

## FORM N: DETAILED SPECIFICATIONS 21015

### TOW BEHIND SAND SPREADER

#### 1. INTENT

- 1.1 It is the intent of these specifications to describe the supply and delivery of tow behind sand spreaders to be utilized on City of Winnipeg sidewalks, walking paths and parking lots. The tow behind sand spreader shall be towed behind existing City owned equipment, including Agricultural tractors and Trackless multipurpose sidewalk tractors. The tow behind sand spreader shall be the manufacturer's latest model as may be modified by these specifications. The equipment shall be furnished complete and ready for use. Any parts not specifically mentioned but which are required to complete and place the unit into successful operation shall be furnished as though specifically mentioned in these specifications. The completed unit, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.2 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these specifications, for under this Contract, the Contractor shall be held responsible to ensure that the manufacturer will be responsible for the design, performance, reliability and satisfactory operational function of the unit.
- 1.3 The ratings specified herein state the minimum values acceptable to the City, not implying that these values are sufficient for the design of the particular unit being bid.

#### 2. STANDARDS

- 2.1 All applicable SAE Standards form and integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.2 The completed unit shall comply with the applicable regulations:
- Manitoba Highway Traffic Act
  - Canadian Motor Vehicle Safety Standards, CMVSS Transport Canada
  - National Safety Mark, NSM
  - Manitoba/Winnipeg Safety and Health Act, Parts 12, 22
  - Canadian Standards Association, CSA
  - Under Writers of Canada, ULC
  - Society of Automotive Engineers, SAE
- 2.3 All welding and welding designs of the load supporting elements shall conform to the requirements of the Canadian Standards Association Standard (CSA) W47.1-03 and W59-03.

#### 3. QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

- 3.1 The manufacturer of the tow behind sand spreader shall have a minimum of five (5) years continuous experience manufacturing equipment of the type being offered.
- Note: Upon request of the Contract Administrator, Bidders shall supply (within three (3) business days) a detailed description of the manufacturer's experience and qualifications.
- 3.2 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.
- 3.3 The Contractor shall have a minimum of three (3) years continuous experience servicing, repairing and maintaining tow behind sand spreaders of the type being offered.

**4. SERVICE FACILITY**

- 4.1 The Contractor 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. Further to B9.1, 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.
- 4.2 If a suitable warranty facility is not available within 10 km of the boundaries of the City of Winnipeg, the Bidder may propose that warranty work be performed by the City of Winnipeg Repair Facilities. Any Work performed by the City of Winnipeg Repair Facilities shall be charged to the Contractor at the Facility's shop rate in effect at the time the work is performed (for example, shop rate for 2021: \$109.00/hour and \$154.00/hour for after-hours callouts).

**5. INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS**

- 5.1 All items in these specifications must be answered indicating compliance or non-compliance. **Bidders shall state "yes" for compliance or state deviation**, or give a reply where requested to do so. Deviations and/or equivalents shall be clearly stated and fully detailed. Deviations and/or equivalents will be considered subject to evaluation. In every instance where a brand name or design specification is used, the City will also consider deviations and/or equivalents.
- 5.2 Each Bidders is required to fill in every blank. **Failure to do so may be used as a basis for rejection of their bid.**

**6. REFERENCES**

- 6.1 Provide five (5) references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.

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**7. MAKE AND MODEL**

- 7.1 **State** make and model of tow behind sand spreader being bid: \_\_\_\_\_

**8. SPECIFICATIONS**

- 8.1 Type – heavy duty, trailer mounted sand/salt spreader designed to be towed behind a Trackless MT7 sidewalk tractor. \_\_\_\_\_
- 8.2 Drive – hydraulically driven conveyor and spinner with spread density control through variable flow control. \_\_\_\_\_
- 8.3 Capacity, heaped – 2½ yd<sup>3</sup> (1.9 m<sup>3</sup>) approx. **State**. \_\_\_\_\_
- 8.4 Hopper length – 96 in. approx. \_\_\_\_\_
- 8.5 Overall length – 12 ft. approx. \_\_\_\_\_
- 8.6 Width – 48 in. approx. \_\_\_\_\_
- 8.7 Height – 52 in. approx. \_\_\_\_\_

