### FORM N: DETAILED SPECIFICATIONS 21060

## COMPACT TRACKED LOADER

#### 1.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 1.1 All items in these specifications should be answered indicating compliance or non-compliance.
- 1.2 **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 specifications is used, the City will also consider deviations and/or equivalents.
- 1.3 Lengthy explanations of deviations may be included in a separate document and must reference the appropriate Detailed Specification.
- 1.4 Each Bidder is required to fill in every blank. Failure to do so may be used as a basis for rejection of bid.
- 1.5 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these Detailed 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.

#### 2.0 DESCRIPTION OF EQUIPMENT

- 2.1 These specifications describe <u>Compact Tracked Loader</u> and other equipment and features as specified herein.
- 2.2 The **Compact Tracked Loader** shall be a new 2021 model year or newer.
- 2.3 The <u>Compact Tracked Loader</u> 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 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.
- 2.4 The <u>Compact Tracked loader</u> shall be the manufacturer's latest model, as may be modified by these specifications. The <u>Compact Tracked loader</u>, including all auxiliary equipment, shall be furnished complete and ready for use. All parts not specifically mentioned but which are required for the complete unit shall conform in strength, quality of material and workmanship, to the best standards and engineering practice in the industry.
- 2.5 The ratings specified herein merely state the minimum values acceptable to the City, not implying that those values are sufficient for the design of the particular equipment being bid.

## 3.0 OTHER SPECIFICATIONS AND STANDARDS

- 3.1 All applicable SAE Standards form an integral part of the vehicle specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 3.2 The **Compact Tracked Loader** shall comply with the applicable regulations:

Transport Canada, National Safety Mark, NSM: http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm

Manitoba Safety and Health Regulation, Parts 12, 16, 22: https://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php

Canadian Motor Vehicle Safety Standards C.M.V.S.S. <a href="https://tc.canada.ca/en/corporate-services/acts-regulations/list-regulations/motor-vehicle-safety-regulations-crc-c-1038">https://tc.canada.ca/en/corporate-services/acts-regulations/list-regulations/motor-vehicle-safety-regulations-crc-c-1038</a>

Manitoba Highway Traffic Act regulations and requirements including, but not limited to, a Manitoba Government Inspection with Safety Sticker. <a href="http://web2.gov.mb.ca/laws/regs/index.php?act=h60">http://web2.gov.mb.ca/laws/regs/index.php?act=h60</a>

Canadian Standards Association, CSA: <a href="http://www.csagroup.org/">http://www.csagroup.org/</a>

Under Writers of Canada, U/L: http://www.ulc.ca/

Society of Automotive Engineers, SAE: http://www.sae.org/

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City of Winnipeg Lighting Visibility Standard: <a href="http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf">http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf</a>
Manitoba Building Code: <a href="https://web2.gov.mb.ca/laws/regs/current/">https://web2.gov.mb.ca/laws/regs/current/</a> pdf-regs.php?reg=31/2011

3.3 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.

4.0	REFERENCES
4.1	Provide five (5) references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.
5.0	MAKE & MODEL
5.1	State year, make and model being bid:

#### 6.0 **PERFORMANCE RELIABILITY**

- 6.1 The responsibility for the design of the <u>Compact Tracked Loader</u>, 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 <u>Compact Tracked Loader</u> develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.
- 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 Where applicable, all equipment must be fully fueled upon delivery (no exceptions).

## 8.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

- 8.1 The manufacturer of the <u>Compact Tracked Loader</u> shall have five (5) years continuous experience manufacturing the equipment.
- 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.
- 8.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Compact Tracked Loader** of the type being offered.

