 Back-up Alarm- Tractor shall have a back-up alarm activated by the Forward/neutral/reverse operation. Alarm shall have A 105 dba. \_\_\_\_\_

**SNOW BLOWER ATTACHMENT-**

9.106 Type & Size- 51" ribbon single auger type snow blower \_\_\_\_\_

9.107 Universal- Snow Blower shall be able to be utilized on City of Winnipeg current sidewalk snow removal machines Make Trackless MT5 or MT6 \_\_\_\_\_

9.108 Operation- Raising, lowering or floating of the attachment, chute rotation, chute deflection are all done hydraulically using the standard vehicle control valve joystick operation. \_\_\_\_\_

9.109 Drive Type- The snow blower is designed to operate 540 RPM power takeoff. RH, LH ribbon assemblies & the PTO drive-line are shear pin protected. \_\_\_\_\_

9.110 Dimensions- The snow blower opening shall be approx. 51" wide X 39" high. \_\_\_\_\_

9.111 Ribbon Cutter- The ribbon cutter shall be no less than 28" diameter, using two serrated helical ribbons per side, fabricated from 400 Brinell abrasive resistant plate. \_\_\_\_\_

9.112 Impellor- The second stage impellor shall be no less than 28" diameter, have of 5 blades and a of depth of 11". \_\_\_\_\_

9.113 Cutting Edge- The snow blower attachment shall be provided with replaceable edge, **state** thickness- \_\_\_\_\_

9.114 Skid Shoes- Two replaceable, adjustable hardened steel skid shoes required. \_\_\_\_\_

**3 WAY SNOW PLOW BLADE-**

9.115 Snow Plow Blade- Shall be 3 way type \_\_\_\_\_

**WARRANTY-**

9.116 Warranty- All warranty information shall be detailed and include all exclusions. The successful bidder shall provide all published warranty information upon delivery of the equipment. Bidder shall state all warranty information. \_\_\_\_\_

9.117 Basic Vehicle One year unlimited hours \_\_\_\_\_

9.118 Batteries One year \_\_\_\_\_

9.119 Drive-train One year \_\_\_\_\_

9.120 Cab structure/corrosion One year \_\_\_\_\_

9.121 Frame/cross-members One year \_\_\_\_\_

9.122 Cab paint One year \_\_\_\_\_

9.123 Engine 2 year year, 2000 hours \_\_\_\_\_

9.124 Transmission One year \_\_\_\_\_

9.125 Axles, front & rear One year \_\_\_\_\_

**TRAINING-**

9.126 The Contractor shall be required to provide training (at the Contractor's expense) for the City of Winnipeg maintenance and operating personnel. The training shall be divided into two separate sessions, one for maintenance personnel and one for operating personnel. The training shall be conducted in separate or combined sessions for each group of personnel.

The duration of the sessions shall be as long as required for adequate familiarization and orientation of the equipment to the satisfaction of the Contract Administrator.

The training shall be conducted within two (2) calendar weeks from the date of delivery and shall be coordinated through the Contract Administrator.

The training shall be conducted in Winnipeg at a time and location designated by the Contract Administrator.

Pricing should be based on two (2) business days for maintenance personnel and two (2) business days for operating personnel.

Note: The first payment of the contract on the equipment will not be issued until successful completion of training has been conducted to the satisfaction of the Contract Administrator.

Training Aides:

- a) On the type of equipment being offered, **state if CD Rom training aides or on-line training are available-**

What is the recommended minimum training duration for:

Primary unit:

For major attachments (if applicable):

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State what other training aids are available (videos, CDs).

For the primary unit:

For major attachments (if applicable):

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Training Materials and applicable manuals or on-line training material information shall be provided to the Operator Training Branch of Public Works at the earliest possible opportunity, no later than (4) weeks prior to delivery, when supplying vehicles, equipment and related attachments. Send these materials, preferably in both electronic format and hard copy (training videos are to be supplied on either CD or DVD) to:

Public Works Department, Human Resources Division  
Equipment Operator Training Branch

960 Thomas Avenue  
Winnipeg, MB  
R2L 2E1

Leanne Guertin  
Equipment Operator Training Consultant

Cell: 204-451-3793  
Contact e-mail: [lguertin@winnipeg.ca](mailto:lguertin@winnipeg.ca)

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**DELIVERY-**

9.127 Delivery Point- The complete unit shall be serviced, ready for operation and delivered F.O.B. with the freight prepaid, including invoice and N.I.V.S. (if applicable) to the body manufacture. The successful bidder shall be notified by the Contractor Administrator the delivery address prior to issuance of the purchase order. \_\_\_\_\_

9.128 Delivery Time- **State** delivery time from official notification of award of contract. Equipment shall be delivered between 8:00 am and 3:00 pm on Business Days. \_\_\_\_\_

9.129 Delivery Contact- The Contractor shall contact the Contract Administrator prior to delivery of the equipment. \_\_\_\_\_

9.130 P.D.I- A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list \_\_\_\_\_

**MANUALS-**

9.131 Manuals supplied under this contract shall be in English. General purpose manuals are not acceptable. The manuals shall cover the complete equipment including all components thereof, CD is preferred where available. \_\_\_\_\_

9.132 The following manuals shall be supplied with the units when delivered:

a) Operator's manual – Two (2) per unit (one operator manual shall be sent to the Equipment Operator Training Branch \_\_\_\_\_

b) Parts and service manuals – one (1) complete sets including preventative maintenance schedules. CDs are preferred. \_\_\_\_\_

c) Detailed wiring schematics – three (3) complete sets, including trouble shooting guide. \_\_\_\_\_