- 8.8 Hopper construction – V-shape, heavy duty  $\frac{1}{8}$  in. steel construction, continuously welded on both sides in structural areas. \_\_\_\_\_
- 8.9 Rub-rail – formed rub-rail on both sides of hopper. \_\_\_\_\_
- 8.10 Grid screens – two (2) longitudinal sections, hinged in the centre, heavy-duty construction,  $\frac{1}{4}$  in. mesh with 2 in. openings. \_\_\_\_\_
- 8.11 Rear bumper – heavy duty steel construction. \_\_\_\_\_
- 8.12 Spreading width – up to 60 in. approx., **state**. \_\_\_\_\_
- 8.13 Discharge – front or rear discharge, **state**. \_\_\_\_\_
- 8.14 Conveyor – 15 in. steel conveyor, heavy duty chain driven with  $\frac{3}{16}$  in. links, properly adjusted and ready for use, reversible for quick discharge/unloading of hopper. \_\_\_\_\_
- 8.15 Spinner – urethane spinner, 18 in. diameter x  $\frac{5}{8}$  in. thick approx., **state**. \_\_\_\_\_
- 8.16 Hydraulic drive – one (1) hydraulic motor and reduction gear box for conveyor, one (1) hydraulic motor for the spinner. \_\_\_\_\_
- 8.17 Conveyor and spinner speed – hydraulically adjustable by two (2) flow controls. Flow control valves shall be protected from road debris by metal or poly covers. \_\_\_\_\_
- 8.18 Hydraulic hoses – high pressure hydraulic hoses, spiral wrapped to prevent premature wear due to rubbing, two (2) to be connected to tractor via quick couplers, Pioneer 8010-4 or equivalent. **State** make, model and part number of quick couplers. \_\_\_\_\_
- 8.19 Axles – tandem axles, 8,000 lbs. capacity combined. \_\_\_\_\_
- 8.20 Suspension – leaf spring, 10,000 lbs. capacity combined. \_\_\_\_\_
- 8.21 Rims – heavy duty 15 in. steel rims, galvanized, lug nuts properly torqued and wheel nut indicators installed. \_\_\_\_\_
- 8.22 Tires – heavy duty studded winter tires, 2100 lbs. capacity each. **State** tire size. \_\_\_\_\_
- 8.23 Brakes – electric brakes on all four wheels. \_\_\_\_\_
- 8.24 Tongue – heavy duty steel tubing with diagonal braces. \_\_\_\_\_
- 8.25 Hitch – ball, 2  $\frac{5}{16}$  in. diameter, adjustable hitch height. \_\_\_\_\_
- 8.26 Jack leg – 7,000 lbs. capacity, top wind with footplate, easily removable/replaceable, i.e., not welded. \_\_\_\_\_
- 8.27 Safety chains – two (2)  $\frac{5}{16}$  in. Transport Grade 70, heat-treated, carbon-steel with spring clasp closures. \_\_\_\_\_
- 8.28 Stop/turn/taillights – two (2) moisture proof, LED, 4 in. or 6 in. round, mounted at rear of sand spreader, protected from damage. \_\_\_\_\_
- 8.29 Side marker lights – LED, two (2) per side, protected from damage. \_\_\_\_\_

- 8.30 Rear warning light – LED, Class 1, double flash, SWS 23815 or equivalent. \_\_\_\_\_
- 8.31 Trailer plug – wiring for lights and rear warning light shall plug into rear of tractor with a 6-pole trailer type plug-in connector, Grote 82-1019 or equal. \_\_\_\_\_
- 8.32 Junction box – sealed junction box c/w necessary compression fittings, required for all equipment lighting harness connections, located in an area that is protected from road debris. \_\_\_\_\_
- 8.32.1 All plug-in connectors shall be coated with Truck-Lite NYK Compound prior to assembly. \_\_\_\_\_
- 8.33 All wiring including trailer plug wiring, shall be colour coded, loomed, properly secured and protected from damage. \_\_\_\_\_
- 8.34 All electrical connectors shall be crimped and soldered, then sealed with heat shrink tubing. \_\_\_\_\_
- 8.35 Any holes required to run wires through body or steel sections shall be drilled (not punched), grommeted and sealed. \_\_\_\_\_
- 8.36 Colour and finish – all trailer components including frame, hopper, jack-leg, screens, fasteners, etc. to be fully dipped galvanized steel, no paint required. \_\_\_\_\_
- 8.37 Reflective tape – 3M reflective conspicuity tape, 2 in. or equivalent on sides and rear of sander. \_\_\_\_\_
- 9. MANUALS**
- 9.1 Operator’s manuals – one (1) set required per machine, plus one (1) additional set to be sent to the Equipment Operator Training Branch (see D15.3). \_\_\_\_\_
- 9.2 Parts and maintenance manuals – two (2) sets required including maintenance manual and unit parts book. \_\_\_\_\_
- Note: The manuals supplied with this Contract must be in English and shall be specifically for the unit supplied. General purpose manuals are not acceptable. The Contract will not be considered complete until these sets of manuals have been delivered. USB format is preferred.
- 10. DELIVERY**
- 10.1 The completed unit shall be services, ready for operations and delivered F.O.B with the freight prepaid to the City of Winnipeg, Winnipeg Fleet Management Agency, 185 Tecumseh Street, Winnipeg, Manitoba within **fourteen (14) Calendar Weeks** from the date of award. The Contractor shall contact the Contract Administrator prior to delivery of the equipment. Equipment shall be delivered within 8:00 am and 3:00 pm of Business Days. \_\_\_\_\_
- 10.2 A pre-delivery inspection shall be performed by the Contractor on all equipment. \_\_\_\_\_

**11. PERFORMANCE RELIABILITY**

11.1 The responsibility for the design of the complete tow behind sand spreader, its performance, and reliability shall rest upon the Contractor. \_\_\_\_\_

11.2 The term “*repeated failures*” as used herein is defined to mean that the same component, assembly, or subassembly develops repeated defects, breakdowns and/or malfunctions rendering the unit inoperative, or requiring repeated shop correction, service, and/or replacement during the Warranty period applicable for said component, assembly, or subassembly. Minor items or ordinary service adjustments are not included or considered under the scope or “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 schedules. \_\_\_\_\_

11.2.1 Where the unit develops “repeated failures” in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance. \_\_\_\_\_

**12. WARRANTY**

12.1 The Contractor shall provide all detailed published warranty information (including all exclusions) at the time of delivery of the equipment. **State** the following warranties:

12.2 Entire unit – **state**. \_\_\_\_\_

12.3 Hopper, frame, tongue, etc. – **state**. \_\_\_\_\_

12.4 Axles/suspension – **state**. \_\_\_\_\_

12.5 Electrical and lighting – **state**. \_\_\_\_\_

12.6 Galvanized finish – **state**. \_\_\_\_\_

12.7 Provide details on any extended Warranty coverage available. \_\_\_\_\_

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