# 9.0 **SPECIFICATIONS**:

	ENGINE		
9.1	Engine make & model	State:	
9.2	Engine specification	Diesel, Tier IV final, must meet current Emission Standards. Engine exhaust to be rear discharge.	
9.3	Horsepower – Net (SAE J1349)	Net Approx. 88-92 HP. State	
9.4	Torque – Net (SAE J1349)	Approx. 280 lbft. of torque Net State:	
9.5	Cylinders	Four (4) cylinder.	
9.6	Engine Block Heater and starting aids	For cold weather operation. Glow plugs, <b>State</b> : Block heater Type, <b>State</b> :	
9.7	Air Cleaner	Dry dual element.	
9.8	Fuel capacity	Approx. 115L (30USG) to 165L (43 USG). The City of Winnipeg requires units to carry enough fuel to run 10hr shifts without refueling.	
	ELECTRICAL SYSTEM		
9.9	Voltage	12 Volt system.	
9.10	Alternator	Approx. 100 amp, <b>State</b>	
9.11	Battery	Heavy Duty approx. 925 CCA, State	
9.12	Lockable power disconnect switch	Connected to battery. Prevents low-draw accessories from draining battery in long-term storage. Switch to be lockable with a pad lock.	
9.13	12Volt 3 pin and 14 pin attachment control harness.	All attachments shall be compatible with equipment being offered. Additional components such as wire harnesses to ensure compatibility shall be included with the attachments.	
	HYDRAULIC SYSTEM		
9.14	Pump Type	Engine driven, gear type, State	
9.15	Pump Capacity (High-Flow)	Approximately 35 - 40 gpm, <b>State</b>	
9.16	Cold Operation Rated	With self-leveling.	
9.17	System Relief at Quick Couplers	Approximately 3500 psi, <b>State.</b>	

9.18	Hydraulic quick attach coupler  Hydraulic fittings	<ul> <li>For loader buckets and attachments.</li> <li>Equipped with a universal quick attach system.</li> <li>Hydraulic control.</li> <li>Controlled from within the cab.</li> <li>Compatible with all attachments.</li> <li>Includes all fittings for connection of hydraulic power required for operation of all attachment and accessories</li> <li>Flat face hydraulic quick disconnects</li> </ul>	
	DRIVE SYSTEM		
9.20	Main Drive	Hydrostatic	
9.21	Transmission	Two (2) Speed, high and low.	
9.22	Track Material	Rubber State:	
9.23	Track Width	Approximately 17 inches  State track width.	
9.24	Track – Length on Ground	Approximately 64 inches State Length on Ground	
	<u>DIMENSIONS</u>		
9.25	<u>DIMENSIONS</u> Length	Approx. 122 in. without attachment, <b>State.</b>	
9.25 9.26		Approx. 122 in. without attachment, <b>State.</b> With Bucket approx. 146 in., <b>State.</b>	
	Length		
9.26	Length Length	With Bucket approx. 146 in., <b>State.</b>	
9.26 9.27	Length Length Height	With Bucket approx. 146 in., <b>State.</b> To ROPS approx. 90 in., <b>State.</b> To bucket hinge pin at maximum lift approx.	
9.26 9.27 9.28	Length Length Height Height	With Bucket approx. 146 in., <b>State.</b> To ROPS approx. 90 in., <b>State.</b> To bucket hinge pin at maximum lift approx. 132 in., <b>State.</b>	
<ul><li>9.26</li><li>9.27</li><li>9.28</li><li>9.29</li></ul>	Length Length Height Width	With Bucket approx. 146 in., <b>State.</b> To ROPS approx. 90 in., <b>State.</b> To bucket hinge pin at maximum lift approx. 132 in., <b>State.</b> Without bucket approx. 80 in., <b>State.</b>	
9.26 9.27 9.28 9.29 9.30	Length Length Height Width Operating weight	With Bucket approx. 146 in., <b>State.</b> To ROPS approx. 90 in., <b>State.</b> To bucket hinge pin at maximum lift approx. 132 in., <b>State.</b> Without bucket approx. 80 in., <b>State.</b> Approx. 10500-12000 lbs., <b>State.</b>	
9.26 9.27 9.28 9.29 9.30 9.31	Length Length Height Width Operating weight Turning radius	With Bucket approx. 146 in., <b>State.</b> To ROPS approx. 90 in., <b>State.</b> To bucket hinge pin at maximum lift approx. 132 in., <b>State.</b> Without bucket approx. 80 in., <b>State.</b> Approx. 10500-12000 lbs., <b>State.</b> Approx. 88-90 in., <b>State.</b> Reach at maximum dump height approx. 35	
9.26 9.27 9.28 9.29 9.30 9.31	Length Length Height Height Width Operating weight Turning radius Dump Reach	With Bucket approx. 146 in., <b>State.</b> To ROPS approx. 90 in., <b>State.</b> To bucket hinge pin at maximum lift approx. 132 in., <b>State.</b> Without bucket approx. 80 in., <b>State.</b> Approx. 10500-12000 lbs., <b>State.</b> Approx. 88-90 in., <b>State.</b> Reach at maximum dump height approx. 35	
9.26 9.27 9.28 9.29 9.30 9.31 9.32	Length Length Height Height Width Operating weight Turning radius Dump Reach  PERFORMANCE Rated Operating Capacity	With Bucket approx. 146 in., State.  To ROPS approx. 90 in., State.  To bucket hinge pin at maximum lift approx. 132 in., State.  Without bucket approx. 80 in., State.  Approx. 10500-12000 lbs., State.  Approx. 88-90 in., State.  Reach at maximum dump height approx. 35 in., State.	

9.36 Boom Break Out Force Approximately 6000 lbs. State. 9.37 **Bucket Break Out Force** Approximately 7600 - 10300 lbs. State. (dependent on bucket type). 9.38 Travel Speed Approximately 12.5 kph, State. (2 Speed) **OPERATOR STATION** 9.39 Joystick, control (ISO/H pattern) Operation 9.40 Steering control Direction and speed controlled joystick(s) 9.41 Selectable joystick control, return-to-dig and Loader controls float. Self-leveling bucket. State. 9.42 OEM Ride Control 9.43 Instrumentation Coolant temperature-gauge with audible alarm. Engine oil pressure- gauge or warning light with audible alarm. Engine hour meter-non resettable type, tachometer, fuel gauge. 9.44 Arm rests Adjustable. 9.45 Antitheft system State type. 9.46 Windows Front, rear and side windows, made from tempered safety glass. 9.47 Windshield wiper Front windshield wiper provided with a windshield washer system. 9.48 Heat and air conditioning With pressurized cab. Air conditioning with heater/defroster. Seat belt Seat belt with shoulder harness. 9.49 9.50 Sound deadening Sound proof package. 9.51 Cloth, air suspension seat with arm rests. Seat 9.52 Horn Operator controlled. 9.53 Mirrors Rear view mirror(s). 9.54 Windows Side windows. 9.55 Fuel cap Locking. 9.56 Parking brake Spring applied, hydraulically released. 9.57 Radio AM/FM/CD or MP3. 9.58 Rear view camera OEM installed with guard protection to minimize damage risk.

	SAFETY EQUIPMENT		
9.59	In cab boom lock	Preferred but not required, State	
9.60	ROPS Roll Over Protective Structure	Must meet SAE and ISO Standards State:	
9.61	FOPS Falling Object Protective Structure	Must meet SAE and ISO Standards State: Level of Certification	
9.62	Grab handles	Entry/exit area.	
9.63	Fire Extinguisher	Five (2.5) lbs. High volume ABC type, <b>State</b> location	
9.64	Back up alarm	State dB	
9.65	Safety lighting	Make and Model: Whelen L31HABF Series Super-LED, SAE Class 1 Blue/Amber (individual control) Low Dome Beacon, permanent mount on top of ROPS and wired to the ignition.	
9.66	Beacon guard	Ramped, heavy duty bolt-on metal guard, designed to permit servicing of beacon without being removed.	
9.67	Slow moving sign	Slow-moving vehicle warning triangle	
9.68	Work lights LED	Four (4) Front and one (1) rear work lights.	
	<u>ATTACHMENTS</u>		
	Note: Attachments to be priced only a	as indicated on Form B: Prices.	
	Attachments. Unit(s) will come with appropriate size in regard to size of the	the following attachments. Attachments to be ne compact tracked loader.	
9.69	Construction bucket	Approx. 84" width  Bolt-on cutting edge.  Rounded interior.  0.65 yd³ heaped capacity  State:  Make:  Model:  Part number:  Overall width:	

9.70	Snow bucket	Approx. 84" width, 1.75 yd3 capacity.	
		Bolt-on cutting edge	
		<ul> <li>Wear plates required to prevent bucket</li> </ul>	
		heel from rubbing on ground with bolt-on	
		cutting edge in place.	
		<ul> <li>Width to exceed width at rear tires.</li> </ul>	
		State:	
		<ul><li>Make:</li></ul>	
		• Model:	
		• Part number:	
		Part number:	
		Overall width:	
9.71	4 in 1 combination bucket	4 in 1 combination	
		<ul> <li>with and bolt-on cutting edge.</li> </ul>	
		<ul> <li>Approx. width 84" with 0.75 yd<sup>3</sup> capacity,</li> </ul>	
		Replaceable bolt-on cutting edges for all	
		three edges of the bucket.	
		tiffee edges of the bucket.	
		State:	
		<ul><li>Make:</li></ul>	
		• Model:	
		Part number:	
		Overall width:	
		• Overall width.	
9.72	Power rake	Approx. 84" width	
		Hydraulically driven.	
		<ul> <li>Weight: approx. 1200lbs</li> </ul>	
		Degree of angle: approx. 25 degrees left	
		or right.	
		<ul> <li>Number of teeth: approx. 140.</li> </ul>	
		1 Number of teeth, approx. 140.	
		State:	
		<ul><li>Make:</li></ul>	
		<ul><li>Model:</li></ul>	
		<ul> <li>Part number:</li> </ul>	
		Overall width:	
0.70	Vibrator, valler	Amman OAII width	
9.73	Vibratory roller	Approx. 84" width	
		Hydraulically driven.	
		<ul> <li>With smooth drum.</li> </ul>	
		<ul> <li>Oscillation +/- 7 degrees.</li> </ul>	
		<ul> <li>Weight: approx. 2300 lbs.</li> </ul>	
		<ul> <li>Frequency approx. 2800 vpm.</li> </ul>	
		State:	
		Make:      Model:	
		Model:      Dout number:	
		Part number:	
		Overall width:	

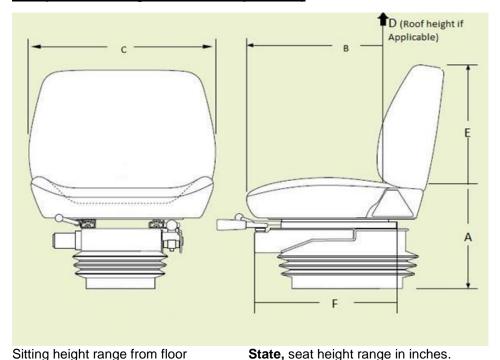
9.74	Toothed digging bucket	<ul> <li>Approx. 84" width</li> <li>0.75 yd³ heaped capacity.</li> <li>Flat bottom.</li> <li>Replaceable Bolt-on teeth</li> <li>For loosening compacted soil.</li> </ul>	
		State:	
9.75	Snow blower	<ul> <li>Approx. 82" width.</li> <li>Hydraulically driven, two stage operation.</li> <li>Discharge chute/deflector: in cab controlled.</li> <li>Adjustable/replaceable skid shoes.</li> <li>Replaceable steel cutting edges.</li> <li>Chute rotation: 270 degrees.</li> <li>Control: hydraulic</li> </ul>	
9.76	Snow V-Blade	State:  Make:  Model: Part number: Overall width:  Approx. 98" width straight, 85" width v-configuration.  Oscillation +/- 10 degrees. Height approx. 28 in.	
		State:	
9.77	Auger	<ul> <li>Hydraulically driven</li> <li>Approximately Output torque range of 2500 to 3000 ft-lb.</li> <li>Output shaft: 2in. hex head adapter</li> <li>Supplied with 12-in. bit.</li> </ul>	
		State:  Make:  Model:  Part number:  Overall width:	

10.6

**Entry/ Exit** 

10.1	First step entry height	State, height of first step in inches.	
10.2	First handhold entry height	State, first handhold entry height in inches.	
10.3	Access to equipment	State, door opening height in inches.	
10.4	Access to equipment	State, door opening width in inches.	
10.5	Designed to prevent slipping	Anti-slip steps/handholds (Y or N)?	

## Seat (use below diagram to answer questions)



10.7	Sitting height range from floor (where feet rest) (A)	State, seat height range in inches.
10.8	Seat length/depth (B)	State, seat length/depth in inches.
10.9	Seat width (C)	State, seat width in inches.
10.10	Cab height from seat to roof (if applicable) (D)	State, cab height range in inches.
10.11	Back rest height (E)	State, back rest height in inches.
10.12	Seat travel range (F)	State, seat travel in inches.
10.13	Lumbar support	Is lumbar support provided (Y or N)?
10.14	Head rest	Is head rest provided (Y or N)?
10.15	Seat is made of breathable material	State, type of seat material.

# Cargo Area

10.16 Lid opens to provide adequate space

Lid opens to provide adequate space.

10.17	Loading height	State, trunk height in inches.	
	<u>Environment</u>		
10.18	Operator compartment is insulated from equipment noise (while operating)	State, dBA inside cab while operating.	
10.19	Operator insulated from equipment vibration	Is operator insulated from vibration (Y or N)?	
10.20	Heating/cooling systems	State, cab temperature range.	
10.21	Cab lighting	State, lumens inside cab.	
11.0	WARRANTY		
11.1		etailed and include all exclusions. The Contractor y information upon delivery of the equipment. mation.	
11.2	Basic coverage	State:	
11.3	Powertrain	State:	
11.4	Hydraulics warranty	State:	
11.5	Batteries warranty	State:	
11.6	Tires warranty	State:	
11.7	Electrical warranty	State:	
12.0	DELIVERY		
12.1	,	shall be serviced, ready for operation  nt prepaid, including invoice and N.I.V.S. (if imseh Street, Winnipeg MB	
12.2	State: earliest delivery time from d	ate of award:	
	Equipment shall be delivered betw	veen 8:00 am and 2:00 pm on Business Days.	
12.3	Delivery Contact: The Contractor shall contact the Contract Administrator prior to delivery of the equipment.		
12.4	P.D.I: A pre-delivery inspection sha equipment. Proof upon inspection	all be performed by the Contractor on the including completed check list	
13.0	MANUALS		
13.1	Manuals supplied under this contra complete equipment including all c preferred where available.	act. The manuals shall cover the omponents thereof, CD or USB flash drive is	

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13.2	The following manuals shall be supplied with the units when delivered:	
	a) Operator's manual – Three (3) 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 or USB flash drive are preferred.	
14.0	FIRST SERVICE PREVENTATIVE MAINTENANCE KIT	
14.1	In order to assure minimum downtime of the equipment in future service, the Contractor shall provide one (1) complete replacement set of new OEM filters for each unit purchased. The set of required filters shall include (if applicable to the equipment type) air, fuel, oil, cab and hydraulic, or otherwise all known necessary common replacement filters required for the first preventative maintenance servicing.	
14.2	The Contractor shall provide a list of factory recommended lubricants to be used with the equipment, as well as a complete cross reference guide for all warranty approved lubricants and filters that can be used during preventative maintenance servicing.	
15.0	PARTS/LABOUR PRICING	
15.1	Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. <b>State percentage discount-</b>	%
15.2	Bidder to provide City of Winnipeg Labor Discount % Pricing from Retail shop labor rate. <b>State percentage discount-</b>	%